



# Seeds 2012 Table in Each Research Field

**KANAZAWA UNIVERSITY**

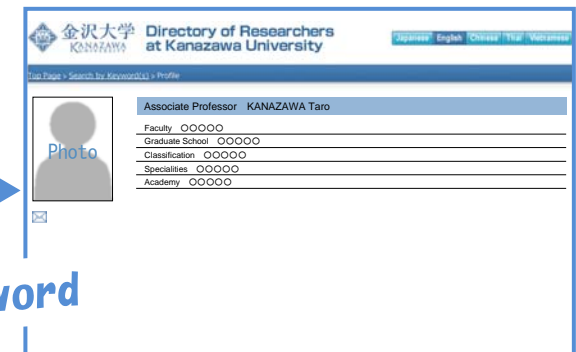
# About the “Seeds Table”

(1) This “Seeds Table” is prepared based on the contents of the “Directory of Researchers at Kanazawa University” on Kanazawa University’s Homepage (<http://www.kanazawa-u.ac.jp/e/index.html>).

(2) If you would like to learn more about detailed items other than this “Seeds Table”, please use the “Directory of Researchers at Kanazawa University” .

In that, you can easily approach appropriate Researchers’ pages by using keyword (e.g., name, specialties, research theme or others).

(3) It is preferable to us if many joint researches will newly occur as a result that the “Seeds Table” proceeds the matching between seeds owned by our researchers and your needs.



[http://ridb.kanazawa-u.ac.jp/public/index\\_en.php](http://ridb.kanazawa-u.ac.jp/public/index_en.php)

## Faculty Listed by Affiliation

**Institute of the Humanities and Social Sciences**  
 Faculty of Human Sciences  
 Faculty of Letters  
 Faculty of Law  
 Faculty of Economics and Management  
 Faculty of Education  
 Center for Regional Studies  
 Center for Cultural Resource Studies

**Institute of Science and Engineering**  
 Faculty of Mathematics and Physics  
 Faculty of Chemistry  
 Faculty of Mechanical Engineering  
 Faculty of Electrical and Computer Engineering  
 Faculty of Environmental Design  
 Faculty of Natural System  
 Bio-AFM Frontier Research Center  
 Research Center for Sustainable Energy and Technology

**Institute of Medical, Pharmaceutical and Health Sciences**  
 Faculty of Medicine  
 Faculty of Pharmacy  
 Faculty of Health Sciences  
 Wellness Promotion Science Center  
 Brain/Liver Interface Medicine Research Center

**Graduate Schools**  
 Graduate School of Education  
 Graduate School of Human and Socio-Environment Studies  
 Graduate School of Natural Science and Technology  
 Graduate School of Medical Science  
 Law School  
**Others**  
 University Hospital  
 Centers and Institutions

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# Humanities and Social Sciences

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher		
Human Science	Philosophy		<ul style="list-style-type: none"> <li>•The Worship of Jizo</li> <li>•Modern Religion in Japan</li> </ul>		SHIMIZU KUNIIHIKO		
			<ul style="list-style-type: none"> <li>•Teaching Methods of Engineering Ethics</li> <li>•Cognitive theory of AI</li> </ul>	<ul style="list-style-type: none"> <li>•Non-reductive Physicalism</li> <li>•Philosophy of Mind</li> <li>•Neuroethics and Normative Ethics</li> </ul>	philosophy of mind, philosophy of language, environmental ethics	SHIBATA MASAYOSHI	
		Philosophy/ethics			<ul style="list-style-type: none"> <li>•Modern Critical theory, Psychoanalytical Criticism on 19th century's American Literature</li> </ul>	psychoanalytic criticism	KOHARA BUNEI
					<ul style="list-style-type: none"> <li>•Study on the Presocratic Philosophy</li> <li>•Parmenidean Philosophy</li> <li>•Heraclitean Philosophy</li> </ul>		MIURA KANAME
							YAMAMOTO EISUKE
					<ul style="list-style-type: none"> <li>•Study on mode of time</li> <li>•structure of transdental field</li> </ul>		SUNAHARA YOICHI
				<ul style="list-style-type: none"> <li>•Research on Organ Transplantation</li> <li>•Research on Artificial Reproduction</li> <li>•Research on Gene Diagnosis</li> </ul>	<ul style="list-style-type: none"> <li>•Student services in university education</li> <li>•The artificial reproduction and gene diagnosis</li> <li>•The organ transplantation and self-determination</li> </ul>		AONO TORU
					<ul style="list-style-type: none"> <li>•Historical Study on the Idea of Life and Death</li> <li>•relations between patients and medical staffs</li> </ul>	Bioethics History of Philosophy Ethics	HOSOMI HIROSHI
			Indian philosophy/Buddhism studies			Tantric Buddhism, mandala, Buddhist Art History	MORI MASAHIDE
			Religion studies			<ul style="list-style-type: none"> <li>•The Worship of Jizo</li> <li>•Modern Religion in Japan</li> </ul>	
				<ul style="list-style-type: none"> <li>•Study on Jeremias Gotthelf</li> <li>•"Twins" as Motif in the Literature</li> <li>•"Life" in the Christian Ethics</li> </ul>	German Literature Christian Ethics Twins	SHIMURA MEGUMI	
					Tantric Buddhism, mandala, Buddhist Art History	MORI MASAHIDE	
	History of thought			<ul style="list-style-type: none"> <li>•The Worship of Jizo</li> <li>•Modern Religion in Japan</li> </ul>		SHIMIZU KUNIIHIKO	
			<ul style="list-style-type: none"> <li>•Comparison of German and Japanese Martial Arts</li> </ul>	<ul style="list-style-type: none"> <li>•History of budoh, history of thought</li> </ul>	Martial Arts Japanese Culture German	BITTMANN, Heiko	
				<ul style="list-style-type: none"> <li>•Historical Study on the Idea of Life and Death</li> <li>•relations between patients and medical staffs</li> </ul>	Bioethics History of Philosophy Ethics	HOSOMI HIROSHI	
	Aesthetics/history of art		<ul style="list-style-type: none"> <li>•mural painting</li> </ul>	<ul style="list-style-type: none"> <li>•Study of the fresco's technique of Agnolo Gaddi in Santa Croce</li> <li>•A Study on the Medieval frescos in the South Italy (Puglia region)</li> </ul>	Italian Art History, fresco, Agnolo Gaddi	MIYASHITA, Takaharu	
				<ul style="list-style-type: none"> <li>•A Concise History of World Poster</li> <li>•A Poster museum</li> </ul>	Art Education, Posterlogia, Poster Museum	MATSUURA NOBORU	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher		
Human Science	Philosophy	Aesthetics/history of art	<ul style="list-style-type: none"> <li>•Painting</li> <li>•Materials and Techniques of Painting</li> <li>•Tempera techniques</li> </ul>		OMURA MASAACKI		
			<ul style="list-style-type: none"> <li>•Utopian Literature</li> <li>•History of Industrial Design</li> </ul>	History of Industrial Design	WATANABE AKITOSHI		
				Tantric Buddhism, mandala, Buddhist Art History	MORI MASAHIDE		
			<ul style="list-style-type: none"> <li>•Literature and Thought</li> <li>•Lives of Chinese Calligraphers</li> <li>•Methods for Teaching Chinese</li> </ul>	Chinese Classical Literature History of Chinese Calligraphy	YABUCHI,Takayoshi		
	Literature	Japanese literature	<ul style="list-style-type: none"> <li>•Research on No and Kyogen</li> <li>•Research on Local Culture</li> <li>•Research on Relations between Literature and Picture</li> </ul>	•Japanese Medieval Literature		NISHIMURA SATOSHI	
						SUGIYAMA KINYA	
				•Research of Japanese modern literature		IJIMA HIROSHI	
				•Study on Modern Japanese Literature (Mainly on Tanizaki Junichiro)	Modern Japanese Literature, TANIZAKI Junichiro	MAEDA HISANORI	
				•The sense of yojoron in the Edo period at the present day		CHO SEI	
				•A Basic Study on the Formation of "GUNSHO" in the BUKE Society in early modern times		YAMAMOTO HIROSHI	
		European language literature		<ul style="list-style-type: none"> <li>•Waka of Jien</li> <li>•Shyunzei's theory of Waka</li> <li>•Waka of Saigy(J1155)</li> </ul>		Japanese Literature of middle age	YAMAMOTO HAJIME
				<ul style="list-style-type: none"> <li>•Modern Critical theory, Psychoanalytical Criticism on 19th century's American Literature</li> </ul>		psychoanalytic criticism	KOHARA BUNEI
				<ul style="list-style-type: none"> <li>•Criticism on R.L.Stevenson's Works</li> <li>•the Contemporary Pacific Literature</li> <li>•English Education</li> </ul>		English Literature, Pacific Literature, Post-Colonialism	YAMAMOTO TAKU
				<ul style="list-style-type: none"> <li>•A Study of the Nineteenth Century American Literature. Chiefly Concerning on Mark Twain's Works</li> <li>•Gender studies with a focus on men's studies</li> </ul>		American Literature American Literature Mark Twain Men's Studies	KUBO, Takuya
				<ul style="list-style-type: none"> <li>•American Nature Writings</li> <li>•Reinterpretation of H. Melville in 19th Century American Fiction</li> <li>•The meaning of Cape Cod in American Nature Writings</li> </ul>		19th Century American Fiction (especially on Herman Melville) American Nature Writings.	MURAKAMI KIYOTOSHI
				<ul style="list-style-type: none"> <li>•Todorov</li> <li>•CEFR</li> </ul>			MIKAMI, Junko
	<ul style="list-style-type: none"> <li>•Textlinguistic Analysis of Kafka's Works</li> <li>•Joint Research on Principles of Communicative behaviors</li> </ul>	<ul style="list-style-type: none"> <li>•Sociolinguistic studies</li> <li>•Everyday concepts of Politeness</li> <li>•Textlinguistic analysis of Franz Kafkas Texts</li> </ul>		Politeness, Interaction, Kafka	NISHIJIMA YOSHINORI		

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher		
Human Science	European language literature	•Children's Literature	•Cultural Differences in Contemporary English Literature •Cultural Diversity in Contemporary British Theatre •British Contemporary Children's Literature •English Language Education	Children's Literature, Diaspora/Immigrants, Religion and Literature	OYABU KANA		
					SATO FUMIHIKO		
			•Study on Jeremias Gotthelf •"Twins" as Motif in the Literature •"Life" in the Christian Ethics	German Literature Christian Ethics Twins	SHIMURA MEGUMI		
			•Study on Stendhal's usage of language •Study on maghreb •Education of French language in Japan	Stendhal,Algeria, Francophony cultures, French didactics	KASUYA YUICHI		
			•Study on Elizabethan Drama especially on Shakespeare •Study on Correlation between Society and Culture in Renaissance England •Study on Contemporary Critical Theory, especially on New Historicism	Shakespeare, Renaissance, Modern Critical Theory	TAKADA SHIGEKI		
	Literature	Literature of various countries/theories of literature criticism		•Theorizing Soundscapes in Environmental Literature •Transnational Theoretical Study of Ecocriticism •CEF-Based Objectives in English Teaching and Learning	environmental literature, ecocriticism, American literature	YUKI Masami	
						IZUMI KUNIKO	
					The Romance of Three Kingdoms Oral Literature Historical Novel	UEDA NOZOMU	
				•Criticism on R.L.Stevenson's Works •the Contemporary Pacific Literature •English Education	English Literature, Pacific Literature, Post-Colonialism	YAMAMOTO TAKU	
				•A Study of the Nineteenth Century American Literature. Chiefly Concerning on Mark Twain's Works •Gender studies with a focus on men's studies	American Literature American Literature Mark Twain Men's Studies	KUBO, Takuya	
				•Utopian Literature •History of Industrial Design	History of Industrial Design	WATANABE AKITOSHI	
				•Children's Literature	•Cultural Differences in Contemporary English Literature •Cultural Diversity in Contemporary British Theatre •British Contemporary Children's Literature •English Language Education	Children's Literature, Diaspora/Immigrants, Religion and Literature	OYABU KANA
				•Study on 1940's Chinese Literature	Modern Chinese Literature	SUGIMURA AKIKO	
		•The sense of yojoron in the Edo period at the present day		CHO SEI			

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Human Science	Literature	Literature of various countries/theories of literature criticism			SATO FUMIHIKO	
			<ul style="list-style-type: none"> <li>•Literature and Thought</li> <li>•Lives of Chinese Calligraphers</li> <li>•Methods for Teaching Chinese</li> </ul>	Chinese Classical Literature History of Chinese Calligraphy	YABUCHI,Takayoshi	
			<ul style="list-style-type: none"> <li>•Study on Stendhal\'s usage of language</li> <li>•Study on maghreb</li> <li>•Education of French language in Japan</li> </ul>	Stendhal,Algeria, Francophony cultures, French didactics	KASUYA YUICHI	
			<ul style="list-style-type: none"> <li>•Study on words from a lexical semantic approach</li> <li>•Syntactic Alternations in English and Japanese</li> </ul>	English Linguistics, Lexical Semantics	SAWADA SHIGEYASU	
	Linguistics	Linguistics		<ul style="list-style-type: none"> <li>•Study on the Semitic, Cushitic and Omotic Languages of Ethiopia</li> <li>•Comparative Study of the Semitic languages</li> <li>•Descriptive Study of Amharic</li> </ul>	languages of Ethiopia Omotic languages Afro-Asiatic languages	TSUGE YOICHI
			<ul style="list-style-type: none"> <li>•Descriptive Studies of the Dialects in Hokuriku</li> <li>•Studies of the Accents of Diaclects in Japan</li> </ul>	Linguistics Dialectology Dialectology Japanese accent	NITTA TETSUO	
			<ul style="list-style-type: none"> <li>•applied corpus linguistic about contrastive study of Japanese and Chinese</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Chinese grammar and semantics</li> <li>•Study of correlation between linguistic and clear thought</li> <li>•constructional network</li> </ul>	Chinese semantics & grammer,cognitive linguistics, applied linguistics	OTAKI SACHIKO
			<ul style="list-style-type: none"> <li>•Grammar of Icelandic</li> <li>•Grammar of Faroese</li> </ul>	Icelandic, Faroese	IRIE KOJI	
			<ul style="list-style-type: none"> <li>•Tense and aspect in French</li> <li>•Fonction of French Connectors</li> </ul>	French Linguistics Cognitive science french linguistics cognitif science	SAKAGAMI RURIKO	
			<ul style="list-style-type: none"> <li>•German language studies from the perspectives of cognitive linguistics and linguistic typology</li> </ul>	Cognitive Linguistics Language Typology German Language	MIYASHITA HIROYUKI	
			<ul style="list-style-type: none"> <li>•Sociolinguistic Study of Hokuriku Dialects</li> <li>•Study of Semantics of the Modern Japanese</li> <li>•Descriptive Study of traditional Hokuriku Dialects</li> </ul>	Dialect,Social,Change of language	KATO KAZUO	
			<ul style="list-style-type: none"> <li>•Semantic Study on English Prepositions</li> <li>•Semantic Study on the English Verb Make</li> <li>•Teaching Methods to Improve Abilities to Communicate in Spoken English</li> </ul>	English linguistics, English education	KAZUMI YUKIKO	
			<ul style="list-style-type: none"> <li>•English Education from Primary School to College</li> </ul>	<ul style="list-style-type: none"> <li>•TOEFL Preparation</li> <li>•Theory of Lexical-Functional Grammar</li> <li>•Interface between Language and Music</li> </ul>	Theoretical Linguistics, Language-Music Interface,Foreign Language Education(esp. TOEFL Preparation)	SAIKI MARIKO
			<ul style="list-style-type: none"> <li>•Textlinguistic Analysis of Kafka\'s Works</li> <li>•Joint Research on Principles of Communicative behaviors</li> </ul>	<ul style="list-style-type: none"> <li>•Sociolinguistic studies</li> <li>•Everyday concepts of Politeness</li> <li>•Textlinguistic analysis of Franz Kafkas Texts</li> </ul>	Politeness, Interaction, Kafka	NISHIJIMA YOSHINORI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Human Science	Linguistics		<ul style="list-style-type: none"> <li>•Study on Tense and Aspect.</li> <li>•Study on Negation</li> <li>•Study on Grammaticalization</li> </ul>	English Linguistics Cognitive Linguistics Linguistic Typology	MORIYA TETSUHARU	
		<ul style="list-style-type: none"> <li>•Contrastive Analysis between Japanese and Portuguese</li> <li>•Contrastive Analysis between Japanese and Spanish</li> </ul>	<ul style="list-style-type: none"> <li>•Contrastive Studies in Spanish, Portuguese and Japanese</li> <li>•Practical Studies on the One Year Curriculum of the Japan-Korea Joint Scholarship Program</li> <li>•Japanese Language Education using distant-learning devices</li> </ul>	Japanese and Spanish Japanese and Portuguese	OTA AKIRA	
			<ul style="list-style-type: none"> <li>•Language Planning and Intercultural Interaction</li> <li>•The Developmental Processes of L2 Academic Literacy through Online Intercultural Learning Networks</li> </ul>	Sociocultural theory, language management, language policy, second language acquisition, English for academic purposes	NEMOTO HIROYUKI	
			<ul style="list-style-type: none"> <li>•Typological Study on Sumerian</li> </ul>		MINE MASASHI	
			<ul style="list-style-type: none"> <li>•Historical and synchronic study on the sounds of the Japanese Language</li> </ul>		TAKAYAMA TOMOAKI	
		<ul style="list-style-type: none"> <li>•Development of cognitive motivated know-how in foreign Language teaching</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Relations between the Semantic Structure of Language, Human Knowledge a</li> <li>•Cognitive Linguistics with Evolutional Scientific Background</li> <li>•Study on Metaphors, Cognition and Language</li> </ul>	cognition, metaphor, body	TAKEUCHI YOSHIHARU	
			<ul style="list-style-type: none"> <li>•Linguistic Geography of Chinese Dialects</li> <li>•Experimental Studies of Chinese Phonetics</li> </ul>	Chinese dialectology Linguistic Gepgraphy Phonetics	IWATA REI	
			<ul style="list-style-type: none"> <li>•Study on words from a lexical semantic approach</li> <li>•Syntactic Alternations in English and Japanese</li> </ul>	English Linguistics, Lexical Semantics	SAWADA SHIGEYASU	
			<ul style="list-style-type: none"> <li>•Descriptive Studies of the Dialects in Hokuriku</li> <li>•Studies of the Accents of Diaclects in Japan</li> </ul>	Linguistics Dialectology Dialectology Japanese accent	NITTA TETSUO	
			<ul style="list-style-type: none"> <li>•Historical Study of Japanese Grammar</li> <li>•Historical Study of Japanese Grammar</li> <li>•Historical Study of Japanese Vocabulary</li> </ul>		KONDO AKIRA	
			<ul style="list-style-type: none"> <li>•Sociolinguistic Study of Hokuriku Dialects</li> <li>•Study of Semantics of the Modern Japanese</li> <li>•Descriptive Study of traditional Hokuriku Dialects</li> </ul>	Dialect,Social,Change of language	KATO KAZUO	
			<ul style="list-style-type: none"> <li>•English Education from Primary School to College</li> </ul>	<ul style="list-style-type: none"> <li>•TOEFL Preparation</li> <li>•Theory of Lexical-Functional Grammar</li> <li>•Interface between Language and Music</li> </ul>	Theoretical Linguistics, Language-Music Interface,Foreign Language Education(esp. TOEFL Preparation)	SAIKI MARIKO
			<ul style="list-style-type: none"> <li>•Typological Study on Sumerian</li> </ul>		MINE MASASHI	
			<ul style="list-style-type: none"> <li>•Historical and synchronic study on the sounds of the Japanese Language</li> </ul>		TAKAYAMA TOMOAKI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Human Science	English studies		<ul style="list-style-type: none"> <li>•A Cognitive Study of English Constructions.</li> <li>•Semantic investigation of Japanese and English</li> </ul>	English Linguistics, Cognitive Linguistics, Semantics	HORITA, Yuko	
			<ul style="list-style-type: none"> <li>•Semantic Study on English Prepositions</li> <li>•Semantic Study on the English Verb Make</li> <li>•Teaching Methods to Improve Abilities to Communicate in Spoken English</li> </ul>	English linguistics, English education	KAZUMI YUKIKO	
			<ul style="list-style-type: none"> <li>•Utopian Literature</li> <li>•History of Industrial Design</li> </ul>	History of Industrial Design	WATANABE AKITOSHI	
			<ul style="list-style-type: none"> <li>•Study on Tense and Aspect.</li> <li>•Study on Negation</li> <li>•Study on Grammaticalization</li> </ul>	English Linguistics Cognitive Linguistics Linguistic Typology	MORIYA TETSUHARU	
		<ul style="list-style-type: none"> <li>•Research on grammar and cognition</li> <li>•Subjectification and grammaticalization</li> </ul>	<ul style="list-style-type: none"> <li>•cognitive structures of grammar and semantics</li> <li>•Langauage evolution from Cognitive Linguistics' viewpoint</li> </ul>	English, Cognitive Linguistics	NAKAMURA YOSHIHISA	
			<ul style="list-style-type: none"> <li>•Study on words from a lexical semantic approach</li> <li>•Syntactic Alternations in English and Japanese</li> </ul>	English Linguistics, Lexical Semantics	SAWADA SHIGEYASU	
	Linguistics	Japanese education		<ul style="list-style-type: none"> <li>•Developing of a multi-lingual machine translation system</li> </ul>		MATSUDA MAKIKO
				<ul style="list-style-type: none"> <li>•Teaching Japanese as a Foreign Language</li> <li>•Technical Japanese Education</li> <li>•IT literacy of Japanese language learners</li> </ul>		FUKASAWA NOZOMI
			<ul style="list-style-type: none"> <li>•Contrastive Analysis between Japanese and Portuguese</li> <li>•Contrastive Analysis between Japanese and Spanish</li> </ul>	<ul style="list-style-type: none"> <li>•Contrastive Studies in Spanish, Portuguese and Japanese</li> <li>•Practical Studies on the One Year Curriculum of the Japan-Korea Joint Scholarship Program</li> <li>•Japane Language Education using distant-learning devices</li> </ul>	Japanese and Spanish Japanese and Portuguese	OTA AKIRA
			<ul style="list-style-type: none"> <li>•Typological Study on Sumerian</li> </ul>		MINE MASASHI	
			<ul style="list-style-type: none"> <li>•Developement of a computerized guidebook for academic presentation</li> </ul>	<ul style="list-style-type: none"> <li>•Teaching Method on Oral Presentations given by International Students</li> <li>•Methodology of Cross-cultural Discussion</li> <li>•Teaching Method on TV discussion class through Internet</li> </ul>	Tesching Japanese as a Second Language, Video Conferencing, Cross-cultural Discussion	MIURA KANAE
		Foreign language education		<ul style="list-style-type: none"> <li>•English Education in the secondary Education</li> </ul>		Secondary Education, English Education, Teachers College
			<ul style="list-style-type: none"> <li>•Study on the Semitic, Cushitic and Omotic Languages of Ethiopia</li> <li>•Comparative Study of the Semitic languages</li> <li>•Descriptive Study of Amharic</li> </ul>		languages of Ethiopia Omotic languages Afro-Asiatic languages	TSUGE YOICHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Human Science	Linguistics	Foreign language education	<ul style="list-style-type: none"> <li>• applied corpus linguistic about contrastive study of Japanese and Chinese</li> </ul>	<ul style="list-style-type: none"> <li>• Study on Chinese grammar and semantics</li> <li>• Study of correlation between linguistic and clear thought</li> <li>• constructional network</li> </ul>	Chinese semantics & grammar, cognitive linguistics, applied linguistics	OTAKI SACHIKO
			<ul style="list-style-type: none"> <li>• Modern Critical theory, Psychoanalytical Criticism on 19th century's American Literature</li> </ul>	<ul style="list-style-type: none"> <li>• Modern Critical theory, Psychoanalytical Criticism on 19th century's American Literature</li> </ul>	psychoanalytic criticism	KOHARA BUNEI
			<ul style="list-style-type: none"> <li>• Semantic Study on English Prepositions</li> <li>• Semantic Study on the English Verb Make</li> <li>• Teaching Methods to Improve Abilities to Communicate in Spoken English</li> </ul>	<ul style="list-style-type: none"> <li>• Semantic Study on English Prepositions</li> <li>• Semantic Study on the English Verb Make</li> <li>• Teaching Methods to Improve Abilities to Communicate in Spoken English</li> </ul>	English linguistics, English education	KAZUMI YUKIKO
			<ul style="list-style-type: none"> <li>• American Nature Writings</li> <li>• Reinterpretation of H. Melville in 19th Century American Fiction</li> <li>• The meaning of Cape Cod in American Nature Writings</li> </ul>	<ul style="list-style-type: none"> <li>• American Nature Writings</li> <li>• Reinterpretation of H. Melville in 19th Century American Fiction</li> <li>• The meaning of Cape Cod in American Nature Writings</li> </ul>	19th Century American Fiction (especially on Herman Melville) American Nature Writings.	MURAKAMI KIYOTOSHI
			<ul style="list-style-type: none"> <li>• English Education from Primary School to College</li> </ul>	<ul style="list-style-type: none"> <li>• TOEFL Preparation</li> <li>• Theory of Lexical-Functional Grammar</li> <li>• Interface between Language and Music</li> </ul>	Theoretical Linguistics, Language-Music Interface, Foreign Language Education (esp. TOEFL Preparation)	SAIKI MARIKO
			<ul style="list-style-type: none"> <li>• Todorov</li> <li>• CEFR</li> </ul>	<ul style="list-style-type: none"> <li>• Todorov</li> <li>• CEFR</li> </ul>		MIKAMI, Junko
			<ul style="list-style-type: none"> <li>• Textlinguistic Analysis of Kafka's Works</li> <li>• Joint Research on Principles of Communicative behaviors</li> </ul>	<ul style="list-style-type: none"> <li>• Sociolinguistic studies</li> <li>• Everyday concepts of Politeness</li> <li>• Textlinguistic analysis of Franz Kafka's Texts</li> </ul>	Politeness, Interaction, Kafka	NISHIJIMA YOSHINORI
			<ul style="list-style-type: none"> <li>• Historical study of Korean language learning among Japanese / Empirical study on multilingual/multicultural education coinciding with multi-racialization of Korean and Japanese societies</li> </ul>	<ul style="list-style-type: none"> <li>• Historical study of Korean language learning among Japanese / Empirical study on multilingual/multicultural education coinciding with multi-racialization of Korean and Japanese societies</li> </ul>		NAMU SANNIYON
			<ul style="list-style-type: none"> <li>• Children's Literature</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural Differences in Contemporary English Literature</li> <li>• Cultural Diversity in Contemporary British Theatre</li> <li>• British Contemporary Children's Literature</li> <li>• English Language Education</li> </ul>	Children's Literature, Diaspora/Immigrants, Religion and Literature	OYABU KANA
			<ul style="list-style-type: none"> <li>• Computer Assisted Language Learning</li> </ul>	<ul style="list-style-type: none"> <li>• Research on Computer Assisted Language Learning</li> <li>• Research on Natural Language Processing</li> </ul>	CALL Natural Language Processing	NISHIJIMA YUICHI
			<ul style="list-style-type: none"> <li>• The sense of yojoron in the Edo period at the present day</li> </ul>	<ul style="list-style-type: none"> <li>• The sense of yojoron in the Edo period at the present day</li> </ul>		CHO SEI
			<ul style="list-style-type: none"> <li>• Language Planning and Intercultural Interaction</li> <li>• The Developmental Processes of L2 Academic Literacy through Online Intercultural Learning Networks</li> </ul>	<ul style="list-style-type: none"> <li>• Language Planning and Intercultural Interaction</li> <li>• The Developmental Processes of L2 Academic Literacy through Online Intercultural Learning Networks</li> </ul>	Sociocultural theory, language management, language policy, second language acquisition, English for academic purposes	NEMOTO HIROYUKI



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher			
Human Science	Linguistics	Foreign language education	<ul style="list-style-type: none"> <li>•Study on Stendhal's usage of language</li> <li>•Study on maghreb</li> <li>•Education of French language in Japan</li> </ul>	Stendhal,Algeria, Francophony cultures, French didactics	KASUYA YUICHI			
			<ul style="list-style-type: none"> <li>•Higher Education</li> <li>•portal system</li> </ul>	<ul style="list-style-type: none"> <li>•Study Support on Portal System</li> <li>•Higher Educaion System in Scandinavian countries</li> </ul>	Higher Education, Higher Education Evaluation, Danish, Scandinavian Mythology, e-Learning	HORII YUSUKE		
	History	General history	<ul style="list-style-type: none"> <li>•Sport-activities under the old system High-schools in Japan</li> </ul>	<ul style="list-style-type: none"> <li>•A Historical Study on the Adoption of School Physical Education and sports of the Local Districts in modern Japan</li> <li>•Influence of French Gymnastics on the Formation of Modern Physical Education System in Japan</li> <li>•comparative history of physical culture</li> </ul>	History of Physical Education and Sport History of Western learning History of Modern Education in Japan	OKUBO HIDEAKI		
				<ul style="list-style-type: none"> <li>•Study on History of Bohai</li> <li>•Study on the "T'ang Hui-yao"</li> <li>•History of international relations/exchange in 7th-10th century East Asia</li> </ul>	Bohai, Tang-hui-yao, East Asia	FURUHATA TORU		
		History of Japan		<ul style="list-style-type: none"> <li>•The Formation and Changes of Kanazawa at Edo Period</li> <li>•The Development of Women's World in Edo Period. The Development of the Castle Town Kanazawa</li> </ul>	money circulation,castle town,gender	NAKANO Setsuko		
				<ul style="list-style-type: none"> <li>•Religion and urban people in the territory of regional lord, Ouchi</li> <li>•Reliion and society in medieval Japan</li> <li>•Religion of "Hokuriku" urban people</li> </ul>	Medieval ages, Buddhist power, Regional lord	HIRASE NAOKI		
					Cultural history in medieval Japan, Historical iconology, Portraits, Environmental history	KURODA SATOSHI		
				<ul style="list-style-type: none"> <li>•A Basic Study on the Formnation of "GUNSHO" in the BUKE Society in early modern times</li> </ul>		YAMAMOTO HIROSHI		
						KASAI JUNICHI		
				<ul style="list-style-type: none"> <li>•Study on the Lower Strata of Urban Society in Modem Japan</li> </ul>		NOGAWA YASUHARU		
				History of the Orient		<ul style="list-style-type: none"> <li>•Chinese Northern Bronzes</li> <li>•Early nomads of the Eurasian steppes</li> <li>•Study of the Bronze Age and the period of Early Nomads in Mongolia</li> </ul>	Archaeology, Eurasian Steppes, Early nomads	TAKAHAMA SHU
						<ul style="list-style-type: none"> <li>•Study on History of Bohai</li> <li>•Study on the "T'ang Hui-yao"</li> <li>•History of international relations/exchange in 7th-10th century East Asia</li> </ul>	Bohai, Tang-hui-yao, East Asia	FURUHATA TORU
		<ul style="list-style-type: none"> <li>•Cultural heritage of the Chinese Former Qin era</li> <li>•Excavated historical materials</li> </ul>				MOCHII YASUTAKA		
						FURUICHI DAISUKE		

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Human Science	History	History of the Orient	•the History of Ancient China	Wei,Jin,Northern and Southern Dynasties,	ABE SOICHIRO	
			•Relationship Between Korea and Japan In Pre-modern age.	KOREAN HISTORY (Ri Dynasty)	TSURUZONO YUTAKA	
		Western history		•Jewish Problems of Vienna •Jewish Problems of Galicia	History of Social Thought	NOMURA MARI
						NEZU YUKIO
			•reception of roman law in Europe	•Civilizing Mission •British Images of Asia;Cross Cultural History •Orientalism •British Images of Asia in Victorian Britain;Cross Cultural History	modern british history history of the british empire orientalism	TODA MASAHIRO
				•study on the dominion of castle in medieval germany	the middle ages of europe, castle dominion	SAKURAI TOSHIO
				•Medieval History in Germany and Switzerland (State, City, Village)		TANAKA TOSHIYUKI
				•A Study of War communism in Russia •Transition to NEP in Russia	Russian peasant economic history War=Communism famine NEP	KAJIKAWA SHINICHI
		Archeology		•Chinese Prehistory •Agricultural Archaeology •Comparative Archaeology	Chinese Archeology,Comparative Archaeology	NAKAMURA SHINICHI
				•Chinese Northern Bronzes •Early nomads of the Eurasian steppes •Study of the Bronze Age and the period of Early Nomads in Mongolia	Archaeology, Eurasian Steppes, Early nomads	TAKAHAMA SHU
	•Origin and development of agriculture and pastoralism, origin of nomadic culture			Near East, Archaeology, Neolithic, Pastoral Nomadism	FUJII SUMIO	
	•CERAMIC TRADE AND CULTURAL INTERCHANGE ALONG THE INDIAN OCEAN •Revival Kutani ware •CERAMIC TRADE AT ARCHAEOLOGICAL SITE IN SOUTH INDIA			Ceramic Trade, Kutani ware, Islamic period,	SASAKI HANAE	
	Human Geography	Human geography	•town planning in ubiquitous society •Urban Analysis with GIS •GIS for schools and communities	•urban space-time system(urban system) •geographic information science •Urban and regional Planning	Human Geography, GIS	ITO SATORU
				•Study on the daily activity space in urban environment •Study of regional inequality in health service provision •geography of female labour	Urban Geography	KAMIYA HIROO
				•Theoretical study on "social nature" •critical study on national environmentalism •Geographical study on people's security	social nature national environmentalism social construction of nature	NAKASHIMA KOJI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Human Science	Cultural Anthropology	Cultural anthropology/folklore studies	<ul style="list-style-type: none"> <li>•Ethnographical Study of Balinese Culture</li> <li>•Study on the Interrelation between Indonesian National Culture and Its Local Ethnic Culture</li> <li>•Study on the social change of local communities in Hokuriku region, northern central Japan</li> </ul>		KAGAMI HARUYA	
			<ul style="list-style-type: none"> <li>•Religious Changes and Narratives among the Lahu of North Thailand</li> </ul>	Cultural Anthropology, Southeast Asian studies, Minority studies	NISHIMOTO YOICHI	
			<ul style="list-style-type: none"> <li>•Higher Education</li> <li>•portal system</li> </ul>	<ul style="list-style-type: none"> <li>•Study Support on Portal System</li> <li>•Higher Educaion System in Scandinavian countries</li> </ul>	Higher Education, Higher Education Evaluation, Danish, Scandinavian Mythology, e-Learning	HORII YUSUKE
Social Science	Law	Basic law	<ul style="list-style-type: none"> <li>•Land Law in Ancient Japan</li> <li>•Dispute on the Land in the Heian Period</li> <li>•Comparative Research of the Ancient Law of Ireland</li> <li>•History of the Lawyer in Japan</li> </ul>	Japan, Law, History	UMEDA YASUO	
			<ul style="list-style-type: none"> <li>•reception of roman law in Europe</li> </ul>	<ul style="list-style-type: none"> <li>•study on the dominion of castle in medieval germany</li> </ul>	the middle ages of europe, castle dominion	SAKURAI TOSHIO
			<ul style="list-style-type: none"> <li>•Study on Criminal Intent under the Qing Dynasty</li> </ul>		Asian Legal History	NAKAMURA MASATO
			<ul style="list-style-type: none"> <li>•Voting Rights Jurisprudence</li> <li>•Comparative Study of Judicial System</li> <li>•First Amendment and Civil Liability</li> </ul>		Anglo-American Law, Racial Discrimination, Jury System, Election Law	HIGASHIKAWA KOJI
			<ul style="list-style-type: none"> <li>•Legal Compliance</li> <li>•Law-Related Education</li> <li>•Clinical Legal Education</li> </ul>			NOSAKA YOSHIO
			<ul style="list-style-type: none"> <li>•Tort law in general</li> <li>•Consumer Contract Act</li> <li>•Subpoena duces tecum</li> </ul>			TAJIMA JUNZO
			<ul style="list-style-type: none"> <li>•Legal Philosophy</li> <li>•Purpose of law</li> <li>•History of Legal Philosophy</li> </ul>		Jurisprudence,Philosophy of Law	ADACHI HIDEHIKO
			<ul style="list-style-type: none"> <li>•Supreme Character of the Constitutional law</li> </ul>		Constitutional Law	YAMAZAKI TOMOYA
			<ul style="list-style-type: none"> <li>•Voting Rights Jurisprudence</li> <li>•Comparative Study of Judicial System</li> <li>•First Amendment and Civil Liability</li> </ul>		Anglo-American Law, Racial Discrimination, Jury System, Election Law	HIGASHIKAWA KOJI
					Income Taxation	KOZUKA MASAHIRO
						OSANAI HIROKI
			<ul style="list-style-type: none"> <li>•Healthcare and competition policy</li> <li>•Doctrine of social insurance</li> </ul>			ISHIDA MICHIIHIKO
			<ul style="list-style-type: none"> <li>•Study on International Criminal Court</li> <li>•Study on Crime of Genocide and Genocide Convention</li> <li>•Criminal Jurisdiction over International Crime</li> </ul>			INAZUMI MITSUE

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher		
Social Science	Social jurisprudence		<ul style="list-style-type: none"> <li>•Older Persons,Persons with Disabilities and Basic Human Rights</li> <li>•Japan and it's Responsibility for the war</li> <li>•Leprosy problem and human rights</li> </ul>	social security law welfare policy basic human rights	INOUE HIDEO		
			<ul style="list-style-type: none"> <li>•Antitrust Analysis of Information Exchange</li> <li>•Civil Antitrust Enforcement</li> <li>•Proof of concerted practices</li> </ul>	Competition Law, Antitrust Law	SAITO TAKAHIRO		
			<ul style="list-style-type: none"> <li>•annual holiday with pay</li> <li>•collective agreement</li> <li>•Labor market law and policy</li> </ul>	Labor Law, Law-policy of Labor Market, Holiday	NAKO MICHITAKA		
			<ul style="list-style-type: none"> <li>•Healthcare and competition policy</li> <li>•Doctrine of social insurance</li> </ul>		ISHIDA MICHIIHIKO		
	Criminal jurisprudence		<ul style="list-style-type: none"> <li>•Offenses against criminal law</li> <li>•Risky crimes</li> </ul>		crime punishment self-defense	FURITSU TAKAYUKI	
			<ul style="list-style-type: none"> <li>•Mens rea</li> </ul>		Vorzatz	NISHIMURA SHUJI	
			<ul style="list-style-type: none"> <li>•Law of evidence</li> <li>•Le recours aux fichiers de police judiciaire et enquetes administratives</li> </ul>		criminal procedure evidence criminal justice	SATO MIKI	
			<ul style="list-style-type: none"> <li>•Conspiracy</li> </ul>		Criminal Law	NAGAI YOSHIYUKI	
	Law	Civil jurisprudence				GODA ATSUKO	
				<ul style="list-style-type: none"> <li>•Some Problems about Unjust Enrichment</li> </ul>	Unjust Enrichment	HASEGAWA TAKASHI	
			<ul style="list-style-type: none"> <li>•Environmental Law, especially on road, view</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Right to demand non-pecuniary damage</li> <li>•Damages on Torts</li> <li>•the compensatory aims</li> </ul>	Civil law	KASHIMI YUMIKO	
				<ul style="list-style-type: none"> <li>•Third party participation in civil suits</li> </ul>	the law of civilprocedure	FUKUMOTO TOMOYUKI	
				<ul style="list-style-type: none"> <li>•Investigation procedures related to suspect interrogation</li> </ul>		NAKAYAMA HIROYOSHI	
				<ul style="list-style-type: none"> <li>•spin-off</li> </ul>		MURAKAMI HIROSHI	
				<ul style="list-style-type: none"> <li>•Legal Compliance</li> <li>•Law-Related Education</li> <li>•Clinical Legal Education</li> </ul>		NOSAKA YOSHIO	
				<ul style="list-style-type: none"> <li>•Tort law in general</li> <li>•Consumer Contract Act</li> <li>•Subpoena duces tecum</li> </ul>		TAJIMA JUNZO	
			<ul style="list-style-type: none"> <li>•Study on Consumer Credit Law</li> </ul>	<ul style="list-style-type: none"> <li>•Consumer Law</li> <li>•Torts</li> <li>•Civil Code</li> </ul>		OJIMA Shigeki	
				<ul style="list-style-type: none"> <li>•Administration de la succession, Partage</li> <li>•French Law</li> <li>•Civil Law</li> </ul>		MIYAMOTO SAKIKO	
			New types of jurisprudence		<ul style="list-style-type: none"> <li>•Tort law in general</li> <li>•Consumer Contract Act</li> <li>•Subpoena duces tecum</li> </ul>		TAJIMA JUNZO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher		
Social Science	Law	New types of jurisprudence	<ul style="list-style-type: none"> <li>• Patent claim interpretation</li> <li>• Parallel imports</li> <li>• International intellectual property right violation</li> </ul>	Patent,copyright,trademark	OTOMO NOBUHIDE		
			<ul style="list-style-type: none"> <li>• Research on Organ Transplantation</li> <li>• Research on Artificial Reproduction</li> <li>• Research on Gene Diagnosis</li> </ul>	<ul style="list-style-type: none"> <li>• Student services in university education</li> <li>• The artificial reproduction and gene diagnosis</li> <li>• The organ transplantation and self-determination</li> </ul>		AONO TORU	
				<ul style="list-style-type: none"> <li>• Healthcare and competition policy</li> <li>• Doctrine of social insurance</li> </ul>		ISHIDA MICHIIHIKO	
	Politics	Politics	<ul style="list-style-type: none"> <li>• Research of Political Participation</li> <li>• Research of Election</li> </ul>	<ul style="list-style-type: none"> <li>• Japanese Election</li> <li>• Political Participation</li> </ul>	Polimetrics	OKADA HIROSHI	
			<ul style="list-style-type: none"> <li>• Politico-economic reforms in Arab countries</li> </ul>	<ul style="list-style-type: none"> <li>• Politics and Foreign Relations of Arab Countries</li> <li>• American Policy toward the Middle East</li> <li>• Theoretic Study on Politico-Economic System of Developing Countries</li> </ul>	Arab countries, Developing countries, American Foreign Policy	KASHIMA MASAHIRO	
				<ul style="list-style-type: none"> <li>• A Study of Modern North East Asian Regional Relations</li> <li>• Korean-Japanese Relations in Modern Era</li> <li>• Korean Minority Studies</li> </ul>	History of Modern North East Asia,Modern Japanese-Korean History,Korean Minority in Asian Pacific	SO ANSHO	
			<ul style="list-style-type: none"> <li>• US-Japanese Relations, George H.W. Bush's Japan Policy</li> </ul>	<ul style="list-style-type: none"> <li>• Clinton's Japan policy</li> <li>• Japan policy of George H.W. Bush</li> <li>• Post War U.S.-Japanese Relations</li> </ul>	US-Japanese relations, Japanese foreign policy, American foreign policy, American politics Japanese politics, U.S.-Japanese economic relations, International relations	ANDREW LARVIK BEATON	
				<ul style="list-style-type: none"> <li>• Decrease in political and societal participation</li> </ul>		KIMURA TAKAHIRO	
				<ul style="list-style-type: none"> <li>• French politics</li> <li>• European integration</li> <li>• Mass media and politics</li> </ul>		NISHIMURA SHIGERU	
				<ul style="list-style-type: none"> <li>• comparative study about improvement of public management improvement</li> <li>• comparative study about strategic management in local government</li> <li>• comparative study about budgeting in local government</li> </ul>	public administration management	YAMASHITA HARUKAZU	
			International relations	<ul style="list-style-type: none"> <li>• Politico-economic reforms in Arab countries</li> </ul>	<ul style="list-style-type: none"> <li>• Politics and Foreign Relations of Arab Countries</li> <li>• American Policy toward the Middle East</li> <li>• Theoretic Study on Politico-Economic System of Developing Countries</li> </ul>	Arab countries, Developing countries, American Foreign Policy	KASHIMA MASAHIRO
					<ul style="list-style-type: none"> <li>• A Study of Modern North East Asian Regional Relations</li> <li>• Korean-Japanese Relations in Modern Era</li> <li>• Korean Minority Studies</li> </ul>	History of Modern North East Asia,Modern Japanese-Korean History,Korean Minority in Asian Pacific	SO ANSHO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Social Science	Politics	International relations	<ul style="list-style-type: none"> <li>•US-Japanese Relations, George H.W. Bush's Japan Policy</li> </ul>	<ul style="list-style-type: none"> <li>•Clinton's Japan policy</li> <li>•Japan policy of George H.W. Bush</li> <li>•Post War U.S.-Japanese Relations</li> </ul>	US-Japanese relations, Japanese foreign policy, American foreign policy, American politics Japanese politics, U.S.-Japanese economic relations, International relations	ANDREW LARVIK BEATON
			<ul style="list-style-type: none"> <li>•The impact of cultural factor to the Cold War structure</li> <li>•Detente in the Cold War: From the Perspective of the British Diplomacy</li> <li>•Ethics in International Politics</li> </ul>	security, history of the cold war, philosophy	SAITO YOSHIOMI	
	Economics	Theoretical economics	<ul style="list-style-type: none"> <li>•Theory of Political Economy</li> <li>•Study of Business-Cycle</li> <li>•Systematizing theories of nations</li> </ul>	<ul style="list-style-type: none"> <li>•Effects of intellectual property right policies on international technology diffusion and economic growth</li> </ul>	Theory of Economy Contemporary-Capitalism Theory of State	MURAKAMI KAZUMITSU
			<ul style="list-style-type: none"> <li>•Research on Multi-objective Decision Making and Economic Analysis</li> <li>•Study On Decision Making under Uncertainty</li> <li>•Study on Cost Allocation Problems in Information network</li> </ul>	Economic Growth, Technology Diffusion, Macroeconomic Dynamics	IKESHITA KENICHIRO	
			<ul style="list-style-type: none"> <li>•Mathematics in General Social System</li> <li>•Engineering Optimization game fuzzy</li> </ul>	MAEDA TAKASHI		
		Economic statistics	<ul style="list-style-type: none"> <li>•Statistical inference of microdata disclosure risk</li> </ul>		HOSHINO NOBUAKI	
		Applied economics	<ul style="list-style-type: none"> <li>•Some Issues on Contemporary Indirect Employment</li> <li>•Flexibility of Labour Market and De-regulation Policy</li> </ul>	Social Policy Labour Economics	GOKA KAZUMICHI	
			<ul style="list-style-type: none"> <li>•Study on Privatization of Social Security</li> </ul>		YOKOYAMA TOSHIKAZU	
			<ul style="list-style-type: none"> <li>•Resident autonomous governance</li> <li>•Public services</li> <li>•Regional Environment Management</li> </ul>		IKARIYAMA HIROSHI	
	<ul style="list-style-type: none"> <li>•Empirical studies on competition policies</li> </ul>			TSURUTA YOSHITAKA		
	Economic policy	<ul style="list-style-type: none"> <li>•Some Issues on Contemporary Indirect Employment</li> <li>•Flexibility of Labour Market and De-regulation Policy</li> </ul>	Social Policy Labour Economics	GOKA KAZUMICHI		
		<ul style="list-style-type: none"> <li>•International Comparison of Welfare Regimes</li> </ul>	<ul style="list-style-type: none"> <li>•Comparative study of the Systemic Change in the Central Europe</li> <li>•Social Policy of Central Europe in the International Context</li> <li>•Economic System and Welfare Regime in Central Europe</li> </ul>	Economic Policy (including Economic Condition) Social Policy	HORIBAYASHI TAKUMI	
		<ul style="list-style-type: none"> <li>•Resident autonomous governance</li> <li>•Public services</li> <li>•Regional Environment Management</li> </ul>		IKARIYAMA HIROSHI		

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Social Science	Economic policy		<ul style="list-style-type: none"> <li>• Sustainable Regional Development, Integrating Economy and Ecology</li> </ul>	Regional Economic System	SAMUTA HIKARU	
			<ul style="list-style-type: none"> <li>• Community economy and NPOs</li> </ul>		YASUJIMA YUKIHARU	
			<ul style="list-style-type: none"> <li>• Effects of intellectual property right policies on international technology diffusion and economic growth</li> </ul>	Economic Growth, Technology Diffusion, Macroeconomic Dynamics	IKESHITA KENICHIRO	
	Fiscal studies/finance theory		<ul style="list-style-type: none"> <li>• Resident autonomous governance</li> <li>• Public services</li> <li>• Regional Environment Management</li> </ul>			IKARIYAMA HIROSHI
		<ul style="list-style-type: none"> <li>• Business Revitalization and Bank</li> </ul>	<ul style="list-style-type: none"> <li>• Economic Development and Financial Systems</li> <li>• The Monetary Aspects of the Schumpeterian System</li> <li>• Theoretical and Positive research about "the change in the bank behavior caused by the economy circulation".</li> </ul>	Banking and Financial Systems	KATO MINEHIRO	
			<ul style="list-style-type: none"> <li>• local public finance in Germany</li> <li>• New Steering Model in German local government</li> <li>• Local public finance under the decentralization</li> </ul>	Public Finance, Germany, Fiscal Federalism	TAKEDA KIMIKO	
	Economic history		<ul style="list-style-type: none"> <li>• Study on Modernization of Agriculture in China</li> </ul>	modernization	BENNO SAIICHI	
			<ul style="list-style-type: none"> <li>• A Study of War communism in Russia</li> <li>• Transition to NEP in Russia</li> </ul>	Russian peasant economic history War=Communism famine NEP	KAJIKAWA SHINICHI	
			<ul style="list-style-type: none"> <li>• Study on the Lower Strata of Urban Society in Modern Japan</li> </ul>		NOGAWA YASUHARU	
	Business Administration	Business administration		<ul style="list-style-type: none"> <li>• Basic Research on Healthcare Marketing</li> <li>• International Healthcare Marketing</li> <li>• Application of Artificial Intelligence to Healthcare</li> </ul>	Healthcare Management, Hospital Administration, Medical Informatics, Healthcare Legislation	NAGASE KEISUKE
			<ul style="list-style-type: none"> <li>• Regional Branding</li> <li>• Branding for Agri Business</li> </ul>	<ul style="list-style-type: none"> <li>• Patent claim interpretation</li> <li>• Parallel imports</li> <li>• International intellectual property right violation</li> </ul>	Patent, copyright, trademark	OTOMO NOBUHIDE
				<ul style="list-style-type: none"> <li>• The method of knowledge management</li> </ul>	market, strategy, knowledge	HIRATA TOORU
				<ul style="list-style-type: none"> <li>• Screening and Evaluation of Workers in Organizations</li> <li>• Fluctuations of Organizations and Self-organizing</li> <li>• Information System of the Business Enterprises</li> </ul>	Organization Information System Strategy	SHIRAIISHI HIROYUKI
				<ul style="list-style-type: none"> <li>• comparative study about improvement of public management</li> <li>• comparative study about strategic management in local government</li> <li>• comparative study about budgeting in local government</li> </ul>	public administration management	YAMASHITA HARUKAZU

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher		
Social Science	Business Administration	Accounting	<ul style="list-style-type: none"> <li>• Complete understanding of Sorter accounting theory and its modern development</li> <li>• Evolutionary investigation of double accounting as a symbolic system</li> <li>• Development of descriptive accounting theory based on events approach</li> </ul>	events approach double-entry bookkeeping REA accounting model	TAKESHIMA SADAHARU		
	Sociology	Sociology	<ul style="list-style-type: none"> <li>• Analysis of University Enrollment</li> <li>• Social survey and data analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Social Stratification, Education and Lifestyles</li> <li>• Mathematical Analysis of the Selection System by Entrance Examination</li> <li>• Study on the Circulation and Utilization of Scientific Documentation and Professional Ethics</li> </ul>		IWAMOTO TAKEYOSHI	
			<ul style="list-style-type: none"> <li>• Quantitative Research and Data Analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Study on Rational Choice and Normative Theories</li> <li>• Study on Social Stratification and Social Psychology</li> <li>• Developmet of the Methods and Methodology of Survey Research</li> </ul>	social stratification, normative theory	TODOROKI, Makoto	
				<ul style="list-style-type: none"> <li>• Structuration theory</li> <li>• Sociological research on the potential of the "Third Way"</li> <li>• A Study of Social Planning</li> </ul>		TANABE HIROSHI	
				<ul style="list-style-type: none"> <li>• Social Networks in Local Community</li> <li>• The Chenge of a Community-based associations</li> <li>• Social Research for Community Planning</li> </ul>		MANABE TOMOKO	
				<ul style="list-style-type: none"> <li>• A Concise History of World Poster</li> <li>• A Poster museum</li> </ul>	Art Education, Posterlogia, Poster Museum	MATSUURA NOBORU	
				<ul style="list-style-type: none"> <li>• Social inequality and health: potentials of social capital in health policy.</li> <li>• Exploring technology familiar with women and creation of new health care system.</li> <li>• Gender politics on women's body parts.</li> </ul>	Sociology, Public Health	HIBINO YURI	
				<ul style="list-style-type: none"> <li>• Profession-Client Communication in Medicine and Welfare System</li> </ul>			TAKAHASHI RYOKO
				<ul style="list-style-type: none"> <li>• The effectiveness of sociological theories of deviance in explaining deviance in Japan and the United States</li> <li>• Cultural differences in self-concepts and interpersonal relationships: Comparison of college students in Japan and the United States.</li> <li>• The cross-cultural applicability of theories of deviance: Comparisons of college students in Japan and the United States</li> </ul>	Japan-US comparison, self-concepts, deviance	KOBAYASHI EMIKO	
							NONNENBERG Bastian



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Social Science	Sociology	Sociology	<ul style="list-style-type: none"> <li>• T. Parsons' Sociological Theory</li> <li>• Methode of Middle-Ranged Survey</li> </ul>	Sociology, History of Sociology	MIZOBE AKIO	
		Social welfare studies	<ul style="list-style-type: none"> <li>• Social Policy in Tokyo Metropolitan Government</li> <li>• Homehelp Service</li> <li>• Social Policy for Severe Motor and Intellectual Disabilities</li> </ul>	social work.severe motor and intellectual. homehelp	MORIYAMA OSAMU	
			<ul style="list-style-type: none"> <li>• Older Persons, Persons with Disabilities and Basic Human Rights</li> <li>• Japan and it's Responsibility for the war</li> <li>• Leprosy problem and human rights</li> </ul>	social security law welfare policy basic human rights	INOUE HIDEO	
			<ul style="list-style-type: none"> <li>• Study on Privatization of Social Security</li> </ul>		YOKOYAMA TOSHIKAZU	
			<ul style="list-style-type: none"> <li>• sport sociology</li> <li>• Sports culture</li> <li>• Health policies</li> </ul>		OKUDA MUTSUOKO	
			<ul style="list-style-type: none"> <li>• Profession-Client Communication in Medicine and Welfare System</li> </ul>		TAKAHASHI RYOKO	
	Psychology	Social psychology	<ul style="list-style-type: none"> <li>• Human Relations and its development</li> </ul>	<ul style="list-style-type: none"> <li>• Self Concept and interpersonal relationship development on adolescence</li> </ul>	Adolescence self human relations	OKADA TSUTOMU
			<ul style="list-style-type: none"> <li>• Study on learned helplessness.</li> <li>• defensive pessimism</li> <li>• communication</li> </ul>		Clinical psychology	ARAKI YUKIKO
			<ul style="list-style-type: none"> <li>• A Study on Cross-Cultural Adjustment</li> <li>• A Study on Developmental Process of Ego-Identity</li> <li>• multicultural education</li> </ul>		multi-culture, adjustment, identity	YAEZAWA MICHIKO
			<ul style="list-style-type: none"> <li>• The effectiveness of sociological theories of deviance in explaining deviance in Japan and the United States</li> <li>• Cultural differences in self-concepts and interpersonal relationships: Comparison of college students in Japan and the United States.</li> <li>• The cross-cultural applicability of theories of deviance: Comparisons of college students in Japan and the United States</li> </ul>		Japan-US comparison, self-concepts, deviance	KOBAYASHI EMIKO
		Educational psychology	<ul style="list-style-type: none"> <li>• A study on the developmental disorder in infants</li> <li>• A study on the attachment style childhood and present attachment style.</li> <li>• A study on the development of sleep-wake rhythm in children</li> </ul>		Science of clinical nursing Science of basic and doal nursing Educational and social psychology	KIMURA RUMIKO
			<ul style="list-style-type: none"> <li>• Human Relations and its development</li> </ul>	<ul style="list-style-type: none"> <li>• Self Concept and interpersonal relationship development on adolescence</li> </ul>	Adolescence self human relations	OKADA TSUTOMU

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Social Science	Educational psychology		<ul style="list-style-type: none"> <li>•Study on learned helplessness.</li> <li>•defensive pessimism</li> <li>•communication</li> </ul>	Clinical psychology	ARAKI YUKIKO	
			<ul style="list-style-type: none"> <li>•Cognitive development and Social development in infancy</li> </ul>	Developmental Psychology	IKEGAMI, Kimiko	
			<ul style="list-style-type: none"> <li>•Study on Acquisition Process of Japanese Sign Language</li> <li>•Study on Evaluation of Japanese Sign Language</li> <li>•Literacy in Deaf children</li> </ul>	Developmental Psychology, Japanese Sign Language, Special Needs Education	TAKEI WATARU	
			<ul style="list-style-type: none"> <li>•A Study on Cross-Cultural Adjustment</li> <li>•A Study on Developmental Process of Ego-Identity</li> <li>•multicultural education</li> </ul>	multi-culture,adjustment,identity	YAEZAWA MICHIKO	
			<ul style="list-style-type: none"> <li>•Methodological considerations with regard to insight-oriented psychotherapy</li> <li>•School counseling</li> <li>•Psychotherapeutic support for geriatric dementia</li> </ul>	clinical psychology psychotherapy school counseling dementia	KAYAHARA MICHIHARU	
	Psychology	Clinical psychology		<ul style="list-style-type: none"> <li>•Study on learned helplessness.</li> <li>•defensive pessimism</li> <li>•communication</li> </ul>	Clinical psychology	ARAKI YUKIKO
				<ul style="list-style-type: none"> <li>•Support for mental health of students in schools</li> <li>•Analysis of psychological issues in childhood and adolescence</li> </ul>		HARADA KATSUMI
				<ul style="list-style-type: none"> <li>•Validity scales constellation for new Japanese version of MMPI</li> <li>•Psychological characteristics of psychiatric disabilities</li> <li>•MMPI high-point codetypes</li> </ul>		MURAKAMI, Masako
				<ul style="list-style-type: none"> <li>•A Study on Cross-Cultural Adjustment</li> <li>•A Study on Developmental Process of Ego-Identity</li> <li>•multicultural education</li> </ul>	multi-culture,adjustment,identity	YAEZAWA MICHIKO
				<ul style="list-style-type: none"> <li>•Psychological Study of Eating behavior and Health</li> <li>•Research Study of Student Counseling</li> <li>•pending state</li> </ul>		ADACHI YUMI
		<ul style="list-style-type: none"> <li>•Methodological considerations with regard to insight-oriented psychotherapy</li> <li>•School counseling</li> <li>•Psychotherapeutic support for geriatric dementia</li> </ul>	clinical psychology psychotherapy school counseling dementia	KAYAHARA MICHIHARU		

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Social Science	Psychology	Experimental psychology	<ul style="list-style-type: none"> <li>•Development of learning tasks for physio-pharmacological study with rodents</li> <li>•Application of learning techniques for behavior modification in animal</li> </ul>	<ul style="list-style-type: none"> <li>•Study of learning by animal model</li> <li>•Study of Animal Cognition</li> <li>•Study on serial learning in rodents</li> </ul>	psychology of learning comparative psychology animal psychology	TANIUCHI TORU
			<ul style="list-style-type: none"> <li>•Measurements on sensation and perception</li> <li>•Object perception in 3D space</li> </ul>	<ul style="list-style-type: none"> <li>•Perceptual and Cognitive Properties of Autism, Developmental Disorders and Cognitive Disorders.</li> <li>•Brain activities in Perception, Cognition and Judgement Process: Brain Imaging Study.</li> </ul>	Perception, Vision, Psychological process, Brain & Neural Mechanism,	KOJIMA HARUYUKI
					Learning Processes, Animal Behavior	IGUCHI YOSHIO
				<ul style="list-style-type: none"> <li>•Cognitive development and Social development in infancy</li> </ul>	Developmental Psychology	IKEGAMI, Kimiko
				<ul style="list-style-type: none"> <li>•the functional cerebral asymmetry</li> <li>•information processing of color and shape</li> <li>•human reasoning in the exclusive disjunctive tasks</li> </ul>	Cognitive Psychology	OGISHI MICHITAKA
					cognitive aging,memory,visual cognition and memory	MATSUKAWA JUNKO
	Pedagogy	Pedagogy	<ul style="list-style-type: none"> <li>•comparative research of educational system</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Contemporary Educational Reform</li> <li>•Study on Children's Rights</li> <li>•School education reform</li> </ul>	educational administration management and organization	TANABE SHUNJI
				<ul style="list-style-type: none"> <li>•Study of Teaching Conduct in Classroom Music Instruction</li> <li>•Study on System and Rule of Classroom Music Instruction</li> <li>•Study of Evaluation in Music Education</li> </ul>	Music Education	SHINOHARA HIDEO
				<ul style="list-style-type: none"> <li>•Citizenship Education in a Global Age</li> <li>•Student services to accommodate religious needs of Muslims in University</li> <li>•Marketization and multiculturalization of higher education: focusing on the recognition of Islam</li> </ul>	ethnocultural minority and education, multiculturalism in education, citizenship education, international education	KISHIDA YUMI
					International student educatio	MIYAZAKI, Etsuko
				<ul style="list-style-type: none"> <li>•youth, especially non-elite young women's transition from school to work</li> <li>•gender/sexuality and education</li> <li>•child and youth culture</li> </ul>		SUGITA MAI
				<ul style="list-style-type: none"> <li>•Re-examination of Hans Freudenthal's Didactics of Mathematics</li> <li>•Developmental Study based on Hans Freudenthal's Didactics of Matheamtics</li> </ul>	Mathematics Education	ITOH, Shinya
				<ul style="list-style-type: none"> <li>•Study on Moral Education</li> <li>•John Dewey's Theory of Education</li> <li>•Reconstruction of the Concepts on Modern Education</li> </ul>	education moral school	MATSUSHITA RYOHEI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Social Science	Pedagogy	• Sport-activities under the old system High-schools in Japan	<ul style="list-style-type: none"> <li>• A Historical Study on the Adoption of School Physical Education and sports of the Local Districts in modern Japan</li> <li>• Influence of French Gymnastics on the Formation of Modern Physical Education System in Japan</li> <li>• comparative history of physical culture</li> </ul>	History of Physical Education and Sport History of Western learning History of Modern Education in Japan	OKUBO HIDEAKI
			• Phenomenological method on critic	educational research	MURAI ATSUSHI
			<ul style="list-style-type: none"> <li>• Study on Learning about Family</li> <li>• Study on the Curriculum of Home Economics Education</li> </ul>	Curriculum Studies Home Economics	WATAHIKI Tomoko
		• Development of School curricular by which cooperates with region and the administration	<ul style="list-style-type: none"> <li>• Development of curriculum and educational method at various schools</li> <li>• Development of effective support method in Curriculum development process by teacher group</li> <li>• about the Change in the scholastic attainments structure in the School education which centers on "Integrated Learning"</li> </ul>		KATO TAKAHIRO
					TORII KAZUYO
			• Creation of encouragement method for communication-social skill with ASD children to adult by socio-pragmatic approach. Pioneering way to encouragement specialists who support ASD children to adult		TAKAHASHI KAZUKO
			• Historical study of Korean language learning among Japanese / Empirical study on multilingual/multicultural education coinciding with multi-racialization of Korean and Japanese societies		NAMU SANMIYON
			<ul style="list-style-type: none"> <li>• Study on promoting Lifelong learning in the municipal Boards of Education</li> <li>• Study on role of municipal Kominkan</li> <li>• Regional development by the outcome of the learning</li> </ul>	Social education, Life long learning, Regional development	ASANO HIDESHIGE
			• Learning Group	Education	MOROKA KOSAI
			Educational sociology	<ul style="list-style-type: none"> <li>• Analysis of University Enrollment</li> <li>• Social survey and data analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Social Stratification, Education and Lifestyles</li> <li>• Mathematical Analysis of the Selection System by Entrance Examination</li> <li>• Study on the Circulation and Utilization of Scientific Documentation and Professional Ethics</li> </ul>

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Social Science	Pedagogy	Educational sociology	<ul style="list-style-type: none"> <li>•Citizenship Education in a Global Age</li> <li>•Student services to accommodate religious needs of Muslims in University</li> <li>•Marketization and multiculturalization of higher education: focusing on the recognition of Islam</li> </ul>	ethnocultural minority and education, multiculturalism in education, citizenship education, international education	KISHIDA YUMI	
			<ul style="list-style-type: none"> <li>•Empirical studies of dynamism of educational reform in the age of decentralization</li> <li>•Empirical studies of children and young people's school experience and daily life experience in late modernity</li> <li>•Historical and sociological study of transition in post-war</li> </ul>		MATSUDA YOSUKE	
			<ul style="list-style-type: none"> <li>•Research on Organ Transplantation</li> <li>•Research on Artificial Reproduction</li> <li>•Research on Gene Diagnosis</li> </ul>	<ul style="list-style-type: none"> <li>•Student services in university education</li> <li>•The artificial reproduction and gene diagnosis</li> <li>•The organ transplantation and self-determination</li> </ul>		AONO TORU
			<ul style="list-style-type: none"> <li>•Historical study of Korean language learning among Japanese / Empirical study on multilingual/multicultural education coinciding with multi-racialization of Korean and Japanese societies</li> </ul>		NAMU SANNIYON	
			<ul style="list-style-type: none"> <li>•A comparative sociological research on faculty and non-academic university staff development</li> <li>•University evaluation</li> <li>•A study on occupational education in higher education</li> </ul>	FD/SD,University Evaluation,Higher Education in Korea	WATANABE TATSUO	
			<ul style="list-style-type: none"> <li>•Higher Education</li> <li>•portal system</li> </ul>	<ul style="list-style-type: none"> <li>•Study Support on Portal System</li> <li>•Higher Educaion System in Scandinavian countries</li> </ul>	Higher Education, Higher Education Evaluation, Danish, Scandinavian Mythology, e-Learning	HORII YUSUKE
	Subject pedagogy	<ul style="list-style-type: none"> <li>•Research in classroom process in school mathematics</li> </ul>	Mathematics Education	OTANI MINORU		
		<ul style="list-style-type: none"> <li>•The Study of the Student's Cognition of Nature</li> <li>•Using of Self-Organizing Maps in Science Teaching</li> <li>•Analysis and Evaluation of Science Classes</li> </ul>	Science Education	MATSUBARA MICHIO		
		<ul style="list-style-type: none"> <li>•Phenomenological method on critic</li> </ul>	educational research	MURAI ATSUSHI		
		<ul style="list-style-type: none"> <li>•Study on Learning about Family</li> <li>•Study on the Curriculum of Home Economics Education</li> </ul>	Curriculum Studies Home Economics	WATAHIKI Tomoko		
		<ul style="list-style-type: none"> <li>•Study of health education inservice training</li> <li>•Study of elementary school health textbooks</li> <li>•role-playing in school health education</li> </ul>	Health Education	IWATA HIDEKI		

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Social Science	Subject pedagogy		<ul style="list-style-type: none"> <li>•Sculpture production</li> <li>•Formative elements in sculpture</li> <li>•study of Rodin's sculpture</li> </ul>	sculpture,modeling,statuary,Rodin	ETO NOZOMU
			<ul style="list-style-type: none"> <li>•Curriculum guidelines for literary materials</li> <li>•Evaluation of academic performance in Japanese language studies</li> </ul>		ORIKAWA, Tsukasa
		•Development of a solid puzzle	<ul style="list-style-type: none"> <li>•Study on a Teaching Method for Encouraging the Meta-Cognitive Activities in the</li> <li>•Improvement of Teaching Practicum</li> <li>•History of Handicraft Education</li> </ul>	Art Education	WASHIYAMA YASUSHI
	Special support education		<ul style="list-style-type: none"> <li>•A study on the developmental disorder in infants</li> <li>•A study on the attachment style childhood and present attachment style.</li> <li>•A study on the development of sleep-wake rhythm in children</li> </ul>	Science of clinical nursing Science of basic and doal nursing Educational and social psychology	KIMURA RUMIKO
		•Support for children and adolescence who stutter		Stuttering, Speech Language Disorders, Communication Disorders	KOBAYASHI HIROAKI
			<ul style="list-style-type: none"> <li>•Study on Acquisition Process of Japanese Sign Language</li> <li>•Study on Evaluation of Japanese Sign Language</li> <li>•Literacy in Deaf children</li> </ul>	Developmental Psychology, Japanese Sign Language, Special Needs Education	TAKEI WATARU
			•Protection of young children in war-time Japan, raising of difficult-to-care-for children, children with disabilities		KAWAI RYUHEI
			<ul style="list-style-type: none"> <li>•Dependence of the development among visual function and motor function in a child with Severe Mental and Physical Handicaps.</li> <li>•Education support to handicapped children based on an ICF idea.</li> </ul>	Intellectual disability Communication Pysiological Psychology Mental Retardation Assessment Physiological Psychology	YOSHIKAWA KAZUYOSHI
			<ul style="list-style-type: none"> <li>•Pragmatics based Approach to Language and Communication Intervention</li> <li>•Conversational Disabilities of High-Functioning Autistic Children</li> <li>•Bilingualism, personality, gender, cultural specificities in HFASD</li> </ul>	Communication Disorders communication disorders	OI MANABU
		Pedagogy			

# Science and Engineering

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Mathematics and Physics System Science	Mathematics	Algebra	<ul style="list-style-type: none"> <li>•Kobayashi-Hitchin Correspondence for Polarized Manifolds</li> <li>•Kähler Geometry of Toric Manifolds</li> </ul>	Einstein-Kähler metric, Stability of manifolds, Futaki character, Toric manifold, Geometric invariant theory	NAKAGAWA YASUHIRO
			<ul style="list-style-type: none"> <li>•Expression of Terwilliger algebra and its application</li> </ul>	(P and Q)- polynomial association scheme, Terwilliger algebra, quantum group	ITO TATSURO
			<ul style="list-style-type: none"> <li>•Refinement of relative class number formulas</li> <li>•Class Number Relation in Algebraic Number Fields</li> </ul>	Algebraic Number Theory	YAMASHITA HIROSHI
			<ul style="list-style-type: none"> <li>•Study on algebraic varieties</li> </ul>	Algebraic Geometry	HAYAKAWA TAKAYUKI
			<ul style="list-style-type: none"> <li>•Explicit trace formulas of Hecke operators on spaces of modular forms of several variables</li> </ul>	Number Theory. Modular Form	WAKATSUKI SATOSHI
			<ul style="list-style-type: none"> <li>•Inverse Galois Problem with Restricted Ramification</li> <li>•Application of cryptology</li> </ul>	Inverse Galois Problem, Unramified Extension	NOMURA AKITO
			<ul style="list-style-type: none"> <li>•L-Functions attached to Automorphic Forms</li> <li>•Study on Automorphic Forms of several variables</li> <li>•Study on Prehomogeneous Vector Spaces</li> </ul>	Number Theory, Automorphic Forms, Automorphic L function, prehomogeneous vector space	SUGANO Takashi
			<ul style="list-style-type: none"> <li>•Construction of Hadamard matrices</li> </ul>	<ul style="list-style-type: none"> <li>•Study of Hadamard matrices</li> <li>•Study of difference sets</li> <li>•Coding Theory</li> </ul>	Combinatorics
	Geometry	<ul style="list-style-type: none"> <li>•Kobayashi-Hitchin Correspondence for Polarized Manifolds</li> <li>•Kähler Geometry of Toric Manifolds</li> </ul>	Einstein-Kähler metric, Stability of manifolds, Futaki character, Toric manifold, Geometric invariant theory	NAKAGAWA YASUHIRO	
		<ul style="list-style-type: none"> <li>•Study on Integrable Hamiltonian Systems</li> <li>•Study on perturbation theory of Hamiltonian systems</li> </ul>	Hamiltonian Dynamical Systems, Differential Equations	ITO HIDEKAZU	
		<ul style="list-style-type: none"> <li>•submanifold geometry</li> </ul>		HASEGAWA KAZUYUKI	
		<ul style="list-style-type: none"> <li>•low dimensional topology</li> </ul>	low dimensional manifolds	IWASE Zjunci	
		<ul style="list-style-type: none"> <li>•Curvature and topology of almost Hermitian manifolds</li> </ul>		SATO TAKUJI	
		<ul style="list-style-type: none"> <li>•Dirichlet finite maps and asymptotic geometry of infinite graphs</li> <li>•Convergence theory of metric measure spaces</li> <li>•Random walks and Dirichlet finite maps</li> </ul>	Geometry	KASUE ATSUSHI	
	General mathematics (includes probability theory/statistical mathematics)	<ul style="list-style-type: none"> <li>•Analysis of structure of numerical solutions of differential equations</li> <li>•On dependence of structure of numerical solutions on insertion of random errors</li> <li>•Study of mathematical model describing nonlinear phenomena and their numerical simulation</li> </ul>	Applied Mathematics Mathematical Engineering	HATAUE ITARU	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Mathematics and Physics System Science	Mathematics	General mathematics (includes probability theory/statistical mathematics)		Statistical Mechanics Random Point Field Quantum Field Theory	TAMURA HIROSHI	
			•Geometry of substitution	substitution, tiling, fractal, Ergodic theory	ENOMOTO FUMIHIKO	
			•Mathematical analysis and modeling for the motion of surfactant particles on the water surface •Mathematical model for the candle oscillator	Mathematical model, Numerical simulation	NAGAYAMA MASAHARU	
			•From "probability that two integers are co-prime" to "central limit theorem" •Multidimensional Brownian local times in the Malliavin calculus	Rough path analysis	TAKANOBU SATOSHI	
			•Construction of Hadamard matrices	•Study of Hadamard matrices •Study of difference sets •Coding Theory	Combinatorics	YAMADA MIEKO
				•Generation of a system based on discrete dynamical systems and its application for information-telecommunications		FUJISAKI HIROSHI
				•Research on Multi-objective Decision Making and Economic Analysis •Study On Decision Making under Uncertainty •Study on Cost Allocation Problems in Information network	Mathematics in General Social System Engineering Optimization game fuzzy	MAEDA TAKASHI
	Basic analysis		•Variational Problems and Nonlinear Partial Differential Equations •Numerical Analysis for Nonlinear Partial Differential Equations	Numerical analysis	OMATA SEIRO	
			•Harmonic Analysis for Orthogonal Expansions	Real Analysis	KANJIN YUICHI	
			•harmonic analysis		SATO SHUICHI	
			•Study on complex hyperbolic manifolds •Study on holomorphic automorphism groups of bounded domains •Characterizations of complex manifolds by their holomorphic automorphism groups	Complex Geometry	KODAMA AKIO	
			•Study on Integrable Hamiltonian Systems •Study on perturbation theory of Hamiltonian systems	Hamiltonian Dynamical Systems, Differential Equations	ITO HIDEKAZU	
				Statistical Mechanics Random Point Field Quantum Field Theory	TAMURA HIROSHI	
					KAI CHIFUNE	



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Mathematics and Physics System Science	Mathematics	Basic analysis	<ul style="list-style-type: none"> <li>• Study on Value Distribution of Meromorphic or algebroid Functions and holomorphic curves</li> <li>• Application of the value distribution theory to the study on complex differential and functional equations</li> <li>• Study on differential or difference equations appearing in many areas and value distribution of meromorphic functions or holomorphic curves</li> </ul>	Theory of Functions	TOGE KAZUYA
			<ul style="list-style-type: none"> <li>• Study on boundary groups of Teichmuler spaces</li> <li>• Study on the ergodic theory of discrete Mobius groups</li> </ul>	Complex Analysis statistics deta analysis analysis of variance	INOUE KATSUMI
			<ul style="list-style-type: none"> <li>• From "probability that two integers are co-prime" to "central limit theorem"</li> <li>• Multidimensional Brownian local times in the Malliavin calculus</li> </ul>	Rough path analysis	TAKANOBU SATOSHI
		Global analysis	<ul style="list-style-type: none"> <li>• Kobayashi-Hitchin Correspondence for Polarized Manifolds</li> <li>• Kaehler Geometry of Toric Manifolds</li> </ul>	Einstein-Kaehler metric, Stability of manifolds, Futaki character, Toric manifold, Geometric invariant theory	NAKAGAWA YASUHIRO
			<ul style="list-style-type: none"> <li>• Study on Integrable Hamiltonian Systems</li> <li>• Study on perturbation theory of Hamiltonian systems</li> </ul>	Hamiltonian Dynamical Systems, Differential Equations	ITO HIDEKAZU
			<ul style="list-style-type: none"> <li>• Analysis of constrained partial differential equations of parabolic and hyperbolic type</li> </ul>	partial differential equations, numerical analysis, free boundary problems, variational methods	SVADLENKA, Karel
	Astronomy	Astronomy	<ul style="list-style-type: none"> <li>• Origin of gamma-ray burst, early celestial objects in history of the universe</li> </ul>		MURAKAMI TOSHIO
			<ul style="list-style-type: none"> <li>• Gamma-Ray Burst</li> <li>• Cosmology</li> <li>• High Energy Astrophysics</li> </ul>	High Energy Astrophysics Gamma-Ray Burst Astro-E2 Semi-Conductor Devices Infrared Astrophysics Cosmology	YONETOKU DAISUKE
	Physics	Elementary particle/atomic nucleus/cosmic ray/space physics	<ul style="list-style-type: none"> <li>• Development of high-resolution soft X-ray spectrometer onboard Astro-H satellite</li> <li>• Development of transition-edge-sensor type X-ray microcalorimeter</li> <li>• Observational study of X-ray objects with Suzaku satellite</li> </ul>	X-ray astronomy, X-ray spectroscopy	FUJIMOTO RYUICHI
			<ul style="list-style-type: none"> <li>• Origin of gamma-ray burst, early celestial objects in history of the universe</li> </ul>		MURAKAMI TOSHIO
			<ul style="list-style-type: none"> <li>• Study of Supersymmetric Unified Theory based on Superstring Theory</li> <li>• Neutrino Physics</li> <li>• phenomenology in the supersymmetric models</li> </ul>	Supersymmetry, Neutrino, Unified Theory, Dark Matter	SUEMATSU DAIJIRO
			<ul style="list-style-type: none"> <li>• Gamma-Ray Burst</li> <li>• Cosmology</li> <li>• High Energy Astrophysics</li> </ul>	High Energy Astrophysics Gamma-Ray Burst Astro-E2 Semi-Conductor Devices Infrared Astrophysics Cosmology	YONETOKU DAISUKE

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Mathematics and Physics System Science	Elementary particle/atomic nucleus/cosmic ray/space physics		<ul style="list-style-type: none"> <li>•The determination of fundamental parameters in Quantum Chromodynamics</li> <li>•Wilson chiral perturbation theory</li> </ul>	lattice gauge theory, quantum chromodynamics, hadron physics	TAKEDA SHINJI
			<ul style="list-style-type: none"> <li>•Non-Perturbative Renormalization Group</li> <li>•Research Activity Analysis by Databases</li> <li>•Quantum Mechanical Tunneling</li> </ul>	non-perturbative, renormalization group, quantum physics	AOKI KENICHI
	Physical properties I		<ul style="list-style-type: none"> <li>•Structures and Properties of High-TC Superconductor-related materials</li> <li>•Structures and properties of Dielectrics</li> <li>•structures and properties of low-dimensional conductors</li> </ul>	dielectrics superconductor low-dimensional conductor	FUJISHITA HIDESHI
			<ul style="list-style-type: none"> <li>•Study on superconductivity and charge-density waves in MNb<sub>3</sub>Te<sub>4</sub>(M=In,Hg)</li> </ul>		KANEKO HIROSHI
		<ul style="list-style-type: none"> <li>•Study on electronic structures and magnetic properties in Ferredoxins.</li> <li>•Study on electric field effects for the interfaces between magnetic and dielectric surfaces</li> <li>•Magenetic anisotropy and its electric field effect in magnetic films</li> </ul>	<ul style="list-style-type: none"> <li>•First-Principles study of electronic structure for oxide and sulphide spinels</li> <li>•Study of carbon clusters with molecular dynamics simulation</li> <li>•Ab-initio molecular dynamics for magnetic materials.</li> </ul>	Rashba effect, magnetic anisotropy, non-collinear magnetism, ab initio molecular dynamics, magnetic cluster,	ODA, Tatsuki
			<ul style="list-style-type: none"> <li>•Computational Materials Science</li> </ul>		SAITO MINEO
					ISHII FUMIYUKI
			<ul style="list-style-type: none"> <li>•Study on Thermodynamic Properties of an Anisotropic Conductor</li> <li>•Diffraction-Enhanced X-ray Imaging of Materials</li> </ul>	quasi-one-dimensional compound. Superconductivity. synchrotron radiation. DEI method.	OKAMOTO HIROYUKI
			<ul style="list-style-type: none"> <li>•Structures and Properties of High-TC Superconductor-related materials</li> <li>•Structures and properties of Dielectrics</li> <li>•structures and properties of low-dimensional conductors</li> </ul>	dielectrics superconductor low-dimensional conductor	FUJISHITA HIDESHI
	Physical properties II		<ul style="list-style-type: none"> <li>•Low Temperature Properties of Liquid <sup>3</sup>He</li> <li>•Sound Properties of liquid and solid <sup>4</sup>He</li> <li>•Magnetic Refrigeration</li> </ul>	Low Temperature Physics	MATSUMOTO Koichi
			<ul style="list-style-type: none"> <li>•Quantum magnetism</li> <li>•Quantum phase transitions</li> <li>•Strongly correlated electron systems</li> </ul>		TSUJII, Hiroyuki
			<ul style="list-style-type: none"> <li>•Solid State Physics in Ultra Lowtemperature</li> </ul>		ABE SATOSHI
			<ul style="list-style-type: none"> <li>•Study on superconductivity and charge-density waves in MNb<sub>3</sub>Te<sub>4</sub>(M=In,Hg)</li> </ul>		KANEKO HIROSHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Mathematics and Physics System Science	Physics	Physical properties II	<ul style="list-style-type: none"> <li>• Study on electronic structures and magnetic properties in Ferredoxins.</li> <li>• Study on electric field effects for the interfaces between magnetic and dielectric surfaces</li> <li>• Magnetic anisotropy and its electric field effect in magnetic films</li> </ul>	<ul style="list-style-type: none"> <li>• First-Principles study of electronic structure for oxide and sulphide spinels</li> <li>• Study of carbon clusters with molecular dynamics simulation</li> <li>• Ab-initio molecular dynamics for magnetic materials.</li> </ul>	Rashba effect, magnetic anisotropy, non-collinear magnetism, ab initio molecular dynamics, magnetic cluster,	ODA, Tatsuki
				<ul style="list-style-type: none"> <li>• intrinsic localized modes in solids</li> <li>• Studies of MEMS oscillators</li> </ul>	Intrinsic localized mode Laser MEMS	SATO MASAYUKI
				<ul style="list-style-type: none"> <li>• Study on Thermodynamic Properties of an Anisotropic Conductor</li> <li>• Diffraction-Enhanced X-ray Imaging of Materials</li> </ul>	quasi-one-dimensional compound. Superconductivity. synchrotron radiation. DEI method.	OKAMOTO HIROYUKI
				<ul style="list-style-type: none"> <li>• Magnetism and Superconductivity on Rare Earth Compounds</li> <li>• Magnetovolume effect and Magnetocaloric effect on the rare earth magnet</li> <li>• Giant magnetoresistance (GMR) of the rare earth magnetic multilayer</li> </ul>	Pressure, Magnetic, Field	OHASHI MASASHI
	Mathematical physics/fundamental theory of physical properties		<ul style="list-style-type: none"> <li>• Analysis of structure of numerical solutions of differential equations</li> <li>• On dependence of structure of numerical solutions on insertion of random errors</li> <li>• Study of mathematical model describing nonlinear phenomena and their numerical simulation</li> </ul>		Applied Mathematics Mathematical Engineering	HATAUE ITARU
					Statistical Mechanics Random Point Field Quantum Field Theory	TAMURA HIROSHI
			<ul style="list-style-type: none"> <li>• Pattern Formation in crystal growth</li> </ul>		Crystal growth	SATO MASAHIDE
			<ul style="list-style-type: none"> <li>• Irreversibility (Time's arrow)</li> <li>• Relaxation process in self-gravitating systems</li> <li>• Structure formation on clusters</li> </ul>		Irreversibility. Self-gravitating system. Computational physics. Aircraft design.	KOMATSU NOBUYOSHI
					Nonlinear dynamics, Lasers	
			<ul style="list-style-type: none"> <li>• Non-Perturbative Renormalization Group</li> <li>• Research Activity Analysis by Databases</li> <li>• Quantum Mechanical Tunneling</li> </ul>		non-perturbative, renormalization group, quantum physics	AOKI KENICHI
	Atomic/molecular/quantum electronics, plasma	<ul style="list-style-type: none"> <li>• development of photoinduced molecular device</li> </ul>	<ul style="list-style-type: none"> <li>• Formulation of New Molecular Theory</li> <li>• Theoretical Study on the control of the population transfer with laser pulses.</li> <li>• Molecular State by Quantum Monte Carlo Method</li> </ul>		Computational Chemistry	NISHIKAWA KIYOSHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Mathematics and Physics System Science	Physics	Atomic/molecular/quantum electronics, plasma	<ul style="list-style-type: none"> <li>•Experimental study of intense electron beam and plasma interaction.</li> <li>•Experimental study on an intense microwave generation and its applications.</li> <li>•Experimental studies of polyphase ac discharge.</li> </ul>	Research on basic plasma physics	ANDO RITOKU	
			<ul style="list-style-type: none"> <li>•Gamma-Ray Burst</li> <li>•Cosmology</li> <li>•High Energy Astrophysics</li> </ul>	High Energy Astrophysics Gamma-Ray Burst Astro-E2 Semi-Conductor Devices Infrared Astrophysics Cosmology	YONETOKU DAISUKE	
		Living organism physics/chemical physics	<ul style="list-style-type: none"> <li>•Structural and dynamical property of biomolecule</li> </ul>	Molecular Dynamics, Protein, Lipid bilayer	SAITO HIROAK	
			<ul style="list-style-type: none"> <li>•Design of learning contents for critical thinking and evaluation by human EEG phase synchronization</li> <li>•mathematical model study on endoreplication in cell cycle</li> </ul>		NISHIYAMA NOBUAKI	
	Earth Planet Science	Solid earth planet physics			Petrology, Structural geology, Raman Spectroscopy, Tectonics, Geo-Dynamics	MIZUKAMI TOMOYUKI
			<ul style="list-style-type: none"> <li>•New glass with new character</li> </ul>	<ul style="list-style-type: none"> <li>•Structreres and Crystallization of silicute melts.</li> <li>•Structures of Ncu-Cryotalline SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub></li> <li>•Structure analysis of biogenic non-crystalline materials</li> </ul>	Mineralogy Glass science inorganic materials ceramics	OKUNO MASAYUKI
				<ul style="list-style-type: none"> <li>•gravity anomaly and active fault</li> </ul>	earthquake, source mechanism, the structure of the interior of the earth, seismicity, volcano, gravity anomaly	HIRAMATSU YOSHIHIRO
				<ul style="list-style-type: none"> <li>•Geodynamics</li> <li>•Physical properties of complex fluids consisting the Earth</li> <li>•Experimental Geodynamics</li> </ul>		SUMITA IKURO
				<ul style="list-style-type: none"> <li>•Formation of oceanic crust</li> <li>•Evolution of juvenile island-arc volcanoes and subduction zone system</li> <li>•Lava eruptions and lava flow emplacement</li> </ul>	Volcano, Magma, Ocean-floor Drilling, Mohole	UMINO SUSUMU
				<ul style="list-style-type: none"> <li>•Volcano groundwater flow systems in terms of weak radionuclide</li> <li>•Seawater circulation in terms of radium isotope ratio</li> <li>•History of primitive meteorites in terms of trace elements and cosmogenic nuclides</li> </ul>	Geochemistry	INOUE MUTSUO
	Weather/oceanic physics/hydrology	<ul style="list-style-type: none"> <li>•Lidar technology for monitoring of atmospheric environment</li> </ul>	<ul style="list-style-type: none"> <li>•Research of bbiochemical processes on the surface of KOSA particles on the basis of single particle analysis</li> <li>•Long range transport of KOSA and microbiota</li> <li>•Chemical-physical processes of atmospheric aerosol modification</li> </ul>	Uptake of pollutants on Kosa particle surface, Kosa particle collection in the free atmosphere, Long-range transport of atmopheric aerosols, Dynamics of soil-bioaerosols in the atmopshere, Balloon-borne measurements	IWASAKA YASUNOBU	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Mathematics and Physics System Science	Earth Planet Science	Weather/oceanic physics/hydrology	<ul style="list-style-type: none"> <li>•Environmental processes and changes in lake-catchment systems</li> </ul>		KASHIWAYA KENJI	
		Upper atmospheric physics		<ul style="list-style-type: none"> <li>•Origin of gamma-ray burst, early celestial objects in history of the universe</li> </ul>		MURAKAMI TOSHIO
				<ul style="list-style-type: none"> <li>•Visualization of Electromagnetic Waves</li> <li>•Analysis of Plasma Wave Data Observed by Satellites in Space</li> <li>•Design of Plasma Wave Receiver Onboard BepiColombo/MMO</li> </ul>	Electromagnetic wave source estimation and visualization, Low-frequency electromagnetic field sensors, Magnetospheric plasma waves	YAGITANI SATOSHI
				<ul style="list-style-type: none"> <li>•Remote sensing of plasma environment using natural waves</li> </ul>	Electromagnetic wave, Inverse problem	GOTO YOSHITAKA
				<ul style="list-style-type: none"> <li>•Leading Engineer of "BepiColombo" mission to Mercury</li> <li>•Development of system software for LRS/SELENE mission to the moon.</li> <li>•Analysis of wire antenna characteristics in plasma at low frequency</li> </ul>	Electromagnetic waves, antenna, Mercury, Lunar	IMACHI TOMOHIKO
				<ul style="list-style-type: none"> <li>•Lidar technology for monitoring of atmospheric environment</li> </ul>	<ul style="list-style-type: none"> <li>•Research of biochemical processes on the surface of KOSA particles on the basis of single particle analysis</li> <li>•Long range transport of KOSA and microbiota</li> <li>•Chemical-physical processes of atmospheric aerosol modification</li> </ul>	Uptake of pollutants on Kosa particle surface, Kosa particle collection in the free atmosphere, Long-range transport of atmospheric aerosols, Dynamics of soil-bioaerosols in the atmosphere, Balloon-borne measurements
	Geology				Petrology, Structural geology, Raman Spectroscopy, Tectonics, Geo-Dynamics	MIZUKAMI TOMOYUK
			<ul style="list-style-type: none"> <li>•Prospecting chromitite and PGM</li> </ul>	<ul style="list-style-type: none"> <li>•Petrology of the upper mantle materials</li> <li>•Petrology of ocean-floor rocks</li> <li>•Origin of ophiolite</li> </ul>	mantle peridotite, ophiolite, Mohole	ARAI SHOJI
					Volcano Magma Petrology	SAKAYORI ATSUSHI
			<ul style="list-style-type: none"> <li>•New glass with new character</li> </ul>	<ul style="list-style-type: none"> <li>•Structures and Crystallization of silicate melts.</li> <li>•Structures of Ncu-Cryotalline SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub></li> <li>•Structure analysis of biogenic non-crystalline materials</li> </ul>	Mineralogy Glass science inorganic materials ceramics	OKUNO MASAYUKI
				<ul style="list-style-type: none"> <li>•Geochemical study on Cretaceous environment</li> <li>•Stable isotopic study of post- Cretaceous conversion from greenhouse earth to icebox earth</li> </ul>	Stratigraphy paleontology geochemistry	HASEGAWA TAKASHI
			<ul style="list-style-type: none"> <li>•Radiometric dating of lake sediments</li> <li>•Assessment of radiation damage</li> </ul>	<ul style="list-style-type: none"> <li>•Study of the evolution of accretionary complexes</li> <li>•Study of the periodicity in volcanic activity</li> <li>•Study of thermal anomaly around active faults</li> </ul>	Geochronology, accretionary complex, fault and volcano	HASEBE NORIKO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Mathematics and Physics System Science	Geology	<ul style="list-style-type: none"> <li>•Submarine geology of the Japan Sea</li> <li>•Geological Mapping and its Application in Hokuriku District</li> <li>•Environmental Analysis on Lake Tonle Sap, Cambodia</li> </ul>	<ul style="list-style-type: none"> <li>•Quaternary Environmental History in the Indochina Peninsula, Southeast Asia</li> <li>•Depositional History of Sedimentary Basins in Backarc Areas of Arc-Trench Systems</li> <li>•Depositional History of Sedimentary Basins in Hokuriku District, Central Japan</li> </ul>	Sedimentology Marine Geology Palaeoenvironmental analysis Sedimentology Sedimentary Geology Marine Geology Sedimentology Ecology Geology Marine Geology Sedimentary Process Sedimentology	TSUKAWAKI SHINJI	
			<ul style="list-style-type: none"> <li>•Formation of oceanic crust</li> <li>•Evolution of juvenile island-arc volcanoes and subduction zone system</li> <li>•Lava eruptions and lava flow emplacement</li> </ul>	Volcano, Magma, Ocean-floor Drilling, Mohole	UMINO SUSUMU	
			<ul style="list-style-type: none"> <li>•Experimental Study on Sedimentary Structures</li> <li>•Experimental Study on Landform Caused by Water Flow</li> </ul>		ENDO NORITAKA	
			<ul style="list-style-type: none"> <li>•Cenozoic Benthic Foraminifers</li> <li>•Recent benthic foraminifers in the Japan Sea</li> <li>•Recent shallow water foraminifers in the Japan Sea</li> </ul>	Benthic Foraminifers, Japan Sea, Holocene	KATO MICHIO	
	Layers/paleontology		<ul style="list-style-type: none"> <li>•Geochemical study on Cretaceous environment</li> <li>•Stable isotopic study of post- Cretaceous conversion from greenhouse earth to icebox earth</li> </ul>	Stratigraphy paleontology geochemistry	HASEGAWA TAKASHI	
		<ul style="list-style-type: none"> <li>•Submarine geology of the Japan Sea</li> <li>•Geological Mapping and its Application in Hokuriku District</li> <li>•Environmental Analysis on Lake Tonle Sap, Cambodia</li> </ul>	<ul style="list-style-type: none"> <li>•Quaternary Environmental History in the Indochina Peninsula, Southeast Asia</li> <li>•Depositional History of Sedimentary Basins in Backarc Areas of Arc-Trench Systems</li> <li>•Depositional History of Sedimentary Basins in Hokuriku District, Central Japan</li> </ul>	Sedimentology Marine Geology Palaeoenvironmental analysis Sedimentology Sedimentary Geology Marine Geology Sedimentology Ecology Geology Marine Geology Sedimentary Process Sedimentology	TSUKAWAKI SHINJI	
			<ul style="list-style-type: none"> <li>•Cenozoic Benthic Foraminifers</li> <li>•Recent benthic foraminifers in the Japan Sea</li> <li>•Recent shallow water foraminifers in the Japan Sea</li> </ul>	Benthic Foraminifers, Japan Sea, Holocene	KATO MICHIO	
	Science of rocks/minerals/ore deposits				Petrology, Structural geology, Raman Spectroscopy, Tectonics, Geo-Dynamics	MIZUKAMI TOMOYUKI
		<ul style="list-style-type: none"> <li>•Prospecting chromitite and PGM</li> </ul>	<ul style="list-style-type: none"> <li>•Petrology of the upper mantle materials</li> <li>•Petrology of ocean-floor rocks</li> <li>•Origin of ophiolite</li> </ul>	mantle peridotite, ophiolite, Mohole	ARAI SHOJI	
				Volcano Magma Petrology	SAKAYORI ATSUSHI	
		<ul style="list-style-type: none"> <li>•New glass with new character</li> </ul>	<ul style="list-style-type: none"> <li>•Structures and Crystallization of silicate melts.</li> <li>•Structures of Ncu-Cryotalline SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub></li> <li>•Structure analysis of biogenic non-crystalline materials</li> </ul>	Mineralogy Glass science inorganic materials ceramics	OKUNO MASAYUKI	
						MORISHITA TOMOAKI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Mathematics and Physics System Science	Earth Planet Science	Science of rocks/minerals/ore deposits	<ul style="list-style-type: none"> <li>•Geodynamics</li> <li>•Physical properties of complex fluids consisting the Earth</li> <li>•Experimental Geodynamics</li> </ul>		SUMITA IKURO	
			<ul style="list-style-type: none"> <li>•Electron structure in oxide crystal structure</li> <li>•Development and practical application of materials with environmental detoxification functions</li> </ul>	Oxides, X-ray diffraction, thin film, colloid chemistry, photocatalyst	OKUDERA HIROKI	
			<ul style="list-style-type: none"> <li>•Prediction of solute adsorption on mineral by surface complexation model</li> <li>•Reconstruction of earth surface environment</li> <li>•Natural inspired materials</li> </ul>	adsorption,surface complexation modeling,environmental mineralogy	FUKUSHI KEISUKE	
			<ul style="list-style-type: none"> <li>•Formation of oceanic crust</li> <li>•Evolution of juvenile island-arc volcanoes and subduction zone system</li> <li>•Lava eruptions and lava flow emplacement</li> </ul>	Volcano, Magma, Ocean-floor Drilling, Mohole	UMINO SUSUMU	
	Earth astrochemistry	<ul style="list-style-type: none"> <li>•Prospecting chromitite and PGM</li> </ul>	<ul style="list-style-type: none"> <li>•Petrology of the upper mantle materials</li> <li>•Petrology of ocean-floor rocks</li> <li>•Origin of ophiolite</li> </ul>	mantle peridotite, ophiolite, Mohole	ARAI SHOJI	
			<ul style="list-style-type: none"> <li>•Volcano groundwater flow systems in terms of weak radionuclide</li> <li>•Seawater circulation in terms of radium isotope ratio</li> <li>•History of primitive meteorites in terms of trace elements and cosmogenic nuclides</li> </ul>	Geochemistry	INOUE MUTSUO	
			<ul style="list-style-type: none"> <li>•Prediction of solute adsorption on mineral by surface complexation model</li> <li>•Reconstruction of earth surface environment</li> <li>•Natural inspired materials</li> </ul>	adsorption,surface complexation modeling,environmental mineralogy	FUKUSHI KEISUKE	
	Plasma Science	Plasma science		<ul style="list-style-type: none"> <li>•Automodulation and autoacceleration of intense relativistic electron</li> <li>•High-power microwave generation with an intense relativistic electron beam</li> <li>•Superradiance using ultra-short intense electron beams</li> </ul>	plasma physics, particle beam physics, microwave radiation,	KAMADA Keiichi
				<ul style="list-style-type: none"> <li>•Experimental study of intense electron beam and plasma interaction.</li> <li>•Experimental study on an intense microwave generation and its applications.</li> <li>•Experimental studies of polyphase ac discharge.</li> </ul>	Research on basic plasma physics	ANDO RITOKU

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Mathematics and Physics System Science	Plasma Science	<ul style="list-style-type: none"> <li>• Calculation of thermodynamic and transport properties of thermal plasma</li> <li>• Fundamental study on gas and materials used in circuit breakers using ICP</li> <li>• Numerical Simulation of Thermofluid Field in Induction Thermal Plasmas</li> <li>• Nanopowder synthesis using induction thermal plasmas</li> <li>• Numerical simulation of MHD dynamics of arc discharges</li> <li>• Development of new materials processings using modulated induction thermal plasmas</li> </ul>	<ul style="list-style-type: none"> <li>• Study on High Current Arc Interruption Phenomena</li> <li>• Study on New Functional System of Inductively Coupled Thermal Plasmas</li> <li>• Development of high-speed non-equilibrium processings using modulated thermal plasmas</li> </ul>	Thermal Plasma, Arc, Arc Interruption, Circuit Breaker, Induction Thermal Plasma, Numerical Simulation, Nanoparticle Synthesis	TANAKA YASUNORI	
			<ul style="list-style-type: none"> <li>• Leading Engineer of "BepiColombo" mission to Mercury</li> <li>• Development of system software for LRS/SELENE mission to the moon.</li> <li>• Analysis of wire antenna characteristics in plasma at low frequency</li> </ul>	Electromagnetic waves, antenna, Mercury, Lunar	IMACHI TOMOHIKO	
			<ul style="list-style-type: none"> <li>• Production and Control of High Temperature Fusion Plasmas and Plasma Application</li> <li>• Application of Power Electronics Technique to High Power Plasma Production</li> <li>• Innovative Applications of High Enthalpy Plasmas</li> </ul>	Fusion Plasmas Plasma Application RF Thermal Plasmas	UESUGI YOSHIHIKO	
	Chemistry	Basic Chemistry	<ul style="list-style-type: none"> <li>• Selective Degradation of Organic Polutants by Photocatalysis</li> </ul>	<ul style="list-style-type: none"> <li>• Magnetic field and magnetic isotope effects on chemical reactions</li> <li>• Photocatalytic Chemistry</li> <li>• Photochemical Aromatic Nucleophilic Substitution</li> </ul>	Photochemistry, Magnetic Isotope Chemistry, Photochemical Reaction Mechanism, Magnetic Field Effects	NAKAGAKI RYOICHI
			<ul style="list-style-type: none"> <li>• development of photoinduced molecular device</li> </ul>	<ul style="list-style-type: none"> <li>• Formulation of New Molecular Theory</li> <li>• Theoretical Study on the controll of the population transfer with laser pulses.</li> <li>• Molecular State by Quantum Monte Carlo Method</li> </ul>	Computational Chemistry	NISHIKAWA KIYOSHI
				<ul style="list-style-type: none"> <li>• High resolution Spectroscopic study on unstable (transient) Molecules.</li> <li>• Studies on the structure and dynamical behavior of the bio-related molecular complexes by high-resolution spectroscopy</li> </ul>	High Resolution Molecular Spectroscopy, Molecular Complex, Molecular Structure	FUJITAKE, Masaharu
			<ul style="list-style-type: none"> <li>• Magnetic Resonance Studies on Dynamics of Molecule and Electron in Solids</li> <li>• Local Structure Analysis of High Electrical Conductive Materials</li> </ul>	Magnetic Resonance. Solid State Physics	MIZUNO MOTOHIRO	



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Chemistry	Basic Chemistry	Physical chemistry	<ul style="list-style-type: none"> <li>•Development of computational method for ionized and excited states by electron propagator</li> <li>•X-ray photoelectron and emission spectrum simulation of molecule</li> <li>•Quantum wave packet simulation on hydrodynamics</li> </ul>	Molecular orbital theory, electron propagator	IDA TOMONORI	
			<ul style="list-style-type: none"> <li>•Structural and dynamical property of biomolecule</li> </ul>	Molecular Dynamics, Protein, Lipid bilayer	SAITO HIROAK	
			<ul style="list-style-type: none"> <li>•Nuclear magnetic resonance studies to analyze structure and dynamics of molecules in solids</li> </ul>	Solid-state NMR, Analysis of structure, Analysis of dynamics	OHASHI RYUTARO	
			<ul style="list-style-type: none"> <li>•Simple Analysis Method for Trace of Endocrine Disruptors by Luminescence Detecti</li> <li>•Spectroscopic and Photochemical Characteristics of Endocrine Disruptors</li> <li>•Water Treatment by Hydrochlorous Acid with Bactericidal and Coagulating Abilitie</li> <li>•Degradation of Toxic Chemical Compounds by Visible-Light Driven Photocatalysts</li> </ul>	Laser Spectroscopy Photochromism Transient Absorption Endocrine Disrupting Chemicals Persistent Organic Pollutants Fluorescence-Phosphorescence Photocatalyst Endocrine Disrupting Chemicals Solar Energy	TOKUMURA KUNIHIRO	
			<ul style="list-style-type: none"> <li>•Synthesis of novel gemini surfactants and functional organized solutions</li> <li>•Self-assembled structures revealed by fluorescent probe methods</li> <li>•Nonrandom distribution of surfactant molecules in mixed micellar systems</li> </ul>	Surface Chemistry surfactant molecular assembly solution property	ASAKAWA TSUYOSHI	
			<ul style="list-style-type: none"> <li>•Supercritical Fluid Dyeing Process</li> <li>•Environmental friendly process development using subcritical hot water</li> </ul>	Thermodynamics of associated solutions Solvent properties of supercritical fluids Molecular interactions and solubilities of mixed amino acids in aqueous-organic	Supercritical carbon dioxide, Chemical Engineering Thermodynamics, Fluid phase equilibria	TAMURA KAZUHIRO
		Organic chemistry	<ul style="list-style-type: none"> <li>•Selective Degradation of OrganicPolutants by Photocatalysis</li> </ul>	<ul style="list-style-type: none"> <li>•Magnetic field and magnetic isotope effects on chemical reactions</li> <li>•Photocatalytic Chemistry</li> <li>•Photochemical Aromatic Nucleophilic Substitution</li> </ul>	Photochemistry, Magnetic Isotope Chemistry, Photochemical Reaction Mechanism, Magnetic Field Effects	NAKAGAKI RYOICHI
			<ul style="list-style-type: none"> <li>•Cycloaddition of Allenic Compounds</li> <li>•Development of asymmetric catalysts</li> <li>•Metal-catalyzed selective reaction</li> </ul>	organic chemistry synthetic chemistry	KITAGAKI SHINJI	
			<ul style="list-style-type: none"> <li>•Development of Catalytic Asymmetric Reactions</li> <li>•Development of Novel Reaction by Using Isocyanides</li> <li>•Synthesis of Biology Active Compounds</li> </ul>		SOETA TAKAHIRO	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Chemistry	Basic Chemistry	Organic chemistry	<ul style="list-style-type: none"> <li>Development of highly efficient and selective photochemical reactions</li> <li>Molecular design of fluorescent materials</li> <li>Development of synthetic reactions using characteristics of typical elements</li> </ul>	<ul style="list-style-type: none"> <li>Development of highly efficient and selective photochemical reactions</li> <li>Molecular design of fluorescent materials</li> <li>Development of synthetic reactions using characteristics of typical elements</li> </ul>	Synthetic Organic Chemistry, Organic Photochemistry, Organometallic Chemistry	MAEDA HAJIME
			<ul style="list-style-type: none"> <li>Study on Asymmetric Reduction of Symmetric Diketones with Baker's Yeast</li> <li>Study on Asymmetric Reactions using Optically Active Organoselenium Reagents</li> <li>Study on Oxidative Radical Cyclization using Polymer-supported Mn(III) reagent</li> <li>Study on Ce(IV)-catalyzed asymmetric oxidative radical reaction</li> </ul>	<ul style="list-style-type: none"> <li>Study on Asymmetric Reduction of Symmetric Diketones with Baker's Yeast</li> <li>Study on Asymmetric Reactions using Optically Active Organoselenium Reagents</li> <li>Study on Oxidative Radical Cyclization using Polymer-supported Mn(III) reagent</li> <li>Study on Ce(IV)-catalyzed asymmetric oxidative radical reaction</li> </ul>	Synthetic Organic Chemistry	UCHIYAMA MASAHIKO
			<ul style="list-style-type: none"> <li>stereocontrol by photochromic compounds</li> </ul>	<ul style="list-style-type: none"> <li>stereocontrol by photochromic compounds</li> </ul>	photochromic, stereochemistry, photochemistry	FUKUYOSHI Shuichi
			<ul style="list-style-type: none"> <li>Synthetic studies on Nakadomarin A</li> </ul>	<ul style="list-style-type: none"> <li>Synthetic studies on Nakadomarin A</li> </ul>	Synthesis of Natural Product, Allene, Pauson-Khand reaction	INAGAKI FUYUHIKO
			<ul style="list-style-type: none"> <li>Joint Research on Synthesis of Heterocyclic Compounds Involving Chalcogen Atoms</li> </ul>	<ul style="list-style-type: none"> <li>Synthesis and Reaction of Highly Reactive Compounds Involving Chalcogen Multiple</li> <li>Synthesis of Asymmetric Bidentate Ligands Involving Sulfur or Selenium Atoms</li> <li>Development of New Synthetic Methods Based on Organometallic and Organoheteroatom Chemistry</li> </ul>	Synthetic Chemistry Heteroatom Chemistry Organic Chemistry	SEGI MASAHIKO
			<ul style="list-style-type: none"> <li>Development of novel organic synthesis</li> </ul>	<ul style="list-style-type: none"> <li>The construction of organic compounds having contiguous stereogenic centers</li> <li>Stereoselective synthesis of organic compounds having alkene moiety</li> <li>Synthetic organic chemistry using fluorosulfur compounds</li> </ul>	Organic Synthesis, Asymmetric Synthesis, Organometallic Chemistry	HONDA MITSUNORI
			<ul style="list-style-type: none"> <li>Alternate multi-layered adsorption of macrocations and macroanions on the colloidal spheres</li> <li>Substrate Selectivity of Nafion as a Catalyst for Ester Synthesis</li> <li>Studies on extracts of Hiba of Noto</li> </ul>	<ul style="list-style-type: none"> <li>Alternate multi-layered adsorption of macrocations and macroanions on the colloidal spheres</li> <li>Substrate Selectivity of Nafion as a Catalyst for Ester Synthesis</li> <li>Studies on extracts of Hiba of Noto</li> </ul>		SUDA MITSUHIRO
			<ul style="list-style-type: none"> <li>Asymmetric Synthesis</li> <li>Development of Efficient Synthetic Reactions</li> <li>Development of Functionalized Materials</li> </ul>	<ul style="list-style-type: none"> <li>Asymmetric Synthesis</li> <li>Development of Efficient Synthetic Reactions</li> <li>Development of Functionalized Materials</li> </ul>		UKAJI YUTAKA
			<ul style="list-style-type: none"> <li>Regio- and Stereoselective Radical Cyclizations</li> <li>Organic Synthesis Using Organosulfur Compounds</li> <li>Natural Product Synthesis</li> </ul>	<ul style="list-style-type: none"> <li>Regio- and Stereoselective Radical Cyclizations</li> <li>Organic Synthesis Using Organosulfur Compounds</li> <li>Natural Product Synthesis</li> </ul>	Synthetic Organic Chemistry	ISHIBASHI HIROYUKI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Chemistry	Basic Chemistry	Inorganic chemistry	<ul style="list-style-type: none"> <li>• Synthesis and Properties of Metal Oxide Cluster</li> <li>• Development of crown ether type all-inorganic complex of polyoxovanadates</li> <li>• Synthetic studies of spherical and bowl type oxide cluster</li> </ul>	Polyoxometalates, Oxide Cluster, Vanadium, Inorganic Complexes	HAYASHI YOSHIHITO
			<ul style="list-style-type: none"> <li>• Solid-Phase Thermochemical Reactions of Transition-Metal Complexes</li> <li>• molecular chiral recognition by metal complexes</li> <li>• Solute-solvent interaction in transition metal complexes</li> </ul>	Chemistry of complex	IHARA YOSHINORI
			<ul style="list-style-type: none"> <li>• Synthetic model study of metalloenzymes</li> <li>• Model study for non-heme diiron enzymes</li> <li>• synthesis of metal complexes with thiolate ligands</li> </ul>	Coordination Chemistry	FURUTACHI HIDEKI
			<ul style="list-style-type: none"> <li>• Study on Radionuclide in human body</li> <li>• Study on Quality Control in Radiopharmaceuticals</li> <li>• Study on Behavior of trace elements in human body</li> </ul>	Radiochemistry Nuclear Medicine Environmental Radiation Science nuclear radiochemistry radiopharmaceuticals	AMANO Ryohei
			<ul style="list-style-type: none"> <li>• Application of alpha particle emitters for targeted radionuclide therapy</li> <li>• Production and Medical application of radionuclides</li> <li>• Pharmacoscintigraphy and therapy for head and neck disease using intranasal administration method</li> </ul>	decay chain, alpha emitter, in vivo generator, targeted radionuclide therapy, radiopharmaceuticals	WASHIYAMA, Kohshin
			<ul style="list-style-type: none"> <li>• Angular momentum dependence of heavy-ion induced reaction</li> <li>• Study on the mechanisms of heavy-ion nuclear reactions</li> <li>• Chemical properties of heavy elements</li> <li>• Measurement of high-energetic heavy ions with CR-39 detectors by using AFM</li> </ul>	nuclear chemistry	YOKOYAMA AKIHIKO
			<ul style="list-style-type: none"> <li>• Development of Functional Models of Metalloenzymes? Dioxygen Binding and Activation by Metal Complexes</li> <li>• Dioxygen Binding and Activation by Metal Complexes</li> <li>• Modeling of the Manganese Cluster in the Oxygen Evolving Center in PS II</li> <li>• Dioxygen Activation by Dimetal Complexes</li> <li>• Control of Breaking and Making the Dioxygen O-O bond by Metal Complexes</li> <li>• Dioxygen Activation by Dimetal Complexes</li> </ul>	Inorganic Chemistry, Bioinorganic Chemistry	SUZUKI MASATATSU

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Chemistry	Analytical chemistry		<ul style="list-style-type: none"> <li>• Spectroelectrochemical Study of Charge Transfer Mechanism at Liquid/Liquid Interfaces</li> <li>• X-ray Absorption Spectroscopy at Liquid Interfaces</li> <li>• Photoelectrochemical reactivity of metal nanoparticles at liquid/liquid interfaces</li> </ul>	Spectroelectrochemistry, Surface Spectroscopy	NAGATANI HIROHISA
			<ul style="list-style-type: none"> <li>• Extraction Chemistry</li> <li>• Separation and Measurement Chemistry with Micro Devices</li> <li>• Development of Absolute Determination Method</li> </ul>	liquid-liquid distribution, absolute determination method, speciation analysis	IMURA HISANORI
			<ul style="list-style-type: none"> <li>• Development of functionalized carbonaceous substrates and its application for chemical sensing</li> <li>• Detection of SNPs based on an abasic site-containing DNA strand</li> <li>• Separation and detection trace amounts of metals based on a microfluidic device</li> </ul>	Electroanalytical chemistry, Surface modification	MORITA KOTARO
			<ul style="list-style-type: none"> <li>• Study for the evaluation of the exposure to polycyclic aromatic hydrocarbons</li> </ul>	Polycyclic aromatic hydrocarbons, biomarker	TORIBA AKIRA
		<ul style="list-style-type: none"> <li>• Bioremediation of toxic compounds in the environment</li> <li>• Fixation of CO<sub>2</sub> in atmosphere</li> </ul>	<ul style="list-style-type: none"> <li>• Study on the Behavior of Trace Element in Hydrophere.</li> <li>• Development of remediation technology utilizing the natural cycle</li> <li>• Research relating to eutrophication and trace elements in aquatic environments</li> </ul>	Hydrosphere Chemistry, Analytical Chemistry	HASEGAWA HIROSHI
	Synthetic chemistry		<ul style="list-style-type: none"> <li>• Cycloaddition of Allenic Compounds</li> <li>• Development of asymmetric catalysts</li> <li>• Metal-catalyzed selective reaction</li> </ul>	organic chemistry, synthetic chemistry	KITAGAKI SHINJI
		<ul style="list-style-type: none"> <li>• Development of highly efficient and selective photochemical reactions</li> <li>• Molecular design of fluorescent materials</li> <li>• Development of synthetic reactions using characteristics of typical elements</li> </ul>	<ul style="list-style-type: none"> <li>• Development of highly efficient and selective photochemical reactions</li> <li>• Molecular design of fluorescent materials</li> <li>• Development of synthetic reactions using characteristics of typical elements</li> </ul>	Synthetic Organic Chemistry, Organic Photochemistry, Organometallic Chemistry	MAEDA HAJIME
			<ul style="list-style-type: none"> <li>• Study on Asymmetric Reduction of Symmetric Diketones with Baker's Yeast</li> <li>• Study on Asymmetric Reactions using Optically Active Organoselenium Reagents</li> <li>• Study on Oxidative Radical Cyclization using Polymer-supported Mn(III) reagent</li> <li>• Study on Ce(IV)-catalyzed asymmetric oxidative radical reaction</li> </ul>	Synthetic Organic Chemistry	UCHIYAMA MASAHIKO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Chemistry	Compound Chemistry	Synthetic chemistry	<ul style="list-style-type: none"> <li>•Development of Novel Chiral <math>\pi</math>-Conjugated (Macro)molecular Systems</li> <li>•Development of chiral recognition materials through chemical modifications of polysaccharides</li> <li>•Development of Photoelectric Conversion Materials</li> </ul>	Cationic ring-opening polymerization Anionic living polymerization	KANO SHIGEYOSHI	
			<ul style="list-style-type: none"> <li>•Joint Research on Synthesis of Heterocyclic Compounds Involving Chalcogen Atoms</li> </ul>	<ul style="list-style-type: none"> <li>•Synthesis and Reaction of Highly Reactive Compounds Involving Chalcogen Multiple</li> <li>•Synthesis of Asymmetric Bidentate Ligands Involving Sulfur or Selenium Atoms</li> <li>•Development of New Synthetic Methods Based on Organometallic and Organoheteroatom Chemistry</li> </ul>	Synthetic Chemistry Heteroatom Chemistry Organic Chemistry	SEGI MASAHIITO
			<ul style="list-style-type: none"> <li>•Development of novel organic synthesis</li> </ul>	<ul style="list-style-type: none"> <li>•The construction of organic compounds having contiguous stereogenic centers</li> <li>•Stereoselective synthesis of organic compounds having alkene moiety</li> <li>•Synthetic organic chemistry using fluororous compounds</li> </ul>	Organic Synthesis, Asymmetric Synthesis, Organometallic Chemistry	HONDA MITSUNORI
			<ul style="list-style-type: none"> <li>•Asymmetric Synthesis</li> <li>•Development of Efficient Synthetic Reactions</li> <li>•Development of Functionalized Materials</li> </ul>		UKAJI YUTAKA	
			<ul style="list-style-type: none"> <li>•Regio- and Stereoselective Radical Cyclizations</li> <li>•Organic Synthesis Using Organosulfur Compounds</li> <li>•Natural Product Synthesis</li> </ul>	Synthetic Organic Chemistry	ISHIBASHI HIROYUKI	
			<ul style="list-style-type: none"> <li>•Development of Functional Models of Metalloenzymes? Dioxygen Binding and Activation by Metal Complexes</li> <li>•Dioxygen Binding and Activation by Metal Complexes</li> <li>•Modeling of the Manganese Cluster in the Oxygen Evolving Center in PS II</li> <li>•Dioxygen Activation by Dimetal Complexes</li> <li>•Control of Breaking and Making the Dioxygen O-O bond by Metal Complexes</li> <li>•Dioxygen Activation by Dimetal Complexes</li> </ul>	Inorganic Chemistry, Bioinorganic Chemistry	SUZUKI MASATATSU	
	Polymer chemistry	<ul style="list-style-type: none"> <li>•Magnetic Resonance Studies on Dynamics of Molecule and Electron in Solids</li> <li>•Local Structure Analysis of High Electrical Conductive Materials</li> </ul>	Magnetic Resonance. Solid State Physics	MIZUNO MOTOHIRO		

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Chemistry	Compound Chemistry	Polymer chemistry	<ul style="list-style-type: none"> <li>•Development of Novel Chiral <math>\pi</math>-Conjugated (Macro)molecular Systems</li> <li>•Development of chiral recognition materials through chemical modifications of polysaccharides</li> <li>•Development of Photoelectric Conversion Materials</li> </ul>	Cationic ring-opening polymerization Anionic living polymerization	KANO SHIGEYOSHI	
			<ul style="list-style-type: none"> <li>•Macromolecular materials</li> </ul>	<ul style="list-style-type: none"> <li>•Preparation and structural analysis of high molecular weight and functional phenolic resins</li> <li>•Development of functional phenolic oligomers</li> <li>•Development of high performance and high functionality for polymer materials</li> </ul>	Analysis of functional polymers Computational Analysis of Polymer Materials	YAMAGISHI TADAAKI
			<ul style="list-style-type: none"> <li>•Alternate multi-layered adsorption of macrocations and macroanions on the colloidal spheres</li> <li>•Substrate Selectivity of Nafion as a Catalyst for Ester Synthesis</li> <li>•Studies on extracts of Hiba of Noto</li> </ul>		SUDA MITSUHIRO	
			<ul style="list-style-type: none"> <li>•Synthesis of Novel Macrocycles</li> <li>•Macrocyclic Host-Carbon Nanotube Hybrids</li> <li>•Hybrid Materials Based on Phenol Resin</li> </ul>	Supramolecular Chemistry, Hybrid Materials, Polymer Synthesis	OGOSHI TOMOKI	
			<ul style="list-style-type: none"> <li>•Development of Novel Chiral <math>\pi</math>-Conjugated (Macro)molecular Systems</li> <li>•Synthesis and Application of Functional Materials by Using Dynamic Helical Polymers</li> <li>•Development of Novel Conjugated Polymer Photovoltaic Materials</li> </ul>	polymer synthesis	MAEDA KATSUHIRO	
	Functional material chemistry	<ul style="list-style-type: none"> <li>•Development of thermochromic materials in inorganic solids</li> </ul>	<ul style="list-style-type: none"> <li>•Solid-Phase Thermochemical Reactions of Transition-Metal Complexes</li> <li>•molecular chiral recognition by metal complexes</li> <li>•Solute-solvent interaction in transition metal complexes</li> </ul>	Chemistry of complex	IHARA YOSHINORI	
		<ul style="list-style-type: none"> <li>•development of photoinduced molecular device</li> </ul>	<ul style="list-style-type: none"> <li>•Formulation of New Molecular Theory</li> <li>•Theoretical Study on the controll of the population transfer with laser pulses.</li> <li>•Molecular State by Quantum Monte Carlo Method</li> </ul>	Computational Chemistry	NISHIKAWA KIYOSHI	
			<ul style="list-style-type: none"> <li>•syntheses of metal-oxygen complexes with enzyme activity</li> </ul>	bioinorganic chemistry, structural analysis, oxygen complex	FUJINAMI SHUHEI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Chemistry	Compound Chemistry	Functional material chemistry	<ul style="list-style-type: none"> <li>•Development of highly efficient and selective photochemical reactions</li> <li>•Molecular design of fluorescent materials</li> <li>•Development of synthetic reactions using characteristics of typical elements</li> </ul>	<ul style="list-style-type: none"> <li>•Development of highly efficient and selective photochemical reactions</li> <li>•Molecular design of fluorescent materials</li> <li>•Development of synthetic reactions using characteristics of typical elements</li> </ul>	Synthetic Organic Chemistry, Organic Photochemistry, Organometallic Chemistry	MAEDA HAJIME
			<ul style="list-style-type: none"> <li>•Joint Research on Synthesis of Heterocyclic Compounds Involving Chalcogen Atoms</li> </ul>	<ul style="list-style-type: none"> <li>•Synthesis and Reaction of Highly Reactive Compounds Involving Chalcogen Multiple</li> <li>•Synthesis of Asymmetric Bidentate Ligands Involving Sulfur or Selenium Atoms</li> <li>•Development of New Synthetic Methods Based on Organometallic and Organoheteroatom Chemistry</li> </ul>	Synthetic Chemistry Heteroatom Chemistry Organic Chemistry	SEGI MASAHIRO
				<ul style="list-style-type: none"> <li>•Study on organic thin film solar cell</li> <li>•Development of air-stable organic EL devices</li> <li>•Efficiently electrochemical water-decomposition using electrode catalysis</li> </ul>	Electrochemistry, Organic Solar Cell, Inorganic Functional Materials	TAKAHASHI KOSHIN
				<ul style="list-style-type: none"> <li>•Synthesis of novel gemini surfactants and functional organized solutions</li> <li>•Self-assembled structures revealed by fluorescent probe methods</li> <li>•Nonrandom distribution of surfactant molecules in mixed micellar systems</li> </ul>	Surface Chemistry surfactant molecular assembly solution property	ASAKAWA TSUYOSHI
			<ul style="list-style-type: none"> <li>•Development of novel organic synthesis</li> </ul>	<ul style="list-style-type: none"> <li>•The construction of organic compounds having contiguous stereogenic centers</li> <li>•Stereoselective synthesis of organic compounds having alkene moiety</li> <li>•Synthetic organic chemistry using fluorine compounds</li> </ul>	Organic Synthesis, Asymmetric Synthesis, Organometallic Chemistry	HONDA MITSUNORI
				<ul style="list-style-type: none"> <li>•Functionalization of chemically modified electrode</li> <li>•Development of non-platinum electrocatalysts for oxygen reduction</li> </ul>	Electrochemistry	YAMAGUCHI TAKAHIRO
			<ul style="list-style-type: none"> <li>•Research on Mechanism of Molecular Recognition in Molecular Assembly</li> </ul>	<ul style="list-style-type: none"> <li>•Calorimetric study of solutions of amphiphiles</li> <li>•Aggregation behavior of surfactants and amino acid-type surfactants</li> <li>•Interaction between biomaterials and surfactant</li> </ul>	Solution Chemistry Interface Chemistry	OTA AKIO
				<ul style="list-style-type: none"> <li>•Synthesis of Novel Macrocycles</li> <li>•Macrocyclic Host-Carbon Nanotube Hybrids</li> <li>•Hybrid Materials Based on Phenol Resin</li> </ul>	Supramolecular Chemistry, Hybrid Materials, Polymer Synthesis	OGOSHI TOMOKI
				<ul style="list-style-type: none"> <li>•Study on artificial photosynthesis</li> <li>•Study on organic thin film solar cells</li> <li>•Study on functional thin films</li> <li>•Study of organic electro luminescence</li> </ul>	Organic thin film solar cells, Artificial photosynthesis, Organic electro luminescence	KUWABARA TAKAYUKI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Chemistry	Compound Chemistry	Functional material chemistry	<ul style="list-style-type: none"> <li>•Asymmetric Synthesis</li> <li>•Development of Efficient Synthetic Reactions</li> <li>•Development of Functionalized Materials</li> </ul>		UKAJI YUTAKA	
		Environmental chemistry		<ul style="list-style-type: none"> <li>•Chromatographic analysis of enviromental and biological samples</li> </ul>	MICHIGAMI Yoshimasa	
			<ul style="list-style-type: none"> <li>•Research on Mechanism of Molecular Recognition in Molecular Assembly</li> </ul>	<ul style="list-style-type: none"> <li>•Calorimetric study of solutions of amphipiles</li> <li>•Aggregation behavior of surfactants and amino acid-type surfactants</li> <li>•Interaction between biomaterials and surfactant</li> </ul>	Solution Chemistry Interface Chemistry	OTA AKIO
		Chemistry related to living body		<ul style="list-style-type: none"> <li>•syntheses of metal-oxygen complexes with enzyme activity</li> </ul>	bioinorganic chemistry, structural analysis, oxygen complex	FUJINAMI SHUHEI
				<ul style="list-style-type: none"> <li>•Reaction mechanism of ferredoxin-NADPH oxidoreductase from gram positive bacteria</li> <li>•Iron sulfur type photosynthetic reaction center from photosynthetic bacteria</li> <li>•Investigation of Fd-dependent oxidoreductases in bacteria</li> </ul>	phototrophic bacteria, electron transfer, kinetics	SEO DAISUKE
			<ul style="list-style-type: none"> <li>•Development of radioactive tracer</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Radionuclide in human body</li> <li>•Study on Quality Control in Radiopharmaceutioals</li> <li>•Study on Behavior of trace elements in human body</li> </ul>	Radiochemistry Nuclear Medicine Environmental Radiation Science nuclear radiochemistry radiopharmaceuticals	AMANO Ryohei
				<ul style="list-style-type: none"> <li>•Angular momentum dependence of heavy-ion induced reaction</li> <li>•Study on the mechanims of heavy-ion nuclear reactions</li> <li>•Chemical properties of heavy elements</li> <li>•Measurement of high-energetic heavy ions with CR-39 detectors by using AFM</li> </ul>	nuclear chemistry	YOKOYAMA AKIHIKO
			<ul style="list-style-type: none"> <li>•Modification of the function of bilirubin oxidase</li> <li>•Biotechnology of lacquer latex</li> <li>•Biofuel cell</li> </ul>	<ul style="list-style-type: none"> <li>•Transformation of NOx by Enzymes</li> <li>•Function of Multicopper Oxidases and Their Alterations by Mutation and Application to Biofuel Cell</li> <li>•Enzyme Chemistry of Lacquer Latex</li> </ul>	metalloprotein, bioinorganic chemistry, Protein engineering	SAKURAI TAKESHI
			<ul style="list-style-type: none"> <li>•Elucidation and application of the microbial denitrification mechanism.</li> </ul>	<ul style="list-style-type: none"> <li>•Protein engineering of metalloproteins</li> <li>•Studies on structures and functions of multi-metal containing proteins</li> <li>•Studies on structures and functions of amino acid dehydrogenases</li> </ul>	Biochemistry, Molecular Biology, Protein engineering, Metalloproteins	KATAOKA Kunishige
			<ul style="list-style-type: none"> <li>•antioxidants-oxidative stress</li> </ul>	<ul style="list-style-type: none"> <li>•Studies on lipoic acid focusing on its antioxidant activities</li> <li>•Antioxidant Activity of Dopamine Derivatives</li> <li>•Elucidation of Oscillation Reaction of Vanadiumu Complexes</li> </ul>	active oxygen, antioxidant, free radical, stress, signal transduction	MATSUGO SEIICHI



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Chemistry	Compound Chemistry	Chemistry related to living body	<ul style="list-style-type: none"> <li>Development of Functional Models of Metalloenzymes? Dioxygen Binding and Activation by Metal Complexes</li> <li>Dioxygen Binding and Activation by Metal Complexes</li> <li>Modeling of the Manganese Cluster in the Oxygen Evolving Center in PS II</li> <li>Dioxygen Activation by Dimetal Complexes</li> <li>Control of Breaking and Making the Dioxygen O-O bond by Metal Complexes</li> <li>Dioxygen Activation by Dimetal Complexes</li> </ul>	Inorganic Chemistry, Bioinorganic Chemistry	SUZUKI MASATATSU	
		Functional materials/device	<ul style="list-style-type: none"> <li>Study on organic thin film solar cell</li> <li>Development of air-stable organic EL devices</li> <li>Efficiently electrochemical water-decomposition using electrode catalysis</li> </ul>	Electrochemistry, Organic Solar Cell, Inorganic Functional Materials	TAKAHASHI KOSHIN	
	Inorganic industrial material		<ul style="list-style-type: none"> <li>New glass with new character</li> </ul>	<ul style="list-style-type: none"> <li>Structures and Crystallization of silicate melts.</li> <li>Structures of Ncu-Cryotalline SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub></li> <li>Structure analysis of biogenic non-crystalline materials</li> </ul>	Mineralogy Glass science inorganic materials ceramics	OKUNO MASAYUKI
		Material Chemistry	Polymer/textile materials	<ul style="list-style-type: none"> <li>Simulation of deformation behavior of polymeric materials</li> <li>Modification of mechanical properties of polyolefins</li> </ul>	<ul style="list-style-type: none"> <li>Morphology and properties of polymeric materials</li> <li>mathematical chemistry</li> <li>Polymer based nano-composites</li> </ul>	polymer physics rheology graph theory molecular dynamics
	<ul style="list-style-type: none"> <li>Objective Evaluation of Clothing Appearance</li> <li>Heat and Moisture Transfer Properties and Comfort of Textile Materials</li> <li>Mechanical Properties and Handle of Textile Materials</li> </ul>			<ul style="list-style-type: none"> <li>Analysis of Mechanical Properties and Handle of Textile Materials.</li> <li>Comfort of Clothing Materials</li> <li>Objective Evaluation of Clothing Appearance</li> </ul>	Clothing Materials, Textile Engineering, Clothes, Fiber, Yarn, Fabric	MATSUDAIRA MITSUO
	<ul style="list-style-type: none"> <li>Development of Novel Chiral <math>\pi</math>-Conjugated (Macro)molecular Systems</li> <li>Development of chiral recognition materials through chemical modifications of polysaccharides</li> <li>Development of Photoelectric Conversion Materials</li> </ul>			<ul style="list-style-type: none"> <li>Cationic ring-opening polymerization</li> <li>Anionic living polymerization</li> </ul>	Cationic ring-opening polymerization	KANO SHIGEYOSHI
	<ul style="list-style-type: none"> <li>Research on Mechanical Properties of Polymer Composites</li> </ul>			<ul style="list-style-type: none"> <li>Mechanical Properties of Polymers and Polymer Composites</li> <li>Thin Film/Surface Science and Technology</li> <li>Ultra-Precision Polishing</li> </ul>	Engineering Materials	YAMADA YOSHINORI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Chemistry	Material Chemistry		<ul style="list-style-type: none"> <li>•Thermodynamics of non electrolyte solutions.</li> <li>•Polymer reaction process</li> <li>•Computer Simulation from Acetylation to Polycondensation for Liquid Crystalline Polymer Production</li> </ul>	Chem. Eng. Thermodynamics Phase Equilibria Simulation PBT	TADA KAORU	
			<ul style="list-style-type: none"> <li>•Effect of Strain Rate for Mechanical Properties of Polymeric Materials</li> <li>•Noise Reduction for Weaving Machine</li> <li>•Development of Textile Machinery</li> </ul>	<ul style="list-style-type: none"> <li>•Textile Machine System</li> <li>•Mechanism of Impact Sound</li> <li>•Mechanical Behavior of Fibre Assemblies</li> </ul>	Textile, Fiber Material, Noise	KINARI TOSHIYASU
		Polymer/textile materials	<ul style="list-style-type: none"> <li>•Macromolecular materials</li> </ul>	<ul style="list-style-type: none"> <li>•Preparation and structural analysis of high molecular weight and functional phenolic resins</li> <li>•Development of functional phenolic oligomers</li> <li>•Development of high performance and high functionality for polymer materials</li> </ul>	Analysis of functional polymers Computational Analysis of Polymer Materials	YAMAGISHI TADAAKI
			<ul style="list-style-type: none"> <li>•Friction and Wear Properties of Various Materials under Hydrogen Atmosphere</li> </ul>	<ul style="list-style-type: none"> <li>•Effect of Hydrogen atmosphere on the Friction and Wear of Polymers</li> <li>•Study on Pattern Abrasion of Rubber</li> <li>•Stress and strain measurements of rubber deformed by frictional force</li> <li>•Studies on friction and wear properties of silica-filled SBR</li> </ul>	Tribology, Pattern Wear, Friction deformation, Contact area, Gait, Hydrogen environment, Hydrogel	IWAI TOMOAKI
Engineering	Applied Physics/Engineering Basics		<ul style="list-style-type: none"> <li>•Physics of Electron Devices and Its Fabrication Technology</li> <li>•Thermoelectric materials and devices</li> <li>•Sputtering process</li> </ul>	Electron Devices and Materials	SASAKI KIMIHIRO	
		Applied physical properties/crystal engineering	<ul style="list-style-type: none"> <li>•Preparation of Ferroelectric Films by Pulsed Laser Ablation for NVRAM</li> <li>•Preparation of Er-doped Ferroelectric Thin Films by Pulsed Laser Ablation and Field Modulation Effect of Photoluminescence</li> <li>•Preparation and Characterization of Iron Oxide Thin Films</li> </ul>	Pulsed laser ablation, Oxide electronics, Ferroelectric thin films	MORIMOTO AKIHARU	
		Thin film and surface interface physical properties	<ul style="list-style-type: none"> <li>•Force spectroscopy based on non-contact atomic force microscopy in UHV</li> <li>•Development of scanning interaction spectro-microscope for fabrication of quantum nano-structures</li> </ul>	Surface science, Scanning Probe Microscopy	ARAI TOYOKO	
			<ul style="list-style-type: none"> <li>•Physics of Electron Devices and Its Fabrication Technology</li> <li>•Thermoelectric materials and devices</li> <li>•Sputtering process</li> </ul>	Electron Devices and Materials	SASAKI KIMIHIRO	
			<ul style="list-style-type: none"> <li>•Computational Materials Science</li> </ul>		SAITO MINEO	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Applied Physics/Engineering Basics	Thin film and surface interface physical properties	<ul style="list-style-type: none"> <li>Preparation of Ferroelectric Films by Pulsed Laser Ablation for NVRAM</li> <li>Preparation of Er-doped Ferroelectric Thin Films by Pulsed Laser Ablation and Field Modulation Effect of Photoluminescence</li> <li>Preparation and Characterization of Iron Oxide Thin Films</li> </ul>	Pulsed laser ablation, Oxide electronics, Ferroelectric thin films	MORIMOTO AKIHARU	
		Applied optics/quantum optical engineering	Counterplan for optical feedback in Semiconductor lasers	<ul style="list-style-type: none"> <li>Operating characteristics of Semiconductor laser</li> <li>Optical emission and amplification by traveling electron wave</li> </ul>	Optical Amplifier, Semiconductor Laser, Electro Magnetic Wave Amplifier	YAMADA MINORU
				<ul style="list-style-type: none"> <li>Study on Optical Devices</li> <li>Development of Photonic and Electromagnetic Devices Using by a Traveling Electron Beam</li> </ul>	Applied Optics, Quantum Optics Electron Devices, Apparatus Engineering	KUWAMURA YUJI
			<ul style="list-style-type: none"> <li>A study on high-speed photodetectors</li> <li>A study on optical interference and optical fiber sensing systems</li> </ul>	<ul style="list-style-type: none"> <li>A Study on High Speed Photodetectors</li> <li>A Study on Optical Sensing Systems</li> <li>A Study on Lightwave Circuits</li> </ul>	Optical measurements, Optical communications, Optical fiber, Optical waveguide	IYAMA, Koichi
			Optical Metrology	<ul style="list-style-type: none"> <li>Deformation measurement using speckle interferometry</li> <li>Precision 3D-shape measurement method using white-light interferometry</li> <li>Scratch inspection using light reflection</li> </ul>	Speckle, Applied Optics, Optical metrology	ADACHI MASA AKI
			<ul style="list-style-type: none"> <li>Point Defects in Insulating Materials and Their Applications for Optoelectronics</li> <li>Development of ag-activated phosphate glass and its application for optoelectronics</li> </ul>	<ul style="list-style-type: none"> <li>Femtosecond laser interferometric micro-processing of transparent materials and its application to a visible laser</li> <li>Optical properties of silver-activated phosphate glass and its application for a personal solid-state dosimeter</li> <li>Development of new dyeing method using a DPSS laser for an ink-jet print in textiles</li> </ul>	Application of an fs laser, Fs micro-processing, Photosensitive glass, Glass dosimeter, Area radiative sensor	KUROBORI TOSHIO
		General applied physics	Optical Metrology	<ul style="list-style-type: none"> <li>Deformation measurement using speckle interferometry</li> <li>Precision 3D-shape measurement method using white-light interferometry</li> <li>Scratch inspection using light reflection</li> </ul>	Speckle, Applied Optics, Optical metrology	ADACHI MASA AKI
				<ul style="list-style-type: none"> <li>Study on artificial photosynthesis</li> <li>Study on organic thin film solar cells</li> <li>Study on functional thin films</li> <li>Study of organic electro luminescence</li> </ul>	Organic thin film solar cells, Artificial photosynthesis, Organic electro luminescence	KUWABARA TAKAYUKI
		Fundamental engineering		<ul style="list-style-type: none"> <li>Analysis of structure of numerical solutions of differential equations</li> <li>On dependence of structure of numerical solutions on insertion of random errors</li> <li>Study of mathematical model describing nonlinear phenomena and their numerical simulation</li> </ul>	Applied Mathematics Mathematical Engineering	HATAUE ITARU

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Mechanical Engineering		<ul style="list-style-type: none"> <li>• Study on osteogenetic responses to mechanical stimulation</li> <li>• Development of a novel bone densitometer using near-infrared light</li> <li>• Study on osteogenic response to electrical stimulation</li> </ul>	Biomedical Engineering, Biomechanics, Bone	TANAKA SHIGEO	
		<ul style="list-style-type: none"> <li>• Promotion of osteogenesis by electrical stimulation</li> </ul>	<ul style="list-style-type: none"> <li>• X-Ray Tri-Axial Stress Analysis</li> <li>• Fractal Analysis on Strength Evaluation Materials</li> <li>• Fatigue Behavior of Steel Materials</li> </ul>	X-Ray Tri-Axial Stress Analysis Fractal Analysis on Strength Evaluation Materials Fatigue Behavior of Steel Materials	HIROSE YUKIO	
		<ul style="list-style-type: none"> <li>• Study on materials strength with X-rays</li> <li>• Study on strength of materials with neutron Image Plate</li> <li>• Study on strength of materials with X-ray Image Plate</li> </ul>	<ul style="list-style-type: none"> <li>• Study on the method of X-ray stress measurement</li> <li>• Study on the evaluation of strength of materials</li> <li>• Study on neutron stress measurement</li> </ul>	Stress Analysis, Strength of Materials, Neutron Stress Analysis	SASAKI TOSHIHIKO	
			<ul style="list-style-type: none"> <li>• Dynamic Constitutive Equation</li> <li>• Measurement of Impact Load</li> </ul>	Impact, Stress_Analysis, Strength	HOJO AKIHIRO	
		<ul style="list-style-type: none"> <li>• Structural Design Optimization of Product</li> </ul>	<ul style="list-style-type: none"> <li>• Clarification of impact crushing behavior and energy absorption maximization design</li> <li>• Bionic design research of branch systems and its application to engineering design</li> <li>• Development of structure optimization methods and its application</li> </ul>	Strength of material	YAMAZAKI KOETSU	
		Machine material/material mechanics	<ul style="list-style-type: none"> <li>• Development of Cu-Base Alloys for Terminals</li> </ul>	<ul style="list-style-type: none"> <li>• Coarsening of Precipitates in Cu-base and Al-base Alloys</li> <li>• Mechanical Properties and Structures of Cu-base Alloys with High Electrical Conductivities</li> <li>• Continuous Precipitation and Discontinuous Precipitation in Cu-Base Alloys</li> </ul>	microstructural control, high conductivity Cu-base alloys, precipitation	MONZEN RYOICHI
		<ul style="list-style-type: none"> <li>• On Study of Intelligent Pitching Machine</li> <li>• A Study on Badminton Machine</li> </ul>	<ul style="list-style-type: none"> <li>• Mechanical Evaluations of Eggshell</li> <li>• A Study on Pitching Machine</li> <li>• A Study on machining Design with Environmental and Gentleness to Human</li> </ul>	Sports Engineering, Computer Aided Engineering, Artificial Intelligenc	SAKAI Shinobu	
		<ul style="list-style-type: none"> <li>• Effect of Strain Rate for Mechanical Properties of Polymeric Materials</li> <li>• Noise Reduction for Weaving Machine</li> <li>• Development of Textile Machinery</li> </ul>	<ul style="list-style-type: none"> <li>• Textile Machine System</li> <li>• Mechanism of Impact Sound</li> <li>• Mechanical Behavior of Fibre Assemblies</li> </ul>	Textile, Fiber Material, Noise	KINARI TOSHIYASU	
		<ul style="list-style-type: none"> <li>• Impact tests</li> <li>• Impact strength design</li> <li>• Mechanisms and sensors of robots</li> </ul>	<ul style="list-style-type: none"> <li>• Study on Robotics</li> <li>• Study on Machine Tools</li> <li>• Study on Tactile Sensor</li> </ul>	Robotic Mechanisms. Impact Engineering. Robotics. Sensors. Machine Design. Mechanisms	TACHIYA HIROSHI	
			<ul style="list-style-type: none"> <li>• Sports Engineering</li> <li>• Development of Measuring Systems</li> <li>• Evaluation of Material Strength</li> </ul>	structural reliability eng. strength of material cellular material sports equipment motion measurement engineering analysis	KAGAWA HIROYUKI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Machine material/material mechanics		<ul style="list-style-type: none"> <li>•Trade-off analysis using the interactive multiobjective design optimization</li> <li>•Sequential Approximate Optimization Using RBF Network</li> </ul>	Global Optimization, Optimum Design, Multi-Objective Design Optimization	KITAYAMA Satoshi	
			<ul style="list-style-type: none"> <li>•Development of Multi-Scale Atomic Simulation Method</li> <li>•Study on Unique Mechanical Properties of Nanostructured Materials</li> <li>•Evolution and Structural Change of Lattice Defects using Atomic Scale Computational Experiments</li> </ul>		SHIMOKAWA TOMOTSUGU	
	Production engineering/processing studies	<ul style="list-style-type: none"> <li>•Automation of operation under contaminated environment</li> <li>•Application of industrial robot</li> </ul>	<ul style="list-style-type: none"> <li>•Polishing Robot</li> <li>•Painting Robot</li> <li>•Deburring Robot</li> </ul>	Robot, CAD/CAM, Mechatronics	ASAKAWA NAOKI	
			<ul style="list-style-type: none"> <li>•Metal Forming</li> <li>•Micro Machining</li> <li>•Ski dynamics</li> </ul>	Metal forming, sports engineering, medical instrument	YONEYAMA TAKESHI	
			<ul style="list-style-type: none"> <li>•Cutting Mechanism of Free-machining Steel for High Speed Machining</li> <li>•Laser-assisted High Efficient Cutting</li> <li>•Machining of Difficult-to-cut Materials</li> </ul>	Machinability	TANAKA RYUTARO	
			<ul style="list-style-type: none"> <li>•Study on the dental treatment with laser beam</li> <li>•Study on the layered manufacturing with metal powder</li> <li>•Study on the micro fabrication with laser beam</li> <li>•Study on Reduction of Residual Stress Induced during Rapid Tooling Process</li> </ul>	laser processing, SLS rapid prototyping, dental treatment	FURUMOTO TATSUAKI	
			<ul style="list-style-type: none"> <li>•Laser Conditioning of Superabrasive Wheels</li> <li>•Studies on High-efficiency and High-precision Machining of Difficult-to-machine Materials by PVD Coated Tools</li> <li>•Turning of difficult-to-machine materials by actively driven rotary tool</li> <li>•High efficient endmilling of CFRP</li> <li>•Effective coolant supply in heavy cylindrical grinding</li> <li>•Studies on High-efficiency and High-precision Machining of Difficult-to-machine Materials by PVD Coated Tools</li> <li>•Studies on Turning of Difficult-to-machine Materials with Actively Driven Rotary Tool (Spinning Tool)</li> <li>•Laser Conditioning of Superabrasive Wheels</li> </ul>	Grinding, Cutting, Temperature measurement, Laser processing, In-process monitoring in machining, Machine tool	HOSOKAWA AKIRA	
	Mechanical Engineering					

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Production engineering/processing studies	<ul style="list-style-type: none"> <li>• Technology with small fear of contamination in environment</li> <li>• Studies on laser processing</li> </ul>	<ul style="list-style-type: none"> <li>• Studies on Temperature Measurement in Machining</li> <li>• Cutting performance of spining tool</li> <li>• Studies on Laser Processing</li> </ul>	Workshop Processes and Production Engineering Metallurgy and Material Processing Prosthodontics and Dental Technology	UEDA TAKASHI	
		<ul style="list-style-type: none"> <li>• Surface modification by micro plastic forming</li> <li>• Applying MQL in cutting of difficult-to-cut materials</li> </ul>	<ul style="list-style-type: none"> <li>• Studies on Cutting Characteristics of Difficult-to-machine Materials</li> <li>• Studies on Surface Finishing by Roller Burnishing</li> <li>• Application Effects of Minimum Quantity Lubrication Method in Machining</li> </ul>	Cutting, Plastic forming	OKADA MASATO	
	Design engineering, machine functional elements/tribology	<ul style="list-style-type: none"> <li>• Mechatronics</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of Operation</li> <li>• Motion Control of Robot</li> <li>• Vibration of Mechanical Systems</li> </ul>			KAMIYA YOSHITSUGU
		<ul style="list-style-type: none"> <li>• Structural Design Optimization of Product</li> </ul>	<ul style="list-style-type: none"> <li>• Clarification of impact crushing behavior and energy absorption maximization design</li> <li>• Bionic design research of branch systems and its application to engineering design</li> <li>• Development of structure optimization methods and its application</li> </ul>	Strength of material	YAMAZAKI KOETSU	
		<ul style="list-style-type: none"> <li>• Research on Mechanical Properties of Polymer Composites</li> </ul>	<ul style="list-style-type: none"> <li>• Mechanical Properties of Polymers and Polymer Composites</li> <li>• Thin Film/Surface Science and Technology</li> <li>• Ultra-Precision Polishing</li> </ul>	Engineering Materials	YAMADA YOSHINORI	
			<ul style="list-style-type: none"> <li>• Metal Forming</li> <li>• Micro Machining</li> <li>• Ski dynamics</li> </ul>	Metal forming, sports engineering, medical instrument	YONEYAMA TAKESHI	
		<ul style="list-style-type: none"> <li>• Effect of Strain Rate for Mechanical Properties of Polymeric Materials</li> <li>• Noise Reduction for Weaving Machine</li> <li>• Development of Textile Machinery</li> </ul>	<ul style="list-style-type: none"> <li>• Textile Machine System</li> <li>• Mechanism of Impact Sound</li> <li>• Mechanical Behavior of Fibre Assemblies</li> </ul>	Textile, Fiber Material, Noise	KINARI TOSHIYASU	
		<ul style="list-style-type: none"> <li>• Impact tests</li> <li>• Impact strength design</li> <li>• Mechanisms and sensors of robots</li> </ul>	<ul style="list-style-type: none"> <li>• Study on Robotics</li> <li>• Study on Machine Tools</li> <li>• Study on Tactile Sensor</li> </ul>	Robotic Mechanisms. Impact Engineering. Robotics. Sensors. Machine Design. Mechanisms	TACHIYA HIROSHI	
		<ul style="list-style-type: none"> <li>• Friction and Wear Properties of Various Materials under Hydrogen Atmosphere</li> </ul>	<ul style="list-style-type: none"> <li>• Effect of Hydrogen atmosphere on the Friction and Wear of Polymers</li> <li>• Study on Pattern Abrasion of Rubber</li> <li>• Stress and strain measurements of rubber deformed by frictional force</li> <li>• Studies on friction and wear properties of silica-filled SBR</li> </ul>	Tribology, Pattern Wear, Friction deformation, Contact area, Gait, Hydrogen environment, Hydrogel	IWAI TOMOAKI	
			<ul style="list-style-type: none"> <li>• Trade-off analysis using the interactive multiobjective design optimization</li> <li>• Sequential Approximate Optimization Using RBF Network</li> </ul>	Global Optimization, Optimum Design, Multi-Objective Design Optimization	KITAYAMA Satoshi	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Mechanical Engineering	Design engineering, machine functional elements/tribology	<ul style="list-style-type: none"> <li>•Cutting Mechanism of Free-machining Steel for High Speed Machining</li> <li>•Laser-assisted High Efficient Cutting</li> <li>•Machining of Difficult-to-cut Materials</li> </ul>	Machinability	TANAKA RYUTARO	
		Fluidics	<ul style="list-style-type: none"> <li>•Development of Wind Turbine System</li> <li>•Study on Mixing Control of Jets</li> <li>•Experimental Study by a Wind Tunnel</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Flow Structure and Noise Reduction of Jets</li> <li>•Study on Flow-induced Vibration of Bluff Bodies</li> <li>•Study on Horizontal Axis Wind Turbine in Wind Tunnel and Field</li> </ul>	Jet, Wind Turbine, Flow-Induced Vibration	KIWATA TAKAHIRO
				<ul style="list-style-type: none"> <li>•Free surface flows of Bingham fluid</li> <li>•Numerical analysis of non-linear dispersive waves</li> <li>•Multi-phase flow</li> </ul>		YUHI MASATOSHI
			<ul style="list-style-type: none"> <li>•Thermal and Fluid Engineering Analysis</li> <li>•Ground water relocimetry</li> <li>•Convection-Diffusion by Environmental Flow</li> <li>•Thermal and Fluid Problems</li> </ul>	<ul style="list-style-type: none"> <li>•Natural Convection Heat Transfer</li> <li>•Convection in Porous Media</li> <li>•Geothermal Energy Development</li> </ul>	Heat Transfer, Energy, Geothermal Energy, Groudwater, Environmental Flows	KIMURA SHIGEO
				<ul style="list-style-type: none"> <li>•Study on Drag Reduction on Microscale Concave-Convex Surface</li> </ul>		HASEGAWA MASATO
				<ul style="list-style-type: none"> <li>•Heat engines</li> </ul>		HIEDA, Noboru
		Thermal engineering	<ul style="list-style-type: none"> <li>•Development of Environmenta Protection Technology</li> </ul>	<ul style="list-style-type: none"> <li>•Development of System for Fixation and Capture of CO2 with Zeolite Mist Formation</li> <li>•Study on High-Performance Heat Transfer Surface for Boiling and Condensation Process</li> <li>•Gas Clean Technology by UV Photoelectro Method with Mist Formation</li> </ul>	Heat Transfer Enhancement, Mist Formation, Environmental Heat Transfer, Air Conditioning	TAKIMOTO, Akira
				<ul style="list-style-type: none"> <li>•Development of Active Heat Transfer Enhancement Techniques</li> <li>•Heat Transfer and Injury during Freezing of Biological Tissue</li> <li>•Solidification of Multi-component Systems and Mico-scale Heat Transfer</li> </ul>	Micro-solidification, Active Control of Solidification, Heat Transfer Enhancement, Energy Conversion	TADA YUKIO
			<ul style="list-style-type: none"> <li>•Thermal and Fluid Engineering Analysis</li> <li>•Ground water relocimetry</li> <li>•Convection-Diffusion by Environmental Flow</li> <li>•Thermal and Fluid Problems</li> </ul>	<ul style="list-style-type: none"> <li>•Natural Convection Heat Transfer</li> <li>•Convection in Porous Media</li> <li>•Geothermal Energy Development</li> </ul>	Heat Transfer, Energy, Geothermal Energy, Groudwater, Environmental Flows	KIMURA SHIGEO
				<ul style="list-style-type: none"> <li>•Study on Drag Reduction on Microscale Concave-Convex Surface</li> </ul>		HASEGAWA MASATO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Thermal engineering		<ul style="list-style-type: none"> <li>• Study on Development of High Performance Heat Exchangers</li> <li>• Study on the Flow with Evaporation and Condensation of Heat Pipe</li> <li>• Enhancement of Evaporation and Boiling Heat Transfer by a High Performance Heat Transfer Surface</li> </ul>		ONISHI HAJIME	
			<ul style="list-style-type: none"> <li>• Combustion Dynamic Control with the Micro-wave</li> </ul>	Combustion, Internal Combustion Engine, Automotive	ENOMOTO HIROSHI	
					Yoshikazu TERAOKA	
		<ul style="list-style-type: none"> <li>• High Efficient Dehumidification Technology</li> <li>• Desiccant Cooling Process driven with a waste heat</li> <li>• Air purification and separation by adsorption process</li> </ul>	<ul style="list-style-type: none"> <li>• Development of an adsorptive desiccant cooling driven with low-temperature heat</li> <li>• Air separation and purification process using a cyclic adsorption process</li> <li>• Recovery and enrichment of Carbon dioxide by using adsorption process</li> </ul>	Desiccant Dehumidification, Adsorption, Air separation	KODAMA AKIO	
	Mechanical Engineering	Machine mechanics/control	<ul style="list-style-type: none"> <li>• Automation of operation under contaminated environment</li> <li>• Application of industrial robot</li> </ul>	<ul style="list-style-type: none"> <li>• Polishing Robot</li> <li>• Painting Robot</li> <li>• Deburring Robot</li> </ul>	Robot, CAD/CAM, Mechatronics	ASAKAWA NAOKI
				<ul style="list-style-type: none"> <li>• Dynamic Constitutive Equation</li> <li>• Measurement of Impact Load</li> </ul>	Impact, Stress_Analysis, Strength	HOJO AKIHIRO
			<ul style="list-style-type: none"> <li>• Mechatronics</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of Operation</li> <li>• Motion Control of Robot</li> <li>• Vibration of Mechanical Systems</li> </ul>		KAMIYA YOSHITSUGU
			<ul style="list-style-type: none"> <li>• Noise Control of Industrial Machinery</li> <li>• Development of Vibration Energy Regenerative System</li> <li>• Vibration Control of Industrial Machinery</li> </ul>	<ul style="list-style-type: none"> <li>• Vibration Control in Machinery</li> <li>• Development of Dynamic Damper</li> <li>• Measurement of Collision Property of Elastic Ball</li> <li>• Development of Pendulum Type Dynamic Damper</li> <li>• Active Noise Control in Machinery</li> <li>• Measurement of Damping Property</li> </ul>		IWATA YOSHIO
			<ul style="list-style-type: none"> <li>• Effect of Strain Rate for Mechanical Properties of Polymeric Materials</li> <li>• Noise Reduction for Weaving Machine</li> <li>• Development of Textile Machinery</li> </ul>	<ul style="list-style-type: none"> <li>• Textile Machine System</li> <li>• Mechanism of Impact Sound</li> <li>• Mechanical Behavior of Fibre Assemblies</li> </ul>	Textile, Fiber Material, Noise	KINARI TOSHIYASU
				<ul style="list-style-type: none"> <li>• Control of Robotic Manipulators Using the Solutions of Repeated Direct Kinematics</li> <li>• Study of power assist system</li> <li>• Study of Effect of Disturbance Torque by Non-linear Elements</li> </ul>		HIKIZU MASATOSHI
				<ul style="list-style-type: none"> <li>• Active Noise Control using Neural Networks</li> <li>• Study of Hematopoiesis using Cellular Automata</li> <li>• Vibration control of physiological tremor</li> </ul>	Vibration Analysis, Vibration Control, Cellular Automata	KOMATSUZAKI TOSHIHIK



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Mechanical Engineering	Intelligent mechanics/mechanical system	<ul style="list-style-type: none"> <li>•Indoor Navigation of Vehicles</li> <li>•Sensing Technology for Intelligent Tasks of Robots</li> <li>•Development of Devices and Interfaces for Welfare.</li> </ul>	<ul style="list-style-type: none"> <li>•Development of Mechanism for Home Service Robots</li> <li>•Positioning System for Indoor Mobile Robots</li> <li>•Development of Devices and Interfaces for Welfare</li> </ul>		SEKI HIROAKI
			<ul style="list-style-type: none"> <li>•Automation of operation under contaminated environment</li> <li>•Application of industrial robot</li> </ul>	<ul style="list-style-type: none"> <li>•Polishing Robot</li> <li>•Painting Robot</li> <li>•Deburring Robot</li> </ul>	Robot, CAD/CAM, Mechatronics	ASAKAWA NAOKI
			<ul style="list-style-type: none"> <li>•Mechatronics</li> </ul>	<ul style="list-style-type: none"> <li>•Identification of Operation</li> <li>•Motion Control of Robot</li> <li>•Vibration of Mechanical Systems</li> </ul>		KAMIYA YOSHITSUGU
			<ul style="list-style-type: none"> <li>•Structural Design Optimization of Product</li> </ul>	<ul style="list-style-type: none"> <li>•Clarification of impact crushing behavior and energy absorption maximization design</li> <li>•Bionic design research of branch systems and its application to engineering design</li> <li>•Development of structure optimization methods and its application</li> </ul>	Strength of material	YAMAZAKI KOETSU
				<ul style="list-style-type: none"> <li>•Metal Forming</li> <li>•Micro Machining</li> <li>•Ski dynamics</li> </ul>	Metal forming, sports engineering, medical instrument	YONEYAMA TAKESHI
			<ul style="list-style-type: none"> <li>•On Study of Intelligent Pitching Machine</li> <li>•A Study on Badminton Machine</li> </ul>	<ul style="list-style-type: none"> <li>•Mechanical Evaluations of Eggshell</li> <li>•A Study on Pitching Machine</li> <li>•A Study on machining Design with Environmental and Gentleness to Human</li> </ul>	Sports Engineering, Computer Aided Engineering, Artificial Intelligenc	SAKAI Shinobu
			<ul style="list-style-type: none"> <li>•Optical Metrology</li> </ul>	<ul style="list-style-type: none"> <li>•Deformation measurement using speckle interferometry</li> <li>•Precision 3D-shape measurement method using white-light interferometry</li> <li>•Scratch inspection using light reflection</li> </ul>	Speckle, Applied Optics, Optical metrology	ADACHI MASAOKI
			<ul style="list-style-type: none"> <li>•Impact tests</li> <li>•Impact strength design</li> <li>•Mechanisms and sensors of robots</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Robotics</li> <li>•Study on Machine Tools</li> <li>•Study on Tactile Sensor</li> </ul>	Robotic Mechanisms. Impact Engineering. Robotics. Sensors. Machine Design. Mechanisms	TACHIYA HIROSHI
				<ul style="list-style-type: none"> <li>•Control of Robotic Manipulators Using the Solutions of Repeated Direct Kinematics</li> <li>•Study of power assist system</li> <li>•Study of Effect of Disturbance Torque by Non-linear Elements</li> </ul>		HIKIZU MASATOSHI
				<ul style="list-style-type: none"> <li>•Active Noise Control using Neural Networks</li> <li>•Study of Hematopoiesis using Cellular Automata</li> <li>•Vibration control of physiological tremor</li> </ul>	Vibration Analysis, Vibration Control, Cellular Automata	KOMATSUZAKI TOSHIHIK
	<ul style="list-style-type: none"> <li>•ITS (especially, automatic automobile operation and support for safe driving of automobiles)</li> <li>•Environmental Perception base on Vision System</li> <li>•autonomous driving and platooning</li> </ul>		SUGANUMA NAOKI			

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Engineering	Electric and Electronic Engineering		<ul style="list-style-type: none"> <li>•Micro Magnetostrictive Actuator using Iron-Gallium Alloy</li> <li>•Electromagnetic force control using composite of magnetostrictive and piezoelectric materials and its applications</li> <li>•Vibrational energy harvesting device using magnetostrictive material</li> </ul>		UENO TOSHIYUKI
		<ul style="list-style-type: none"> <li>•Evaluation of Low-frequency magnetic field and its bio-effect</li> <li>•Applications of planar-type ECT probe</li> <li>•Repulsive type magnetic bearing</li> <li>•Biomedical measurements by micro magnetic sensor</li> </ul>	<ul style="list-style-type: none"> <li>•Applications of Micro Magnetic Sensor to Nondestructive Testing and Bioinstrumentation</li> <li>•Applications of Non-Linear Magnetics to Electromagnetic Devices and Research of Finit Element Analysis</li> <li>•Application of AC magnetic fields to medical treatments</li> <li>•Applications of Non-Linear Magnetics to Electromagnetic Devices and Research of Finit Element Analysis</li> </ul>	magnetics, eddy currents, numerical calculation, magnetic sensor, nondestructive evaluation, medical measurement	YAMADA SOTOSHI
		<ul style="list-style-type: none"> <li>•Calculation of thermodynamic and transport properties of thermal plasma</li> <li>•Fundamental study on gas and materials used in circuit breakers using ICP</li> <li>•Numerical Simulation of Thermofluid Field in Induction Thermal Plasmas</li> <li>•Nanopowder sythesis using induction thermal plasmas</li> <li>•Numerical simulation of MHD dynamics of arc discharges</li> <li>•Development of new materials processings using modulated induction thermal plasmas</li> </ul>	<ul style="list-style-type: none"> <li>•Study on High Current Arc Interruption Phenomena</li> <li>•Study on New Functional System of Inductively Coupled Thermal Plasmas</li> <li>•Development of high-speed non-equilibrium processings using modulated thermal plasmas</li> </ul>	Thermal Plasma, Arc, Arc Interruption, Circuit Breaker, Induction Thermal Plasma, Numerical Simulation, Nanoparticle Synthesis	TANAKA YASUNORI
			<ul style="list-style-type: none"> <li>•Production and Control of High Temperature Fusion Plasmas and Plasma Application</li> <li>•Application of Power Electronics Technique to High Power Plasma Production</li> <li>•Innovative Applications of High Enthalpy Plasmas</li> </ul>	Fusion Plasmas Plasma Application RF Thermal Plasmas	UESUGI YOSHIHIKO
		<ul style="list-style-type: none"> <li>•Evaluation of Low-frequency magnetic field and its bio-effect</li> <li>•Applications of planar-type ECT probe</li> <li>•Repulsive type magnetic bearing</li> <li>•Biomedical measurements by micro magnetic sensor</li> </ul>	<ul style="list-style-type: none"> <li>•Applications of Micro Magnetic Sensor to Nondestructive Testing and Bioinstrumentation</li> <li>•Applications of Non-Linear Magnetics to Electromagnetic Devices and Research of Finit Element Analysis</li> <li>•Application of AC magnetic fields to medical treatments</li> <li>•Applications of Non-Linear Magnetics to Electromagnetic Devices and Research of Finit Element Analysis</li> </ul>	magnetics, eddy currents, numerical calculation, magnetic sensor, nondestructive evaluation, medical measurement	YAMADA SOTOSHI
	Electric power engineering/electric equipment engineering				
	Electron/electric material engineering				

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Electron/electric material engineering		<ul style="list-style-type: none"> <li>Preparation of Ferroelectric Films by Pulsed Laser Ablation for NVRAM</li> <li>Preparation of Er-doped Ferroelectric Thin Films by Pulsed Laser Ablation and Field Modulation Effect of Photoluminescence</li> <li>Preparation and Characterization of Iron Oxide Thin Films</li> </ul>	Pulsed laser ablation, Oxide electronics, Ferroelectric thin films	MORIMOTO AKIHARU	
			<ul style="list-style-type: none"> <li>Study on Optical Devices</li> <li>Development of Photonic and Electromagnetic Devices Using by a Traveling Electron Beam</li> </ul>	Applied Optics, Quantum Optics Electron Devices, Apparatus Engineering	KUWAMURA YUJI	
		• Device Applications of Si nanocrystals	• Characterization and application of semiconductor nanostructures	semiconductor, thin film materials, nanostructure	INOKUMA, Takao	
			<ul style="list-style-type: none"> <li>fabrication of dielectric and ferroelectric thin films</li> <li>fabrication of diamond films and its device applications</li> <li>highTc superconductor devices</li> </ul>	functional oxide materials	KAWAE TAKESHI	
	Electronic device/electronic equipment			<ul style="list-style-type: none"> <li>Physics of Electron Devices and Its Fabrication Technology</li> <li>Thermoelectric materials and devices</li> <li>Sputtering process</li> </ul>	Electron Devices and Materials	SASAKI KIMIHIRO
		• Optoelectronics				MARUYAMA, Takeo
		• Counterplan for optical feedback in Semiconductor lasers	<ul style="list-style-type: none"> <li>Operating characteristics of Semiconductor laser</li> <li>Optical emission and amplification by traveling electron wave</li> </ul>	Optical Amplifier, Semiconductor Laser, Electro Magnetic Wave Amplifier	YAMADA MINORU	
			<ul style="list-style-type: none"> <li>Study on Optical Devices</li> <li>Development of Photonic and Electromagnetic Devices Using by a Traveling Electron Beam</li> </ul>	Applied Optics, Quantum Optics Electron Devices, Apparatus Engineering	KUWAMURA YUJI	
		• A study on high-speed photodetectors • A study on optical interference and optical fiber sensing systems	<ul style="list-style-type: none"> <li>A Study on High Speed Photodetectors</li> <li>A Study on Optical Sensing Systems</li> <li>A Study on Lightwave Circuits</li> </ul>	Optical measurements, Optical communications, Optical fiber, Optical waveguide	IYAMA, Koichi	
		• VLSI Design	<ul style="list-style-type: none"> <li>Emerging Nonvolatile Random Access Memory</li> <li>Wireless Communication LSI</li> <li>Microelectronic Sensors</li> </ul>	Microelectronics, Sensor, Wireless Communication	KITAGAWA, Akio	
		• Integrated Circuits • Clear Vision System • Ubiquitous Sensor Network • Wearable Computing System using Conductive Wear	<ul style="list-style-type: none"> <li>Intelligent Image Sensor</li> <li>Network system for ubiquitous and wearable computing</li> <li>Perception Extension Device</li> </ul>	Integrated Circuits, Image Sensor, Interactive System, Wearable Computing	AKITA JUNICHI	
		• VLSI Image Processing	<ul style="list-style-type: none"> <li>Study on VLSI Image Processing</li> <li>Study on Electronic Design Automation</li> </ul>	VLSI, Image Processing, Electronic Design Automation	MIYAMA MASAYUKI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher			
Engineering	Electric and Electronic Engineering	Electronic device/electronic equipment	<ul style="list-style-type: none"> <li>• Phase change memory</li> </ul>	<ul style="list-style-type: none"> <li>• A Study of Nonvolatile Memory Based on Phase Change</li> <li>• Image processing of radiological image (radio nuclide image)</li> </ul>	Nonvolatile memory device Digital image processing	NAKAYAMA KAZUYA		
		Communication/network engineering		<ul style="list-style-type: none"> <li>• Wavefront Synthesis using Wideband Constant Delay Degital filters.</li> </ul>	<ul style="list-style-type: none"> <li>• Blind Source Separation</li> <li>• Brain Computer Interface</li> </ul>	Educational Technology	MATSUMOTO TOYOJI	
			• VLSI Design	<ul style="list-style-type: none"> <li>• Emerging Nonvolatile Random Access Memory</li> <li>• Wireless Communication LSI</li> <li>• Microelectronic Sensors</li> </ul>	<ul style="list-style-type: none"> <li>• Visualization of Electromagnetic Waves</li> <li>• Analysis of Plasma Wave Data Observed by Satellites in Space</li> <li>• Design of Plasma Wave Receiver Onboard BepiColombo/MMO</li> </ul>	Signal Processing, Adaptive Filters, Neural Networks	NAKAYAMA, Kenji	
				<ul style="list-style-type: none"> <li>• Adaptive signal processing and its application</li> </ul>	<ul style="list-style-type: none"> <li>• Emerging Nonvolatile Random Access Memory</li> <li>• Wireless Communication LSI</li> <li>• Microelectronic Sensors</li> </ul>	Microelectronics, Sensor, Wireless Communication	KITAGAWA, Akio	
				<ul style="list-style-type: none"> <li>• Analysis, Algorithm and Implementation of Adaptive Filters</li> </ul>	<ul style="list-style-type: none"> <li>• Theory of adaptive signal processing and Its application</li> </ul>	<ul style="list-style-type: none"> <li>• Visualization of Electromagnetic Waves</li> <li>• Analysis of Plasma Wave Data Observed by Satellites in Space</li> <li>• Design of Plasma Wave Receiver Onboard BepiColombo/MMO</li> </ul>	Electromagnetic wave source estimation and visualization, Low-frequency electromagnetic field sensors, Magnetospheric plasma waves	YAGITANI SATOSHI
				<ul style="list-style-type: none"> <li>• Adaptive Signal Processing</li> <li>• Newral Networks</li> </ul>	<ul style="list-style-type: none"> <li>• Theory of adaptive signal processing and Its application</li> </ul>	Adaptive Signal Processing	Adaptive filters, Learning	HORITA EISUKE
				<ul style="list-style-type: none"> <li>• High Efficiency Image Coding Using Matching Pursuits</li> <li>• Moving Object Extraction from Video Sequence</li> </ul>	<ul style="list-style-type: none"> <li>• Adaptive Signal Processing</li> <li>• Newral Networks</li> </ul>	Adaptive filters, Learning	Adaptive filters, Learning	HIRANO AKIHIRO
				<ul style="list-style-type: none"> <li>• Ground-based observation and full-wave analysis of the ionospheric VLF propagation around the Earth</li> <li>• Lighthning location/current monitoring system</li> </ul>	<ul style="list-style-type: none"> <li>• High Efficiency Image Coding Using Matching Pursuits</li> <li>• Moving Object Extraction from Video Sequence</li> </ul>	Video Coding, Image Processing	Video Coding, Image Processing	IMAMURA KOSUKE
					<ul style="list-style-type: none"> <li>• Advanced information processing methods in large-scale scientific databases</li> <li>• Near real-time processing techniques for ultra-high-speed input data from a sensor</li> <li>• Remote sensing in a space environment using radio waves</li> </ul>	<ul style="list-style-type: none"> <li>• Ground-based observation and full-wave analysis of the ionospheric VLF propagation around the Earth</li> <li>• Lighthning location/current monitoring system</li> </ul>	Natural Electromagnetic Wave, Antarctica, Lightning	OZAKI MITSUNORI
						<ul style="list-style-type: none"> <li>• Generation of a system based on discrete dynamical systems and its application for information-telecommunications</li> </ul>	Communication quality, IPv6, Virtualization, Time synchronization	KITAGUCHI YOSHIAKI
					<ul style="list-style-type: none"> <li>• Blind Source Separation</li> <li>• Brain Computer Interface</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced information processing methods in large-scale scientific databases</li> <li>• Near real-time processing techniques for ultra-high-speed input data from a sensor</li> <li>• Remote sensing in a space environment using radio waves</li> </ul>	Intelligent Signal Processing, Inverse Problem, Radio Science, Database, Intelligent Data Processing, Plasma Wave	KASAHARA YOSHIYA
					<ul style="list-style-type: none"> <li>• Analysis, Algorithm and Implementation of Adaptive Filters</li> </ul>	<ul style="list-style-type: none"> <li>• Generation of a system based on discrete dynamical systems and its application for information-telecommunications</li> </ul>		FUJISAKI HIROSHI
					<ul style="list-style-type: none"> <li>• Adaptive Signal Processing</li> <li>• Newral Networks</li> </ul>	<ul style="list-style-type: none"> <li>• Blind Source Separation</li> <li>• Brain Computer Interface</li> </ul>	Signal Processing, Adaptive Filters, Neural Networks	NAKAYAMA, Kenji
				System engineering	<ul style="list-style-type: none"> <li>• Adaptive Signal Processing</li> <li>• Newral Networks</li> </ul>	<ul style="list-style-type: none"> <li>• Analysis, Algorithm and Implementation of Adaptive Filters</li> </ul>	Adaptive filters, Learning	HIRANO AKIHIRO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Electric and Electronic Engineering	Measurement engineering	<ul style="list-style-type: none"> <li>•Applications of Micro Magnetic Sensor to Nondestructive Testing and Bioinstrumentation</li> <li>•Applications of Non-Linear Magnetics to Electromagnetic Devices and Research of Finit Element Analysis</li> <li>•Application of AC magnetic fields to medical treatments</li> <li>•Applications of Non-Linear Magnetics to Electromagnetic Devices and Research of Finit Element Analysis</li> </ul>	magnetics, eddy currents, numerical calculation, magnetic sensor, nondestructive evaluation, medical measurement	YAMADA SOTOSHI	
			<ul style="list-style-type: none"> <li>•Evaluation of Low-frequency magnetic field and its bio-effect</li> <li>•Applications of planar-type ECT probe</li> <li>•Repulsive type magnetic bearing</li> <li>•Biomedical measurements by micro magnetic sensor</li> </ul>			
			<ul style="list-style-type: none"> <li>•A study on high-speed photodetectors</li> <li>•A study on optical interference and optical fiber sensing systems</li> </ul>	<ul style="list-style-type: none"> <li>•A Study on High Speed Photodetectors</li> <li>•A Study on Optical Sensing Systems</li> <li>•A Study on Lightwave Circuits</li> </ul>	Optical measurements, Optical communications, Optical fiber, Optical waveguide	IYAMA, Koichi
				<ul style="list-style-type: none"> <li>•Visualization of Electromagnetic Waves</li> <li>•Analysis of Plasma Wave Data Observed by Satellites in Space</li> <li>•Design of Plasma Wave Receiver Onboard BepiColombo/MMO</li> </ul>	Electromagnetic wave source estimation and visualization, Low-frequency electromagnetic field sensors, Magnetospheric plasma waves	YAGITANI SATOSHI
				<ul style="list-style-type: none"> <li>•ITS (especially, automatic automobile operation and support for safe driving of automobiles)</li> <li>•Environmental Perception base on Vision System</li> <li>•autonomous driving and platooning</li> </ul>		SUGANUMA NAOKI
				<ul style="list-style-type: none"> <li>•Remote sensing of plasma environment using natural waves</li> </ul>	Electromagnetic wave, Inverse problem	GOTO YOSHITAKA
				<ul style="list-style-type: none"> <li>•Ground-based observation and full-wave analysis of the ionospheric VLF propagation around the Earth</li> <li>•Lightning location/current monitoring system</li> </ul>	Natural Electromagnetic Wave, Antarctica, Lightning	OZAKI MITSUNORI
		<ul style="list-style-type: none"> <li>•Laser Conditioning of Superabrasive Wheels</li> <li>•Studies on High-efficiency and High-precision Machining of Difficult-to-machine Materials by PVD Coated Tools</li> <li>•Turning of difficult-to-machine materials by actively driven rotary tool</li> <li>•High efficient endmilling of CFRP</li> <li>•Effective coolant supply in heavy cylindrical grinding</li> <li>•Studies on High-efficiency and High-precision Machining of Difficult-to-machine Materials by PVD Coated Tools</li> <li>•Studies on Turning of Difficult-to-machine Materials with Actively Driven Rotary Tool (Spinning Tool)</li> <li>•Laser Conditioning of Superabrasive Wheels</li> </ul>	Grinding, Cutting, Temperature measurement, Laser processing, In-process monitoring in machining, Machine tool	HOSOKAWA AKIRA		

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher		
Engineering	Electric and Electronic Engineering	Measurement engineering	<ul style="list-style-type: none"> <li>Remote Sensing Image Analysis</li> </ul>	Photogrammetry, Remote sensing, Image analysis	KUBO MAMORU		
		Control engineering	<ul style="list-style-type: none"> <li>Control of Robotic Manipulators Using the Solutions of Repeated Direct Kinematics</li> <li>Study of power assist system</li> <li>Study of Effect of Disturbance Torque by Non-linear Elements</li> </ul>		HIKIZU MASATOSHI		
			<ul style="list-style-type: none"> <li>Control System Design</li> </ul>	<ul style="list-style-type: none"> <li>Human Support Control</li> <li>Data Driven Estimation and Prediction</li> <li>Hybrid Dynamical Systems and Network</li> </ul>	Control Engineering	YAMAMOTO SHIGERU	
			<ul style="list-style-type: none"> <li>Parameter tuning of controllers</li> <li>Control system design with high cost performance</li> <li>Applications of control engineering</li> </ul>	<ul style="list-style-type: none"> <li>A new development of control for another area</li> </ul>	Systems, Control, Informatics	KANEKO OSAMU	
	Civil Engineering	Civil engineering materials/execution/construction management	<ul style="list-style-type: none"> <li>Inspection of Concrete Structures</li> <li>Rehabilitation for ASR Affected Structures</li> <li>Effective Utilization of fly Ashes as Construction Materials</li> </ul>	<ul style="list-style-type: none"> <li>Durability of Concrete Structures</li> <li>Effective Utilization of Industrial By-products as a Material for Concrete</li> <li>Strength Development of Ultra High-strength Concrete</li> <li>Utilization of Industrial By-products as a Concrete Material</li> </ul>	Concrete Technology ,Civil Engineering Materials, Maintenance Engineering	TORII KAZUYUKI	
			<ul style="list-style-type: none"> <li>Development of new structural system</li> <li>Performance based design and inspection</li> </ul>	<ul style="list-style-type: none"> <li>Study on Impact Problems</li> <li>Study on durability of bridge</li> <li>Evaluation of the risk of rock falls</li> </ul>	Impact, Structural design, Numerical analysis	MASUYA HIROSHI	
				<ul style="list-style-type: none"> <li>Study on maintenance of existing bridges</li> <li>Study on analysis and evaluation of bridge scenery</li> <li>Scenery evaluation of greened structure</li> </ul>	Bridge, Bridge Scenery, Bridge Maintenance	CHIKATA YASUO	
				<ul style="list-style-type: none"> <li>Microstructure and Fracture Process of Cementitious Materials</li> <li>Mechanical Properties of Fiber Reinforced Cementitious Composites</li> <li>Early age properties of high strength concrete</li> </ul>	Materials Science	IGARASHI SHINICHI	
				<ul style="list-style-type: none"> <li>Influence of durability and structural performance damaged by ASR</li> <li>Improvement of durability on concrete structure by impregnant agent</li> </ul>		KUBO YOSHIMORI	
		Structural engineering, earthquake engineering, maintenance management engineering		<ul style="list-style-type: none"> <li>Study on Bridge Vibration</li> </ul>			KAJIKAWA YASUO
			<ul style="list-style-type: none"> <li>Development of Countermeasure for Soil Liquefaction</li> </ul>	<ul style="list-style-type: none"> <li>Study on Behavior of Lifeline Facilities Subjected to Earthquake.</li> <li>Study on Soil Liquefaction and Anti-liquefaction Measurement</li> <li>Study on Earthquake Disaster Mitigation of Health Care Facilities</li> </ul>	earthquake, hazard mitigation, lifeline	MIYAJIMA MASAKATSU	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Civil Engineering	Structural engineering, earthquake engineering, maintenance management engineering	<ul style="list-style-type: none"> <li>•Development of new structural system</li> <li>•Performance based design and inspection</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Impact Problems</li> <li>•Study on durability of bridge</li> <li>•Evaluation of the risk of rock falls</li> </ul>	Impact, Structural design, Numerical analysis	MASUYA HIROSHI
			<ul style="list-style-type: none"> <li>•Study on maintenance of existing bridges</li> <li>•Study on analysis and evaluation of bridge scenery</li> <li>•Scenery evaluation of greened structure</li> </ul>	Bridge, Bridge Scenery, Bridge Maintenance	CHIKATA YASUO	
					Earthquake Engineering, Disaster Prevention Engineering	MURATA AKIRA
			<ul style="list-style-type: none"> <li>•Study on the serviceability of the pedestrian bridge</li> <li>•Study on the environmental vibration around Highway Bridge due to traffic load</li> <li>•Evaluation of the load carrying capacity of rigid frame bridge with H-shaped steel</li> </ul>	Bridge Vibration	FUKADA SAIJI	
			<ul style="list-style-type: none"> <li>•Finite Element Analysis on the fracture mechanics</li> <li>•Finite Element Analysis for the failure of geomaterials</li> </ul>	<ul style="list-style-type: none"> <li>•Conditions for the shear band formations in finite elastic-plastic deformations</li> <li>•Finite Element Analysis for the deformation of geomaterials, such as a landslide</li> <li>•On the study of energy release rate in fracture mechanics</li> </ul>	Continuum Mechanics Shear band Formation Fracture Mechanics	YATOMI CHIKAYOSHI
					steel structures, composite structures, rockfall mitigation	MAEGAWA KOJI
	Civil Engineering	Geotechnical Engineering	<ul style="list-style-type: none"> <li>•Site investigations</li> <li>•Static and dynamic response of foundations</li> </ul>	<ul style="list-style-type: none"> <li>•Application of stress-wave theory to Piles</li> <li>•Limit state design of pile foundations</li> <li>•Load test methods of piles</li> </ul>	Ground Engineering, Foundation Engineering, Pile Foundation	MATSUMOTO TATSUNORI
			<ul style="list-style-type: none"> <li>•Development of Countermeasure for Soil Liquefaction</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Behavior of Lifeline Facilities Subjected to Earthquake.</li> <li>•Study on Soil Liquefaction and Anti-liquefaction Measurement</li> <li>•Study on Earthquake Disaster Mitigation of Health Care Facilities</li> </ul>	earthquake, hazard mitigation, lifeline	MIYAJIMA MASAKATSU
			<ul style="list-style-type: none"> <li>•Development of new structural system</li> <li>•Performance based design and inspection</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Impact Problems</li> <li>•Study on durability of bridge</li> <li>•Evaluation of the risk of rock falls</li> </ul>	Impact, Structural design, Numerical analysis	MASUYA HIROSHI
					Earthquake Engineering, Disaster Prevention Engineering	MURATA AKIRA
				<ul style="list-style-type: none"> <li>•Velocity logging with a penetration test blow as the vibration source</li> <li>•Development of a distinct element method adjusted for interactions with pore fluid</li> </ul>	site investigation DEM soil dynamics	TAKAHARA TOSHIYUKI
			<ul style="list-style-type: none"> <li>•Finite Element Analysis on the fracture mechanics</li> <li>•Finite Element Analysis for the failure of geomaterials</li> </ul>	<ul style="list-style-type: none"> <li>•Conditions for the shear band formations in finite elastic-plastic deformations</li> <li>•Finite Element Analysis for the deformation of geomaterials, such as a landslide</li> <li>•On the study of energy release rate in fracture mechanics</li> </ul>	Continuum Mechanics Shear band Formation Fracture Mechanics	YATOMI CHIKAYOSHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Civil Engineering	Geotechnical Engineering	<ul style="list-style-type: none"> <li>Numerical Plastic Analysis in Geotechnical Engineering</li> </ul>	Geotechnical Engineering, Applied Mechanics	KOBAYASHI SHUNICHI	
		Water control science	<ul style="list-style-type: none"> <li>Satellite Data Assimilation for Prediction of Precipitation</li> <li>Water Cycle under the Climate Change</li> <li>Asian monsoon system</li> </ul>	Meteorology, Water Cycle, River Engineering	TANIGUCHI KENJI	
			<ul style="list-style-type: none"> <li>Development of Oil Boom to use under the stormy weather</li> <li>Study on optimum design of artificial reef</li> </ul>	<ul style="list-style-type: none"> <li>Study on resonance of fluid in wave field</li> <li>Study on wave structure sediment interaction in swash zone</li> </ul>		SAITOH TAKEHISA
			<ul style="list-style-type: none"> <li>Free surface flows of Bingham fluid</li> <li>Numerical analysis of non-linear dispersive waves</li> <li>Multi-phase flow</li> </ul>			YUHI MASATOSHI
			<ul style="list-style-type: none"> <li>Study on flow and scour around structures</li> <li>Study of fluid forces on a cylinder</li> <li>Lotic power application technology</li> </ul>	Coastal structure Fluid force Vortex		UMEDA SHINYA
			<ul style="list-style-type: none"> <li>Abstraction of energy from water current and wave</li> </ul>	<ul style="list-style-type: none"> <li>Generation Mechanics of Wave Force</li> <li>Wave Energy Extraction Mechanics</li> <li>Seabed Response to Ocean Waves by Mixture Theory.</li> </ul>	Hydraulics Coastal Engineering Wave Energy	ISHIDA HAJIME
		Traffic engineering, land planning	<ul style="list-style-type: none"> <li>the antenna setting plan for medical information digital transmission system</li> <li>Approach situation investigation of municipality to refuge project by Law concerning Correspondence for the people's protection in situations that would constitute an attack on Japan</li> </ul>	<ul style="list-style-type: none"> <li>An approximate method of reliability by means of subgraph intensive</li> <li>Dynamic in Time-of-Day Traffic Assignment Method Combined with Capacity Analysis</li> <li>A study on the utilization of Public Involvement method for the Road Planning</li> </ul>	traffic assignment network reliability analysis citizen participation	TAKAYAMA JUNICHI
				<ul style="list-style-type: none"> <li>Drivers' learning and transportation system behavior.</li> <li>Stochastic traffic network equilibrium</li> <li>Traffic system stability</li> </ul>	Transportation Systems Engineering	NAKAYAMA SHOICHIRO
			<ul style="list-style-type: none"> <li>Development of Public Participation System Using Internet for Planning and Designing Activities</li> </ul>	<ul style="list-style-type: none"> <li>Analysis on Land Use Activities in Urban Area and Evaluation of Planning Institutions</li> <li>Study on Structure of Housing Demand and Supply and Development of Planning</li> <li>Development of Geographical Information System and Its Application for Urban Planning</li> </ul>	urban planning, regional planning, land use Planning	KAWAKAMI MITSUHIKO
		Civil engineering environmental system	<ul style="list-style-type: none"> <li>Analysis and optimum process design of composting system</li> </ul>	<ul style="list-style-type: none"> <li>Engineering Analysis and Application of Composting Process</li> <li>Studies on Analysis of Heat and Mass Transfer in Environmental Engineering</li> <li>Analysis of environment in a sloped greenhouse for plant growth</li> </ul>	Environmental Analysis, Soil Environment Engineering, Compost Engineering	SEKI HIRAKAZU



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher		
Engineering	Civil Engineering	Civil engineering environmental system	<ul style="list-style-type: none"> <li>•Development and stabilization of activated sludge system</li> <li>•Development of wastewater treatment system using sulfur oxidation-reduction</li> <li>•Biomass recycle</li> </ul>	anaerobic-oxic biofilm, nutrient removal, sludge treatment, biomass, population dynamics	YAMAMOTO-IKEMOTO RYOKO		
					transboundary air pollution, international environmental cooperation, environmental policy	SUZUKI KATSUNORI	
	Architectonics	Building construction/material	<ul style="list-style-type: none"> <li>•Site investigations</li> <li>•Static and dynamic response of foundations</li> </ul>	<ul style="list-style-type: none"> <li>•Application of stress-wave theory to Piles</li> <li>•Limit state design of pile foundations</li> <li>•Load test methods of piles</li> </ul>	Ground Engineering, Foundation Engineering, Pile Foundation	MATSUMOTO TATSUNORI	
				<ul style="list-style-type: none"> <li>•Study on Residents' Evaluations of Dwelling Environment</li> <li>•Study on Housing education</li> <li>•Housing needs of the elderly, children, and women</li> </ul>	Housing Science, Home economics education, City Planning	YAMAGISHI MASAOKO	
		City planning/architectural planning		<ul style="list-style-type: none"> <li>•Representation Design of Historical Context of Space</li> <li>•Improvement of Living Environment in Historical Districts</li> </ul>			KOBAYASHI FUMIHIKO
				<ul style="list-style-type: none"> <li>•A CASE STUDY ON PLACES OF COEXISTENCE WHERE INFORMAL SUPPORTS BY INHABITANTS ARE SEEN IN A COMMUNITY, FROM THE POINT OF LIVES OF THE ELDERLY COMING TO A DAY CARE CENTER</li> <li>•A STUDY ON RESTRUCTURING OF PUBLIC BUILDINGS</li> </ul>			NISHINO TATSUYA
			<ul style="list-style-type: none"> <li>•Development of Public Participation System Using Internet for Planning and Designing Activities</li> </ul>	<ul style="list-style-type: none"> <li>•Analysis on Land Use Activities in Urban Area and Evaluation of Planning Institutions</li> <li>•Study on Structure of Housing Demand and Supply and Development of Planning</li> <li>•Development of Geographical Information System and Its Application for Urban Planning</li> </ul>	urban planning, regional planning, land use Planning	KAWAKAMI MITSUHIKO	
			Architectural history/design			History of Indian Mediaeval Architecture	YAGUCHI NAOMICHI
	Material Science	Metallic physical properties			Hydrogen permeation, Hydrogen storage, Resistance to hydrogen embrittlement, Microstructural controlling, Phase equilibria	ISHIKAWA, Kazuhiro	
			<ul style="list-style-type: none"> <li>•Development of Cu-Base Alloys for Terminals</li> </ul>	<ul style="list-style-type: none"> <li>•Coarsening of Precipitates in Cu-base and Al-base Alloys</li> <li>•Mechanical Properties and Structures of Cu-base Alloys with High Electrical Conductivities</li> <li>•Continuous Precipitation and Discontinuous Precipitation in Cu-Base Alloys</li> </ul>	microstructural control, high conductivity Cu-base alloys, precipitation	MONZEN RYOICHI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Material Science		<ul style="list-style-type: none"> <li>Relationship between micro-structure and mechanical properties of metallic materials</li> <li>Metallurgy of precipitation and phase transformation</li> <li>Development of Copper-base alloys with high strength and electrical conductivity</li> </ul>	fatigue of metals,dislocation structure,precipitation,coarsening	WATANABE CHIHIRO	
		Metallic physical properties		<ul style="list-style-type: none"> <li>Study on Dislocation Motion</li> </ul>	Lattice Defects	OGAKU TOMIYASU
		Inorganic material/physical properties		<ul style="list-style-type: none"> <li>Low dimensional nano-structures of silicon and carbon materials</li> <li>Crystal growth, and control of doping and surface of diamond</li> </ul>	semiconductor, surface science, diamond, graphene	TOKUDA NORIO
			<ul style="list-style-type: none"> <li>Point Defects in Insulating Materials and Their Applications for Optoelectronics</li> <li>Development of ag-activated phosphate glass and its application for optoelectronics</li> </ul>	<ul style="list-style-type: none"> <li>Femtosecond laser interferometric micro-processing of transparent materials and its application to a visible laser</li> <li>Optical properties of silver-activated phosphate glass and its application for a personal solid-state dosimeter</li> <li>Development of new dyeing method using a DPSS laser for an ink-jet print in textiles</li> </ul>	Application of an fs laser, Fs micro-processing, Photosensitive glass, Glass dosimeter, Area radiative sensor	KUROBORI TOSHIO
			<ul style="list-style-type: none"> <li>Simulation of deformation behavior of polymeric materials</li> <li>Modification of mechanical properties of polyolefins</li> </ul>	<ul style="list-style-type: none"> <li>Morphology and properties of polymeric materials</li> <li>mathematical chemistry</li> <li>Polymer based nano-composites</li> </ul>	polymer physics rheology graph theory molecular dynamics	NITTA KOHEI
		Composite materials/physical properties		<ul style="list-style-type: none"> <li>X-Ray Tri-Axial Stress Analysis</li> <li>Fractal Analysis on Strength Evaluation Materials</li> <li>Fatigue Behavior of Steel Materials</li> </ul>	X-Ray Tri-Axial Stress Analysis Fractal Analysis on Strength Evaluation Materials Fatigue Behavior of Steel Materials	HIROSE YUKIO
			<ul style="list-style-type: none"> <li>Friction and Wear Properties of Various Materials under Hydrogen Atmosphere</li> </ul>	<ul style="list-style-type: none"> <li>Effect of Hydrogen atmosphere on the Friction and Wear of Polymers</li> <li>Study on Pattern Abrasion of Rubber</li> <li>Stress and strain measurements of rubber deformed by frictional force</li> <li>Studies on friction and wear properties of silica-filled SBR</li> </ul>	Tribology, Pattern Wear, Friction deformation, Contact area, Gait, Hydrogen environment, Hydrogel	IWAI TOMOAKI
					Hydrogen permeation, Hydrogen storage, Resistance to hydrogen embrittlement, Microstructural controlling, Phase equilibria	ISHIKAWA, Kazuhiro
		Structural/functional materials	<ul style="list-style-type: none"> <li>Macromolecular materials</li> </ul>	<ul style="list-style-type: none"> <li>Preparation and structural analysis of high molecular weight and functional phenolic resins</li> <li>Development of functional phenolic oligomers</li> <li>Development of high performance and high functionality for polymer materials</li> </ul>	Analysis of functional polymers Computational Analysis of Polymer Materials	YAMAGISHI TADAAKI
				<ul style="list-style-type: none"> <li>Relationship between micro-structure and mechanical properties of metallic materials</li> <li>Metallurgy of precipitation and phase transformation</li> <li>Development of Copper-base alloys with high strength and electrical conductivity</li> </ul>	fatigue of metals,dislocation structure,precipitation,coarsening	WATANABE CHIHIRO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Engineering	Material Science	<ul style="list-style-type: none"> <li>• Study on materials strength with X-rays</li> <li>• Study on strength of materials with neutron Image Plate</li> <li>• Study on strength of materials with X-ray Image Plate</li> </ul>	<ul style="list-style-type: none"> <li>• Study on the method of X-ray stress measurement</li> <li>• Study on the evaluation of strength of materials</li> <li>• Study on neutron stress measurement</li> </ul>	Stress Analysis, Strength of Materials, Neutron Stress Analysis	SASAKI TOSHIHIKO
			<ul style="list-style-type: none"> <li>• Dynamic Constitutive Equation</li> <li>• Measurement of Impact Load</li> </ul>	Impact, Stress_Analysis, Strength	HOJO AKIHIRO
		<ul style="list-style-type: none"> <li>• Supercritical Fluid Dyeing Process</li> <li>• Environmental friendly process development using subcritical hot water</li> </ul>	<ul style="list-style-type: none"> <li>• Thermodynamics of associated solutions</li> <li>• Solvent properties of supercritical fluids</li> <li>• Molecular interactions and solubilities of mixed amino acids in aqueous-organic</li> </ul>	Supercritical carbon dioxide, Chemical Engineering Thermodynamics, Fluid phase equilibria	TAMURA KAZUHIRO
			<ul style="list-style-type: none"> <li>• Structure and Mechanical Properties of Ultra-fine Grain Copper Alloys Produced by Accumulative Roll-Bonding (ARB) Process</li> <li>• Structure and Mechanical Properties of Friction Stir Welded Joints of Pure Copper and Aluminum alloys</li> <li>• Microstructure and Mechanical Properties of Ultra-fine Grain Aluminum Alloys Produced by Equal-Channel Angular Pressing (ECAP) Process</li> </ul>	metallurgy. severe plastic deformation. mechanical property	KITA, Kazuhisa
		Material processing/treatment	<ul style="list-style-type: none"> <li>• Relationship between micro-structure and mechanical properties of metallic materials</li> <li>• Metallurgy of precipitation and phase transformation</li> <li>• Development of Copper-base alloys with high strength and electrical conductivity</li> </ul>	fatigue of metals, dislocation structure, precipitation, coarsening	WATANABE CHIHIRO
		<ul style="list-style-type: none"> <li>• Point Defects in Insulating Materials and Their Applications for Optoelectronics</li> <li>• Development of ag-activated phosphate glass and its application for optoelectronics</li> </ul>	<ul style="list-style-type: none"> <li>• Femtosecond laser interferometric micro-processing of transparent materials and its application to a visible laser</li> <li>• Optical properties of silver-activated phosphate glass and its application for a personal solid-state dosimeter</li> <li>• Development of new dyeing method using a DPSS laser for an ink-jet print in textiles</li> </ul>	Application of an fs laser, Fs micro-processing, Photosensitive glass, Glass dosimeter, Area radiative sensor	KUROBORI TOSHIO
			<ul style="list-style-type: none"> <li>• Laser Conditioning of Superabrasive Wheels</li> <li>• Studies on High-efficiency and High-precision Machining of Difficult-to-machine Materials by PVD Coated Tools</li> <li>• Turning of difficult-to-machine materials by actively driven rotary tool</li> <li>• High efficient endmilling of CFRP</li> <li>• Effective coolant supply in heavy cylindrical grinding</li> <li>• Studies on High-efficiency and High-precision Machining of Difficult-to-machine Materials by PVD Coated Tools</li> <li>• Studies on Turning of Difficult-to-machine Materials with Actively Driven Rotary Tool (Spinning Tool)</li> <li>• Laser Conditioning of Superabrasive Wheels</li> </ul>	Grinding, Cutting, Temperature measurement, Laser processing, In-process monitoring in machining, Machine tool	HOSOKAWA AKIRA

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Process Engineering	Chemical engineering materials properties/transfer operation/unit operation	<ul style="list-style-type: none"> <li>• Supercritical Fluid Dyeing Process</li> <li>• Environmental friendly process development using subcritical hot water</li> </ul>	<ul style="list-style-type: none"> <li>• Thermodynamics of associated solutions</li> <li>• Solvent properties of supercritical fluids</li> <li>• Molecular interactions and solubilities of mixed amino acids in aqueous-organic</li> </ul>	Supercritical carbon dioxide, Chemical Engineering Thermodynamics, Fluid phase equilibria	TAMURA KAZUHIRO
			<ul style="list-style-type: none"> <li>• Air Cleaning</li> <li>• Development of air filters</li> </ul>	<ul style="list-style-type: none"> <li>• Contamination Control</li> <li>• Removal and Separation of Aerosol Particles</li> <li>• Lung Deposition of Aerosol Particles</li> </ul>	Aerosol Technology, Nanoparticles, Air filter	OTANI YOSHIO
				<ul style="list-style-type: none"> <li>• Thermodynamics of non electrolyte solutions.</li> <li>• Polymer reaction process</li> <li>• Computer Simulation from Acetylation to Polycondensation for Liquid Crystalline Polymer Production</li> </ul>	Chem. Eng. Thermodynamics Phase Equilibria Simulation PBT	TADA KAORU
			<ul style="list-style-type: none"> <li>• Chemical Heat Pump System</li> </ul>	<ul style="list-style-type: none"> <li>• Development of Adsorption Refrigerators</li> <li>• Gas Formation from Woody Biomass by Pyrolysis</li> <li>• Treatment of Water with Humic Substances by Ultrasonic Irradiation</li> </ul>	Refrigeration Heat Pump Energy Transport	KUMITA MIKIO
				<ul style="list-style-type: none"> <li>• Experiment and prediction for solubilities of solute in supercritical carbon dioxide</li> <li>• Measurement and correlation of phase equilibria at high pressure</li> <li>• Prediction of fluid properties by molecular simulation</li> </ul>	Supercritical carbon dioxide, Phase equilibria, Molecular dynamics	HIGASHI HIDENORI
			<ul style="list-style-type: none"> <li>• High Efficient Dehumidification Technology</li> <li>• Desiccant Cooling Process driven with a waste heat</li> <li>• Air purification and separation by adsorption process</li> </ul>	<ul style="list-style-type: none"> <li>• Development of an adsorptive desiccant cooling driven with low-temperature heat</li> <li>• Air separation and purification process using a cyclic adsorption process</li> <li>• Recovery and enrichment of Carbon dioxide by using adsorption process</li> </ul>	Desiccant Dehumidification, Adsorption, Air separation	KODAMA AKIO
		Reaction engineering/process system	<ul style="list-style-type: none"> <li>• Air Cleaning</li> <li>• Development of air filters</li> </ul>	<ul style="list-style-type: none"> <li>• Contamination Control</li> <li>• Removal and Separation of Aerosol Particles</li> <li>• Lung Deposition of Aerosol Particles</li> </ul>	Aerosol Technology, Nanoparticles, Air filter	OTANI YOSHIO
				<ul style="list-style-type: none"> <li>• Thermodynamics of non electrolyte solutions.</li> <li>• Polymer reaction process</li> <li>• Computer Simulation from Acetylation to Polycondensation for Liquid Crystalline Polymer Production</li> </ul>	Chem. Eng. Thermodynamics Phase Equilibria Simulation PBT	TADA KAORU

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Reaction engineering/process system	<ul style="list-style-type: none"> <li>•Chemical Reaction Engineering with plasma processing</li> <li>•Utilization of lignin as a chemical resource</li> <li>•Molecular Transformation of Biomass in Ionic Liquids</li> </ul>	<ul style="list-style-type: none"> <li>•Utilization of Lignocellulosic material and biomass with ionic liquids</li> <li>•Plasma Chemical Reaction Engineering</li> <li>•Reaction control by using ionic liquids, supercritical fluid and plasma</li> <li>•Microwave chemistry</li> </ul>	biomass, cellulose, lignin, plasma, supercritical fluid, biomas, LASER, photochemistry, spectroscopy, chemical reaction engineering, Ionic Liquid, time-resolved spectroscopy, supercritical CO <sub>2</sub> , supercritical water, biorefinery,	TAKAHASHI KENJI	
					HIEJIMA YUSUKE	
	Catalyst/resource chemical process	<ul style="list-style-type: none"> <li>•Chemical Heat Pump System</li> </ul>	<ul style="list-style-type: none"> <li>•Development of Adsorption Refrigerators</li> <li>•Gas Formation from Woody Biomass by Pyrolysis</li> <li>•Treatment of Water with Humic Substances by Ultrasonic Irradiation</li> </ul>	Refrigeration Heat Pump Energy Transport	KUMITA MIKIO	
	Bio-function/bioprocesses	<ul style="list-style-type: none"> <li>•Research on Mechanical Properties of Polymer Composites</li> </ul>	<ul style="list-style-type: none"> <li>•Mechanical Properties of Polymers and Polymer Composites</li> <li>•Thin Film/Surface Science and Technology</li> <li>•Ultra-Precision Polishing</li> </ul>	Engineering Materials	YAMADA YOSHINORI	
			<ul style="list-style-type: none"> <li>•Study on KOSA (Yellow dust) bioaerosol</li> <li>•Development of wastewater reduction system using biological method</li> <li>•Production of useful materials from plant biomass</li> </ul>		KOBAYASHI FUMIHISA	
				Bio-Production. BioChemical Engineering	NINOMIYA KAZUAKI	
			<ul style="list-style-type: none"> <li>•Study on the odor discrimination process of mice.</li> <li>•Development of biotechnological resource recovery method from biomass and waste.</li> </ul>	Bioprocess, Bioinformatics	TAKIGUCHI NOBORU	
	Integrated Engineering	Ship marine engineering	<ul style="list-style-type: none"> <li>•Abstraction of energy from water current and wave</li> </ul>	<ul style="list-style-type: none"> <li>•Generation Mechanics of Wave Force</li> <li>•Wave Energy Extraction Mechanics</li> <li>•Seabed Response to Ocean Waves by Mixture Theory.</li> </ul>	Hydraulics Coastal Engineering Wave Energy	ISHIDA HAJIME
		Earth resources system engineering	<ul style="list-style-type: none"> <li>•Development of Environmental Protection Technology</li> </ul>	<ul style="list-style-type: none"> <li>•Development of System for Fixation and Capture of CO<sub>2</sub> with Zeolite Mist Formation</li> <li>•Study on High-Performance Heat Transfer Surface for Boiling and Condensation Process</li> <li>•Gas Clean Technology by UV Photoelectro Method with Mist Formation</li> </ul>	Heat Transfer Enhancement, Mist Formation, Environmental Heat Transfer, Air Conditioning	TAKIMOTO, Akira

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Engineering	Integrated Engineering	Nuclear fusion studies	<ul style="list-style-type: none"> <li>•Production and Control of High Temperature Fusion Plasmas and Plasma Application</li> <li>•Application of Power Electronics Technique to High Power Plasma Production</li> <li>•Innovative Applications of High Enthalpy Plasmas</li> </ul>	Fusion Plasmas Plasma Application RF Thermal Plasmas	UESUGI YOSHIHIKO	
		Atomic power studies	<ul style="list-style-type: none"> <li>•Angular momentum dependence of heavy-ion induced reaction</li> <li>•Study on the mechanisms of heavy-ion nuclear reactions</li> <li>•Chemical properties of heavy elements</li> <li>•Measurement of high-energetic heavy ions with CR-39 detectors by using AFM</li> </ul>	nuclear chemistry	YOKOYAMA AKIHIKO	
		Energy studies	•Development of Environmental Protection Technology	<ul style="list-style-type: none"> <li>•Development of System for Fixation and Capture of CO<sub>2</sub> with Zeolite Mist Formation</li> <li>•Study on High-Performance Heat Transfer Surface for Boiling and Condensation Process</li> <li>•Gas Clean Technology by UV Photoelectro Method with Mist Formation</li> </ul>	Heat Transfer Enhancement, Mist Formation, Environmental Heat Transfer, Air Conditioning	TAKIMOTO, Akira
				<ul style="list-style-type: none"> <li>•Study on organic thin film solar cell</li> <li>•Development of air-stable organic EL devices</li> <li>•Efficiently electrochemical water-decomposition using electrode catalysis</li> </ul>	Electrochemistry, Organic Solar Cell, Inorganic Functional Materials	TAKAHASHI KOSHIN
			•Chemical Heat Pump System	<ul style="list-style-type: none"> <li>•Development of Adsorption Refrigerators</li> <li>•Gas Formation from Woody Biomass by Pyrolysis</li> <li>•Treatment of Water with Humic Substances by Ultrasonic Irradiation</li> </ul>	Refrigeration Heat Pump Energy Transport	KUMITA MIKIO
			•Abstraction of energy from water current and wave	<ul style="list-style-type: none"> <li>•Generation Mechanics of Wave Force</li> <li>•Wave Energy Extraction Mechanics</li> <li>•Seabed Response to Ocean Waves by Mixture Theory.</li> </ul>	Hydraulics Coastal Engineering Wave Energy	ISHIDA HAJIME

# Biological Sciences

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Biology	Basic Biology	Heredity/genome dynamics	<ul style="list-style-type: none"> <li>•Molecular analysis of cellular responses to DNA damage</li> <li>•Functional analysis of DDB complex in cellular responses to DNA damage</li> <li>•Establishment and application of detection systems for UV-induced DNA damage</li> </ul>	DNA repair Hereditary disorder Cancer Signal transduction Cellular response Ultraviolet light	MATSUNAGA TSUKASA	
			<ul style="list-style-type: none"> <li>•Evolution of dicyemid mesozoans and their strategy to parasitism</li> <li>•Molecular evolutionary strategies in protists</li> <li>•Life cycle of the dinoflagellates and their phylogenetic position</li> <li>•Nuclear apoptosis in Tetrahymena thermophila</li> <li>•Cellulolysis by the protozoan Tetrahymena</li> </ul>	Evolutionary protistology, Parasitism, Differentiation of mitochondria	HIGASHI HIROSHI	
			<ul style="list-style-type: none"> <li>•Cancer Research</li> <li>•Liver metabolism and systemic illness</li> <li>•Hepatitis Virus</li> </ul>	Experimental Pathology, Virology, Cancer, Liver	KANEKO SHUICHI	
			<ul style="list-style-type: none"> <li>•Global gene expression analysis using microarray</li> <li>•Proteome analysis</li> </ul>	<ul style="list-style-type: none"> <li>•Analysis of Regulatory Mechanism of Wound-Responsive Gene in Higher Plants</li> <li>•Study on mechanism of action of trichothecene phytotoxin in higher plants</li> <li>•Functional analysis of transcription factors in plant stress response.</li> </ul>	Plant stress response, transcription factor, plant defense response	NISHIUCHI TAKUMI
			<ul style="list-style-type: none"> <li>•Development of hormone-drug release system via supramolecular dissociation</li> </ul>	<ul style="list-style-type: none"> <li>•DNA analysis in the study for carcinogenesis of Endometrial cancer and gene therapy</li> <li>•Human papilloma analysis in the carcinogenesis of uterine cervical cancer</li> <li>•Gene therapy for ovarian Cancer</li> </ul>	Molecular pathology in gynecologic field Anti-Cancer chemotherapy in Gynecologic field Cell aging and carcinogenesis	INOUE MASAKI
			<ul style="list-style-type: none"> <li>•Characterization of autism-associated genes on human X chromosome</li> </ul>			HORIKE SHINICHI
		Ecology/environment	<ul style="list-style-type: none"> <li>•Regulatory System of Cell Cycle in Eukaryote</li> </ul>	Regulation of Cell Cycle, Yeast Genetics, Molecular Biology	HAYASHI NAOYUKI	
			<ul style="list-style-type: none"> <li>•Researches on mosquito biology</li> <li>•Epidemiological study on vector born diseases.</li> </ul>	Mosquito biology, Insect taxonomy, Vector control	OKAZAWA TAKAO	
			<ul style="list-style-type: none"> <li>•Effects of heavy metal and endocrine-disrupting chemical on bone metabolism</li> </ul>	<ul style="list-style-type: none"> <li>•Study on structure and physiological role of calcitonin in marine invertebrates and vertebrates (particularly fish)</li> <li>•Effect of physical stimuli and bioactive substances on the bone metabolism: analysis by the culture system of fish scales</li> <li>•Effect of heavy metal and endocrine-disrupting chemical on bone metabolism</li> </ul>	Calcium metabolism, Bone metabolism, Gravity, Micro-gravity	SUZUKI NOBUO
			<ul style="list-style-type: none"> <li>•Ecology of freshwater zooplankters</li> </ul>			KAWABATA KEIICHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Biology	Ecology/environment	<ul style="list-style-type: none"> <li>•Pest control of Agro-forestry pests</li> <li>•Ecology of tropical insects</li> <li>•Conservation of Satoyama</li> </ul>	<ul style="list-style-type: none"> <li>•Insect Population Dynamics in the Tropics</li> <li>•Population Dynamics of Phytophagous Insects</li> <li>•Conservation Satoyama Ecosystems</li> </ul>	Ecology Environmental Preservation Plant Protection	NAKAMURA KOJI	
		<ul style="list-style-type: none"> <li>•Biology in insects and birds</li> </ul>	<ul style="list-style-type: none"> <li>•Social parasitic behaviour in Vollenhoivia nipponica</li> <li>•Clonal reproduction and caste determination in ant, Vollenhoivia emeryi.</li> <li>•Mutualistic interactions between ants and plants with fruits and seeds</li> <li>•Ecological study for the conservation of waterfowl in Katano Kamoike</li> </ul>	Behaviour, Evolution, Sociality, interaction, ant, bird	OKAWARA Kyosuke	
			<ul style="list-style-type: none"> <li>•Underground Organ of Herbaceous Angiosperms</li> <li>•Seedlings of woodyplants in Japan</li> </ul>		UMEBAYASHI, Masayoshi	
			<ul style="list-style-type: none"> <li>•Ecolution of Sex Chage</li> </ul>	Ecology	KINOSHITA EIICHIRO	
			<ul style="list-style-type: none"> <li>•Host Preference of mosquito vectors</li> <li>•Chemical analysis of larval diet of African malaria vectors, Anopheles gambiae complex</li> <li>•Sigificance of Mushroom Posion</li> </ul>	Vector Ecology. Tropics. malaria. Japanese encephalitis. dengue fever. biological control	TUNO NOBUKO	
	Plant physiology/molecule		<ul style="list-style-type: none"> <li>•Study on Structure and Expression of Plant Genes</li> <li>•Studies on Biological Education</li> </ul>		Botany,Biological Education	YAKURA KIMITAKA
		<ul style="list-style-type: none"> <li>•Production of UV absorbing pigments</li> </ul>	<ul style="list-style-type: none"> <li>•Molecular mechanism of anhydrobiosis in the terrestrial cyanobacterium</li> </ul>		Stress Physiology, Photosynthesis	SAKAMOTO TOSHIO
		<ul style="list-style-type: none"> <li>•Global gene expression analysis using microarray</li> <li>•Proteome analysis</li> </ul>	<ul style="list-style-type: none"> <li>•Analysis of Regulatory Mechanism of Wound-Responsive Gene in Higher Plants</li> <li>•Study on mechanism of action of trichothecene phytotoxin in higher plants</li> <li>•Functional analysis of transcription factors in plant stress response.</li> </ul>		Plant stress response, transcription factor, plant defense response	NISHIUCHI TAKUMI
	Form/structure	<ul style="list-style-type: none"> <li>•A microscopic study of animal tissues</li> </ul>	<ul style="list-style-type: none"> <li>•Roles of calcitonin in lower vertebrates</li> <li>•A biological study of beard worms in the Tsukumo bay</li> </ul>		evolution hormone physiological function species evolution diversity	SASAYAMA YUICHI
		<ul style="list-style-type: none"> <li>•Effects of heavy metal and endocrine-disrupting chemical on bone metabolism</li> </ul>	<ul style="list-style-type: none"> <li>•Study on structure and physiological role of calcitonin in marine invertebrates and vertebrates (particularly fish)</li> <li>•Effect of physical stimuli and bioactive substances on the bone metabolism: analysis by the culture system of fish scales</li> <li>•Effect of heavy metal and endocrine-disrupting chemical on bone metabolism</li> </ul>		Calcium metabolism, Bone metabolism, Gravity, Micro-gravity	SUZUKI NOBUO
		<ul style="list-style-type: none"> <li>•Study of Cultivation of Kaga-Ohren for its reactivation</li> <li>•Study of Cultivation of Japanese Poria</li> </ul>	<ul style="list-style-type: none"> <li>•Studies on the Chinese Crude Drug "Ma-huang"</li> <li>•Evaluation of the Quority of Crude Drugs</li> <li>•Anatomical Studies on the Crude Drugs</li> </ul>		Ma-huang, Kampo Medicine, Plant histology	MIKAGE, Masayuki



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Biology	Form/structure		<ul style="list-style-type: none"> <li>•Underground Organ of Herbaceous Angiosperms</li> <li>•Seedlings of woodyplants in Japan</li> </ul>		UMEBAYASHI, Masayoshi
			<ul style="list-style-type: none"> <li>•Endocrine Control of Insect Growth and Development</li> <li>•Molecular cloning and structure analysis of bombyxin, an insect insulin-related peptide, gene</li> <li>•Molecular Studies on Insect Molting and Metamorphosis</li> </ul>	gene, brain, biotechnology, hormone, silkworm moth	IWAMI MASAFUMI
	Animal physiology/behavior		<ul style="list-style-type: none"> <li>•Neural and molecular mechanisms of pheromone information processing in the silkworm</li> <li>•Molecular mechanisms of juvenile hormone synthesis</li> <li>•Neural basis for the dance communication of the honeybees</li> </ul>	Silkworm insect pheromone	KIYA TAKETOSHI
		•Effects of heavy metal and endocrine-disrupting chemical on bone metabolism	<ul style="list-style-type: none"> <li>•Study on structure and physiological role of calcitonin in marine invertebrates and vertebrates (particularly fish)</li> <li>•Effect of physical stimuli and bioactive substances on the bone metabolism: analysis by the culture system of fish scales</li> <li>•Effect of heavy metal and endocrine-disrupting chemical on bone metabolism</li> </ul>	Calcium metabolism, Bone metabolism, Gravity, Micro-gravity	SUZUKI NOBUO
			<ul style="list-style-type: none"> <li>•Non-invasive measurement of physical informations</li> <li>•Study of bone metabolism using goldfish scale as a model for bone</li> </ul>	Non-invasive measurement of physical information, Prevention of osteoporosis, A scale culture system	KITAMURA, Kei-ichiro
	Living organisms diversity/classification		<ul style="list-style-type: none"> <li>•Origin of Angiosperms inferred from the evolutionary processes of outer integument and endosperm</li> <li>•Evolutionary process of angiosperms' synapomorphies in ovule and its implications for angiosperm origin</li> </ul>	Morphology, Evolution, EvoDevo	YAMADA TOSHIHIRO
			<ul style="list-style-type: none"> <li>•Evolution of morphogenesis in land plants</li> <li>•Evolution of reproductive organs in gametophyte generation in land plants</li> <li>•Study of gene expression patterns in amphidiploid species</li> </ul>	evolution, morphogenesis, Physcomitrella patens	KOFUJI RUMIKO
			<ul style="list-style-type: none"> <li>•Underground Organ of Herbaceous Angiosperms</li> <li>•Seedlings of woodyplants in Japan</li> </ul>		UMEBAYASHI, Masayoshi
			•Ecolution of Sex Chage	Ecology	KINOSHITA EIICHIRO

Basic Biology

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Biology	Biological Science	Structural biochemistry	<ul style="list-style-type: none"> <li>•Structure and Function of nano-size magnetosome</li> <li>•Structure and Function of Giant Hemoglobin</li> <li>•Symbiosis of Pogonophore with bacteria</li> </ul>		FUKUMORI YOSHIHIRO	
		Functional biochemistry		<ul style="list-style-type: none"> <li>•Mechanism and consequences of phagocytic removal of altered own cells</li> <li>•Mechanism of prevention of infectious diseases by innate immunity</li> </ul>	apoptosis, phagocytosis, self defense, innate immunity, infectious disease	NAKANISHI YOSHINOBU
				<ul style="list-style-type: none"> <li>•Undifferentiated property maintenance mechanism of embryo-stem cells (ES cells, self-replication, STAT3)</li> </ul>		YOKOTA TAKASHI
			<ul style="list-style-type: none"> <li>•Drug development targeting carbohydrates</li> <li>•Development of animal models for human diseases by transgenic technology</li> </ul>	<ul style="list-style-type: none"> <li>•Functional analysis of carbohydrates using glycosyltransferase knockout mice</li> <li>•Epigenetic regulation of mammalian development</li> <li>•Development of animal model for human disease using embryo manipulating technology</li> </ul>	Manipulating the Mouse Embryo, Glycobiology, Epigenetics	ASANO MASAhide
			<ul style="list-style-type: none"> <li>•Production of UV absorbing pigments</li> </ul>	<ul style="list-style-type: none"> <li>•Molecular mechanism of anhydrobiosis in the terrestrial cyanobacterium</li> </ul>	Stress Physiology, Photosynthesis	SAKAMOTO TOSHIO
				<ul style="list-style-type: none"> <li>•Reaction mechanism of ferredoxin-NADPH oxidoreductase from gram positive bacteria</li> <li>•Iron sulfur type photosynthetic reaction center from photosynthetic bacteria</li> <li>•Investigation of Fd-dependent oxidoreductases in bacteria</li> </ul>	phototrophic bacteria, electron transfer, kinetics	SEO DAISUKE
				<ul style="list-style-type: none"> <li>•Molecular mechanisms for magnetic organelle 'magnetosome' of magnetotactic bacteria</li> </ul>	Prokaryotic organelle, Bacterial cytoskeleton, Magnetotactic Bacteria, Magnetosome	TAOKA AZUMA
			<ul style="list-style-type: none"> <li>•pathogenesis and prevention/treatment of diabetic angiopathy</li> </ul>	<ul style="list-style-type: none"> <li>•Molecular Basis of the Alzheimer's disease</li> <li>•Signal transduction through protein phosphatases</li> <li>•Molecular mechanism of diabetic angiopathy</li> </ul>	Diabetic Angiopathy, Advanced Glycation Endproducts, Receptor for advanced glycation endproducts, RAGE, Angiogenesis, Alzheimer's disease,	WATANABE TAKUO
				<ul style="list-style-type: none"> <li>•molecular mechanism of self-renewal in embryonic stem cells</li> <li>•oncogene</li> </ul>		KOIDE HIROSHI
				<ul style="list-style-type: none"> <li>•Study on the mechanism for exclusion of apoptotic cells by phagocytes</li> <li>•Study on the mammalian spermatogenic pathway</li> <li>•phagocytic clearance of microbes in innate immunity</li> </ul>	phagocytosis, apoptosis, innate immunity, infection immunity, bacteria, virus, spermatogenesis	HIRAYAMA, Akiko
	<ul style="list-style-type: none"> <li>•Bodily response to foreign substances</li> <li>•Immune response in seminiferous epithelium</li> </ul>	host defence, phagocytosis, apoptosis	NAGAOSA Kazushige			

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Biology	Biological Science	Functional biochemistry	<ul style="list-style-type: none"> <li>•Development of effective diagnosis and therapy for metastatic cancer</li> <li>•Mechanisms of antitumor nucleosides</li> </ul>	<ul style="list-style-type: none"> <li>•Development of effective diagnosis and therapy for metastatic cancer</li> <li>•Development of angiogenesis inhibitors as an anticancer drug</li> <li>•Mechanisms of antitumor action and resistance to antitumor nucleosides</li> </ul>	Cancer chemotherapy nucleoside metabolism Cancer Chemotherapy metastasis angiogenesis	ENDO YOSHIO
			<ul style="list-style-type: none"> <li>•Development of Heavy Metal Adsorbent</li> </ul>	<ul style="list-style-type: none"> <li>•Structure and Function of nano-size magnetosome</li> <li>•Structure and Function of Giant Hemoglobin</li> <li>•Symbiosis of Pogonophore with bacteria</li> </ul>		FUKUMORI YOSHIHIRO
			<ul style="list-style-type: none"> <li>•Modification of the function of bilirubin oxidase</li> <li>•Biotechnology of lacquer latex</li> <li>•Biofuel cell</li> </ul>	<ul style="list-style-type: none"> <li>•Transformation of NOx by Enzymes</li> <li>•Function of Multicopper Oxidases and Their Alterations by Mutation and Application to Biofuel Cell</li> <li>•Enzyme Chemistry of Lacquer Latex</li> </ul>	metalloprotein, bioinorganic chemistry, Protein engineering	SAKURAI TAKESHI
			<ul style="list-style-type: none"> <li>•Elucidation and application of the microbial denitrification mechanism.</li> </ul>	<ul style="list-style-type: none"> <li>•Protein engineering of metalloproteins</li> <li>•Studies on structures and functions of multi-metal containing proteins</li> <li>•Studies on structures and functions of amino acid dehydrogenases</li> </ul>	Biochemistry, Molecular Biology, Protein engineering, Metalloproteins	KATAOKA Kunishige
			<ul style="list-style-type: none"> <li>•Screening of checkpoint abrogators</li> </ul>	<ul style="list-style-type: none"> <li>•Study on the Regulation of Activity of Cyclin-Dependent Kinases</li> <li>•Studies on the Regulation of M Phase in Human Cells</li> <li>•Studies on the Mechanism of DNA Damage Checkpoint in Human Cells</li> </ul>	Cell Cycle Control	YAMASHITA KATSUMI
				<ul style="list-style-type: none"> <li>•Angiogenesis</li> <li>•Diabetic angiopathy</li> <li>•Functional genomics</li> </ul>	vascular biology, diabetes	YAMAMOTO HIROSHI
		Biophysics	<ul style="list-style-type: none"> <li>•Development of high-speed scanning probe microscopies</li> </ul>	<ul style="list-style-type: none"> <li>•Development and Biological Application of High-speed Atomic Force Microscopy</li> <li>•Study on Motor Proteins</li> <li>•Awards</li> </ul>	motor proteins, single-molecule analysis, Atomic Force Microscope	ANDO TOSHIO
				<ul style="list-style-type: none"> <li>•Reaction mechanism of ferredoxin-NADPH oxidoreductase from gram positive bacteria</li> <li>•Iron sulfur type photosynthetic reaction center from photosynthetic bacteria</li> <li>•Investigation of Fd-dependent oxidoreductases in bacteria</li> </ul>	phototrophic bacteria, electron transfer, kinetics	SEO DAISUKE
				<ul style="list-style-type: none"> <li>•Development of high-speed atomic force microscope for biological system</li> </ul>		UCHIHASHI TAKAYUKI
				<ul style="list-style-type: none"> <li>•Study of biological phenomenon and diversity of organisms by genome sequence comparison</li> </ul>	Biophysics Structure of proteins	NAKASHIMA HIROSHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Biology	Biological Science	Biophysics	<ul style="list-style-type: none"> <li>• Isolation of proteins which are responsible for brain function</li> <li>• Studies on molecular mechanisms of brain dysfunction</li> <li>• Alteration in signal transduction by aging and subsequent carcinogenesis</li> </ul>	Hygiene Neuro chemistry Molecular Biology	SAIJO Kiyofumi	
		Molecular biology		<ul style="list-style-type: none"> <li>• Undifferentiated property maintenance mechanism of embryo-stem cells (ES cells, self-replication, STAT3)</li> </ul>		YOKOTA TAKASHI
			<ul style="list-style-type: none"> <li>• Identification of novel molecular targets that interact with cancer genes</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of novel cancer genes using retroviral insertional mutagenesis</li> </ul>	Tumor virus, Oncogene, Genome informatics	SUZUKI, Takeshi
				<ul style="list-style-type: none"> <li>• Substrate recognition mechanism of molecular chaperones and ATP-dependent protease</li> </ul>	stress response, molecular chaperone, ATP-dependent protease	KANEMORI MASAOKI
				<ul style="list-style-type: none"> <li>• Health effect of KOSA bio-aerosol</li> <li>• Relationship analysis of SNPs and cancer</li> <li>• Functional analysis of TGF-<math>\beta</math> binding protein</li> </ul>	Cancer Molecular Biology Sing SNP	HIGASHI TOMOMI
				<ul style="list-style-type: none"> <li>• molecular mechanism of self-renewal in embryonic stem cells</li> <li>• oncogene</li> </ul>		KOIDE HIROSHI
			<ul style="list-style-type: none"> <li>• bone regeneration</li> <li>• protection against neurodegeneration</li> </ul>	<ul style="list-style-type: none"> <li>• Amino Acid Signaling</li> <li>• Gene expression</li> </ul>	Amino acid signaling	YONEDA YUKIO
				<ul style="list-style-type: none"> <li>• Molecular mechanism of nucleotide excision repair</li> </ul>	DNA repair Damage response	WAKASUGI MITSUO
				<ul style="list-style-type: none"> <li>• Glutamate signaling in bone</li> <li>• Exhaustive search and functional analysis of bone-derived secreted molecules.</li> <li>• Research for elucidation of regulatory mechanisms of osteoblasts function by Clock genes.</li> </ul>		HINOI EIICHI
				<ul style="list-style-type: none"> <li>• Development of a body map of human genome methylation</li> <li>• computational identification of useful knowledge from gene expression data</li> </ul>		YAMADA YOICHI
				<ul style="list-style-type: none"> <li>• Methylation abnormality of cancer-related genes in pancreatic fluid</li> </ul>	Clinical OncologyGastroenterology	OTSUBO KOSHIRO
				<ul style="list-style-type: none"> <li>• Cellular Signal transduction pathways involved in stress response</li> </ul>	Radiation Biol. and Toxicology Cell Biology Molecular Biology	YAMAMOTO KENICHI
				<ul style="list-style-type: none"> <li>• Molecular Biology of hepatitis B viruses</li> </ul>	Molecular Biology Virology	KUROKI KAZUYUKI
	<ul style="list-style-type: none"> <li>• Roles of ADAMTS family genes in organogenesis and organ function</li> <li>• Extracellular matrix metabolism and disorders</li> <li>• Extracellular matrix metabolism and cancer invasion-metastasis</li> </ul>		KUNO KOJI			

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Biology	Biological Science	Molecular biology	•Structure and function of U13 snoRNA.	small nucleolar RNA, snoRNA, ribosomal RNA	KIDO YUKIHARU	
			•Study on physiological role of Fas ligand •Study on Physiological Connection between Apoptosis and Inflammation		IMAMURA RYU	
			•Multiple roles for innate immunity	apoptosis, inflammation, innate-immunity	KINOSHITA TAKESHI	
			•study on DNA damage repair		KOBAYASHI Masahiko	
			•Global gene expression analysis using microarray •Proteome analysis	•Analysis of Regulatory Mechanism of Wound-Responsive Gene in Higher Plants •Study on mechanism of action of trichothecene phytotoxin in higher plants •Functional analysis of transcription factors in plant stress response.	Plant stress response, transcription factor, plant defense response	NISHIUCHI TAKUMI
				•Study of neural development in Drosophila	neural development transcription factor Drosophila melanogaster	KOIZUMI KEITA
			•development of new techniques for molecular biology	•Transcriptional regulation by yeast transcription factor GAL11 •studies on mechanisms of stress response		SAKURAI HIROSHI
				•Endocrine Control of Insect Growth and Development •Molecular cloning and structure analysis of bombyxin, an insect insulin-related peptide, gene •Molecular Studies on Insect Molting and Metamorphosis	gene, brain, biotechnology, hormone, silkworm moth	IWAMI MASAFUMI
				•Tissue regeneration regulation and regeneration discontinuation mechanism via the HGF-Met system		NAKAMURA TAKAHIRO
			•Elucidation and application of the microbial denitrification mechanism.	•Protein engineering of metalloproteins •Studies on structures and functions of multi-metal containing proteins •Studies on structures and functions of amino acid dehydrogenases	Biochemistry, Molecular Biology, Protein engineering, Metalloproteins	KATAOKA Kunishige
			•Analysis of genes and proteins which were responded to environmental change	•Isolation of proteins which are responsible for brain function •Studies on molecular mechanisms of brain dysfunction •Alteration in signal transduction by aging and subsequent carcinogenesis	Hygiene Neuro chemistry Molecular Biology	SAIJO Kiyofumi
			•Molecular Mechanisms regulating Therapeutic-resistant CML stem cells	•Therapeutic Resistance in Cancer Stem Cells •Maintenance of Self-renewal Ability in Hematopoietic Stem Cells	Cancer stem cells, Cancer-microenvironment, Hematopoietic stem cells	NAKA KAZUHITO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Biology	Molecular biology	• Screening of checkpoint abrogators	• Study on the Regulation of Activity of Cyclin-Dependent Kinases • Studies on the Regulation of M Phase in Human Cells • Studies on the Mechanism of DNA Damage Checkpoint in Human Cells	Cell Cycle Control	YAMASHITA KATSUMI	
		• Regulation of cell proliferation and apoptosis by MAPK cascades	• Study on MAP kinase cascade • Study on scaffold proteins for mammalian MAP kinase cascades • Study on neurogenesis	cell signaling, cell differentiation, neural development	YOSHIOKA KATSUJI	
			• Regulatory System of Cell Cycle in Eukaryote	Regulation of Cell Cycle, Yeast Genetics, Molecular Biology	HAYASHI NAOYUKI	
	Cell biology	• Localization of biological active proteins in living cells and tissues	• Histochemical study on signaling in development, growth and differentiation	histochemistry, cell, tissue, differentiation	ISEKI SHOICHI	
		• Identification of novel molecular targets that interact with cancer genes	• Identification of novel cancer genes using retroviral insertional mutagenesis	Tumor virus, Oncogene, Genome informatics	SUZUKI, Takeshi	
			• Study on Structure and Expression of Plant Genes • Studies on Biological Education	Botany, Biological Education	YAKURA KIMITAKA	
		• Etiology or treatment strategy on temporomandibular disorders	• Study on the Temporomandibular Joint Disease, basically and clinically • Oral surgery	Oral Surgery	TAKATSUKA SHIGEYUKI	
			• Health effect of KOSA bio-aerosol • Relationship analysis of SNPs and cancer • Functional analysis of TGF- $\beta$ binding protein	Cancer Molecular Biology Sing SNP	HIGASHI TOMOMI	
			• Study of Growth Factors in the Testis and Epididymis • Study of Adhesion Molecule in the Spermatogenesis	Anatomy	WAKAYAMA TOMOHIKO	
			• Glutamate signaling in bone • Exhaustive search and functional analysis of bone-derived secreted molecules. • Research for elucidation of regulatory mechanisms of osteoblasts function by Clock genes.		HINOI EIICHI	
			• Cellular Signal transduction pathways involved in stress response	Radiation Biol. and Toxicology Cell Biology Molecular Biology	YAMAMOTO KENICHI	
		• Development of effective diagnosis and therapy for metastatic cancer • Mechanisms of antitumor nucleosides	• Development of effective diagnosis and therapy for metastatic cancer • Development of angiogenesis inhibitors as an anticancer drug • Mechanisms of antitumor action and resistance to antitumor nucleosides	Cancer chemotherapy nucleoside metabolism Cancer Chemotherapy metastasis angiogenesis	ENDO YOSHIO	
	Biological Science					

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Biology	Cell biology		• Multiple roles for innate immunity	apoptosis, inflammation, innate-immunity	KINOSHITA TAKESHI
			• study on DNA damage repair		KOBAYASHI Masahiko
		• Development of Heavy Metal Adsorbent	• Structure and Function of nano-size magnetosome • Structure and Function of Giant Hemoglobin • Symbiosis of Pogonophore with bacteria		FUKUMORI YOSHIHIRO
		• Screening of checkpoint abrogators	• Study on the Regulation of Activity of Cyclin-Dependent Kinases • Studies on the Regulation of M Phase in Human Cells • Studies on the Mechanism of DNA Damage Checkpoint in Human Cells	Cell Cycle Control	YAMASHITA KATSUMI
		• Regulation of cell proliferation and apoptosis by MAPK cascades	• Study on MAP kinase cascade • Study on scaffold proteins for mammalian MAP kinase cascades • Study on neurogenesis	cell signaling, cell differentiation, neural development	YOSHIOKA KATSUJI
			• Regulatory System of Cell Cycle in Eukaryote	Regulation of Cell Cycle, Yeast Genetics, Molecular Biology	HAYASHI NAOYUKI
				Developmental Biology, Immunological Biology	AMANO, Shigetoyo
	Developmental biology	• Drug development targeting carbohydrates • Development of animal models for human diseases by transgenic technology	• Functional analysis of carbohydrates using glycosyltransferase knockout mice • Epigenetic regulation of mammalian development • Development of animal model for human disease using embryo manipulating technology	Manipulating the Mouse Embryo, Glycobiology, Epigenetics	ASANO MASAHIDE
			• Animal-vegetal polarity of sea urchin eggs • Evolution of echinoderms	Developmental biology of sea urchins, Evolutionary developmental biology, Deuterostomes	YAMAGUCHI, Masaaki
			• molecular mechanism of self-renewal in embryonic stem cells • oncogene		KOIDE HIROSHI
			• Glutamate signaling in bone • Exhaustive search and functional analysis of bone-derived secreted molecules. • Research for elucidation of regulatory mechanisms of osteoblasts function by Clock genes.		HINOI EIICHI
			• Bodily response to foreign substances • Immune response in seminiferous epithelium	host defence, phagocytosis, apoptosis	NAGAOSA Kazushige
			• Study of neural development in Drosophila	neural development transcription factor Drosophila melanogaster	KOIZUMI KEITA

Biological Science

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Biology	Biological Science	Developmental biology		Developmental Biology, Immunological Biology	AMANO, Shigetoyo	
		Evolutionary biology		<ul style="list-style-type: none"> <li>•Animal-vegetal polarity of sea urchin eggs</li> <li>•Evolution of echinoderms</li> </ul>	Developmental biology of sea urchins, Evolutionary developmental biology, Deuterostomes	YAMAGUCHI, Masaaki
			•Biology in insects and birds	<ul style="list-style-type: none"> <li>•Social parasitic behaviour in Vollenhoivia nipponica</li> <li>•Clonal reproduction and caste determination in ant, Vollenhoivia emeryi.</li> <li>•Mutualistic interactions between ants and plants with fruits and seeds</li> <li>•Ecological study for the conservation of waterfowl in Katano Kamoike</li> </ul>	Behaviour, Evolution, Sociality, interaction, ant, bird	OKAWARA Kyosuke
				<ul style="list-style-type: none"> <li>•Evolution of morphogenesis in land plants</li> <li>•Evolution of reproductive organs in gametophyte generation in land plants</li> <li>•Study of gene expression patterns in amphidiploid species</li> </ul>	evolution, morphogenesis, Physcomitrella patens	KOFUJI RUMIKO
				<ul style="list-style-type: none"> <li>•Evolution of dicyemid mesozoans and their strategy to parasitism</li> <li>•Molecular evolutionary strategies in protists</li> <li>•Life cycle of the dinoflagellates and their phylogenetic position</li> <li>•Nuclear apoptosis in Tetrahymena thermophila</li> <li>•Cellulolysis by the protozoan Tetrahymena</li> </ul>	Evolutionary protistology, Parasitism, Differentiation of mitochondria	HIGASHI HIROSHI
				<ul style="list-style-type: none"> <li>•Investigation of Early Land Plant Evolution by Comparative Genomics</li> </ul>		NISHIYAMA TOMOAKI
	Anthropology	Physiological anthropology	<ul style="list-style-type: none"> <li>•the study of body composition and lifestyle-related disease</li> <li>•A study of fall-prevention and establishment of functional recovery system</li> <li>•A study of objectivization mesurment and evaluation of muscle strength and controlled force exertion</li> </ul>	Physical Education statistics Public Health Sports science	DEMURA SHINICHI	
Agriculture	Agriculture	Agronomy/weed studies	<ul style="list-style-type: none"> <li>•Genetic variation On root Systems of Cereal Crops</li> <li>•Research on Agri Eco-System</li> <li>•Research on quality of crops</li> </ul>	Crop Science Food Science and Nutritional Chemistry Crop Science	KUJIRA YUKIO	
		Plant pathology	<ul style="list-style-type: none"> <li>•Global gene expression analysis using microarray</li> <li>•Proteome analysis</li> </ul>	<ul style="list-style-type: none"> <li>•Analysis of Regulatory Mechanism of Wound-Responsive Gene in Higher Plants</li> <li>•Study on mechanism of action of trichothecene phytotoxin in higher plants</li> <li>•Functional analysis of transcription factors in plant stress response.</li> </ul>	Plant stress response, transcription factor, plant defense response	NISHIUCHI TAKUMI



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Agriculture	Agriculture	Applied entomology	<ul style="list-style-type: none"> <li>• Pest control of Agro-forestry pests</li> <li>• Ecology of tropical insects</li> <li>• Conservation of Satoyama</li> </ul>	<ul style="list-style-type: none"> <li>• Insect Population Dynamics in the Tropics</li> <li>• Population Dynamics of Phytophagous Insects</li> <li>• Conservation Satoyama Ecosystems</li> </ul>	Ecology Environmental Preservation Plant Protection	NAKAMURA KOJI
			<ul style="list-style-type: none"> <li>• Role of biologically active substances in insects</li> </ul>	<ul style="list-style-type: none"> <li>• Programmed cell death of silk gland</li> <li>• Change in pupal commitment of Bombyx imaginal discs</li> <li>• Endocrine control of tropical insect diapause</li> </ul>	Endocrine control of insect metamorphosis and cell death	SAKURAI SHO
			<ul style="list-style-type: none"> <li>• Endocrine Control of Insect Growth and Development</li> <li>• Molecular cloning and structure analysis of bombyxin, an insect insulin-related peptide, gene</li> <li>• Molecular Studies on Insect Molting and Metamorphosis</li> </ul>	gene, brain, biotechnology, hormone, silkworm moth	IWAMI MASAFUMI	
	Agricultural Chemistry	Applied microbiology		<ul style="list-style-type: none"> <li>• Molecular mechanisms for magnetic organelle 'magnetosome' of magnetotactic bacnteria</li> </ul>	Prokaryotic organelle, Bacterial cytoskeleton, Magnetotactic Bacteria, Magnetosome	TAOKA AZUMA
				<ul style="list-style-type: none"> <li>• Medical application of magnetic fields</li> <li>• Molecular identification of microorganisms in bioaerosols</li> </ul>		KAKIKAWA MAKIKO
			<ul style="list-style-type: none"> <li>• Development of Heavy Metal Adsorbent</li> </ul>	<ul style="list-style-type: none"> <li>• Structure and Function of nano-size magnetosome</li> <li>• Structure and Function of Giant Hemoglobin</li> <li>• Symbiosis of Pogonophore with bacteria</li> </ul>		FUKUMORI YOSHIHIRO
		Applied Biochemistry	<ul style="list-style-type: none"> <li>• Elucidation and application of the microbial denitrification mechanism.</li> </ul>	<ul style="list-style-type: none"> <li>• Protein engineering of metalloproteins</li> <li>• Studies on structures and functions of multi-metal containing proteins</li> <li>• Studies on structures and functions of amino acid dehydrogenases</li> </ul>	Biochemistry, Molecular Biology, Protein engineering, Metalloproteins	KATAOKA Kunishige
		Food science		<ul style="list-style-type: none"> <li>• Research on relation between nutrition and health</li> </ul>	Food Science, Nutrition	TERASAWA NAOKO
	Fishery Studies	General fishery studies	<ul style="list-style-type: none"> <li>• Creation, spread and enlightenment of illustration map</li> </ul>	<ul style="list-style-type: none"> <li>• Distribution and regions for fisheries and seafood, and study on learning and education for food and meal</li> <li>• Support for the action and education for disaster mitigation</li> <li>• Creation, spread and enlightenment of illustration map</li> </ul>		HAYASHI KIYOMI
		Fishery chemistry	<ul style="list-style-type: none"> <li>• Development of effective diagnosis and therapy for metastatic cancer</li> <li>• Mechanisms of antitumor nucleosides</li> </ul>	<ul style="list-style-type: none"> <li>• Development of effective diagnosis and therapy for metastatic cancer</li> <li>• Development of angiogenesis inhibitors as an anticancer drug</li> <li>• Mechanisms of antitumor action and resistance to antitumor nucleosides</li> </ul>	Cancer chemotherapy nucleoside metabolism Cancer Chemotherapy metastasis angiogenesis	ENDO YOSHIO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Agriculture	Agricultural Engineering	• Analysis and optimum process design of composting system	• Engineering Analysis and Application of Composting Process • Studies on Analysis of Heat and Mass Transfer in Environmental Engineering • Analysis of environment in a sloped greenhouse for plant growth	Environmental Analysis, Soil Environment Engineering, Compost Engineering	SEKI HIRAKAZU	
	Boundary Agriculture	• Pest control of Agro-forestry pests • Ecology of tropical insects • Conservation of Satoyama	• Insect Population Dynamics in the Tropics • Population Dynamics of Phytophagous Insects • Conservation Satoyama Ecosystems	Ecology Environmental Preservation Plant Protection	NAKAMURA KOJI	
Medical, Dental, and Pharmaceutical Science	Pharmaceutical Science		• Cycloaddition of Allenic Compounds • Development of asymmetric catalysts • Metal-catalyzed selective reaction	organic chemistry synthetic chemistry	KITAGAKI SHINJI	
			• Isolation and Structural Analysis of Biologically Active Natural Products • Study of natural products chemistry for inhibitors of metabolic enzymes • Search for functional substances using the antistress-science evaluation system	Natural Product Chemistry Pharmacognosy	OTA TOMIHISA	
			• Isolation of active constituents from natural material that modulate mucosal immune response • Comprehensive analysis for genetic profiles on the pharmacological activity of Kampo medicine.	Pharmacognosy, Natural Products, Pharmacology	TAKANO FUMIHIDE	
		Chemical pharmaceutical science	• Study of Cultivation of Kaga-Ohren for its reactivation • Study of Cultivation of Japanese Poria	• Studies on the Chinese Crude Drug "Ma-huang" • Evaluation of the Quality of Crude Drugs • Anatomical Studies on the Crude Drugs	Ma-huang, Kampo Medicine, Plant histology	MIKAGE, Masayuki
			• Development of ChAT mapping agent for Alzheimer's disease early diagnosis	• Study on Syntheses of Radiopharmaceutical for cerebral nerve function diagnosis • Development of a high sensitive evaluation of internal radiation exposure	Brain, molecular imaging, radiation	SHIBA KAZUHIRO
				• Development of Highly Stereoselective Reactions Based on Organometallics and Their Application to Syntheses of Biologically Active Compound	organometallic chemistry, synthetic organic chemistry, natural product chemistry	MUKAI CHISATO
				• Study on Asymmetric Reduction of Symmetric Diketones with Baker's Yeast • Study on Asymmetric Reactions using Optically Active Organoselenium Reagents • Study on Oxidative Radical Cyclization using Polymer-supported Mn(III) reagent • Study on Ce(IV)-catalyzed asymmetric oxidative radical reaction	Synthetic Organic Chemistry	UCHIYAMA MASAHIKO
				• Development of New Organic Reactions • Total Synthesis of Bioactive Compounds	Organic Reactions, Organic Synthesis	MATSUO JUNICHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Chemical pharmaceutical science		<ul style="list-style-type: none"> <li>•Development of new iron-mediated radical reactions</li> <li>•Total synthesis of polycyclic alkaloids</li> </ul>	radical reactions, alkaloids, iron catalysts	TANIGUCHI TSUYOSHI	
			<ul style="list-style-type: none"> <li>•Development of molecular catalysts and new synthetic methods based on biofunctions</li> <li>•Discovery of effective methods for chemical modification of biomolecules available for elucidation and exploring their function</li> </ul>		KUNISHIMA MUNETAKA	
			<ul style="list-style-type: none"> <li>•Regio-and Stereoselective Radical Cyclizations</li> <li>•Organic Synthesis Using Organosulfur Compounds</li> <li>•Natural Product Synthesis</li> </ul>	Synthetic Organic Chemistry	ISHIBASHI HIROYUKI	
	Physical pharmaceutical science	<ul style="list-style-type: none"> <li>•Transporter-mediated drug uptake and efflux</li> <li>•Drug metabolism and disposition using gene-knockout animals</li> </ul>	<ul style="list-style-type: none"> <li>•Transporter-mediated disposition and delivery of therapeutic agents</li> <li>•Regulation mechanisms of localization and function of xenobiotic transporters</li> <li>•Pharmacokinetics and delivery of biologically active proteins and macromolecules</li> </ul>	Pharmacokinetics, Pharmacotherapeutics, membrane permeation, transporter, protein-protein interaction	KATO YUKIO	
			<ul style="list-style-type: none"> <li>•the development of radiopharmaceuticals</li> </ul>	Radiopharmaceutical,Cancer,Bone	OGAWA KAZUMA	
			<ul style="list-style-type: none"> <li>•development of novel platinum anticancer drug</li> <li>•development of novel platinum anticancer drug</li> </ul>	bioinorganic chemistry, complex chemistry, chemical biology	KIWADA TATSUTO	
	Biological system pharmaceutical science		<ul style="list-style-type: none"> <li>•Collaboration among industry, academia and government</li> </ul>			WATANABE YOSHINARI
			<ul style="list-style-type: none"> <li>•Regulation of T cell activation</li> </ul>	T cell activation, Lymphocyte proliferation, Immune regulation	INOBE MANABU	
		<ul style="list-style-type: none"> <li>•Transporter-mediated drug uptake and efflux</li> <li>•Drug metabolism and disposition using gene-knockout animals</li> </ul>	<ul style="list-style-type: none"> <li>•Transporter-mediated disposition and delivery of therapeutic agents</li> <li>•Regulation mechanisms of localization and function of xenobiotic transporters</li> <li>•Pharmacokinetics and delivery of biologically active proteins and macromolecules</li> </ul>	Pharmacokinetics, Pharmacotherapeutics, membrane permeation, transporter, protein-protein interaction	KATO YUKIO	
		<ul style="list-style-type: none"> <li>•Research of Medical Information Development on Internet</li> <li>•Research on Therapeutic Effect of Nuclear Receptor Ligands</li> </ul>	<ul style="list-style-type: none"> <li>•Studies on the molecular mechanism of the disorder in the lipid and sugar metabolism</li> <li>•Studies on the regulation of gene expression in metabolic syndrome</li> <li>•Information Processing of Human Pharmacy</li> </ul>	proper use of pharmaceuticals adverse effect therapeutic gain	SHIMIZU SAKAE	
			<ul style="list-style-type: none"> <li>•Analysis of lysosomal membrane fusion</li> <li>•Study on autophagy</li> <li>•Mechanism of Neuro-regeneration</li> </ul>	Clinical Pharmacy.Biochemistry.Neurobiology	ARAI KUNIZO	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Medical, Dental, and Pharmaceutical Science	Biological system pharmaceutical science	<ul style="list-style-type: none"> <li>• Research on anti-cancer drugs targeting cellular responses to DNA damage</li> </ul>	<ul style="list-style-type: none"> <li>• Molecular analysis of cellular responses to DNA damage</li> <li>• Functional analysis of DDB complex in cellular responses to DNA damage</li> <li>• Establishment and application of detection systems for UV-induced DNA damage</li> </ul>	DNA repair Hereditary disorder Cancer Signal transduction Cellular response Ultraviolet light	MATSUNAGA TSUKASA
		<ul style="list-style-type: none"> <li>• bone regeneration</li> <li>• protection against neurodegeneration</li> </ul>	<ul style="list-style-type: none"> <li>• Amino Acid Signaling</li> <li>• Gene expression</li> </ul>	Amino acid signaling	YONEDA YUKIO
			<ul style="list-style-type: none"> <li>• Molecular mechanism of nucleotide excision repair</li> </ul>	DNA repair Damage response	WAKASUGI MITSUO
			<ul style="list-style-type: none"> <li>• Integrated analysis between neurochemistry and bone biology</li> </ul>		TAKARADA TAKESHI
			<ul style="list-style-type: none"> <li>• Bodily response to foreign substances</li> <li>• Immune response in seminiferous epithelium</li> </ul>	host defence, phagocytosis, apoptosis	NAGAOSA Kazushige
		<ul style="list-style-type: none"> <li>• Study of therapeutic drug monitoring</li> <li>• Development of clinical pharmacy education with IT</li> </ul>	<ul style="list-style-type: none"> <li>• Clinical pharmaceutical or pharmacokinetic study for drug therapeutics and adverse event monitoring</li> <li>• Establishment of detection method of counterfeit drugs</li> <li>• Study and application of therapeutic drug monitoring</li> <li>• Assistance for pharmacist performing pharmaceutical care by scientific approach</li> </ul>	Clinical Pharmacokinetics Clinical Pharmacology Clinical Pharmacy Therapeutic Drug Monitoring Pharmaceutics Pharmaceuticals	MATSUSHITA RYO
	Drug development chemistry		<ul style="list-style-type: none"> <li>• Development of Highly Stereoselective Reactions Based on Organometallics and Their Application to Syntheses of Biologically Active Compound</li> </ul>	organometallic chemistry, synthetic organic chemistry, natural product chemistry	MUKAI CHISATO
	Environmental pharmaceutical science	<ul style="list-style-type: none"> <li>• Study of Cultivation of Kaga-Ohren for its reactivation</li> <li>• Study of Cultivation of Japanese Poria</li> </ul>	<ul style="list-style-type: none"> <li>• Studies on the Chinese Crude Drug "Ma-huang"</li> <li>• Evaluation of the Quality of Crude Drugs</li> <li>• Anatomical Studies on the Crude Drugs</li> </ul>	Ma-huang, Kampo Medicine, Plant histology	MIKAGE, Masayuki
		<ul style="list-style-type: none"> <li>• Simple Analysis Method for Trace of Endocrine Disruptors by Luminescence Detection</li> </ul>	<ul style="list-style-type: none"> <li>• Spectroscopic and Photochemical Characteristics of Endocrine Disruptors</li> <li>• Water Treatment by Hydrochlorous Acid with Bactericidal and Coagulating Ability</li> <li>• Degradation of Toxic Chemical Compounds by Visible-Light Driven Photocatalysts</li> </ul>	Laser Spectroscopy Photochromism Transient Absorption Endocrine Disrupting Chemicals Persistent Organic Pollutants Fluorescence-Phosphorescence Photocatalyst Endocrine Disrupting Chemicals Solar Energy	TOKUMURA KUNIHIRO
		<ul style="list-style-type: none"> <li>• Development of Determination Methods for Unregulated Hazardous Pollutants</li> <li>• Biological Effects of Diesel Exhaust Particulates</li> </ul>	<ul style="list-style-type: none"> <li>• Study on Mutagenic Polycyclic Aromatic Hydrocarbons : Environmental Behaviors and Biological Effects</li> <li>• Study on New Endocrine Disrupting Chemicals in Environments</li> <li>• Development of New Photometric Detection/Liquid Chromatography for Environmental Chemicals</li> </ul>	Polycyclic Aromatic Hydrocarbon	HAYAKAWA KAZUICHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Medical, Dental, and Pharmaceutical Science	Environmental pharmaceutical science		<ul style="list-style-type: none"> <li>• Study for the evaluation of the exposure to polycyclic aromatic hydrocarbons</li> </ul>	Polycyclic aromatic hydrocarbons, biomarkmer	TORIBA AKIRA
			<ul style="list-style-type: none"> <li>• Study on access ,quality rational use of and medicines in developing country</li> <li>• Study on Drug Management and Policy</li> <li>• Study on HIV/AIDS Measures</li> </ul>	Counterfeit Medicines, Access Quality, Rational Use of Medicines, HIV/AIDS	KIMURA KAZUKO
	Clinical pharmaceutical science	<ul style="list-style-type: none"> <li>• Transporter-mediated drug uptake and efflux</li> <li>• Drug metabolism and disposition using gene-knockout animals</li> </ul>	<ul style="list-style-type: none"> <li>• Transporter-mediated disposition and delivery of therapeutic agents</li> <li>• Regulation mechanisms of localization and function of xenobiotic transporters</li> <li>• Pharmacokinetics and delivery of biologically active proteins and macromolecules</li> </ul>	Pharmacokinetics, Pharmacotherapeutics, membrane permeation, transporter, protein-protein interaction	KATO YUKIO
		<ul style="list-style-type: none"> <li>• Research of Medical Information Development on Internet</li> <li>• Research on Therapeutic Effect of Nuclear Receptor Ligands</li> </ul>	<ul style="list-style-type: none"> <li>• Studies on the molecular mechanism of the disorder in the lipid and sugar metabolism</li> <li>• Studies on the regulation of gene expression in metabolic syndrome</li> <li>• Information Processing of Human Pharmacy</li> </ul>	proper use of pharmaceuticals adverse effect therapeutic gain	SHIMIZU SAKAE
			<ul style="list-style-type: none"> <li>• Analysis of lysosomal membrane fusion</li> <li>• Study on autophagy</li> <li>• Mechanism of Neuro-regeneration</li> </ul>	Clinical Pharmacy.Biochemistry.Neurobiology	ARAI KUNIZO
			<ul style="list-style-type: none"> <li>• Roles of membrane transporters in drug action</li> </ul>	transporter,drug absorption and disposition	TAMAI IKUMI
		<ul style="list-style-type: none"> <li>• Gene dyagnosis for drug sensitivity</li> </ul>	<ul style="list-style-type: none"> <li>• Development of Drug Delivery System for Bone</li> <li>• Studies on development of new cancer chemotherapy</li> <li>• Drug interaction</li> <li>• Development of Personal Drug Therapy</li> </ul>	Molecular pharmacology Clinical Pharmacy	MIYAMOTO KENICHI
			<ul style="list-style-type: none"> <li>• Human UDP-Glucuronosyltransferase</li> <li>• Genetic polymorphisms of Drug-metabolizing enzymes</li> <li>• Regulation of drug metabolizing enzymes</li> </ul>	Drug metabolism, interindividual difference, genetic polymorphisms	NAKAJIMA MIKI
				Clinical Pharmacy, Pharmacy Sciences, Clinical Pharmacy Education	OYANAGI KAZUO
			<ul style="list-style-type: none"> <li>• Kinetic Analysis on Counteracting Interplay of Influx and Efflux transporters on Intestinal Drug Absorption</li> </ul>	Pharmacokinetics, Drug absorption, Transporters	SHIRASAKA Yoshiyuki
	<ul style="list-style-type: none"> <li>• Study of therapeutic drug monitoring</li> <li>• Development of clinical pharmacy education with IT</li> </ul>	<ul style="list-style-type: none"> <li>• Clinical pharmaceutical or phamacokinetic study for drug therapeutics and adverse event monitting</li> <li>• Establishment of detection method of counterfeit drugs</li> <li>• Study and application of therapeutic drug monitoring</li> <li>• Assistance for pharmacist performing pharmaceutical care by scientific approach</li> </ul>	Clinical Pharmacokinetics Clinical Pharmacology Clinical Pharmacy Therapeutic Drug Monitoring Pharmaceutics Pharmaceuticals	MATSUSHITA RYO	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Pharmaceutical Science		<ul style="list-style-type: none"> <li>Development of order-made pharmacotherapy</li> <li>Approach to scientific evidence-based drug therapy</li> <li>Development of age-dependent pharmacokinetics</li> </ul>	Clinical Pharmacy Pharmaceutical Care Personalized Medicine Pharmaceutical Care Communication Pharmaceutical Communication pharmacokinetics therapeutic drug monitoring drug interaction	ISHIZAKI JUNKO	
			<ul style="list-style-type: none"> <li>clarification of pathology and search for the new treatment of disseminated intravascular coagulation</li> <li>Surveillance and development of preventive method for chemotherapy-induced adverse drug reaction</li> </ul>	cancer chemotherapy, pharmaceutical care	SUGA YUKIO	
		Clinical pharmaceutical science	<ul style="list-style-type: none"> <li>Transporters and Drug Disposition</li> </ul>	<ul style="list-style-type: none"> <li>Elucidation of molecular mechanism of cancer cell-specific protoporphyrin IX accumulation induced by 5-aminolevulinic acid</li> </ul>	Transporter, Pharmacokinetics, Molecular Biology, Chemotherapy, Cancer, Gene Expression, Signal Transduction	NAKANISHI TAKEO
			<ul style="list-style-type: none"> <li>Genetic polymorphisms of Drug Metabolizing enzymes</li> <li>Transcriptional regulation and induction mechanism of drug metabolizing enzymes</li> <li>Evaluation and projection of toxicity and safety of drugs and environmental chemical substances</li> </ul>	Drug metabolism, Molecular Pharmacology, Toxicology, Cytochrome P450	YOKOI TSUYOSHI	
			<ul style="list-style-type: none"> <li>Radioprobe-based Molecular Imaging for Diagnosis of Metabolic Function</li> <li>Regulation of Pharmacokinetics</li> <li>Evaluation of Radiopharmaceutical for Cancer Detection and Image-guided Planning Treatments</li> </ul>	Molecular Imaging and Radiopharmaceutical Chemistry	KAWAI KEIICHI	
	Fundamental Medicine	General anatomy(includes histology/embryology)	<ul style="list-style-type: none"> <li>Localization of biological active proteins in living cells and tissues</li> </ul>	<ul style="list-style-type: none"> <li>Histochemical study on signaling in development, growth and differentiation</li> </ul>	histochemistry, cell, tissue, differentiation	ISEKI SHOICHI
				<ul style="list-style-type: none"> <li>Histological Study on Peripheral Nervous System</li> <li>Histological analyze of the proliferation and differentiation of rodent submandibular gland cells.</li> </ul>	anatomy histology embryology	YAMAMOTO MIYUKI
				<ul style="list-style-type: none"> <li>Study of Growth Factors in the Testis and Epididymis</li> <li>Study of Adhesion Molecule in the Spermatogenesis</li> </ul>	Anatomy	WAKAYAMA TOMOHIKO
				<ul style="list-style-type: none"> <li>Functional analysis of Jmjd5, a candidate cancer gene identified by retroviral insertional mutagenesis</li> </ul>		ISHIMURA AKIHIKO
			<ul style="list-style-type: none"> <li>Fundamental research for wound and pressure ulcer healing process</li> </ul>	<ul style="list-style-type: none"> <li>Lymphatics stomata in the diaphragm : their function and formation factor</li> <li>A study on variations in the gross anatomy</li> <li>Process of skin wound healing</li> </ul>	Cutaneous wound healing, Lymphology, Gross Anatomy, Histology, Nursing arts	NAKATANI TOSHIO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Fundamental Medicine	General physiology	<ul style="list-style-type: none"> <li>•Mechanism of vascular smooth muscle contraction</li> <li>•Studies of the physiological and pathological roles of the lipid mediator sphingosine-1-phosphate</li> <li>•Studies of the physiological and pathological roles of the lipid kinase PI3-kinase</li> </ul>	Cell signaling, Vessel, Cancer	TAKUWA YO	
			<ul style="list-style-type: none"> <li>•Neural mechanisms of circadian rhythms</li> <li>•Neural mechanisms underlying sleep/wake regulation</li> </ul>	circadian rhythm, feeding, hypothalamus	MIEDA MICHIIRO	
			<ul style="list-style-type: none"> <li>•Identification and characterization about physiological functions of novel neuropeptides</li> <li>•Regulatory Mechanisms of Sleep/wakefulness States</li> <li>•Feeding behavior and energy homeostasis</li> </ul>	hypothalamus, limbic system, neuropeptide	SAKURAI TAKESHI	
			<ul style="list-style-type: none"> <li>•Thermoregulation</li> <li>•Signal transduction</li> <li>•Regulation of cell migration</li> </ul>		SUGIMOTO NAOTOSHI	
			<ul style="list-style-type: none"> <li>•Regulation of contraction of vascular smooth muscle cells by mechanical stimulus</li> </ul>	Angiogenesis, Cardiovascular remodeling, contraction-relaxation Smooth muscle cell, Signal transduction	YOSHIOKA KAZUAKI	
			<ul style="list-style-type: none"> <li>•The influence of autonomic nervous system with DPP-4 inhibitor in diabetes</li> </ul>	circulation, autonomic nervous system, muscle sympathetic nerve activity, diabetes mellitus	KOBAYASHI, DAISUKE	
			<ul style="list-style-type: none"> <li>•Modulations of the synaptic transmission</li> </ul>	Physiology in General Neuro and Muscular Physiology	SHOSAKU TAKAKO	
		Environmental physiology(includes sports medicine/nutritional physiology)	<ul style="list-style-type: none"> <li>•Floor translation system for training of equilibrium function</li> <li>•System for enhancing and causing brain activation with postural change</li> <li>•Evaluation system of muscle activity and posture for backache prevention</li> </ul>	<ul style="list-style-type: none"> <li>•Dynamic postural control and brain activity</li> <li>•Brain activation by movement and posture</li> <li>•Positional perception of standing posture</li> </ul>	postural control, brain activation, evoked brain potential	FUJIWARA KATSUO
			<ul style="list-style-type: none"> <li>•Research for reduction of exercise-induced oxidative stress</li> <li>•Development of training and conditioning methods for competitive sports</li> </ul>	<ul style="list-style-type: none"> <li>•Molecular regulation of oxygen transport to muscle tissue and mitochondria bioenergetics during exercise</li> <li>•Molecular determinants for selectivity of substrates in skeletal muscle during exercise</li> <li>•Exercise induced free radical, oxidative stress and regeneration of myocytes</li> </ul>	mitochondria, free radical, oxidative stress, redox, skeletal muscle physiology, oxidative metabolism, exercise and sport physiology	MASUDA KAZUMI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Fundamental Medicine	Environmental physiology(includes sports medicine/nutritional physiology)	<ul style="list-style-type: none"> <li>• Study of the physical activity contents using the heart rate monitoring</li> <li>• Effects of drug and nutriment on skeletal muscles, heart, and bones</li> <li>• Analysis of affecting factors on muscles</li> </ul>	<ul style="list-style-type: none"> <li>• Comparative Study of myosin isozyme and muscle fiber composition</li> <li>• Development of assessing method for physical activity with HR</li> <li>• Effects of doping drugs on striated muscles</li> </ul>	Exercise Physiology Physical fitness muscle physiology	KITAURA TAKASHI
				<ul style="list-style-type: none"> <li>• Automatized levels of upper and lower limb movements</li> <li>• Development of parallel control of posture and hand and finger movement during floor motion repetitive loading</li> </ul>	automatization	TOYAMA HIROSHI
	General pharmacology	<ul style="list-style-type: none"> <li>• Durg discovery</li> <li>• Functional analysis of food chemicals</li> </ul>	<ul style="list-style-type: none"> <li>• Regulation and function of heme catabolism</li> <li>• Hypoxia response</li> <li>• Functional analysis of food chemicals</li> </ul>	heme oxygenase, hypoxia response	OGAWA KAZUHIRO	
			<ul style="list-style-type: none"> <li>• Identification and characterization about physiological functions of novel neuropeptides</li> <li>• Regulatory Mechanisms of Sleep/wakefulness States</li> <li>• Feeding behavior and energy homeostasis</li> </ul>	hypothalamus, limbic system, neuropeptide	SAKURAI TAKESHI	
			<ul style="list-style-type: none"> <li>• Pharmacokinetics</li> <li>• Prediction of difficult intubation</li> <li>• Palliative Care</li> </ul>	Anesthesiology	YAMAMOTO KEN	
		<ul style="list-style-type: none"> <li>• Study of the physical activity contents using the heart rate monitoring</li> <li>• Effects of drug and nutriment on skeletal muscles, heart, and bones</li> <li>• Analysis of affecting factors on muscles</li> </ul>	<ul style="list-style-type: none"> <li>• Comparative Study of myosin isozyme and muscle fiber composition</li> <li>• Development of assessing method for physical activity with HR</li> <li>• Effects of doping drugs on striated muscles</li> </ul>	Exercise Physiology Physical fitness muscle physiology	KITAURA TAKASHI	
	General medical chemistry	<ul style="list-style-type: none"> <li>• Identification of novel molecular targets that interact with cancer genes</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of novel cancer genes using retroviral insertional mutagenesis</li> </ul>	Tumor virus, Oncogene, Genome informatics	SUZUKI, Takeshi	
		<ul style="list-style-type: none"> <li>• pathogenesis and prevention/treatment of diabetic angiopathy</li> </ul>	<ul style="list-style-type: none"> <li>• Molecular Basis of the Alzheimer's disease</li> <li>• Signal transduction through protein phosphatases</li> <li>• Molecular mechanism of diabetic angiopathy</li> </ul>	Diabetic Angiopathy, Advanced Glycation Endproducts, Receptor for advanced glycation endproducts, RAGE, Angiogenesis, Alzheimer's disease,	WATANABE TAKUO	
		<ul style="list-style-type: none"> <li>• Role of endogenous secretory RAGE (esRAGE) in human diseases</li> <li>• animal models of diabetic nephropathy</li> <li>• Prevention of development of diabetic complications</li> </ul>	<ul style="list-style-type: none"> <li>• Molecular mechanism for development of diabetic vascular complications</li> <li>• Innate immunity</li> <li>• Inflammation in obesity</li> </ul>	Diabetes, Diabetic vascular complications, Immunity	YAMAMOTO YASUHIKO	



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Medical, Dental, and Pharmaceutical Science	Fundamental Medicine	General medical chemistry	<ul style="list-style-type: none"> <li>• Analysis of the mechanism of diabetes complecation development</li> </ul>	biochemistry, molecular biology, diabetes	MUNESUE SEIICHI
			<ul style="list-style-type: none"> <li>• DNA tumor Virus</li> <li>• tumor Metastasis</li> <li>• Molecules related to cancer metastasis</li> </ul>	Molecular Oncology Molecular Virology Tumor Metastasis Matrix Metalloproteinase Gene	SATO HIROSHI
			<ul style="list-style-type: none"> <li>• Roles of ADAMTS family genes in organogenesis and organ function</li> <li>• Extracellular matrix metabolism and disorders</li> <li>• Extracellular matrix metabolism and cancer invasion-metastasis</li> </ul>		KUNO KOJI
			<ul style="list-style-type: none"> <li>• Tissue regeneration mediated by HGF-Met. Therapeutic application of HGF. Anti-cancer approach with NK4. Drug discovery targeting HGF-Met. Regulation of #-D cancer invasion and epithelial morphogenesis.</li> <li>• Tissue regeneration mediated by HGF-Met. Therapeutic application of HGF. Anti-cancer approach with NK4.</li> </ul>	Growth Factor, Metastasis, Angiogenesis, HGF, NK4	MATSUMOTO, Kunio
			<ul style="list-style-type: none"> <li>• Molecular pharmacology of bioactive lipids</li> </ul>	Molecular Pharmacology	YOSHIMOTO TANIHIRO
			<ul style="list-style-type: none"> <li>• Angiogenesis</li> <li>• Diabetic angiopathy</li> <li>• Functional genomics</li> </ul>	vascular biology, diabetes	YAMAMOTO HIROSHI
	Pathological medical chemistry	<ul style="list-style-type: none"> <li>• Durg discovery</li> <li>• Functional analysis of food chemicals</li> </ul>	<ul style="list-style-type: none"> <li>• Regulation and function of heme catabolism</li> <li>• Hypoxia response</li> <li>• Functional analysis of food chemicals</li> </ul>	heme oxygenase, hypoxia response	OGAWA KAZUHIRO
			<ul style="list-style-type: none"> <li>• Undifferentiated property maintenance mechanism of embryo-stem cells (ES cells, self-replication, STAT3)</li> </ul>		YOKOTA TAKASHI
		<ul style="list-style-type: none"> <li>• Screening of genes expressed selectively in chronic liver injury</li> <li>• Anti-tumor therapy targeting chemokines</li> <li>• Anti-inflammatory therapy targeting chemokines</li> <li>• Development of a novel type of anti-cancer drug targeting a novel serine/threonine kinase, Pim-3</li> </ul>	<ul style="list-style-type: none"> <li>• Study on pro-inflammatory cytokines and chemokines in tumor development and progression</li> <li>• Elucidaiton on the roles of Pim kinases in cancer development and progression</li> <li>• Study on roles of pro-inflammatory cytokines and chemokines in iflammation.</li> </ul>	Pro-inflammatory cytokines	MUKAIDA NAOFUMI
		<ul style="list-style-type: none"> <li>• pathogenesis and prevention/treatment of diabetic angiopathy</li> </ul>	<ul style="list-style-type: none"> <li>• Molecular Basis of the Alzheimer's disease</li> <li>• Signal transduction through protein phosphatases</li> <li>• Molecular mechanism of diabetic angiopathy</li> </ul>	Diabetic Angiopathy, Advanced Glycation Endproducts, Receptor for advanced glycation endproducts, RAGE, Angiogenesis, Alzheimer's disease,	WATANABE TAKUO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Fundamental Medicine	Pathological medical chemistry	<ul style="list-style-type: none"> <li>• Role of endogenous secretory RAGE (esRAGE) in human diseases</li> <li>• animal models of diabetic nephropathy</li> <li>• Prevention of development of diabetic complications</li> </ul>	<ul style="list-style-type: none"> <li>• Molecular mechanism for development of diabetic vascular complications</li> <li>• Innate immunity</li> <li>• Inflammation in obesity</li> </ul>	Diabetes, Diabetic vascular complications, Immunity	YAMAMOTO YASUHIKO
				<ul style="list-style-type: none"> <li>• DNA tumor Virus</li> <li>• tumor Metastasis</li> <li>• Molecules related to cancer metastasis</li> </ul>	Molecular Oncology Molecular Virology Tumor Metastasis Matrix Metalloproteinase Gene	SATO HIROSHI
				<ul style="list-style-type: none"> <li>• Cellular Signal transduction pathways involved in stress response</li> </ul>	Radiation Biol. and Toxicology Cell Biology Molecular Biology	YAMAMOTO KENICHI
			<ul style="list-style-type: none"> <li>• Molecular Diagnosis of Colorectal Cancer</li> <li>• Serial Analysis of Gene Expression in Stomach Cancer</li> </ul>	<ul style="list-style-type: none"> <li>• Molecular oncology of gastrointestinal cancer</li> <li>• Surgical oncology for gastrointestinal cancer</li> <li>• Establishment of tissue material resources of human gastrointestinal cancer</li> </ul>	Gastrointestinal oncology, Surgical and molecular oncology	MINAMOTO TOSHINARI
			<ul style="list-style-type: none"> <li>• Study on the NLR family</li> </ul>	<ul style="list-style-type: none"> <li>• Study on Immune Regulation by Fas Ligand</li> <li>• Study on the molecular mechanisms of cell death and inflammation</li> <li>• Study on the Apoptosis of Cancer Cells.</li> </ul>	Immunology, Apoptosis, Fas ligand, Inflammation, Cancer	SUDA TAKASHI
				<ul style="list-style-type: none"> <li>• Study on physiological role of Fas ligand</li> <li>• Study on Physiological Connection between Apoptosis and Inflammation</li> </ul>		IMAMURA RYU
				<ul style="list-style-type: none"> <li>• Study on Tumor Cell Invasion</li> </ul>		TAKINO TAKAHISA
				<ul style="list-style-type: none"> <li>• study on DNA damage repair</li> </ul>		KOBAYASHI Masahiko
				<ul style="list-style-type: none"> <li>• Improvement of clinical assay.</li> <li>• Study of CNS regeneration</li> <li>• Clinical microbiology, Measurement of antibacterial activity</li> </ul>	CNS regeneration, transglutaminase, antibacterial activity	SUGITANI KAYO
				<ul style="list-style-type: none"> <li>• Molecular mechanism of tumorigenesis, progression, metastasis and cancer stem cells</li> <li>• Tumor suppressor function of RECK</li> <li>• Analysis of Rb-Ras pathway</li> </ul>	Molecular Oncology, Molecular Biology, Cancer Genetics	TAKAHASHI CHIAKI
				<ul style="list-style-type: none"> <li>• function of novel physiological active lipid, molecular mechanisms of vascular contraction</li> </ul>	lipid mediator, smooth muscle contraction	OKAMOTO YASUO
				<ul style="list-style-type: none"> <li>• Cooperation of Wnt signaling and COX-2 pathway in gastrointestinal tumorigenesis</li> <li>• Inflammatory host responses in gastrointestinal tumorigenesis</li> </ul>	inflammation and cancer, genetics, mouse model	OSHIMA MASANOBU
				<ul style="list-style-type: none"> <li>• Molecular pharmacology of bioactive lipids</li> </ul>	Molecular Pharmacology	YOSHIMOTO TANIHIRO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Fundamental Medicine	Pathological medical chemistry	<ul style="list-style-type: none"> <li>•Angiogenesis</li> <li>•Diabetic angiopathy</li> <li>•Functional genomics</li> </ul>	vascular biology, diabetes	YAMAMOTO HIROSHI	
		Human genetics	<ul style="list-style-type: none"> <li>•Comprehensive genetic analysis of congenital anomalies, genetic fixation with regard to autistic disorders</li> </ul>	congenital malformation syndro	NIIDA YO	
		Human pathology	<ul style="list-style-type: none"> <li>•Pathology of liver tumors</li> <li>•Pathology of bile ducts</li> <li>•Pathological study of autoimmune liver deseases</li> <li>•pathology of liver disease</li> </ul>	<ul style="list-style-type: none"> <li>•Pathology and pathogenesis of primary biliary cirrhosis</li> <li>•Pathogenesis of hepatolithiasis</li> <li>•Pathogenesis of abnormal portalvenous blood flow</li> </ul>	Hominal Pathology, Liver Pathology, Immunopathology	NAKANUMA YASUNI
				<ul style="list-style-type: none"> <li>•Pathology of cancer</li> </ul>	oncology	OI AKISHI
			<ul style="list-style-type: none"> <li>•Detection of distinct phosphatase which control cancer invasion</li> </ul>	<ul style="list-style-type: none"> <li>•Adhesion of carcinoma cell to extracellular matrix and carcinoma cell migration</li> <li>•Imprinting gene in carcinoma cells</li> </ul>	Pathology, Cancer cell migration, Posphatase	KAWAHARA EI
				<ul style="list-style-type: none"> <li>•Practical studies on medico-legal diagnosis</li> <li>•Forensic toxicological studies on rapid screening for illicit drugs and poisons</li> <li>•Medico-legal studies on minute biological specimens by molecular genetic procedures</li> </ul>	injury, biological material, postmortem change, forensic expert opinion	OHSHIMA TOHRU
			<ul style="list-style-type: none"> <li>•Pathology of the joint contracture</li> </ul>	<ul style="list-style-type: none"> <li>•Pothological study of the musculoskeletal disorder</li> <li>•Relationship between the body balance and social and cultural factors.</li> <li>•Human Pathology</li> </ul>	Locomotory System, Joint component, Contracture	HOSO MASAHIRO
			<ul style="list-style-type: none"> <li>•Pathology and Pathogenesis of hepatobiliary disease</li> </ul>	<ul style="list-style-type: none"> <li>•Immunohistochemical investigation of outbreak and development of intrahepatic bile duct cancer coexisting with intrahepatic lithiasis</li> <li>•Mucin core proteins in Hepatobiliary disease</li> <li>•Pathogenesis of Primary biliary cirrhosis.</li> </ul>	Pathology of the liver	SASAKI MOTOKO
					Vascular Fragility, Forensic Pathology, Platelet	ZUKA MASAHIKO
				<ul style="list-style-type: none"> <li>•Pathology of the liver</li> <li>•Immunology of the liver</li> <li>•Liver cancer</li> </ul>	Liver, Pathology, Immunology	HARADA KENICHI
				<ul style="list-style-type: none"> <li>•Pathomorphology of hepatobiliary system diseases</li> <li>•Molecular biology</li> </ul>		SATO YASUNORI
					<ul style="list-style-type: none"> <li>•Tumor control by means of radiation</li> </ul>	
		<ul style="list-style-type: none"> <li>•Development of hormone-drug release system via supramolecular dissociation</li> </ul>	<ul style="list-style-type: none"> <li>•DNA analysis in the study for carcinogenesis of Endometrial cancer and gene therapy</li> <li>•Human papilloma analysis in the carcinogenesis of uterine cervical cancer</li> <li>•Gene therapy for ovarian Cancer</li> </ul>	Molecular pathology in gynecologic field Anti-Cancen chemotherapy in Gynecologic field Cell aging and carcinogenesis	INOUE MASAKI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Fundamental Medicine	Human pathology	<ul style="list-style-type: none"> <li>•Molecular Mechanisms regulating Therapeutic-resistant CML stem cells</li> </ul>	<ul style="list-style-type: none"> <li>•Therapeutic Resistance in Cancer Stem Cells</li> <li>•Maintenance of Self-renewal Ability in Hematopoietic Stem Cells</li> </ul>	Cancer stem cells, Cancer-microenvironment, Hematopoietic stem cells	NAKA KAZUHITO
		Experimental pathology	<ul style="list-style-type: none"> <li>•Screening of genes expressed selectively in chronic liver injury</li> <li>•Anti-tumor therapy targeting chemokines</li> <li>•Anti-inflammatory therapy targeting chemokines</li> <li>•Development of a novel type of anti-cancer drug targeting a novel serine/threonine kinase, Pim-3</li> </ul>	<ul style="list-style-type: none"> <li>•Study on pro-inflammatory cytokines and chemokines in tumor development and progression</li> <li>•Elucidation on the roles of Pim kinases in cancer development and progression</li> <li>•Study on roles of pro-inflammatory cytokines and chemokines in inflammation.</li> </ul>	Pro-inflammatory cytokines	MUKAIDA NAOFUMI
			<ul style="list-style-type: none"> <li>•Pathology of liver tumors</li> <li>•Pathology of bile ducts</li> <li>•Pathological study of autoimmune liver diseases</li> <li>•pathology of liver disease</li> </ul>	<ul style="list-style-type: none"> <li>•Pathology and pathogenesis of primary biliary cirrhosis</li> <li>•Pathogenesis of hepatolithiasis</li> <li>•Pathogenesis of abnormal portalvenous blood flow</li> </ul>	Hominal Pathology, Liver Pathology, Immunopathology	NAKANUMA YASUNI
			<ul style="list-style-type: none"> <li>•Detection of distinct phosphatase which control cancer invasion</li> </ul>	<ul style="list-style-type: none"> <li>•Adhesion of carcinoma cell to extracellular matrix and carcinoma cell migration</li> <li>•Imprinting gene in carcinoma cells</li> </ul>	Pathology, Cancer cell migration, Phosphatase	KAWAHARA EI
				<ul style="list-style-type: none"> <li>•Pathology of the liver</li> <li>•Immunology of the liver</li> <li>•Liver cancer</li> </ul>	Liver, Pathology, Immunology	HARADA KENICHI
			<ul style="list-style-type: none"> <li>•Study for genomics in liver</li> </ul>	<ul style="list-style-type: none"> <li>•Cancer Research</li> <li>•Liver metabolism and systemic illness</li> <li>•Hepatitis Virus</li> </ul>	Experimental Pathology, Virology, Cancer, Liver	KANEKO SHUICHI
				<ul style="list-style-type: none"> <li>•Roles of ADAMTS family genes in organogenesis and organ function</li> <li>•Extracellular matrix metabolism and disorders</li> <li>•Extracellular matrix metabolism and cancer invasion-metastasis</li> </ul>		KUNO KOJI
			<ul style="list-style-type: none"> <li>•Study on the NLR family</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Immune Regulation by Fas Ligand</li> <li>•Study on the molecular mechanisms of cell death and inflammation</li> <li>•Study on the Apoptosis of Cancer Cells.</li> </ul>	Immunology, Apoptosis, Fas ligand, Inflammation, Cancer	SUDA TAKASHI
				<ul style="list-style-type: none"> <li>•Study on Tumor Cell Invasion</li> </ul>		TAKINO TAKAHISA
				<ul style="list-style-type: none"> <li>•Inflammatory responses in gastrointestinal tumorigenesis</li> <li>•Generation of inflammation-associated gastric cancer mouse model</li> </ul>		OSHIMA HIROKO
	<ul style="list-style-type: none"> <li>•Cooperation of Wnt signaling and COX-2 pathway in gastrointestinal tumorigenesis</li> <li>•Inflammatory host responses in gastrointestinal tumorigenesis</li> </ul>	inflammation and cancer, genetics, mouse model	OSHIMA MASANOBU			

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Fundamental Medicine	Experimental pathology	<ul style="list-style-type: none"> <li>•Molecular Mechanisms regulating Therapeutic-resistant CML stem cells</li> </ul>	<ul style="list-style-type: none"> <li>•Therapeutic Resistance in Cancer Stem Cells</li> <li>•Maintenance of Self-renewal Ability in Hematopoietic Stem Cells</li> </ul>	Cancer stem cells, Cancer-microenvironment, Hematopoietic stem cells	NAKA KAZUHITO
			<ul style="list-style-type: none"> <li>•molecular mechanisms for self-renewal of stem cells</li> <li>•Maintenance mechanisms for genomic stability</li> </ul>	stem cell self-renewal hematopoietic stem cell	HIRAO ATSUSHI	
	Parasitology (includes sanitary zoology)	<ul style="list-style-type: none"> <li>•Researches on mosquito biology</li> <li>•Epidemiological study on vector born diseases.</li> </ul>	<ul style="list-style-type: none"> <li>•The challenges of chemotherapy against a pathogenic protozoon, Cryptosporidium</li> <li>•Analysis of intra-species diversity in intestinal protozoan parasites using molecular taxonomy</li> <li>•Epidemiologic analysis regarding parasitic burdens in endemic areas</li> </ul>	Mosquito biology, Insect taxonomy, Vector control	OKAZAWA TAKAO	
		<ul style="list-style-type: none"> <li>•Development of drugs against novel anti-protozoan parasites</li> <li>•Intra-species diversity of intestinal protozoan parasites</li> </ul>	<ul style="list-style-type: none"> <li>•Development of a novel malaria vaccine based on a non-infectious viral vector</li> <li>•Elucidation of malaria parasite-mosquito salivary gland interaction using transgenic mosquitoes</li> <li>•Elucidation of mechanism of malaria vaccine frailness caused by parasite-mediated immune disturbance</li> <li>•Development of an anti-platelet drug targeted to collagen using a novel anti-platelet aggregation protein derived from mosquito saliva.</li> </ul>	Parasitology, Tropical medicine	TOKORO MASAHARU	
		<ul style="list-style-type: none"> <li>•Development of a novel malaria vaccine based on a non-infectious viral vector</li> <li>•Elucidation of malaria parasite-mosquito salivary gland interaction using transgenic mosquitoes</li> <li>•Elucidation of mechanism of malaria vaccine frailness caused by parasite-mediated immune disturbance</li> <li>•Development of an anti-platelet drug targeted to collagen using a novel anti-platelet aggregation protein derived from mosquito saliva.</li> </ul>	vaccine, malaria, anopheles, anti-platelet drug	YOSHIDA SHIGETO		
		<ul style="list-style-type: none"> <li>•Host Preference of mosquito vectors</li> <li>•Chemical analysis of larval diet of African malaria vectors, Anopheles gambiae complex</li> <li>•Significance of Mushroom Poison</li> </ul>	Vector Ecology. Tropics. malaria. Japanese encephalitis. dengue fever. biological control	TUNO NOBUKO		
		<ul style="list-style-type: none"> <li>•Regulation of virulence and genome analysis of Clostridial species</li> </ul>	<ul style="list-style-type: none"> <li>•Cyclic ADP-ribose synthesis by bacteria</li> <li>•Analysis of virulence factors of pathogenic clostridia</li> <li>•Ecology of <math>\alpha</math>-DB Clostridium botulinum (/)-<math>\beta</math> DB</li> </ul>		SHIMIZU TORU	
		<ul style="list-style-type: none"> <li>•Development of treatment of bacterial infectious disease</li> </ul>	<ul style="list-style-type: none"> <li>•Analysis of clostridium welchii toxin production adjustment mechanism</li> </ul>		NAKAMURA SHINICHI	
	Bacteriology (includes mycology)	<ul style="list-style-type: none"> <li>•Diagnosis of fungal infectious diseases</li> <li>•Rapid detection and identification of pathogenic microorganisms by DNA-based techniques</li> </ul>	<ul style="list-style-type: none"> <li>•Analysis of clostridium welchii toxin production adjustment mechanism</li> </ul>	OTANI KAORI		
		<ul style="list-style-type: none"> <li>•Diagnosis of fungal infectious diseases</li> <li>•Rapid detection and identification of pathogenic microorganisms by DNA-based techniques</li> </ul>	Infectious Diseases, Hospital infection, Rapid identification	FUJITA SHINICHI		

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Fundamental Medicine	Virology	• Identification of novel molecular targets that interact with cancer genes	• Identification of novel cancer genes using retroviral insertional mutagenesis	Tumor virus, Oncogene, Genome informatics	SUZUKI, Takeshi
			• recombinant vaccine	• Molecular biology of negative strand RNA viruses • Influenza Virus Vector • Reverse genetic vaccine	Molecular biology of viruses	ENAMI MASAYOSHI
				• Molecular epidemiology of blood-borne viruses (HIV, HBV, HCV) in Asia and Africa • Factors influencing on disease progression of non-B subtype HIV-1-infected children • Genetic analyses of drug resistance-associated mutations of non-B subtype HIV-1	Virology, International Health, HIV/AIDS	ICHIMURA HIROSHI
				• Drug Resistant HIV-1 infection in Vietnam	Virology	ISHIZAKI Azumi
				• Development of a novel malaria vaccine based on a non-infectious viral vector • Elucidation of malaria parasite-mosquito salivary gland interaction using transgenic mosquitoes • Elucidation of mechanism of malaria vaccine frailness caused by parasite-mediated immune disturbance • Development of an anti-platelet drug targeted to collagen using a novel anti-platelet aggregation protein derived from mosquito saliva.	vaccine, malaria, anopheles, anti-platelet drug	YOSHIDA SHIGETO
				• Epstein-Barr virus and nasopharyngeal carcinoma • Application of basic research for head and neck cancer chemotherapy		MURONO SHIGEYUKI
				• Molecular Biology of hepatitis B viruses	Molecular Biology Virology	KUROKI KAZUYUKI
				• Nasopharyngeal carcinoma associated with Epstein-Barr virus • Study of Sense of Smell • Speech pathological study	nasopharynx cancer metastasis Nose Olfaction	FURUKAWA MITSURU
				• Study on viral hepatitis • Molecular biology of hepatocellular carcinoma	Liver Disease	HONDA, Masao
				• Study of relation between viral genomic hypermutation and AID/APOBEC family • Study of relation between HBV induced HCC and deaminases • Role of AID/APOBEC deaminase in HPV related oncogenesis.	Hypermuation, deaminase, hepatitis	MURAMATSU MASAMICHI
	Immunology		• Regulation of T cell activation	T cell activation, Lymphocyte proliferation, Immune regulation	INOBE MANABU	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Fundamental Medicine	Immunology	<ul style="list-style-type: none"> <li>• Screening of genes expressed selectively in chronic liver injury</li> <li>• Anti-tumor therapy targeting chemokines</li> <li>• Anti-inflammatory therapy targeting chemokines</li> <li>• Development of a novel type of anti-cancer drug targeting a novel serine/threonine kinase, Pim-3</li> </ul>	<ul style="list-style-type: none"> <li>• Study on pro-inflammatory cytokines and chemokines in tumor development and progression</li> <li>• Elucidation on the roles of Pim kinases in cancer development and progression</li> <li>• Study on roles of pro-inflammatory cytokines and chemokines in inflammation.</li> </ul>	Pro-inflammatory cytokines	MUKAIDA NAOFUMI
			<ul style="list-style-type: none"> <li>• Pathology of liver tumors</li> <li>• Pathology of bile ducts</li> <li>• Pathological study of autoimmune liver diseases</li> <li>• pathology of liver disease</li> </ul>	<ul style="list-style-type: none"> <li>• Pathology and pathogenesis of primary biliary cirrhosis</li> <li>• Pathogenesis of hepatolithiasis</li> <li>• Pathogenesis of abnormal portalvenous blood flow</li> </ul>	Hominal Pathology, Liver Pathology, Immunopathology	NAKANUMA YASUNI
				<ul style="list-style-type: none"> <li>• Pathology of the liver</li> <li>• Immunology of the liver</li> <li>• Liver cancer</li> </ul>	Liver, Pathology, Immunology	HARADA KENICHI
				<ul style="list-style-type: none"> <li>• Development of a novel malaria vaccine based on a non-infectious viral vector</li> <li>• Elucidation of malaria parasite-mosquito salivary gland interaction using transgenic mosquitoes</li> <li>• Elucidation of mechanism of malaria vaccine frailness caused by parasite-mediated immune disturbance</li> <li>• Development of an anti-platelet drug targeted to collagen using a novel anti-platelet aggregation protein derived from mosquito saliva.</li> </ul>	vaccine, malaria, anopheles, anti-platelet drug	YOSHIDA SHIGETO
			<ul style="list-style-type: none"> <li>• Study on the NLR family</li> </ul>	<ul style="list-style-type: none"> <li>• Study on Immune Regulation by Fas Ligand</li> <li>• Study on the molecular mechanisms of cell death and inflammation</li> <li>• Study on the Apoptosis of Cancer Cells.</li> </ul>	Immunology, Apoptosis, Fas ligand, Inflammation, Cancer	SUDA TAKASHI
				<ul style="list-style-type: none"> <li>• Study on physiological role of Fas ligand</li> <li>• Study on Physiological Connection between Apoptosis and Inflammation</li> </ul>		IMAMURA RYU
				<ul style="list-style-type: none"> <li>• Mechanism of induction of central tolerance by thymic dendritic cells</li> </ul>	immunotolerance	BABA TOMOHISA
			<ul style="list-style-type: none"> <li>• Control of inflammation and cytokine regulation</li> </ul>	<ul style="list-style-type: none"> <li>• T cell differentiation in Immune Abnormality Disorders</li> <li>• Oxidative Stress and Immune Response</li> <li>• Pathogenic Mechanism of Abnormal Expansion of EBV-Infected Cells</li> </ul>	Clinical Immunology	YACHIE AKIHIRO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Fundamental Medicine	Immunology	<ul style="list-style-type: none"> <li>Development and abnormality in immune systems</li> <li>Analysis of pathogenesis of EB virus infection</li> <li>Functional significance of HO-1 in inflammation</li> </ul>	Pediatrics Immunology EBV, autoimmune disease, apoptosis	KASAHARA YOSHIHITO	
			<ul style="list-style-type: none"> <li>Study of relation between viral genomic hypermutation and AID/APOBEC family</li> <li>Study of relation between HBV induced HCC and deaminases</li> <li>Role of AID/APOBEC deaminase in HPV related oncogenesis.</li> </ul>	Hypermutation, deaminase, hepatitis	MURAMATSU MASAMICHI	
	Boundary Medicine	Medical sociology	<ul style="list-style-type: none"> <li>Basic Research on Healthcare Marketing</li> <li>International Healthcare Marketing</li> <li>Application of Artificial Intelligence to Healthcare</li> </ul>	Healthcare Management, Hospital Administration, Medical Informatics, Healthcare Legislation	NAGASE KEISUKE	
			<ul style="list-style-type: none"> <li>Practical studies on medico-legal diagnosis</li> <li>Forensic toxicological studies on rapid screening for illicit drugs and poisons</li> <li>Medico-legal studies on minute biological specimens by molecular genetic procedures</li> </ul>	injury, biological material, postmortem change, forensic expert opinion	OHSHIMA TOHRU	
			<ul style="list-style-type: none"> <li>HO-1 in Cardiovascular homeostasis</li> <li>Diagnosis of congenital heart disease</li> </ul>	Congenital heart diseases, Diagnosis Vascular Biology, Life support PALS Prevention, Medical Education	OTA KUNIO	
			<ul style="list-style-type: none"> <li>Research of Medical Information Development on Internet</li> <li>Research on Therapeutic Effect of Nuclear Receptor Ligands</li> </ul>	<ul style="list-style-type: none"> <li>Studies on the molecular mechanism of the disorder in the lipid and sugar metabolism</li> <li>Studies on the regulation of gene expression in metabolic syndrome</li> <li>Information Processing of Human Pharmacy</li> </ul>	proper use of pharmaceuticals adverse effect therapeutic gain	SHIMIZU SAKAE
			<ul style="list-style-type: none"> <li>Study on access ,quality rational use of and medicines in developing country</li> <li>Study on Drug Management and Policy</li> <li>Study on HIV/AIDS Measures</li> </ul>	Counterfeit Medicines, Access Quality, Rational Use of Medicines, HIV/AIDS	KIMURA KAZUKO	
			<ul style="list-style-type: none"> <li>Applying PDA(Personal Digital Assistant)in Evidence-Based Medicine</li> <li>Applying PDA(Personal Digital Assistant)in Medical Education</li> </ul>	<ul style="list-style-type: none"> <li>Profiling of the medical technologies required for general practice</li> <li>Hazards in applying evidence-based medicine to individual patients</li> <li>Clinical genetics in polycystic kidney disease and other genetic diseases</li> </ul>	General Internal Medicine Clinical Genetics	NOMURA HIDEKI
			Applied pharmacology	<ul style="list-style-type: none"> <li>Human UDP-Glucuronosyltransferase</li> <li>Genetic polymorphisms of Drug-metabolizing enzymes</li> <li>Regulation of drug metabolizing enzymes</li> </ul>	Drug metabolism, interindividual difference, genetic polymorphisms	NAKAJIMA MIKI



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Boundary Medicine	Applied pharmacology	<ul style="list-style-type: none"> <li>Genetic polymorphisms of Drug Metabolizing enzymes</li> <li>Transcriptional regulation and induction mechanism of drug metabolizing enzymes</li> <li>Evaluation and projection of toxicity and safety of drugs and environmental chemical substances</li> </ul>	Drug metabolism, Molecular Pharmacology, Toxicology, Cytochrome P450	YOKOI TSUYOSHI	
		Pathological examination studies	<ul style="list-style-type: none"> <li>Screening of genes expressed selectively in chronic liver injury</li> <li>Anti-tumor therapy targeting chemokines</li> <li>Anti-inflammatory therapy targeting chemokines</li> <li>Development of a novel type of anti-cancer drug targeting a novel serine/threonine kinase, Pim-3</li> </ul>	<ul style="list-style-type: none"> <li>Study on pro-inflammatory cytokines and chemokines in tumor development and progression</li> <li>Elucidation on the roles of Pim kinases in cancer development and progression</li> <li>Study on roles of pro-inflammatory cytokines and chemokines in inflammation.</li> </ul>	Pro-inflammatory cytokines	MUKAIDA NAOFUMI
				<ul style="list-style-type: none"> <li>Improvement of Clinical Laboratory Methods</li> <li>Mechanism of Neural Cell Death</li> </ul>	micro-assay, optic nerve regeneration	MAWATARI KAZUHIRO
			<ul style="list-style-type: none"> <li>Development of Web Application for Clinical Research</li> <li>Research on Therapy of Leukemia</li> </ul>	<ul style="list-style-type: none"> <li>Chemotherapy of hematological malignancy</li> <li>Bone marrow transplantation of leukemia</li> <li>Analysis of Pathophysiology of leukemia</li> </ul>	Laboratory hematology Laboratory hematology	OTAKE SHIGEKI
			<ul style="list-style-type: none"> <li>Disseminated intravascular coagulation, DIC</li> <li>pathophysiology of thrombosis and hemostasis</li> </ul>	<ul style="list-style-type: none"> <li>Pathophysiology and treatment in disseminated intravascular coagulation</li> <li><a href="http://www.3nai.jp/weblog/index.html">http://www.3nai.jp/weblog/index.html</a></li> <li><a href="http://www.3nai.jp/weblog/index.html">http://www.3nai.jp/weblog/index.html</a></li> </ul>		ASAKURA, hidesaku
				<ul style="list-style-type: none"> <li>Mechanism of thrombosis in arteriovascular disease</li> <li>Genetic analysis and expression studies in congenital coagulation factor deficiencies and coagulation inhibitor deficiencies</li> <li>Antithrombotic effects of hemoxygenase-1</li> </ul>	Hematology	MORISHITA ERIKO
			<ul style="list-style-type: none"> <li>Therapeutic application of novel anti-inflammatory drugs</li> <li>Development of novel laboratory medicine and biomarkers</li> </ul>	<ul style="list-style-type: none"> <li>Pathogenesis and Therapy in Diabetic Nephropathy</li> <li>Development of novel biomarkers in nephrology and autoimmune diseases.</li> <li>Molecular mechanism of kidney development and its application for regeneration</li> </ul>	Nephrology Clinical immunology	WADA TAKASHI
				<ul style="list-style-type: none"> <li>Diagnosis of fungal infectious diseases</li> <li>Rapid detection and identification of pathogenic microorganisms by DNA-based techniques</li> </ul>	Infectious Diseases, Hospital infection, Rapid identification	FUJITA SHINICHI
				<ul style="list-style-type: none"> <li>The role of heme oxygenase-1 on regulation of blood coagulation</li> </ul>	medical laboratory science, hematology	SEKIYA AKIKO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Boundary Medicine	Pathological examination studies	•the development of radiopharmaceuticals	Radiopharmaceutical,Cancer,Bone	OGAWA KAZUMA	
			•Study of Morphology of Cancer Cell that is difference in the cancer cell's DNA,RNA and the normal cell's DNA,RNA •that is difference in the cancer cell's DNA,RNA and the normal cell's DNA,RNA make a study of cancer cells morphology	Cytologic Diagnosis, microdissection	UMEI TAMIKO	
			•Improvement of methods used in clinical laboratory		HONMA KEIKO	
			•HDL function assay development •Lipid lowering agent	•Molecular genetics of hyperalphalipoproteinemia •Lipid lowering, HDL elevating therapy	CETP, HDL, Cholesterol	INAZU AKIHIRO
	Social Medicine	Hygienics	•Human health effects by chronic cadmium exposure •Establishment of workers' health care system •Human health effects by dioxin		Chronic Cadmium Intoxication Dioxin	KIDO, Teruhiko
			•Mechanism underlying dyskinesia •Study on vegetables beneficial to health	•Toxicology of environmental chemicals •Bioactivity of nitriles from vegetables	Environment,	TANII HIDEJI
				•Health effect of KOSA bio-aerosol •Relationship analysis of SNPs and cancer •Functional analysis of TGF- $\beta$ binding protein	Cancer Molecular Biology Sing SNP	HIGASHI TOMOMI
				•Unusual intracellular signal transduction induced by lipid peroxidation •Search for biomarker of oxidative stress in allergy disease •Prevention of health damage induced by earthquake	Oxidative Stress Preventive Medicine Allergic Disease Environmental Chemicals Evaluation of Toxicity	KANBAYASHI YASUHIRO
			•Analysis of genes and proteins which were responded to environmental change	•Isolation of proteins which are responsible for brain function •Studies on molecular mechanisms of brain dysfunction •Alteration in signal transduction by aging and subsequent carcinogenesis	Hygiene Neuro chemistry Molecular Biology	SAIJO Kiyofumi
			Public health/health science		•Older Persons,Persons with Disabilities and Basic Human Rights •Japan and it's Responsibility for the war •Leprosy problem and human rights	social security law welfare policy basic human rights
		•Study of health education inservice training •Study of elementary school health textbooks •role-playing in school health education		Health Education	IWATA HIDEKI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Social Medicine	Public health/health science	<ul style="list-style-type: none"> <li>•Mechanism underlying dyskinesia</li> <li>•Study on vegetables beneficial to health</li> </ul>	<ul style="list-style-type: none"> <li>•Toxicology of environmental chemicals</li> <li>•Bioactivity of nitriles from vegetables</li> </ul>	Environment,	TANII HIDEJI
			<ul style="list-style-type: none"> <li>•Study on access ,quality rational use of and medicines in developing country</li> <li>•Study on Drug Management and Policy</li> <li>•Study on HIV/AIDS Measures</li> </ul>	<ul style="list-style-type: none"> <li>•Study on access ,quality rational use of and medicines in developing country</li> <li>•Study on Drug Management and Policy</li> <li>•Study on HIV/AIDS Measures</li> </ul>	Counterfeit Medicines, Access Quality, Rational Use of Medicines, HIV/AIDS	KIMURA KAZUKO
			<ul style="list-style-type: none"> <li>•A Study on QOL in Low risk Pregnancy</li> <li>•The Quality of Midwifery Care</li> </ul>	<ul style="list-style-type: none"> <li>•The development of maternity assessment tool</li> <li>•Educational Maternal Nursing and Midwifery researches</li> <li>•A Study on Effort in Childbirth Education</li> </ul>	Maternity Nursing, Midwifery, Childbirth education, Nursing education, Nursing Model, Professional, carrier	SHIMADA KEIKO
			<ul style="list-style-type: none"> <li>•Analysis of genes and proteins which were responded to environmental change</li> </ul>	<ul style="list-style-type: none"> <li>•Isolation of proteins which are responsible for brain function</li> <li>•Studies on molecular mechanisms of brain dysfunction</li> <li>•Alteration in signal transduction by aging and subsequent carcinogenesis</li> </ul>	Hygiene Neuro chemistry Molecular Biology	SAIJO Kiyofumi
	Forensic medicine	<ul style="list-style-type: none"> <li>•Forensic Toxicological Screening in Emergency Medical Practice and Forensic specimens</li> <li>•Forensic toxicology and molecular pathological analysis for MDMA.</li> <li>•Analysis of deugs and poisons in the formalin-fixed organs.</li> </ul>	<ul style="list-style-type: none"> <li>•Forensic Toxicological Screening in Emergency Medical Practice and Forensic specimens</li> <li>•Forensic toxicology and molecular pathological analysis for MDMA.</li> <li>•Analysis of deugs and poisons in the formalin-fixed organs.</li> </ul>	Forensic toxicology, Forensic Toxicology for narcotics, Forensic serology,	TAKAYASU TATSUNORI	
		<ul style="list-style-type: none"> <li>•Practical studies on medico-legal diagnosis</li> <li>•Forensic toxicological studies on rapid screening for illicit drugs and poisons</li> <li>•Medico-legal studies on minute biological specimens by molecular genetic procedures</li> </ul>	<ul style="list-style-type: none"> <li>•Practical studies on medico-legal diagnosis</li> <li>•Forensic toxicological studies on rapid screening for illicit drugs and poisons</li> <li>•Medico-legal studies on minute biological specimens by molecular genetic procedures</li> </ul>	injury, biological material, postmortem change, forensic expert opinion	OHSHIMA TOHRU	
				Vascular Fragility, Forensic Pathology, Platelet	ZUKA MASAHIKO	
		<ul style="list-style-type: none"> <li>•Research on Organ Transplantation</li> <li>•Research on Artificial Reproduction</li> <li>•Research on Gene Diagnosis</li> </ul>	<ul style="list-style-type: none"> <li>•Student services in university education</li> <li>•The artificial reproduction and gene diagnosis</li> <li>•The organ transplantation and self-determination</li> </ul>		AONO TORU	
	Internal Clinical Medicine	General internal medicine (includes psychosomatic medicine)	<ul style="list-style-type: none"> <li>•Isolation and Structural Analysis of Biologically Active Natural Products</li> <li>•Study of natural products chemistry forinhibitors of metabolic enzymes</li> <li>•Search for functional substances using the antistress-science evaluation system</li> </ul>	<ul style="list-style-type: none"> <li>•Isolation and Structural Analysis of Biologically Active Natural Products</li> <li>•Study of natural products chemistry forinhibitors of metabolic enzymes</li> <li>•Search for functional substances using the antistress-science evaluation system</li> </ul>	Natural Product Chemistry Pharmacognosy	OTA TOMIHISA
			<ul style="list-style-type: none"> <li>•Clinical epidemiology for atherosclerosis</li> </ul>	<ul style="list-style-type: none"> <li>•Study of Clinical Decision Making between Patients and Physicians on Diabetes</li> <li>•Clinical epidemiology of Atherosclersis</li> <li>•Diabetology</li> </ul>	Metabolism Cardiology Internal Medicine general medicine diabetes hyperlipidemia	KOIZUMI JUNJI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Internal Clinical Medicine	General internal medicine (includes psychosomatic medicine)	<ul style="list-style-type: none"> <li>•Functional food</li> <li>•cancer chemoprevention</li> <li>•Complementary and Alternative Medicine</li> </ul>	Complementary and Alternative	SUZUKI, Nobutaka	
			<ul style="list-style-type: none"> <li>•IFN therapy for chronic hepatitis C</li> </ul>	chronic hepatitis hepatocellular carcinoma	SAKAI AKITO	
			<ul style="list-style-type: none"> <li>•Research for community medicine in Ishikawa Prefecture</li> <li>•Hemodialysis therapy for HCV infection</li> <li>•INF combined hepatic arterial chemotherapy for advanced HCC</li> </ul>	Hepatocellular carcinoma Chemotherapy Percutaneous ablation therapy	YAMASHITA TATSUYA	
			<ul style="list-style-type: none"> <li>•Coronary circulation physiology (explanation of mechanism of myocardial ischemia reflux disorder and its treatment, examination of endothelin coronary circulation and its roles in ischemic condition)</li> <li>•Myocardial regeneration after ischemia reperfusion injury</li> </ul>	Ischemia reperfusion, Myocardial regeneration, Angiogenesis, Endothelin, Clinical electrophysiology	TAKAMURA MASAYUKI	
			<ul style="list-style-type: none"> <li>•Measurement of midkine in serum and pancreatic secretions, and its significance</li> </ul>		MORI HISATSUGU	
			<ul style="list-style-type: none"> <li>•Applying PDA(Personal Digital Assistant)in Evidence-Based Medicine</li> <li>•Applying PDA(Personal Digital Assistant)in Medical Education</li> </ul>	<ul style="list-style-type: none"> <li>•Profiling of the medical technologies required for general practice</li> <li>•Hazards in applying evidence-based medicine to individual patients</li> <li>•Clinical genetics in polycystic kidney disease and other genetic diseases</li> </ul>	General Internal Medicine Clinical Genetics	NOMURA HIDEKI
	Digestive organs internal medicine			<ul style="list-style-type: none"> <li>•IFN therapy for chronic hepatitis C</li> </ul>	chronic hepatitis hepatocellular carcinoma	SAKAI AKITO
					Hepatitis B Virus, DNA/RNA editing enzyme	KITAMURA, Kouichi
						KAWAGUCHI Kazunori
				<ul style="list-style-type: none"> <li>•Gene expression profiles in type 2 diabetes mellitus</li> <li>•Fatty liver-associated metabolic syndrome</li> <li>•Pathophysiology of diabetic nephropathy</li> </ul>	Diabetology Metabolism Endocrinology	TAKAMURA TOSHINARI
				<ul style="list-style-type: none"> <li>•Research for community medicine in Ishikawa Prefecture</li> <li>•Hemodialysis therapy for HCV infection</li> <li>•INF combined hepatic arterial chemotherapy for advanced HCC</li> </ul>	Hepatocellular carcinoma Chemotherapy Percutaneous ablation therapy	YAMASHITA TATSUYA
						MIZUKOSHI EISHIRO
				<ul style="list-style-type: none"> <li>•Methylation abnormality of cancer-related genes in pancreatic fluid</li> </ul>	Clinical OncologyGastroenterology	OTSUBO KOSHIRO
				<ul style="list-style-type: none"> <li>•Immune function in gastrointestinal disease</li> <li>•Gene therapy for cancer</li> <li>•Regenerative Medicine</li> </ul>		SAKAI YOSHIO
			KAGAYA TAKASHI			

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Digestive organs internal medicine	•Study for genomics in liver	•Cancer Research •Liver metabolism and systemic illness •Hepatitis Virus	Experimental Pathology, Virology, Cancer, Liver	KANEKO SHUICHI	
			•Measurement of midkine in serum and pancreatic secretions, and its significance		MORI HISATSUGU	
			•Study on viral hepatitis •Molecular biology of hepatocellular carcinoma	Liver Disease	HONDA, Masao	
	Circulatory organs internal medicine	•Clinical epidemiology for atherosclerosis	•Study of Clinical Decision Making between Patients and Physicians on Diabetes •Clinical epidemiology of Atherosclerosis •Diabetology	Metabolism Cardiology Internal Medicine general medicine diabetes hyperlipidemia	KOIZUMI JUNJI	
			•HO-1 in Cardiovascular homeostasis •Diagnosis of congenital heart disease	Congenital heart diseases, Diagnosis Vascular Biology, Life support PALS Prevention, Medical Education	OTA KUNIO	
			•Regeneration of Cardiovascular Cell and Tissue •Search for novel gene mutation in development of cardiovascular diseases •Therapeutic and control approach for atherosclerotic cardiovascular diseases		YAMAGISHI MASAKAZU	
			•Coronary circulation physiology (explanation of mechanism of myocardial ischemia reflux disorder and its treatment, examination of endothelin coronary circulation and its roles in ischemic condition) •Myocardial regeneration after ischemia reperfusion injury	Ischemia reperfusion, Myocardial regeneration, Angiogenesis, Endothelin, Clinical electrophysiology	TAKAMURA MASAYUKI	
			•Genetic Diagnosis of Hypertrophic Cardiomyopathy	hypertrophic cardiomyopathy, dilated cardiomyopathy, genetic diagnosis	FUJINO NOBORU	
			•Analysis of cardiomyopathy-related genes		KONNO TETSUO	
			•The role of MAFbx in cardiac remodeling	Cardiology, heart failure, Cardiac remodeling	USUI Soichiro	
			•gene analysis of hypertrophic cardiomyopathy •Mechanism and therapy of arrhythmia	arrhythmia. heart failure	INO HIDEKAZU	
			•The role of cardiovascular hormone in the pathogenesis of hypertension	•Study on Pathogenesis of Endocrine tumor	Endocrinology Hypertension	YONEDA TAKASHI
				•Invention of Removal device for coronary stent	Coronary artery intervention, coronary stent	UCHIYAMA KATSU HARU
			•Regional differences of hypertensinogenic factors in Hokuriku area.	•Endocrinological study for the mechanism of hypertension and diabetes mellitus	Endocrinology, Hypertension, Diabetes mellitus	TAKEDA YOSHIYU

Internal Clinical Medicine

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Internal Clinical Medicine	Circulatory organs internal medicine	<ul style="list-style-type: none"> <li>• Risk Factor of Atherosclerotic Cardiovascular Disease</li> <li>• Inherited Dyslipidemia</li> <li>• Diagnostic Imaging of Atherosclerosis</li> </ul>	atherosclerosis, dyslipidemia	KAWASHIRI MASAOKI	
		Respiratory organ internal medicine		<ul style="list-style-type: none"> <li>• Basic and clinical research on Chemotherapy for Lung cancer</li> <li>• Molecular targeted therapy for Lung Cancer</li> </ul>	Internal Medicine Respiratory System	KASAHARA KAZUO
			<ul style="list-style-type: none"> <li>• Molecular targeted therapy for pleural mesothelioma</li> <li>• Research for investigating resistance mechanism to molecular targeted drugs in lung cancer</li> </ul>	<ul style="list-style-type: none"> <li>• Elucidation of multiple-organ metastasis by lung cancer</li> <li>• Study of molecular mechanisms which induces resistance against molecular targeted drugs</li> <li>• Molecular targeted therapy for malignant pleural mesothelioma</li> </ul>	Cancer drug therapy, Lung cancer metastasis, molecular targeted therapy, drug resistance	YANO SEIJI
		Kidney internal medicine	<ul style="list-style-type: none"> <li>• Therapeutic application of novel anti-inflammatory drugs</li> <li>• Development of novel laboratory medicine and biomarkers</li> </ul>	<ul style="list-style-type: none"> <li>• Pathogenesis and Therapy in Diabetic Nephropathy</li> <li>• Development of novel biomarkers in nephrology and autoimmune diseases.</li> <li>• Molecular mechanism of kidney development and its application for regeneration</li> </ul>	Nephrology Clinical immunology	WADA TAKASHI
				<ul style="list-style-type: none"> <li>• Mechanism of renal fibrosis</li> </ul>	Nephrology	SAKAI NORIHIKO
		Neurology	<ul style="list-style-type: none"> <li>• Development of diagnostic, therapeutic, and preventive methods for dementia and aging-related neurological disorders</li> </ul>	<ul style="list-style-type: none"> <li>• Study on Brain Aging, Dementia, and Amyloid</li> <li>• Study on neuroinfection and neuroimmunology</li> <li>• Clinical study on stroke and other neurological disorders</li> </ul>	Neurology	YAMADA MASAHIKO
				<ul style="list-style-type: none"> <li>• Comprehensive genetic analysis of congenital anomalies, genetic fixation with regard to autistic disorders</li> </ul>	congenital malformation syndro	NIIDA YO
				<ul style="list-style-type: none"> <li>• Neuroimmunology</li> </ul>	neuroimmunology	IWASA KAZUO
			<ul style="list-style-type: none"> <li>• Study of Immunotherapy for Myasthenia Gravis</li> <li>• Study on autoantibodies from autoimmune neurological diseases</li> <li>• Neuropsychological study related to development and growth</li> </ul>	<ul style="list-style-type: none"> <li>• Study of Immunotherapy for Myasthenia Gravis</li> <li>• Immunopathogenesis of autoimmune neurological disorder</li> <li>• Study of efficacy of health education in university setting</li> </ul>	Neuroimmunology, Neuroscience, Neurology, Preventive medicine	YOSHIKAWA, Hiroaki
		Metabolism studies	<ul style="list-style-type: none"> <li>• Clinical epidemiology for atherosclerosis</li> </ul>	<ul style="list-style-type: none"> <li>• Study of Clinical Decision Making between Patients and Physicians on Diabetes</li> <li>• Clinical epidemiology of Atherosclerosis</li> <li>• Diabetology</li> </ul>	Metabolism Cardiology Internal Medicine general medicine diabetes hyperlipidemia	KOIZUMI JUNJI
					Type 2 Diabetes, Insulin Resistance, Hepatokine, selenoprotein P, reactive oxygen species	MISU HIROFUMI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Internal Clinical Medicine	Metabolism studies	<ul style="list-style-type: none"> <li>•Gene expression profiles in type 2 diabetes mellitus</li> <li>•Fatty liver-associated metabolic syndrome</li> <li>•Pathophysiology of diabetic nephropathy</li> </ul>	Diabetology Metabolism Endocrinology	TAKAMURA TOSHINARI	
			<ul style="list-style-type: none"> <li>•The role of cardiovascular hormone in the pathogenesis of hypertension</li> </ul>	•Study on Pathogenesis of Endocrine tumor	Endocrinology Hypertension	YONEDA TAKASHI
			<ul style="list-style-type: none"> <li>•Regional differences of hypertensinogenic factors in Hokuriku area.</li> </ul>	•Endocrinological study for the mechanism of hypertension and diabetes mellitus	Endocrinology, Hypertension, Diabetes mellitus	TAKEDA YOSHIYU
			<ul style="list-style-type: none"> <li>•HDL function assay development</li> <li>•Lipid lowering agent</li> </ul>	<ul style="list-style-type: none"> <li>•Molecular genetics of hyperalphalipoproteinemia</li> <li>•Lipid lowering, HDL elevating therapy</li> </ul>	CETP, HDL, Cholesterol	INAZU AKIHIRO
				<ul style="list-style-type: none"> <li>•Risk Factor of Atherosclerotic Cardiovascular Disease</li> <li>•Inherited Dyslipidemia</li> <li>•Diagnostic Imaging of Atherosclerosis</li> </ul>	atherosclerosis, dyslipidemia	KAWASHIRI MASAOKI
	Endocrinology	<ul style="list-style-type: none"> <li>•Clinical epidemiology for atherosclerosis</li> </ul>	<ul style="list-style-type: none"> <li>•Study of Clinical Decision Making between Patients and Physicians on Diabetes</li> <li>•Clinical epidemiology of Atherosclerosis</li> <li>•Diabetology</li> </ul>	Metabolism Cardiology Internal Medicine general medicine diabetes hyperlipidemia	KOIZUMI JUNJI	
			<ul style="list-style-type: none"> <li>•Gene expression profiles in type 2 diabetes mellitus</li> <li>•Fatty liver-associated metabolic syndrome</li> <li>•Pathophysiology of diabetic nephropathy</li> </ul>	Diabetology Metabolism Endocrinology	TAKAMURA TOSHINARI	
		<ul style="list-style-type: none"> <li>•The role of cardiovascular hormone in the pathogenesis of hypertension</li> </ul>	•Study on Pathogenesis of Endocrine tumor	Endocrinology Hypertension	YONEDA TAKASHI	
		<ul style="list-style-type: none"> <li>•Regional differences of hypertensinogenic factors in Hokuriku area.</li> </ul>	•Endocrinological study for the mechanism of hypertension and diabetes mellitus	Endocrinology, Hypertension, Diabetes mellitus	TAKEDA YOSHIYU	
	Hematology	<ul style="list-style-type: none"> <li>•Disseminated intravascular coagulation, DIC</li> <li>•pathophysiology of thrombosis and hemostasis</li> </ul>	<ul style="list-style-type: none"> <li>•Pathophysiology and treatment in disseminated intravascular coagulation</li> <li>•<a href="http://www.3nai.jp/weblog/index.html">http://www.3nai.jp/weblog/index.html</a></li> <li>•<a href="http://www.3nai.jp/weblog/index.html">http://www.3nai.jp/weblog/index.html</a></li> </ul>		ASAKURA, hideosaku	
			<ul style="list-style-type: none"> <li>•Mechanism of thrombosis in arteriovascular disease</li> <li>•Genetic analysis and expression studies in congenital coagulation factor deficiencies and coagulation inhibitor deficiencies</li> <li>•Antithrombotic effects of hemoxygenase-1</li> </ul>	Hematology	MORISHITA ERIKO	
			<ul style="list-style-type: none"> <li>•Induction of graft-versus-leukemia effect after allogeneic stem cell transplantation</li> <li>•Immunotherapy for hematologic malignancies</li> <li>•Novel treatment strategy for GVHD after allogeneic HSCT</li> </ul>	HEMATOLOGY	TAKAMI AKIYOSHI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Internal Clinical Medicine	Hematology			TAKAMATSU, Hiroyuki	
				<ul style="list-style-type: none"> <li>•Development of a novel malaria vaccine based on a non-infectious viral vector</li> <li>•Elucidation of malaria parasite-mosquito salivary gland interaction using transgenic mosquitoes</li> <li>•Elucidation of mechanism of malaria vaccine frailness caused by parasite-mediated immune disturbance</li> <li>•Development of an anti-platelet drug targeted to collagen using a novel anti-platelet aggregation protein derived from mosquito saliva.</li> </ul>	vaccine, malaria, anopheles, anti-platelet drug	YOSHIDA SHIGETO
				<ul style="list-style-type: none"> <li>•Detecting target antigens of the GVL effect after DLI</li> <li>•Analysis of immune reconstitution after allogeneic stem cell transplantation</li> <li>•Cancer immunotherapy targeting tumor-related antigens</li> </ul>	GVL, mHA, TAAs	KONDO YUKIO
			<ul style="list-style-type: none"> <li>•Physiology of heme oxygenase and its deficient state</li> </ul>	<ul style="list-style-type: none"> <li>•Treatment of childhood cancer and acute leukemia</li> <li>•Drug resistance</li> <li>•Heme oxygenase-1 deficiency</li> </ul>	Pediatric Hematology-Oncology Chemotherapy Drug resistance	KOIZUMI SHOICHI
				<ul style="list-style-type: none"> <li>•molecular mechanisms for self-renewal of stem cells</li> <li>•Maintenance mechanisms for genomic stability</li> </ul>	stem cell self-renewal hematopoietic stem cell	HIRAO ATSUSHI
		Collagen disease/allergy/infectious disease medicine	<ul style="list-style-type: none"> <li>•Therapeutic application of novel anti-inflammatory drugs</li> <li>•Development of novel laboratory medicine and biomarkers</li> </ul>	<ul style="list-style-type: none"> <li>•Pathogenesis and Therapy in Diabetic Nephropathy</li> <li>•Development of novel biomarkers in nephrology and autoimmune diseases.</li> <li>•Molecular mechanism of kidney development and its application for regeneration</li> </ul>	Nephrology Clinical immunology	WADA TAKASHI
						FUJII HIROSHI
				<ul style="list-style-type: none"> <li>•Diagnosis of fungal infectious diseases</li> <li>•Rapid detection and identification of pathogenic microorganisms by DNA-based techniques</li> </ul>	Infectious Diseases, Hospital infection, Rapid identification	FUJITA SHINICHI
				<ul style="list-style-type: none"> <li>•Development and abnormality in immune systems</li> <li>•Analysis of pathogenesis of EB virus infection</li> <li>•Functional significance of HO-1 in inflammation</li> </ul>	Pediatrics Immunology EBV, autoimmune disease, apoptosis	KASAHARA YOSHIHITO
				<ul style="list-style-type: none"> <li>•Study on viral hepatitis</li> <li>•Molecular biology of hepatocellular carcinoma</li> </ul>	Liver Disease	HONDA, Masao



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Internal Clinical Medicine	Collagen disease/allergy/infectious disease medicine	<ul style="list-style-type: none"> <li>infectious agent associated with rheumatoid arthritis</li> <li>Immunological analysis of Sjogren's syndrome</li> <li>IgG4-related disease and tuberculosis</li> </ul>	rheumatoid arthritis, Sjogren syndrome, immunology, renal transplantation, infection	KAWANO MITSUHIRO	
		Pediatrics		<ul style="list-style-type: none"> <li>Comprehensive genetic analysis of congenital anomalies, genetic fixation with regard to autistic disorders</li> </ul>	congenital malformation syndro	NIIDA YO
				<ul style="list-style-type: none"> <li>HO-1 in Cardiovascular homeostasis</li> <li>Diagnosis of congenital heart disease</li> </ul>	Congenital heart diseases, Diagnosis Vascular Biology, Life support PALS Prevention, Medical Education	OTA KUNIO
						NAGAOKI SHUYA
						TOMA, Tomoko
			<ul style="list-style-type: none"> <li>Physiology of heme oxygenase and its deficient state</li> </ul>	<ul style="list-style-type: none"> <li>Treatment of childhood cancer and acute leukemia</li> <li>Drug resistance</li> <li>Heme oxygenase-1 deficiency</li> </ul>	Pediatric Hematology-Oncology Chemotherapy Drug resistance	KOIZUMI SHOICHI
			<ul style="list-style-type: none"> <li>Control of inflammation and cytokine regulation</li> </ul>	<ul style="list-style-type: none"> <li>T cell differentiation in Immune Abnormality Disorders</li> <li>Oxidative Stress and Immune Response</li> <li>Pathogenic Mechanism of Abnormal Expansion of EBV-Infected Cells</li> </ul>	Clinical Immunology	YACHIE AKIHIRO
				<ul style="list-style-type: none"> <li>Development and abnormality in immune systems</li> <li>Analysis of pathogenesis of EB virus infection</li> <li>Functional significance of HO-1 in inflammation</li> </ul>	Pediatrics Immunology EBV, autoimmune disease, apoptosis	KASAHARA YOSHIHITO
		Embryonic/neonatal medicine		<ul style="list-style-type: none"> <li>HO-1 in Cardiovascular homeostasis</li> <li>Diagnosis of congenital heart disease</li> </ul>	Congenital heart diseases, Diagnosis Vascular Biology, Life support PALS Prevention, Medical Education	OTA KUNIO
			<ul style="list-style-type: none"> <li>Physiology of heme oxygenase and its deficient state</li> </ul>	<ul style="list-style-type: none"> <li>Treatment of childhood cancer and acute leukemia</li> <li>Drug resistance</li> <li>Heme oxygenase-1 deficiency</li> </ul>	Pediatric Hematology-Oncology Chemotherapy Drug resistance	KOIZUMI SHOICHI
				<ul style="list-style-type: none"> <li>Development and abnormality in immune systems</li> <li>Analysis of pathogenesis of EB virus infection</li> <li>Functional significance of HO-1 in inflammation</li> </ul>	Pediatrics Immunology EBV, autoimmune disease, apoptosis	KASAHARA YOSHIHITO
		Dermatology		<ul style="list-style-type: none"> <li>Scleroderma</li> <li>Antinuclear antibody</li> <li>Growth factor</li> </ul>		TAKEHARA KAZUHIKO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Internal Clinical Medicine	Dermatology	•B cells, Autoimmunity		FUJIMOTO MANABU	
			•Scleroderma •B cell	Scleroderma, Anti-nuclear antibody, Fc receptor	HAMAGUCHI Yasuhito	
					Takashi Matsushita	
			•Immunology about the pathogenesis of systemic sclerosis •B cells and autoimmunity	systemic sclerosis autoimmunity cytokine	HASEGAWA MINORU	
		Psychoneurosis studies			Schizophrenia, Cerebral Cortex, Pathophysiology	HASHIMOTO TAKANORI
				•Molecular mechanisms underlying addiction Molecular mechanisms underlying major depressive disorder Neuronal plasticity in the nucleus accumbens		TODA SHIGENOBU
			•study on neuropsychology and neurophysiology of schizophrenia	•Study on neuropsychology and neurophysiology of schizophrenia •Combined use of antipsychotics in the treatment of schizophrenia patients.	neuropsychiatry	NAGASAWA TATSUYA
				•Neurophysiological study on schizophrenia •Pathophysiology of anxiety disorders •Brain developmental study using MEG/NIRS integrated device	Psychiatry, Neurophysiology	KIKUCHI MITSURU
				•Study on Child and Adolescent Psychiatry •Study on Child and Adolescent Psychopharmacology		MUNESUE TOSHIO
						MINABE YOSHIO
		Radiation science	•Clinical multicenter study on nuclear cardiology	•Nuclear Cardiology Cardiovascular Imaging •Large scale clinical trial •atherosclerosis	Nuclear Cardiology, Cardiology, Imaging	MATSUO SHINRO
			•Development of ChAT mapping agent for Alzheimer's disease early diagnosis	•Study on Syntheses of Radiopharmaceutical for cerebral nerve function diagnosis •Development of a high sensitive evaluation of internal radiation exposure	Brain, molecular imaging, radiation	SHIBA KAZUHIRO
				•Study of hepatic microcirculation •Diagnostic imaging of the liver	Liver Imaging, Interventional radiology	KOBAYASHI SATOSHI
				•Radiotherapy		KUMANO TOMOYASU
				•Radiology of the abdomen •interventional radiology		KODA, Wataru
						MINAMI TETSUYA
			•Development of endovascular devices	•Diagnosis and treatment of hepatocellular carcinoma •interventional angiography	Radiology	MATSUI OSAMU
				•Imaging Diagnosis of Abdomen	Radiology	GABATA TOSHIFUMI
				•Cancer radiotherapy	Radio logy	TAKANAKA TSUYOSHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Internal Clinical Medicine	Radiation science	<ul style="list-style-type: none"> <li>•In vivo anatomical analysis of arterial contact with trigeminal nerve : Detection with 30-SPGR imaging</li> <li>•Determination of tissue Gd concentration by combined use of Pre-and post Gd-enhanced FLAIR and cSE T1 weighted imaging</li> <li>•Detection capability of the necessity for reembozation of three types of MR angiography in the follow-up of intracranial aneurysms embolized with GDCS</li> </ul>	Diagnostic Neuroradiology	UEDA FUMIAKI	
			<ul style="list-style-type: none"> <li>•MRS in rhe evaluation of brain tissue.</li> </ul>	<ul style="list-style-type: none"> <li>•Diagnostic Imaging of Breast Cancer</li> </ul>	breast cancer, MRI, mammography	KAWASHIMA HIROKO
			<ul style="list-style-type: none"> <li>•Interventional Radiology</li> <li>•Endovascular treatment of aortic aneurysm with stent-graft</li> <li>•endovascular therapy for peripheral arterial disease</li> </ul>			SANADA JUNICHIRO
			<ul style="list-style-type: none"> <li>•Evaluation of organ doses in ECG gated cardiac CTA</li> </ul>		CT, radiation	MATSUBARA, Kosuke
			<ul style="list-style-type: none"> <li>•the development of radiopharmaceuticals</li> </ul>		Radiopharmaceutical,Cancer,Bone	OGAWA KAZUMA
			<ul style="list-style-type: none"> <li>•Study for Radiation Dose Simulation</li> <li>•Study on Effective Dose Equivalent</li> </ul>		Radiation Engineering Radiation Protection Radiation Measurement	KOSHIDA KICHIRO
			<ul style="list-style-type: none"> <li>•Development of digital x-ray imaging system</li> <li>•Development of computer-aided diagnosis in medical image</li> </ul>	<ul style="list-style-type: none"> <li>•Development of computer-aided diagnosis in digital radiographs</li> <li>•Analysis of image quality of radiograph</li> <li>•Assessment of radiographic techniques and equipments in digital radiology</li> </ul>	Radiology Medical Imaging Radiation Therapy	SANADA SHIGERU
			<ul style="list-style-type: none"> <li>•Development of radioactive tracer</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Radionuclide in human body</li> <li>•Study on Quality Control in Radiopharmaceutioals</li> <li>•Study on Behavior of trace elements in human body</li> </ul>	Radiochemistry Nuclear Medicine Environmental Radiation Science nuclear radiochemistry radiopharmaceuticals	AMANO Ryohei
			<ul style="list-style-type: none"> <li>•Fundamental study for acquisition and analysis on the nuclear medicine</li> </ul>	<ul style="list-style-type: none"> <li>•Development of A New Functional Analysis Using Gated SPECT</li> <li>•Development of Cardiac Anthropomorphic phantom</li> <li>•Quantitative Analysis of Organ's Perfusion Using Small Animals on Nuclear Medicine</li> </ul>	Nuclear Medicine	ONOGUCHI MASAHISA
			<ul style="list-style-type: none"> <li>•Application of alpha particle emitters for targeted radionuclide therapy</li> <li>•Production and Medical application of radionuclides</li> <li>•Pharmacoscintigraphy and therapy for head and neck disease using intranasal administration method</li> </ul>	<ul style="list-style-type: none"> <li>•Production and application of isotopes for medical use</li> <li>•Application of alpha particle emitters for targeted radionuclide therapy</li> <li>•Pharmacokinetics imaging using intra-nasal administration method and development of therapeutic methods for brain diseases</li> </ul>	decay chain, alpha emitter, in vivo generator, targeted radionuclide therapy, radiopharmaceuticals	WASHIYAMA, Kohshin

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Internal Clinical Medicine	Radiation science	<ul style="list-style-type: none"> <li>• Effects of setup errors obtained in image guided radiation therapy to dose distribution</li> <li>• Research related to radiotherapy</li> <li>• Research of medical image processing and image registration method</li> </ul>	Image Guided Radiotherapy	TAKEMURA AKIHIRO	
			<ul style="list-style-type: none"> <li>• Studies on developments of imaging and analytical methods in MRI</li> </ul>	<ul style="list-style-type: none"> <li>• Development of Pulse Sequences in Magnetic Resonance Imaging</li> <li>• Assess of Magnetic Resonance(MR)Image Quality</li> <li>• Development of Functional Magnetic Resonance(MR) Imaging and Analysis Methods</li> </ul>	Magnetic resonance imaging Pulse sequence Medical imaging Magnetic resonance imaging Imaging method Medical imaging Magnetic resonance imaging Imaging method Pulse sequence	MIYACHI TOSHIAKI
			<ul style="list-style-type: none"> <li>• Development of dynamic chest radiography using a flat-panel detector system combined with computer analysis</li> <li>• Verification of radiotherapy treatment plan</li> <li>• Development of automatic volumetric tracking system in radiotherapy</li> </ul>	Medical imaging, Digital image processing, Digital image evaluation, computer analysis, Radiation therapy, computer aided diagnosis	TANAKA RIE	
			<ul style="list-style-type: none"> <li>• New radiological technology</li> </ul>	<ul style="list-style-type: none"> <li>• Development of auto detect and analysis system for PET imaging on acute cerebralvascular diseases</li> <li>• Cerebral blood and metabolism measurement using injectable O-15 labeled tracer</li> </ul>	Nuclear medicine.Image analysis.Radiological technology	KOBAYASHI MASATO
			<ul style="list-style-type: none"> <li>• Radioprobe-based Molecular Imaging for Diagnosis of Metabolic Function</li> <li>• Regulation of Pharmacokinetics</li> <li>• Evaluation of Radiopharmaceutical for Cancer Detection and Image-guided Planning Treatments</li> </ul>	Molecular Imaging and Radiopharmaceutical Chemistry	KAWAI KEIICHI	
	Surgical Clinical Medicine	General surgery	<ul style="list-style-type: none"> <li>• Development of effective educational system in emergency and critical care medicine</li> <li>• Establishment of effective emergency medical service system</li> </ul>	<ul style="list-style-type: none"> <li>• Pathophysiology of ischemia-reperfusion injury in the liver</li> <li>• Induction of ischemic preconditioning</li> <li>• Analysis of factors related to survival in out-of-hospital cardiac arrests</li> </ul>	Emergency Medicine Intensive Care Medicine Anesthesiology	INABA HIDEO
			<ul style="list-style-type: none"> <li>• Basic research on low (ice)-temperature preservation of transplanting lungs with freeze-preservation polysaccharides</li> <li>• Perioperative identification method for lung cancer mediastinal lymph node metastasis by tumor-specific antigens attached to a fluorescent cyclo-sphere</li> <li>• Repair of intra-thoracic autonomic nerves using chitosan tubes</li> </ul>	thoracic surgery, lung transplantation, less invasive surgery	MATSUMOTO, Isao	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Surgical Clinical Medicine	General surgery	<ul style="list-style-type: none"> <li>• Involvement of chemokine ligand/receptor system in stomach cancer</li> <li>• Development of molecular target therapy targeted to CXCR4/CXCL12 axis and HB-EGF in gastric cancer</li> </ul>	SURGICAL ONCOLOGY, MOLECULAR BIOLOGY, GASTRIC CACNER, PERITONEAL CARCINOMATOSIS	YASUMOTO KAZUO	
		Digestive organ surgery		<ul style="list-style-type: none"> <li>• Chemoprevention for Barrett's adenocarcinoma by cyclooxygenase 2 inhibitor</li> <li>• Sentinel navigation surgery</li> </ul>	Gastric cancer Peritoneal metastasis Hyperthermia	FUJIMURA TAKASHI
			<ul style="list-style-type: none"> <li>• Molecular Diagnosis of Colorectal Cancer</li> <li>• Serial Analysis of Gene Expression in Stomach Cancer</li> </ul>	<ul style="list-style-type: none"> <li>• Molecular oncology of gastrointestinal cancer</li> <li>• Surgical oncology for gastrointestinal cancer</li> <li>• Establishment of tissue material resources of human gastrointestinal cancer</li> </ul>	Gastrointestinal oncology, Surgical and molecular oncology	MINAMOTO TOSHINARI
			<ul style="list-style-type: none"> <li>• CANCER METASTASIS, PERITONEAL CARCINOMATOSIS</li> </ul>	<ul style="list-style-type: none"> <li>• Involvement of chemokine ligand/receptor system in stomach cancer</li> <li>• Development of molecular target therapy targeted to CXCR4/CXCL12 axis and HB-EGF in gastric cancer</li> </ul>	SURGICAL ONCOLOGY, MOLECULAR BIOLOGY, GASTRIC CACNER, PERITONEAL CARCINOMATOSIS	YASUMOTO KAZUO
				• Biological Behavior of Pancreatic Cancer	Surgery for Pancreas and Biliary Tract	OHTA TETSUO
				<ul style="list-style-type: none"> <li>• Intraoperative Manometric Examination in Treatment of Choledocholithiasis</li> <li>• Sentinel Node Navigation Surgery for Gall Bladder Cancer</li> <li>• Selection of treatment method for common bile duct stones based on perioperative pressure in biliary tract</li> </ul>		KITAGAWA HIROHISA
				<ul style="list-style-type: none"> <li>• Multimodality therapy for peritoneal dissemination in gastric cancer</li> <li>• Molcular biological investigation of peritoneal metastases in gastric cancer</li> </ul>	gastric cancer, peritoneal dissemination, multimodality therapy	FUSHIDA SACHIO
		Thoracic surgery		• Study on Myocardial oxygen metabolism on beating heart surgery using near-infrared monitor	Cardiovascular Surgery.	TOMITA SHIGEYUKI
				<ul style="list-style-type: none"> <li>• Basic research on low (ice)-temperature preservation of transplanting lungs with freeze-preservation polysaccharides</li> <li>• Perioperative identification method for lung cancer mediastinal lymph node metastasis by tumor-specific antigens attached to a fluorescent cyclo-sphere</li> <li>• Repair of intra-thoracic autonomic nerves using chitosan tubes</li> </ul>	thoracic surgery, lung transplantation, less invasive surgery	MATSUMOTO, Isao
				<ul style="list-style-type: none"> <li>• Intra-aneurysmal sac pressure change after stent-grafting</li> <li>• Stent-grafting for aortic arch aneurysm</li> <li>• Assessment of therapeutic angiogenic therapy for lower limbs</li> </ul>	Aortic aneurysm stent-graft Clinical angiogenesis	OTAKE HIROSHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Surgical Clinical Medicine	Thoracic surgery	<ul style="list-style-type: none"> <li>•Basic and clinical research on awake off-pump coronary artery bypass grafts</li> </ul>	Thoracic Surgery	WATANABE GO	
		Cerebral neurosurgery	<ul style="list-style-type: none"> <li>•Surgical treatment for cerebral stroke</li> <li>•Surgical treatment for cerebral tumor</li> <li>•Surgical treatment for head injury</li> </ul>			MORI MASANAO
			<ul style="list-style-type: none"> <li>•Molecular targeted therapy for malignant glioma</li> <li>•The molecular mechanism of glioma invasion</li> <li>•The molecular analysis of malignant glioma</li> </ul>	<ul style="list-style-type: none"> <li>•The analysis of invasion mechanism of malignant glioma and glioma stem cell</li> <li>•TaylorMade molecular targeted therapy against malignant brain tumor</li> <li>•The exploration of biomarker for malignant glioma</li> </ul>	glioblastoma, invasion, biomarker	NAKADA MITSUTOSHI
			<ul style="list-style-type: none"> <li>•Brain Tumor</li> <li>•Hydrocephalus</li> <li>•Pediatric Neurosurgery</li> </ul>			KITA DAISUKE
			<ul style="list-style-type: none"> <li>•Promotion of「strategy for brain protection」</li> <li>•Repetable battery for assessment of neuropsychological status</li> </ul>	<ul style="list-style-type: none"> <li>•Mechanism of adult neurogenesis and strategy for brain restoration</li> <li>•Ischemic neuronal death specific for the primate hippocampus</li> <li>•Amnesic symptom due to hippocampal neuronal death</li> </ul>	Neuroscience Regenerative Medicine Neurosurgery Neuroscience	YAMASHIMA TETSUMORI
			<ul style="list-style-type: none"> <li>•Studies on developments of imaging and analytical methods in MRI</li> </ul>	<ul style="list-style-type: none"> <li>•Development of Pulse Sequences in Magnetic Resonance Imaging</li> <li>•Assess of Magnetic Resonance(MR)Image Quality</li> <li>•Development of Functional Magnetic Resonance(MR) Imaging and Analysis Methods</li> </ul>	Magnetic resonance imaging Pulse sequence Medical imaging Magnetic resonance imaging Imaging method Medical imaging Magnetic resonance imaging Imaging method Pulse sequence	MIYACHI TOSHIAKI
			Orthopaedic surgery	<ul style="list-style-type: none"> <li>•Spine Tumor</li> <li>•bone tumor</li> <li>•Spinal disease</li> </ul>		Bone Tumor Spine Surgery Bone fracture
		<ul style="list-style-type: none"> <li>•Development of the treatment to promote bone formation</li> <li>•Development of immunotherapy for bone and soft-tissue tumors</li> <li>•Development of new external fixators</li> </ul>		<ul style="list-style-type: none"> <li>•Study on the treatment of musculoskeletal tumors</li> <li>•Study on bone lengthening</li> <li>•The role of fibrinolytic system in the formation of lung metastasis. Elucidation of the mechanism of lung metastasis and the development of the treatment strategy</li> </ul>	Musculoskeletal tumor, Limb lengthening, Deformity correction, External fixation	TSUCHIYA HIROYUKI
		<ul style="list-style-type: none"> <li>•Pathogenesis of steroid-induced osteonecrosis</li> <li>•Biomechanics of prosthetic joints</li> <li>•Deep venous thrombosis</li> </ul>			Joint Disease	KABATA TAMON
					BONE TUMOR SOFT TISSUE TUMOR LIMB sarcoma Chemotherapy limb salvage	YAMAMOTO NORIO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Surgical Clinical Medicine	Orthopaedic surgery	<ul style="list-style-type: none"> <li>•clinical evaluation and classification for physical deconditioning</li> <li>•new evaluation method of physical flexibility</li> <li>•clinical examination for swallowing disturbance</li> <li>•clinical assessment for physical deconditioning, therapeutic strategy for physical deconditioning</li> <li>•ADL outcome after ruptured aneurysmal subarachnoid hemorrhage</li> <li>•recovery process of paraplegia after spinal cord decompression</li> <li>•swallowing disorder, assessment of dysphagia</li> </ul>	musculoskeletal system, dysphagia, gait disturbance, rigospasticity, physical deconditioning, disuse syndrome, physical fitness, rehabilitation	YAHATA TETSUTARO	
			<ul style="list-style-type: none"> <li>•Spine tumors</li> <li>•Spinal fusion</li> <li>•Osteoporotic spine</li> </ul>	spine tumor, osteoporotic spine, thoracic OPLL	MURAKAMI HIDEKI	
			<ul style="list-style-type: none"> <li>•Development of orthosis and the welfare instrument in the activities of daily living</li> <li>•Development of the orthosis and training instrument of the hand</li> <li>•Rehabilitation and biomechanics of the hand</li> </ul>	<ul style="list-style-type: none"> <li>•Rehabilitation and Biomechanics of the Hand</li> <li>•The evaluation of the upper limbs and the trunk function in the activities of daily living, and development of the welfare instrument</li> <li>•Development of the orthosis and training instrument of the hand</li> </ul>	Rehabilitation of the hand. Biomechanics. ADL	NISHIMURA, Seiji
			<ul style="list-style-type: none"> <li>•Histopathological changes of joint components by joint contracture.</li> </ul>	Joint Contracture	MATSUZAKI TARO	
	Anesthesiology/resuscitation studies	<ul style="list-style-type: none"> <li>•Pharmacokinetics</li> <li>•Prediction of difficult intubation</li> <li>•Palliative Care</li> </ul>	Anesthesiology	YAMAMOTO KEN		
		<ul style="list-style-type: none"> <li>•Study on pharmacokinetics of intravenous anesthetics</li> <li>•Cardiac anesthesia</li> <li>•The effects of anesthetics on evoked potentials</li> </ul>	Anesthesiology Pharmacokinetics	TSUBOKAWA TSUNEHISA		
		<ul style="list-style-type: none"> <li>•Study on Stellate Ganglion Block</li> <li>•Effect of percutaneous vertebroplasty on metastatic centrum tumors</li> <li>•Consideration of oxycodone and fentanyl patches for cancer-related pain care</li> </ul>	Anesthesiology pain management cancer pain	YAMADA KEISUKE		
				KOMURO AKIKO		
				KURITA AKIHIDE		
		<ul style="list-style-type: none"> <li>•Sensitivity of Neuromuscular Blockers</li> </ul>	Anesthesiology	ITO HIRONORI		
<ul style="list-style-type: none"> <li>•Effect of Anesthetics in Sepsis</li> <li>•Change in Cytokines in Sepsis</li> </ul>	Sepsis, Cytokine, Blood Purification	TANIGUCHI TAKUMI				

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Urology		<ul style="list-style-type: none"> <li>•Bodily response to foreign substances</li> <li>•Immune response in seminiferous epithelium</li> </ul>	host defence, phagocytosis, apoptosis	NAGAOA Kazushige	
			<ul style="list-style-type: none"> <li>•Prostatic Cancer</li> <li>•Androgen receptor</li> <li>•Bone metastasis</li> </ul>	Urology	MIZOKAMI ATSUSHI	
						KONAKA HIROYUKI
			<ul style="list-style-type: none"> <li>•spermatogenesis</li> </ul>	spermatogenesis	MAEDA, Yuji	
				Urology	MIWA SOTARO	
		<ul style="list-style-type: none"> <li>•Genetic diagnosis on male infertility</li> </ul>	<ul style="list-style-type: none"> <li>•Study on spermagenetic gene</li> <li>•Steroid metabolism on Prostate</li> </ul>	male infertility Y chromosome	KO EITETSU	
			<ul style="list-style-type: none"> <li>•study on the molecular biology of male infertility</li> <li>•Basic and clinical study on hormonal therapy for prostate cancer</li> <li>•Study on crucial genes for spermatogenesis</li> </ul>	male infertility, prostate cancer, spermatogenesis, men's health	NAMIKI MIKIO	
	Obstetrics and gynecology	<ul style="list-style-type: none"> <li>•Collection of stem cells in umbilical cord</li> <li>•Matrix metalloproteinases in Obstetrics</li> </ul>	<ul style="list-style-type: none"> <li>•Etiology and Treatment of Premature Rupture of Membranes (PROM)</li> <li>•Management of medical and surgical complications in Pregnancy.</li> <li>•Milk ejection reflex and Oxytocin.</li> </ul>	PROM, Complicated Pregnancy, Milk ejection reflex	UCHIDE, Kiyoshi	
				Gynecologic Oncology Telomerase Gene therapy	NAKAMURA MITSUHIRO	
			<ul style="list-style-type: none"> <li>•Analysis of telomerase activity in Gynecological tumors</li> <li>•Analysis of transcriptional regulation of human papillomavirus gene expression</li> <li>•Analysis of transuptional regulation of P53 expression</li> </ul>		KYO SATORU	
			<ul style="list-style-type: none"> <li>•Study on gynecological tumor and carcinogenesis</li> <li>•Study on human endometrial stem cell and carcinogenesis</li> <li>•the minimally invasive gynecological surgery</li> <li>•management of the mother in perinatal care</li> </ul>		TANAKA MASA AKI	
			<ul style="list-style-type: none"> <li>•Transcriptional regulation of telomerase</li> </ul>	telomerase	TAKAKURA MASAHIRO	
		<ul style="list-style-type: none"> <li>•Development of hormone-drug release system via supramolecular dissociation</li> </ul>	<ul style="list-style-type: none"> <li>•DNA analysis in the study for carcinogenesis of Endometrial cancer and gene therapy</li> <li>•Human papilloma analysis in the carcinogenesis of uterine cervical cancer</li> <li>•Gene therapy for ovarian Cancer</li> </ul>	Molecular pathology in gynecologic field Anti-Cancer chemotherapy in Gynecologic field Cell aging and carcinogenesis	INOUE MASAKI	
			<ul style="list-style-type: none"> <li>•Reproductive endocrinology on hypothalamo-pituitary axis</li> </ul>	Obstetrics and Gynecology	KOIKE KOJI	



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Medical, Dental, and Pharmaceutical Science	Surgical Clinical Medicine	Otorhinolaryngology	<ul style="list-style-type: none"> <li>• Study on Central Auditory System</li> <li>• Effects of oral administration of Japanese Herbal Medicine Juzen-taiho-to in otitis-prone children</li> <li>• Drug-resistant Streptococcus pneumoniae in healthy children</li> </ul>	Otolarygology	ITO MAKOTO
			<ul style="list-style-type: none"> <li>• Head &amp; Neck Cancer</li> </ul>		WAKISAKA NAOHIRO
			<ul style="list-style-type: none"> <li>• Epstein-Barr virus and nasopharyngeal carcinoma</li> <li>• Application of basic research for head and neck cancer chemotherapy</li> </ul>		MURONO SHIGEYUKI
			<ul style="list-style-type: none"> <li>• Nasopharyngeal carcinoma associated with Epstein-Barr virus</li> <li>• Study of Sense of Smell</li> <li>• Speech pathological study</li> </ul>	nasopharynx cancer metastasis Nose Olfaction	FURUKAWA MITSURU
			<ul style="list-style-type: none"> <li>• Study on Nasopharyngeal Carcinoma and Epstein-Barr Virus</li> <li>• Mechanism of metastasis in head and neck cancer</li> <li>• Extracorporeal shock wave lithotripsy in salivary stones</li> </ul>	Head and neck Tumor Epstein-Barr Virus	YOSHIZAKI TOMOKAZU
	Ophthalmology	<ul style="list-style-type: none"> <li>• New drug for retinal neuroprotection</li> </ul>	<ul style="list-style-type: none"> <li>• IgG4-related disease in the orbital region</li> <li>• rituximab therapy in ocular lesion</li> </ul>		TAKAHIRA MASAYUKI
			<ul style="list-style-type: none"> <li>• SNP analysis of drugs for the treatment of glaucoma</li> </ul>		SAKURAI MAYUMI
			<ul style="list-style-type: none"> <li>• Basics and clinical practice of amnion transplant</li> <li>• development of corneal endothelial keratoplasty</li> <li>• in vivo confocal microscopic analysis of corneal disease</li> </ul>	amniotic membrane transplantation, keratoplasty, endothelial keratoplasty, in vivo confocal microscopy of cornea	KOBAYASHI AKIRA
			<ul style="list-style-type: none"> <li>• Early detection of glaucoma</li> <li>• Glaucoma examination model</li> </ul>	Glaucoma, Neuro-ophthalmology	OKUBO SHINJI
					YOKOGAWA, Hideaki
			<ul style="list-style-type: none"> <li>• Ocular toxicity of vitreous tamponade</li> </ul>		NISHIMURA AKIRA
			<ul style="list-style-type: none"> <li>• Molecular Biological Analyses on Diabetic Retina</li> <li>• Molecular Genetical Analyses on Eye Diseases</li> </ul>		HIGASHIDE TOMOMI
		<ul style="list-style-type: none"> <li>• Pathogenic mechanism of glaucoma optic nerve damage</li> <li>• Optic nerve regeneration and neuroprotection</li> </ul>	glaucoma	SUGIYAMA KAZUHISA	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Surgical Clinical Medicine	Emergency medicine	<ul style="list-style-type: none"> <li>• Frequency analysis of ventricular fibrillation in patients with out-of-hospital cardiac arrest</li> <li>• Heart rate variability as a predictor of outcome for patients with brain injury</li> <li>• New Methods for Cardiopulmonary Resuscitation</li> </ul>	Cardiovascular Surgery Emergency Medicine Emergncy medicine Critical medicine	GOTO YOSHIKAZU	
			<ul style="list-style-type: none"> <li>• Development of effective educational system in emergency and critical care medicine</li> <li>• Establishment of effective emergency medical service system</li> </ul>	<ul style="list-style-type: none"> <li>• Pathophysiology of ischemia-reperfusion injury in the liver</li> <li>• Induction of ischemic preconditioning</li> <li>• Analysis of factors related to survival in out-of-hospital cardiac arrests</li> </ul>	Emergency Medicine Intensive Care Medicine Anesthesiology	INABA HIDEO
			<ul style="list-style-type: none"> <li>• Disseminated intravascular coagulation, DIC</li> <li>• pathophysiology of thrombosis and hemostasis</li> </ul>	<ul style="list-style-type: none"> <li>• Pathophysiology and treatment in disseminated intravascular coagulation</li> <li>• <a href="http://www.3nai.jp/weblog/index.html">http://www.3nai.jp/weblog/index.html</a></li> <li>• <a href="http://www.3nai.jp/weblog/index.html">http://www.3nai.jp/weblog/index.html</a></li> </ul>		ASAKURA, hidesaku
						TAKAMURA HIROYUKI
						OTA KEISUKE
				<ul style="list-style-type: none"> <li>• Effect of Anesthetics in Sepsis</li> <li>• Change in Cytokines in Sepsis</li> </ul>	Sepsis, Cytokine, Blood Purification	TANIGUCHI TAKUMI
	Odontology	Pathological odontology, odontological radiology	<ul style="list-style-type: none"> <li>• Etiology or treatment strategy on temporomandibular disorders</li> </ul>	<ul style="list-style-type: none"> <li>• Study on the Temporo mardibular Joint Disease, basically and clinically</li> <li>• Oral surgery</li> </ul>	Oral Surgery	TAKATSUKA SHIGEYUKI
		Preservative odontological therapy		<ul style="list-style-type: none"> <li>• Study on the dental treatment with laser beam</li> <li>• Study on the layered manufacturing with metal powder</li> <li>• Study on the micro fabrication with laser beam</li> <li>• Study on Reduction of Residual Stress Induced during Rapid Tooling Process</li> </ul>	laser processing, SLS rapid prototyping, dental treatment	FURUMOTO TATSUAKI
		Prosthetic odontology	<ul style="list-style-type: none"> <li>• Technology with small fear of contamination in environment</li> <li>• Studies on laser processing</li> </ul>	<ul style="list-style-type: none"> <li>• Studies on Temperature Measurement in Machining</li> <li>• Cutting performance of spining tool</li> <li>• Studies on Laser Processing</li> </ul>	Workshop Processes and Production Engineering Metallurgy and Material Processing Prosthodontics and Dental Technology	UEDA TAKASHI
		Surgical odontology	<ul style="list-style-type: none"> <li>• Etiology or treatment strategy on temporomandibular disorders</li> </ul>	<ul style="list-style-type: none"> <li>• Study on the Temporo mardibular Joint Disease, basically and clinically</li> <li>• Oral surgery</li> </ul>	Oral Surgery	TAKATSUKA SHIGEYUKI
				<ul style="list-style-type: none"> <li>• Invasion and metastasis of oral squamous cell carcinoma</li> </ul>	Oral Surgery Oral Cancer	KAWASHIRI SHUICHI
				<ul style="list-style-type: none"> <li>• Evaluation of the relationship between occlusion and temporomandibular joint in Jaw deformity patients</li> </ul>	jaw deformity, temporomandibular joint disorder, bone regeneration	UEKI KOICHIRO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher		
Medical, Dental, and Pharmaceutical Science	Nursing Science	Basic nursing science	<ul style="list-style-type: none"> <li>•Self-care for patients with chronic disease</li> <li>•Self-care for patients with diabetes</li> </ul>		MURAKADO NAOKO		
			<ul style="list-style-type: none"> <li>•Relation between affirmative recuperation recognition and recuperation</li> <li>•condition in hemodialyzed patient of diabetic origin</li> </ul>	Diabetes Nursing	MATSUI KIYOKO		
			<ul style="list-style-type: none"> <li>•Prevention and Nursing Management for Pressure ulcers</li> <li>•Basic research on pressure ischemic wounds</li> </ul>	support surface, animal model, wound care	SUGAMA JUNKO		
			<ul style="list-style-type: none"> <li>•nurses' roles promoting diabetes team-based care</li> <li>•Teaching style of nurses in diabetes education</li> <li>•Strategy for cultivating nurses' skill of promoting team practice in diabetes patient education</li> </ul>		TASAKI KEIKO		
			<ul style="list-style-type: none"> <li>•Fundamental research for wound and pressure ulcer healing process</li> </ul>	<ul style="list-style-type: none"> <li>•Lymphatics stomata in the diaphragm : their function and formation factor</li> <li>•A study on variations in the gross anatomy</li> <li>•Process of skin wound healing</li> </ul>	Cutaneous wound healing, Lymphology, Gross Anatomy, Histology, Nursing arts	NAKATANI TOSHIO	
	Clinical nursing science			<ul style="list-style-type: none"> <li>•Self-care for patients with chronic disease</li> <li>•Self-care for patients with diabetes</li> </ul>		MURAKADO NAOKO	
				<ul style="list-style-type: none"> <li>•A study on the developmental disorder in infants</li> <li>•A study on the attachment style childhood and present attachment style.</li> <li>•A study on the development of sleep-wake rhythm in children</li> </ul>	Science of clinical nursing Science of basic and dual nursing Educational and social psychology	KIMURA RUMIKO	
				<ul style="list-style-type: none"> <li>•A Study on QOL in Low risk Pregnancy</li> <li>•The Quality of Midwifery Care</li> </ul>	<ul style="list-style-type: none"> <li>•The development of maternity assessment tool</li> <li>•Educational Maternal Nursing and Midwifery researches</li> <li>•A Study on Effort in Childbirth Education</li> </ul>	Maternity Nursing, Midwifery, Childbirth education, Nursing education, Nursing Model, Professional, carrier	SHIMADA KEIKO
				<ul style="list-style-type: none"> <li>•Education skill for chronically patients.</li> <li>•A study on the method to educate diabetic patient.</li> <li>•A study on the complication of diabetes and their QOL(quality of life)</li> </ul>	Science of Nursing	INAGAKI MICHIKO	
				<ul style="list-style-type: none"> <li>•Study on maternal care of infant cries</li> <li>•Study on practice ability of student midwives</li> <li>•Development of a scale for sense of hardship with regard to the crying of an infant</li> </ul>	Maternity Nursing, Midwifery	TABUCHI NORIKO	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Medical, Dental, and Pharmaceutical Science	Nursing Science	Clinical nursing science	<ul style="list-style-type: none"> <li>•The development of the abstinence from drinks continuation program of the alcoholic woman</li> <li>•Development of remedial narrative approach about the suicide prevention of a beating invalid</li> <li>•Measure development for the mental process elucidation about youth-onset type1 diabetes mellitus patients' eating behaviors</li> </ul>	psychiatric nursing, youth-onset type1 diabetes mellitus patients,	KAWAMURA KAZUMI	
			<ul style="list-style-type: none"> <li>•The prevention of falls in the elderly</li> <li>•QOL of the person who has chronic illness or functional disorder</li> </ul>	Gerontological Nursing	HIRAMATSU TOMOKO	
			<ul style="list-style-type: none"> <li>•Relation between affirmative recuperation recognition and recuperation</li> <li>•condition in hemodialyzed patient of diabetic origin</li> </ul>	Diabetes Nursing	MATSUI KIYOKO	
			<ul style="list-style-type: none"> <li>•prenatal education of pregnant women/family, evaluate/measure of education, midwife education</li> </ul>	<ul style="list-style-type: none"> <li>•Midwifery, health education in the field of maternity nursing</li> <li>•Midwife education</li> </ul>	perinatal education, prenatal education, midwifery education	KAMEDA YUKIE
					Science of Clinical Nursing	TSUDA AKIKO
			<ul style="list-style-type: none"> <li>•Impact of psychosocial stress on perinatal women</li> <li>•Examination of stress assesment scale for security and comfort in pregnant women</li> </ul>		Maternity Midwifely	KAGAMI-SEKIZUKA NAOMI
			<ul style="list-style-type: none"> <li>•nurses' roles promoting diabetes team-based care</li> <li>•Teaching style of nurses in diabetes education</li> <li>•Strategy for cutivating nurses' skill of promoting team practice in diabetes patient education</li> </ul>			TASAKI KEIKO
					Psychiatric Nursing Mental Health Nursing Depression Nursing	HASEGAWA MASAMI
			<ul style="list-style-type: none"> <li>•Fundamental research for wound and pressue ulcer healing process</li> </ul>	<ul style="list-style-type: none"> <li>•Lymphatics stomata in the diaphragm : their function and formation factor</li> <li>•A study on variations in the gross anatomy</li> <li>•Process of skin wound healing</li> </ul>	Cutaneous wound healing, Lymphology, Gross Anatomy, Histology, Nursing arts	NAKATANI TOSHIO
			Community/elderly nursing science		<ul style="list-style-type: none"> <li>•A study on the developmental disorder in infants</li> <li>•A study on the attachment style childhood and present attachment style.</li> <li>•A study on the development of sleep-wake rhythm in children</li> </ul>	Science of clinical nursing Science of basic and doal nursing Educational and social psychology

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Medical, Dental, and Pharmaceutical Science	Nursing Science	Community/elderly nursing science	<ul style="list-style-type: none"> <li>•The development of the abstinence from drinks continuation program of the alcoholic woman</li> <li>•Development of remedial narrative approach about the suicide prevention of a beating invalid</li> <li>•Measure development for the mental process elucidation about youth-onset type1 diabetes mellitus patients' eating behaviors</li> </ul>	psychiatric nursing, youth-onset type1 diabetes mellitus patients,	KAWAMURA KAZUMI
			<ul style="list-style-type: none"> <li>•The prevention of falls in the elderly</li> <li>•QOL of the person who has chronic illness or functional disorder</li> </ul>	Gerontological Nursing	HIRAMATSU TOMOKO
				Science of Clinical Nursing	TSUDA AKIKO
			<ul style="list-style-type: none"> <li>•Development of wound care in nursing</li> <li>•Lower-leg ulcers and elements of nursing care</li> </ul>		OKUWA MAYUMI
			<ul style="list-style-type: none"> <li>•Narrative approach to patients with depression have a history of suicide attempt</li> <li>•Social rehabilitation for people with schizophrenia</li> </ul>		YASUDA KYOKO
			<ul style="list-style-type: none"> <li>•A Study on Home Health Care for Patients and their Care Givers</li> </ul>	Home health care nursing. Community health care nursing.	TSUKASAKI KEIKO
			<ul style="list-style-type: none"> <li>•Japanese-Brazilian</li> </ul>		NAGANUMA RIE
			<ul style="list-style-type: none"> <li>•Study of low back pain in staff members in long-term care facilities</li> <li>•Development of diaper changing</li> <li>•Study of fall prevention</li> </ul>	gerontology, lower back pain incontinence care	SHOGENJI MIHO
					OMOTE SHIZUKO
			<ul style="list-style-type: none"> <li>•Loss of self among middle-aged and older female caregivers who were by the deathbed of their husbands with ALS, and the process of acquiring a new identity</li> </ul>		SAKAKIBARA CHIAKI
<ul style="list-style-type: none"> <li>•Patterns of Difficulty Experienced by Nurses Caring for Elderly Patients with Dementia in Medical Facilities</li> </ul>		TANIGUCHI YOSHIMI			

# Integrated Science and Innovative Science

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
General	Fundamental informatics		<ul style="list-style-type: none"> <li>•Graph Networks, Parallel Computation, and Their Applications</li> <li>•Graph Networks and Its Applications</li> </ul>	Graph Networks Parallel Computation Algorithms	MATSUBAYASHI, Akira	
			<ul style="list-style-type: none"> <li>•design, verification and implementation of real-time software</li> <li>•Formal modeling, specification and verification of embedded systems</li> <li>•Distributed parallel real-time systems</li> </ul>	computer software, dynamic reconfigurable systems, model checking, real-time hybrid systems	YAMANE SATOSHI	
	Software		<ul style="list-style-type: none"> <li>•Active Noise Control using Neural Networks</li> <li>•Study of Hematopoiesis using Cellular Automata</li> <li>•Vibration control of physiological tremor</li> </ul>	Vibration Analysis, Vibration Control, Cellular Automata	KOMATSUZAKI TOSHIHIK	
				Software security,modal logic,runtime verification andprogramming languages.	NAGATOU, Naoyuki	
			<ul style="list-style-type: none"> <li>•design, verification and implementation of real-time software</li> <li>•Formal modeling, specification and verification of embedded systems</li> <li>•Distributed parallel real-time systems</li> </ul>	computer software, dynamic reconfigurable systems, model checking, real-time hybrid systems	YAMANE SATOSHI	
	Computer system network		<ul style="list-style-type: none"> <li>•X-Ray Tri-Axial Stress Analysis</li> <li>•Fractal Analysis on Strength Evaluation Materials</li> <li>•Fatigue Behavior of Steel Materials</li> </ul>	X-Ray Tri-Axial Stress Analysis Fractal Analysis on Strength Evaluation Materials Fatigue Behavior of Steel Materials	HIROSE YUKIO	
			<ul style="list-style-type: none"> <li>•design, verification and implementation of real-time software</li> <li>•Formal modeling, specification and verification of embedded systems</li> <li>•Distributed parallel real-time systems</li> </ul>	computer software, dynamic reconfigurable systems, model checking, real-time hybrid systems	YAMANE SATOSHI	
			<ul style="list-style-type: none"> <li>•Communication System with Plant using Environmental Information around the Plant</li> <li>•Pet Robots with Healing Effects</li> <li>•Computer Aided Instruction System with Collaborative Filtering</li> </ul>	Artificial Intelligence, Healing Engineering, Pet Robots, Plant Environmental Information Processing	NANBO HIDETAKA	
	Media informatics/data base		<ul style="list-style-type: none"> <li>•Large-scale database reference and delivery technology based on advanced information processing</li> </ul>	Database, Repository	TAKATA YOSHIHIRO	
			<ul style="list-style-type: none"> <li>•On Study of Intelligent Pitching Machine</li> <li>•A Study on Badminton Machine</li> </ul>	<ul style="list-style-type: none"> <li>•Mechanical Evaluations of Eggshell</li> <li>•A Study on Pitching Machine</li> <li>•A Study on machining Design with Environmental and Gentleness to Human</li> </ul>	Sports Engineering, Computer Aided Engineering, Artificial Intelligenc	SAKAI Shinobu
	Intelligent informatics		<ul style="list-style-type: none"> <li>•Analysis, Algorithm and Implementation of Adaptive Filters</li> </ul>	<ul style="list-style-type: none"> <li>•Adaptive Signal Processing</li> <li>•Newral Networks</li> </ul>	Adaptive filters, Learning	HIRANO AKIHIRO
			<ul style="list-style-type: none"> <li>•Integrated Circuits</li> <li>•Clear Vision System</li> <li>•Ubiquitous Sensor Network</li> <li>•Wearable Computing System using Conductive Wear</li> </ul>	<ul style="list-style-type: none"> <li>•Intelligent Image Sensor</li> <li>•Network system for ubiquitous and wearable computing</li> <li>•Perception Extension Device</li> </ul>	Integrated Circuits, Image Sensor, Interactive System, Wearable Computing	AKITA JUNICHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
General	Intelligent informatics		<ul style="list-style-type: none"> <li>•Communication System with Plant using Environmental Information around the Plant</li> <li>•Pet Robots with Healing Effects</li> <li>•Computer Aided Instruction System with Collaborative Filtering</li> </ul>	Artificial Intelligence, Healing Engineering, Pet Robots, Plant Environmental Information Processing	NANBO HIDETAKA
		•Computer Assisted Language Learning	<ul style="list-style-type: none"> <li>•Research on Computer Assisted Language Learning</li> <li>•Research on Natural Language Processing</li> </ul>	CALL Natural Language Processing	NISHIJIMA YUICHI
			<ul style="list-style-type: none"> <li>•Data mining from biological and medical data</li> <li>•Text mining and intelligent search for biomedical literature</li> </ul>	analysis of biological data	SATOU KENJI
	Perception information processing/intelligent robotics	<ul style="list-style-type: none"> <li>•Indoor Navigation of Vehicles</li> <li>•Sensing Technology for Intelligent Tasks of Robots</li> <li>•Development of Devices and Interfaces for Welfare.</li> </ul>	<ul style="list-style-type: none"> <li>•Development of Mechanism for Home Service Robots</li> <li>•Positioning System for Indoor Mobile Robots</li> <li>•Development of Devices and Interfaces for Welfare</li> </ul>		SEKI HIROAKI
		•An Intelligent Care System for the Aged having Gentle Functions to Environment	•Care Support for the Aged	Artificial Intelligence, Data Mining	KIMURA, Haruhiko
			<ul style="list-style-type: none"> <li>•ITS (especially, automatic automobile operation and support for safe driving of automobiles)</li> <li>•Environmental Perception base on Vision System</li> <li>•autonomous driving and platooning</li> </ul>		SUGANUMA NAOKI
			•Remote Sensing Image Analysis	Photogrammetry, Remote sensing, Image analysis	KUBO MAMORU
	Sensitivity informatics/soft computing		<ul style="list-style-type: none"> <li>•Communication System with Plant using Environmental Information around the Plant</li> <li>•Pet Robots with Healing Effects</li> <li>•Computer Aided Instruction System with Collaborative Filtering</li> </ul>	Artificial Intelligence, Healing Engineering, Pet Robots, Plant Environmental Information Processing	NANBO HIDETAKA
				Kansei Engineering, Textile Engineering	WAKAKO RINA
	Information library science/humanistic social informatics		•Legal research and computer.		OHTA, Norio
	Cognitive science	•applied corpus linguistic about contrastive study of Japanese and Chinese	<ul style="list-style-type: none"> <li>•Study on Chinese grammar and semantics</li> <li>•Study of correlation between linguistic and clear thought</li> <li>•constructional network</li> </ul>	Chinese semantics & grammar, cognitive linguistics, applied linguistics	OTAKI SACHIKO
			<ul style="list-style-type: none"> <li>•A Cognitive Study of English Constructions.</li> <li>•Semantic investigation of Japanese and English</li> </ul>	English Linguistics, Cognitive Linguistics, Semantics	HORITA, Yuko

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
General	Cognitive science	<ul style="list-style-type: none"> <li>• Measurements on sensation and perception</li> <li>• Object perception in 3D space</li> </ul>	<ul style="list-style-type: none"> <li>• Perceptual and Cognitive Properties of Autism, Developmental Disorders and Cognitive Disorders.</li> <li>• Brain activities in Perception, Cognition and Judgement Process: Brain Imaging Study.</li> </ul>	Perception, Vision, Psychological process, Brain & Neural Mechanism,	KOJIMA HARUYUKI
			<ul style="list-style-type: none"> <li>• German language studies from the perspectives of cognitive linguistics and linguistic typology</li> </ul>	Cognitive Linguistics Language Typology German Language	MIYASHITA HIROYUKI
			<ul style="list-style-type: none"> <li>• A Concise History of World Poster</li> <li>• A Poster museum</li> </ul>	Art Education, Posterlogia, Poster Museum	MATSUURA NOBORU
				cognitive aging, memory, visual cognition and memory	MATSUKAWA JUNKO
		<ul style="list-style-type: none"> <li>• Research on grammar and cognition</li> <li>• Subjectification and grammaticalization</li> </ul>	<ul style="list-style-type: none"> <li>• cognitive structures of grammar and semantics</li> <li>• Language evolution from Cognitive Linguistics' viewpoint</li> </ul>	English, Cognitive Linguistics	NAKAMURA YOSHIHISA
		<ul style="list-style-type: none"> <li>• Development of cognitive motivated know-how in foreign Language teaching</li> </ul>	<ul style="list-style-type: none"> <li>• Study on Relations between the Semantic Structure of Language, Human Knowledge</li> <li>• Cognitive Linguistics with Evolutional Scientific Background</li> <li>• Study on Metaphors, Cognition and Language</li> </ul>	cognition, metaphor, body	TAKEUCHI YOSHIHARU
	Statistical science	<ul style="list-style-type: none"> <li>• data mining</li> </ul>	<ul style="list-style-type: none"> <li>• nonparametric statistics</li> </ul>		SAGAE MASAHIKO
	Biological/living body informatics	<ul style="list-style-type: none"> <li>• Medical image processing</li> </ul>	<ul style="list-style-type: none"> <li>• Nuclear Cardiology</li> <li>• Quantitative analysis with nuclear medicine</li> <li>• Image information</li> </ul>	Nuclear Cardiology, Nuclear Medicine, SPECT, PET	NAKAJIMA KENICHI
		<ul style="list-style-type: none"> <li>• Role of apoptotic imaging in myocardial ischemia</li> </ul>	<ul style="list-style-type: none"> <li>• C-11, C-14-methionine imaging in rat model of myocardial severe ischemia and reperfusion</li> <li>• Study on Cardiac Function using Nuclear Medicine technique</li> <li>• Study on Cardiac Metabolism</li> <li>• Study on Bone and Soft tissue tumor using Nuclear Medicine technique</li> </ul>	Nuclear Medicine, Nuclear Cardiology, cardiac function, cardiac metabolism, tumor, PET/CT, molecular imaging	TAKI JUNICHI
			<ul style="list-style-type: none"> <li>• Tumor detection and treatment with radiopharmaceuticals</li> </ul>	Nuclear Medicine, radionuclide therapy	KINUYA SEIGO
			<ul style="list-style-type: none"> <li>• Blind Source Separation</li> <li>• Brain Computer Interface</li> </ul>	Signal Processing, Adaptive Filters, Neural Networks	NAKAYAMA, Kenji
			<ul style="list-style-type: none"> <li>• Development of a body map of human genome methylation</li> <li>• computational identification of useful knowledge from gene expression data</li> </ul>		YAMADA YOICHI
			<ul style="list-style-type: none"> <li>• Data mining from biological and medical data</li> <li>• Text mining and intelligent search for biomedical literature</li> </ul>	analysis of biological data	SATOU KENJI



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
General Neuroscience	General neuroscience			Circadian rhythms, Suprachiasmatic Nucleus, Clock gene	TEI HAJIME
			<ul style="list-style-type: none"> <li>Neural mechanisms of circadian rhythms</li> <li>Neural mechanisms underlying sleep/wake regulation</li> </ul>	circadian rhythm, feeding, hypothalamus	MIEDA MICHIIRO
		<ul style="list-style-type: none"> <li>Measurements on sensation and perception</li> <li>Object perception in 3D space</li> </ul>	<ul style="list-style-type: none"> <li>Perceptual and Cognitive Properties of Autism, Developmental Disorders and Cognitive Disorders.</li> <li>Brain activities in Perception, Cognition and Judgement Process: Brain Imaging Study.</li> </ul>	Perception, Vision, Psychological process, Brain & Neural Mechanism,	KOJIMA HARUYUKI
		<ul style="list-style-type: none"> <li>CNS axon regeneration</li> </ul>	<ul style="list-style-type: none"> <li>Neural cell death</li> <li>Neural regeneration</li> <li>An application study for mammalian CNS regeneration</li> </ul>		KATO SATORU
			<ul style="list-style-type: none"> <li>Spine Tumor</li> <li>bone tumor</li> <li>Spinal disease</li> </ul>	Bone Tumor Spine Surgery Bone fracture	TOMITA KATSURO
				neurochemistry, neurophysiology, and molecular biology	YOKOYAMA SHIGERU
				molecular biology	MATSUKAWA TORU
			<ul style="list-style-type: none"> <li>Ecology</li> <li>Study on Natural History of the Modern England.</li> <li>Environmental Thought</li> </ul>	Philosophy of Environment Natural History of England Nature Writing humans nature environment	IKUTA SHOGO
			<ul style="list-style-type: none"> <li>Neurophysiological study on schizophrenia</li> <li>Pathophysiology of anxiety disorders</li> <li>Brain developmental study using MEG/NIRS integrated device</li> </ul>	Psychiatry, Neurophysiology	KIKUCHI MITSURU
		<ul style="list-style-type: none"> <li>Promotion of「strategy for brain protection」</li> <li>Repetable battery for assessment of neuropsychological status</li> </ul>	<ul style="list-style-type: none"> <li>Mechanism of adult neurogenesis and strategy for brain restoration</li> <li>Ischemic neuronal death specific for the primate hippocampus</li> <li>Amnesic symptom due to hippocampal neuronal death</li> </ul>	Neuroscience Regenerative Medicine Neurosurgery Neuroscience	YAMASHIMA TETSUMORI
			<ul style="list-style-type: none"> <li>Study of neural development in Drosophila</li> </ul>	neural development transcription factor Drosophila melanogaster	KOIZUMI KEITA
			<ul style="list-style-type: none"> <li>Analysis of higher brain functions in gene manipulated mice</li> </ul>		YOSHIHARA TORU
		<ul style="list-style-type: none"> <li>treatment of visceral pain</li> <li>treatment of pain</li> </ul>	<ul style="list-style-type: none"> <li>Mechanisms of visceral pain</li> <li>Mechanisms of pain sensation</li> </ul>	pain, visceral pain, viscera sensation	OZAKI NORIYUKI
			<ul style="list-style-type: none"> <li>Analysis of bradykinin receptor responses</li> <li>Study on subtypes of muscarinic acetylcholine receptors</li> <li>Cloning of K+ channels</li> </ul>		HIGASHIDA HARUHIRO
		<ul style="list-style-type: none"> <li>Regulation of cell proliferation and apoptosis by MAPK cascades</li> </ul>	<ul style="list-style-type: none"> <li>Study on MAP kinase cascade</li> <li>Study on scaffold proteins for mammalian MAP kinase cascades</li> <li>Study on neurogenesis</li> </ul>	cell signaling, cell differentiation, neural development	YOSHIOKA KATSUJI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
General	Neuroanatomy and neuropathology		<ul style="list-style-type: none"> <li>•Developmental Study of nervous System.</li> <li>•Plastic changes in central nervous system</li> </ul>		OKOYAMA SHIGEO	
			<ul style="list-style-type: none"> <li>•Histological Study on Peripheral Nervous System</li> <li>•Histological analyze of the proliferation and differentiation of rodent submandibular gland cells.</li> </ul>	anatomy histology embryology	YAMAMOTO MIYUKI	
		<ul style="list-style-type: none"> <li>•Promotion of「strategy for brain protection」</li> <li>•Repetable battery for assessment of neuropsychological status</li> </ul>	<ul style="list-style-type: none"> <li>•Mechanism of adult neurogenesis and strategy for brain restoration</li> <li>•Ischemic neuronal death specific for the primate hippocampus</li> <li>•Amnesic symptom due to hippocampal neuronal death</li> </ul>	Neuroscience Regenerative Medicine Neurosurgery Neuroscience	YAMASHIMA TETSUMORI	
		<ul style="list-style-type: none"> <li>•treatment of visceral pain</li> <li>•treatment of pain</li> </ul>	<ul style="list-style-type: none"> <li>•Mechanisms of visceral pain</li> <li>•Mechanisms of pain sensation</li> </ul>	pain, visceral pain, viscera sensation	OZAKI NORIYUKI	
	NeuroScience	Neurochemistry/neuropharmacology		<ul style="list-style-type: none"> <li>•Neurodegeneration caused by ER stress underlying Parkinsonism</li> </ul>	degeneration, glia, parkinson's disease, neural death	KITAO YASUKO
			<ul style="list-style-type: none"> <li>•CNS axon regeneration</li> </ul>	<ul style="list-style-type: none"> <li>•Neural cell death</li> <li>•Neural regeneration</li> <li>•An application study for mammalian CNS regeneration</li> </ul>		KATO SATORU
					neurochemistry, neurophysiology, and molecular biology	YOKOYAMA SHIGERU
				<ul style="list-style-type: none"> <li>•Molecular mechanisms of synaptic transmission</li> <li>•Research on Biological Effects of Extremely Low Frequency High Magnetic Fields</li> <li>•Regulation of alternative splicing of receptor for advanced glycation endproducts</li> </ul>	Neurotransmission, Neurodegeneration, Neuroprotection	HARADA, Shin-ichi
				<ul style="list-style-type: none"> <li>•Study on pharmacokinetics of intravenous anesthetics</li> <li>•Cardiac anesthesia</li> <li>•The effects of anesthetics on evoked potentials</li> </ul>	Anesthesiology Pharmacokinetics	TSUBOKAWA TSUNEHISA
			<ul style="list-style-type: none"> <li>•CNS regeneration by the new molecules</li> <li>•A fundamental research for the neurodegenerative disorders</li> <li>•Mechanism research for optic nerve regeneration</li> </ul>	<ul style="list-style-type: none"> <li>•Regeneration in mammalian CNS</li> <li>•A fundamental research for the neurodegenerative disorders</li> <li>•Molecular mechanisms in fish optic nerve regeneration</li> </ul>	CNS regeneration, apoptosis, survival signal	KORIYAMA YOSHIKI
					molecular biology	MATSUKAWA TORU
			<ul style="list-style-type: none"> <li>•bone regeneration</li> <li>•protection against neurodegeneration</li> </ul>	<ul style="list-style-type: none"> <li>•Amino Acid Signaling</li> <li>•Gene expression</li> </ul>	Amino acid signaling	YONEDA YUKIO
				<ul style="list-style-type: none"> <li>•Improvement of clinical assay.</li> <li>•Study of CNS regeneration</li> <li>•Clinical microbiology, Measurement of antibacterial activity</li> </ul>	CNS regeneration, transglutaminase, antibacterial activity	SUGITANI KAYO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
General	Neurochemistry/neuropharmacology	<ul style="list-style-type: none"> <li>•treatment of visceral pain</li> <li>•treatment of pain</li> </ul>	<ul style="list-style-type: none"> <li>•Mechanisms of visceral pain</li> <li>•Mechanisms of pain sensation</li> </ul>	pain, visceral pain, viscera sensation	OZAKI NORIYUKI	
			<ul style="list-style-type: none"> <li>•Analysis of bradykinin receptor responses</li> <li>•Study on subtypes of muscarinic acetylcholine receptors</li> <li>•Cloning of K+ channels</li> </ul>		HIGASHIDA HARUHIRO	
			<ul style="list-style-type: none"> <li>•Modulations of the synaptic transmission</li> </ul>	Physiology in General Neuro and Muscular Physiology	SHOSAKU TAKAKO	
			<ul style="list-style-type: none"> <li>•Stress Response of Cells in Central Nervous System</li> <li>•Development of neuronal cell protecting drugs and anti-stress drugs</li> </ul>		HORI OSAMU	
	NeuroScience	Neuro/muscular physiology	<ul style="list-style-type: none"> <li>•Floor translation system for training of equilibrium function</li> <li>•System for enhancing and causing brain activation with postural change</li> <li>•Evaluation system of muscle activity and posture for backache prevention</li> </ul>	<ul style="list-style-type: none"> <li>•Dynamic postural control and brain activity</li> <li>•Brain activation by movement and posture</li> <li>•Positional perception of standing posture</li> </ul>	postural control, brain activation, evoked brain potential	FUJIWARA KATSUO
			<ul style="list-style-type: none"> <li>•CNS axon regeneration</li> </ul>	<ul style="list-style-type: none"> <li>•Neural cell death</li> <li>•Neural regeneration</li> <li>•An application study for mammalian CNS regeneration</li> </ul>		KATO SATORU
			<ul style="list-style-type: none"> <li>•Study of the physical activity contents using the heart rate monitoring</li> <li>•Effects of drug and nutriment on skeletal muscles, heart, and bones</li> <li>•Analysis of affecting factors on muscles</li> </ul>	<ul style="list-style-type: none"> <li>•Comparative Study of myosin isozyme and muscle fiber composition</li> <li>•Development of assessing method for physical activity with HR</li> <li>•Effects of doping drugs on striated muscles</li> </ul>	Exercise Physiology Physical fitness muscle physiology	KITaura TAKASHI
				<ul style="list-style-type: none"> <li>•Automatized levels of upper and lower limb movements</li> <li>•Development of parallel control of posture and hand and finger movement during floor motion repetitive loading</li> </ul>	automatization	TOYAMA HIROSHI
				<ul style="list-style-type: none"> <li>•Analysis of bradykinin receptor responses</li> <li>•Study on subtypes of muscarinic acetylcholine receptors</li> <li>•Cloning of K+ channels</li> </ul>		HIGASHIDA HARUHIRO
				<ul style="list-style-type: none"> <li>•Modulations of the synaptic transmission</li> </ul>	Physiology in General Neuro and Muscular Physiology	SHOSAKU TAKAKO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
General	Laboratory Animal Studies				KAMIMURA, Eikichi	
		Laboratory animal studies	<ul style="list-style-type: none"> <li>• Drug development targeting carbohydrates</li> <li>• Development of animal models for human diseases by transgenic technology</li> </ul>	<ul style="list-style-type: none"> <li>• Functional analysis of carbohydrates using glycosyltransferase knockout mice</li> <li>• Epigenetic regulation of mammalian development</li> <li>• Development of animal model for human disease using embryo manipulating technology</li> </ul>	Manipulating the Mouse Embryo, Glycobiology, Epigenetics	ASANO MASAHIDE
			<ul style="list-style-type: none"> <li>• Roles of glycosylation function in cancer invasion and metastasis</li> <li>• Analysis of asparaginyl endopeptidase function in immune system</li> <li>• Analysis of Hemophagocytic syndrome like disease in legumain deficient mice</li> </ul>	Pathological Model, Knockout mice, Glycosyltransferase,	HASHIMOTO, Noriyoshi	
			<ul style="list-style-type: none"> <li>• Epigenetic regulation of germ cell development</li> </ul>		NARUSE Chie	
			<ul style="list-style-type: none"> <li>• Analysis of higher brain functions in gene manipulated mice</li> </ul>		YOSHIHARA TORU	
	Human Medical Engineering	Biomedical engineering/biological material studies	<ul style="list-style-type: none"> <li>• Promotion of osteogenesis by electrical stimulation</li> </ul>	<ul style="list-style-type: none"> <li>• Study on osteogenetic responses to mechanical stimulation</li> <li>• Development of a novel bone densitometer using near-infrared light</li> <li>• Study on osteogenic response to electrical stimulation</li> </ul>	Biomedical Engineering, Biomechanics, Bone	TANAKA SHIGEO
			<ul style="list-style-type: none"> <li>• Development of new techniques for biological measurement.</li> <li>• Research and development of welfare technology and assistive, device.</li> </ul>	<ul style="list-style-type: none"> <li>• Noninvasive physiological measurements and ambulatory monitoring</li> <li>• Development of biocompatible in vivo sensors</li> <li>• Development of non-positive displacement type blood pump system for extracorporeal circulation and its application</li> </ul>	Biomedical Engineering Biomaterials	TANAKA SHINOBU
			<ul style="list-style-type: none"> <li>• Research for reduction of exercise-induced oxidative stress</li> <li>• Development of training and conditioning methods for competitive sports</li> </ul>	<ul style="list-style-type: none"> <li>• Molecular regulation of oxygen transport to muscle tissue and mitochondria bioenergetics during exercise</li> <li>• Molecular determinants for selectivity of substrates in skeletal muscle during exercise</li> <li>• Exercise induced free radical, oxidative stress and regeneration of myocytes</li> </ul>	mitochondria, free radical, oxidative stress, redox, skeletal muscle physiology, oxidative metabolism, exercise and sport physiology	MASUDA KAZUMI
				<ul style="list-style-type: none"> <li>• Sports Engineering</li> <li>• Development of Measuring Systems</li> <li>• Evaluation of Material Strength</li> </ul>	structural reliability eng. strength of material cellular material sports equipment motion measurement engineering analysis	KAGAWA HIROYUKI
			<ul style="list-style-type: none"> <li>• Optimized design of protective products and environment</li> </ul>	<ul style="list-style-type: none"> <li>• Research for Head Injury Mechanism by using Finite Element Method</li> <li>• Analysis for Injury in case of Impact by a Multibody-FE Hibrid Model for Human Body</li> <li>• The method to Exhibit a map of Injury Hazard for a Play Equipment surrounding Children</li> </ul>	Impact Biomechanics, Safety Engineering, Impact Engineering	MIYAZAKI YUSUKE

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
General	Biomedical engineering/biological material studies		<ul style="list-style-type: none"> <li>•Development of driving safety support system using advanced technique for physiological measurement</li> <li>•Development of a novel non-invasive device for monitoring physiological parameters</li> <li>•Physiological measurement in motor sports athletes</li> </ul>	Physiological measurement, Safety driving, Motorsports, Health, Welfare	YAMAKOSHI TAKEHIRO
		•Fundamental study for acquisition and analysis on the nuclear medicine	<ul style="list-style-type: none"> <li>•Development of A New Functional Analysis Using Gated SPECT</li> <li>•Development of Cardiac Anthropomorphic phantom</li> <li>•Quantitative Analysis of Organ's Perfusion Using Small Animals on Nuclear Medicine</li> </ul>	Nuclear Medicine	ONOGUCHI MASAHISA
		•Studies on developments of imaging and analytical methods in MRI	<ul style="list-style-type: none"> <li>•Development of Pulse Sequences in Magnetic Resonance Imaging</li> <li>•Assess of Magnetic Resonance(MR)Image Quality</li> <li>•Development of Functional Magnetic Resonance(MR) Imaging and Analysis Methods</li> </ul>	Magnetic resonance imaging Pulse sequence Medical imaging Magnetic resonance imaging Imaging method Medical imaging Magnetic resonance imaging Imaging method Pulse sequence	MIYACHI TOSHIAKI
		•non-destructive structural analyses with dielectric measurements			SEKINE KATSUHISA
	Medical systems		<ul style="list-style-type: none"> <li>•The autonomic nervous function research in the rest condition</li> <li>•The research on Sensory function and physical condition</li> <li>•The biological measurement of domestic animal</li> </ul>	Bio-information measurement Ecology	NEMOTO TETSU
			<ul style="list-style-type: none"> <li>•Coupling of photocatalyst and ultrasound chemical reactions</li> <li>•Application of photocatalyst nanoparticles for environmental cleanup and medicine</li> <li>•Toxicity evaluation of various chemical substances as indexed by cell activity</li> </ul>	Photocatalyst, bio-nanoparticles, bio-affinity	SHIMIZU NOBUAKI
			<ul style="list-style-type: none"> <li>•Medical application of magnetic fields</li> <li>•Molecular identification of microorganisms in bioaerosols</li> </ul>		KAKIKAWA MAKIKO
			<ul style="list-style-type: none"> <li>•Effects of setup errors obtained in image guided radiation therapy to dose distribution</li> <li>•Research related to radiotherapy</li> <li>•Research of medical image processing and image registration method</li> </ul>	Image Guided Radiotherapy	TAKEMURA AKIHIRO
			<ul style="list-style-type: none"> <li>•Development of dynamic chest radiography using a flat-panel detector system combined with computer analysis</li> <li>•Verification of radiotherapy treatment plan</li> <li>•Development of automatic volumetric tracking system in radiotherapy</li> </ul>	Medical imaging, Digital image processing, Digital image evaluation, computer analysis, Radiation therapy, computer aided diagnosis	TANAKA RIE
		Human Medical Engineering			

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
General	Human Medical Engineering	Rehabilitation science/welfare engineering	<ul style="list-style-type: none"> <li>Indoor Navigation of Vehicles</li> <li>Sensing Technology for Intelligent Tasks of Robots</li> <li>Development of Devices and Interfaces for Welfare.</li> </ul>	<ul style="list-style-type: none"> <li>Development of Mechanism for Home Service Robots</li> <li>Positioning System for Indoor Mobile Robots</li> <li>Development of Devices and Interfaces for Welfare</li> </ul>		SEKI HIROAKI
			<ul style="list-style-type: none"> <li>An Intelligent Care System for the Aged having Gentle Functions to Environment</li> </ul>	<ul style="list-style-type: none"> <li>Care Support for the Aged</li> </ul>	Artificial Intelligence, Data Mining	KIMURA, Haruhiko
			<ul style="list-style-type: none"> <li>Pathology of the joint contracture</li> </ul>	<ul style="list-style-type: none"> <li>Pathological study of the musculoskeletal disorder</li> <li>Relationship between the body balance and social and cultural factors.</li> <li>Human Pathology</li> </ul>	Locomotory System, Joint component, Contracture	HOSO MASAHIRO
				<ul style="list-style-type: none"> <li>Hearing Disorders</li> <li>higher brain dysfunction</li> <li>Cochlear Implant</li> </ul>	Speech Pathology, higher brain dysfunction, speech and language disorders, hearing disorders	NOTOYA MASAKO
			<ul style="list-style-type: none"> <li>clinical approach for dysphagia</li> <li>selective control for rigospastic muscle</li> <li>examination of muscle and joint flexibility</li> </ul>	<ul style="list-style-type: none"> <li>clinical evaluation and classification for physical deconditioning</li> <li>new evaluation method of physical flexibility</li> <li>clinical examination for swallowing disturbance</li> <li>clinical assessment for physical deconditioning, therapeutic strategy for physical deconditioning</li> <li>ADL outcome after ruptured aneurysmal subarachnoid hemorrhage</li> <li>recovery process of paraplegia after spinal cord decompression</li> <li>swallowing disorder, assessment of dysphagia</li> </ul>	musculoskeletal system, dysphagia, gait disturbance, rigospasticity, physical deconditioning, disuse syndrome, physical fitness, rehabilitation	YAHATA TETSUTARO
			<ul style="list-style-type: none"> <li>Development of non-invasive portable blood CO2 monitor</li> </ul>	<ul style="list-style-type: none"> <li>Effect of exercise on cardiorespiratory disease</li> <li>Effects of fatigue on physical properties</li> </ul>	training intensity, exercise capacity	SOMEYA FUJIKO
				<ul style="list-style-type: none"> <li>Influence to triceps of muscular endurance by difference of knee and ankle angle</li> <li>Selective activity of the vastus medialis oblique muscle</li> </ul>	Physical Therapy	MIAKI HIROICHI
				<ul style="list-style-type: none"> <li>Prevention of disuse muscle atrophy</li> </ul>	Physical Therapy	YAMAZAKI TOSHIAKI
				<ul style="list-style-type: none"> <li>The study about anlysis of the human electorical signal and the life adaputation</li> <li>Research for relationship between brain function and activities.</li> <li>Research for swallowing function and food habits in the community.</li> </ul>	community based occupational therapy, brain function, dysphagia	SHIMIZU JUNICHI
			<ul style="list-style-type: none"> <li>Perception of standing position and somatosensory information</li> </ul>	<ul style="list-style-type: none"> <li>Functional role of pressure sensation from the sole on standing postural control</li> <li>Perception of standing position and somatosesory</li> </ul>	Perception of position, Postural control, Physical Therapy	ASAI, hitoshi

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
General	Human Medical Engineering	Rehabilitation science/welfare engineering	<ul style="list-style-type: none"> <li>•Housing proposal for the elderly and disabled persons</li> <li>Development of pressure measurement equipment</li> <li>Correction tape and easy to use development</li> </ul>	<ul style="list-style-type: none"> <li>•Kinematics and motion analysis during activities of daily living</li> <li>•Study on Splinting for the upper extremity and finger disability</li> <li>•Kinematics and motion analysis during activities of daily living</li> </ul>	Rehabilitation (OT)/activity of daily living, Low back pain	SHIBATA KATSUYUKI
			<ul style="list-style-type: none"> <li>•Development of orthosis and the welfare instrument in the activities of daily living</li> <li>•Development of the orthosis and training instrument of the hand</li> <li>•Rehabilitation and biomechanics of the hand</li> </ul>	<ul style="list-style-type: none"> <li>•Rehabilitation and Biomechanics of the Hand</li> <li>•The evaluation of the upper limbs and the trunk function in the activities of daily living, and development of the welfare instrument</li> <li>•Development of the orthosis and training instrument of the hand</li> </ul>	Rehabilitation of the hand. Biomechanics. ADL	NISHIMURA, Seiji
				<ul style="list-style-type: none"> <li>•Effects of therapeutic exercise for the prevention of dementia</li> <li>•Basic studies on physical ability evaluations of elderly people</li> </ul>		YOKOGAWA MASAMI
				<ul style="list-style-type: none"> <li>•Animal model of motor learning</li> <li>•Motor learning and brain functions of people with psychiatric disabilities</li> <li>•Prognosis of people with psychiatric disabilities</li> </ul>		YONEDA MITSUGU
			<ul style="list-style-type: none"> <li>•Modeling of motor control in human</li> </ul>	<ul style="list-style-type: none"> <li>•Motion analysis in Activity of Daily Living/basic action or occupational activity</li> <li>•Modeling and simulation analysis of motor control or therapeutic activity</li> <li>•Decision mechanisms for muscle activity levels</li> </ul>	Motor control, Rehabilitation	INUMARU TOSHIYASU
				<ul style="list-style-type: none"> <li>•Effect of exercise training for neuromuscular remodeling</li> </ul>		TANAKA SHOJI
				<ul style="list-style-type: none"> <li>•Pathophysiology of Muscle Disuse Atrophy during the recovery process: Radioactive Tracer Monitoring Study</li> <li>•Effects of Stretching on Muscle Disuse Atrophy: Radioactive Tracer Monitoring Study</li> </ul>	Muscle Disuse Atrophy, Hindlimb Suspension, Muscle Blood Flow, Thallium-201, Rats	INAOKA PLEIADES
	Health/Sports Science	Physical education		<ul style="list-style-type: none"> <li>•Study on History of Football in Britain</li> <li>•Study on History of Rugby Football</li> </ul>	Kinematics Kinematics	HATA SHUJI
				<ul style="list-style-type: none"> <li>•Mechanical Efficiency of Bicycling</li> <li>•Energy Cost of Dribbling on a Treadmill</li> <li>•Effects of PNF Stretching on Passive Tension and Range of Motion</li> </ul>	Sports Biomechanics Teaching Biomechanics Biomechanics	YAMAMOTO HIROO
						YOSHIKAWA KYOKO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
General	Physical education	• Sport-activities under the old system High-schools in Japan	<ul style="list-style-type: none"> <li>• A Historical Study on the Adoption of School Physical Education and sports of the Local Districts in modern Japan</li> <li>• Influence of French Gymnastics on the Formation of Modern Physical Education System in Japan</li> <li>• comparative history of physical culture</li> </ul>	History of Physical Education and Sport History of Western learning History of Modern Education in Japan	OKUBO HIDEAKI	
			<ul style="list-style-type: none"> <li>• Mutual Relationships in Physical Education Classes</li> </ul>		FUJITANI KAORU	
	Sports science		• Die Sportler von ehemaligen Ost Deutschland erzaehlen ueber den Sport von DDR.			HOGAKU ATSURO
		<ul style="list-style-type: none"> <li>• Research for reduction of exercise-induced oxidative stress</li> <li>• Development of training and conditioning methods for competitive sports</li> </ul>	<ul style="list-style-type: none"> <li>• Molecular regulation of oxygen transport to muscle tissue and mitochondria bioenergetics during exercise</li> <li>• Molecular determinants for selectivity of substrates in skeletal muscle during exercise</li> <li>• Exercise induced free radical, oxidative stress and regeneration of myocytes</li> </ul>	mitochondria, free radical, oxidative stress, redox, skeletal muscle physiology, oxidative metabolism, exercise and sport physiology	MASUDA KAZUMI	
			<ul style="list-style-type: none"> <li>• sport sociology</li> <li>• Sports culture</li> <li>• Health policies</li> </ul>			OKUDA MUTSUKO
			<ul style="list-style-type: none"> <li>• Study on History of Football in Britain</li> <li>• Study on History of Rugby Football</li> </ul>	Kinematics Kinematics		HATA SHUJI
			<ul style="list-style-type: none"> <li>• Mechanical Efficiency of Bicycling</li> <li>• Energy Cost of Dribbling on a Treadmill</li> <li>• Effects of PNF Stretching on Passive Tension and Range of Motion</li> </ul>	Sports Biomechanics Teaching Biomechanics Biomechanics		YAMAMOTO HIROO
			<ul style="list-style-type: none"> <li>• the study of body composition and lifestyle-related disease</li> <li>• A study of fall-prevention and establishment of functional recovery system</li> <li>• A study of objectivization mesurment and evaluation of muscle strength and controlled force exertion</li> </ul>	Physical Education statistics Public Health Sports science		DEMURA SHINICHI
			<ul style="list-style-type: none"> <li>• Study on Traditional Sports in Thailand</li> <li>• community sports studies in Japan</li> </ul>	traditional games and sports, sport sociology, Asia		SAGAWA TETSUYA
			<ul style="list-style-type: none"> <li>• Active nitrogen stress indicated by nitric oxide metabolite</li> <li>• Regulation of gene expression related to muscle fiber differentiation</li> </ul>			HITOMI YOSHIAKI
	<ul style="list-style-type: none"> <li>• Sports Engineering</li> <li>• Development of Measuring Systems</li> <li>• Evaluation of Material Strength</li> </ul>	structural reliability eng. strength of material cellular material sports equipment motion measurement engineering analysis		KAGAWA HIROYUKI		



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
General	Sports science	<ul style="list-style-type: none"> <li>• Study of the physical activity contents using the heart rate monitoring</li> <li>• Effects of drug and nutriment on skeletal muscles, heart, and bones</li> <li>• Analysis of affecting factors on muscles</li> </ul>	<ul style="list-style-type: none"> <li>• Comparative Study of myosin isozyme and muscle fiber composition</li> <li>• Development of assessing method for physical activity with HR</li> <li>• Effects of doping drugs on striated muscles</li> </ul>	Exercise Physiology Physical fitness muscle physiology	KITAURA TAKASHI	
		<ul style="list-style-type: none"> <li>• Comparison of German and Japanese Martial Arts</li> </ul>	<ul style="list-style-type: none"> <li>• History of budoh, history of thought</li> </ul>	Martial Arts Japanese Culture German	BITTMANN, Heiko	
	Health/Sports Science	Applied health sciences	<ul style="list-style-type: none"> <li>• Floor translation system for training of equilibrium function</li> <li>• System for enhancing and causing brain activation with postural change</li> <li>• Evaluation system of muscle activity and posture for backache prevention</li> </ul>	<ul style="list-style-type: none"> <li>• Dynamic postural control and brain activity</li> <li>• Brain activation by movement and posture</li> <li>• Positional perception of standing posture</li> </ul>	postural control, brain activation, evoked brain potential	FUJIWARA KATSUO
				<ul style="list-style-type: none"> <li>• Research on relation between nutrition and health</li> </ul>	Food Science, Nutrition	TERASAWA NAOKO
				<ul style="list-style-type: none"> <li>• Mechanical Efficiency of Bicycling</li> <li>• Energy Cost of Dribbling on a Treadmill</li> <li>• Effects of PNF Stretching on Passive Tension and Range of Motion</li> </ul>	Sports Biomechanics Teaching Biomechanics Biomechanics	YAMAMOTO HIROO
				<ul style="list-style-type: none"> <li>• the study of body composition and lifestyle-related disease</li> <li>• A study of fall-prevention and establishment of functional recovery system</li> <li>• A study of objectivization measurement and evaluation of muscle strength and controlled force exertion</li> </ul>	Physical Education statistics Public Health Sports science	DEMURA SHINICHI
				<ul style="list-style-type: none"> <li>• Study of health education inservice training</li> <li>• Study of elementary school health textbooks</li> <li>• role-playing in school health education</li> </ul>	Health Education	IWATA HIDEKI
				<ul style="list-style-type: none"> <li>• Development of driving safety support system using advanced technique for physiological measurement</li> <li>• Development of a novel non-invasive device for monitoring physiological parameters</li> <li>• Physiological measurement in motor sports athletes</li> </ul>	Physiological measurement, Safety driving, Motorsports, Health, Welfare	YAMAKOSHI TAKEHIRO
				<ul style="list-style-type: none"> <li>• Automatized levels of upper and lower limb movements</li> <li>• Development of parallel control of posture and hand and finger movement during floor motion repetitive loading</li> </ul>	automatization	TOYAMA HIROSHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
General	Health/Sports Science	Applied health sciences	<ul style="list-style-type: none"> <li>•Non-invasive measurement of physical informations</li> <li>•Study of bone metabolism using goldfish scale as a model for bone</li> </ul>	Non-invasive measurement of physical information, Prevention of osteoporosis, A scale culture system	KITAMURA, Kei-ichiro	
			<ul style="list-style-type: none"> <li>•A Study on QOL in Low risk Pregnancy</li> <li>•The Quality of Midwifery Care</li> </ul>	<ul style="list-style-type: none"> <li>•The development of maternity assessment tool</li> <li>•Educational Maternal Nursing and Midwifery researches</li> <li>•A Study on Effort in Childbirth Education</li> </ul>	Maternity Nursing, Midwifery, Childbirth education, Nursing education, Nursing Model, Professional, carrier	SHIMADA KEIKO
	Life Science	General life science	<ul style="list-style-type: none"> <li>•Isolation and Structural Analysis of Biologically Active Natural Products</li> <li>•Study of natural products chemistry for inhibitors of metabolic enzymes</li> <li>•Search for functional substances using the antistress-science evaluation system</li> </ul>		Natural Product Chemistry Pharmacognosy	OTA TOMIHISA
			<ul style="list-style-type: none"> <li>•Objective Evaluation of Clothing Appearance</li> <li>•Heat and Moisture Transfer Properties and Comfort of Textile Materials</li> <li>•Mechanical Properties and Handle of Textile Materials</li> </ul>	<ul style="list-style-type: none"> <li>•Analysis of Mechanical Properties and Handle of Textile Materials.</li> <li>•Comfort of Clothing Materials</li> <li>•Objective Evaluation of Clothing Appearance</li> </ul>	Clothing Materials, Textile Engineering, Clothes, Fiber, Yarn, Fabric	MATSUDAIRA MITSUO
				<ul style="list-style-type: none"> <li>•Study on Residents' Evaluations of Dwelling Environment</li> <li>•Study on Housing education</li> <li>•Housing needs of the elderly, children, and women</li> </ul>	Housing Science, Home economics education, City Planning	YAMAGISHI MASAKO
				<ul style="list-style-type: none"> <li>•Study of Human Ecology in Home Economics</li> <li>•Consumer Education in Home Economics Education</li> <li>•Consumer Education as a Lifelong-learning</li> </ul>	Home Science	OJIMA KYOKO
					Kansei Engineering, Textile Engineering	WAKAKO RINA
	Eating habits studies	<ul style="list-style-type: none"> <li>•Durg discovery</li> <li>•Functional analysis of food chemicals</li> </ul>	<ul style="list-style-type: none"> <li>•Regulation and function of heme catabolism</li> <li>•Hypoxia response</li> <li>•Functional analysis of food chemicals</li> </ul>	heme oxygenase, hypoxia response	OGAWA KAZUHIRO	
			<ul style="list-style-type: none"> <li>•Research on relation between nutrition and health</li> </ul>	Food Science, Nutrition	TERASAWA NAOKO	
		<ul style="list-style-type: none"> <li>•Creation, spread and enlightenment of illustration map</li> </ul>	<ul style="list-style-type: none"> <li>•Distribution and regions for fisheries and seafood, and study on learning and education for food and meal</li> <li>•Support for the action and education for disaster mitigation</li> <li>•Creation, spread and enlightenment of illustration map</li> </ul>		HAYASHI KIYOMI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
General	Science Education/Educational Technology		<ul style="list-style-type: none"> <li>•Research in classroom process in school mathematics</li> </ul>	Mathematics Education	OTANI MINORU	
			<ul style="list-style-type: none"> <li>•Study on Structure and Expression of Plant Genes</li> <li>•Studies on Biological Education</li> </ul>	Botany,Biological Education	YAKURA KIMITAKA	
			<ul style="list-style-type: none"> <li>•The Study of the Student' s Cognition of Nature</li> <li>•Using of Self-Organizing Maps in Science Teaching</li> <li>•Analysis and Evaluation of Science Classes</li> </ul>	Science Education	MATSUBARA MICHIO	
		Science education	<ul style="list-style-type: none"> <li>•Development of School curricular by which cooperates with region and the administration</li> </ul>	<ul style="list-style-type: none"> <li>•Development of curriculum and educational method at various schools</li> <li>•Development of effective support method in Curriculum development process by teacher group</li> <li>•about the Change in the scholastic attainments structure in the School education which centers on"Integrated Learning"</li> </ul>		KATO TAKAHIRO
			<ul style="list-style-type: none"> <li>•Non-Perturbative Renormalization Group</li> <li>•Research Activity Analysis by Databases</li> <li>•Quantum Mechanical Tunneling</li> </ul>	non-perturbative, renormalization group, quantum physics	AOKI KENICHI	
			<ul style="list-style-type: none"> <li>•Development of a solid puzzle</li> </ul>	<ul style="list-style-type: none"> <li>•Study on a Teaching Method for Encouraging the Meta-Cognitive Activities in the</li> <li>•Improvement of Teaching Practicum</li> <li>•History of Handicraft Education</li> </ul>	Art Education	WASHIYAMA YASUSHI
			<ul style="list-style-type: none"> <li>•Design of learning contents for critical thinking and evaluation by human EEG phase synchronization</li> <li>•mathematical model study on endoreplication in cell cycle</li> </ul>		NISHIYAMA NOBUAKI	
			<ul style="list-style-type: none"> <li>•Study on History of Bohai</li> <li>•Study on the "T'ang Hui-yao"</li> <li>•History of international relations/exchange in 7th-10th century East Asia</li> </ul>	Bohai, Tang-hui-yao, East Asia	FURUHATA TORU	
		Educational technology	<ul style="list-style-type: none"> <li>•The effect of Social and Cognitive Presence in Collaborative Environment</li> <li>•The Development and Evaluation of Learning Environment along with Learner's Learning Context</li> <li>•The Development of Mentoring Support System for the Promotion of Self-Regulated Learning in e-learning</li> </ul>	Educational Technology, Computer-Mediated Communication, Learning Design	YAMADA MASANORI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
General	Science Education/Educational Technology	Educational technology	<ul style="list-style-type: none"> <li>•Development of curriculum and educational method at various schools</li> <li>•Development of effective support method in Curriculum development process by teacher group</li> <li>•about the Change in the scholastic attainments structure in the School education which centers on"Integrated Learning"</li> </ul>		KATO TAKAHIRO	
			<ul style="list-style-type: none"> <li>•Wavefront Synthesis using Wideband Constant Delay Digital filters.</li> </ul>	Educational Technology	MATSUMOTO TOYOJI	
			<ul style="list-style-type: none"> <li>•Computer Assisted Language Learning</li> <li>•Research on Natural Language Processing</li> </ul>	CALL Natural Language Processing	NISHIJIMA YUICHI	
			<ul style="list-style-type: none"> <li>•Higher Education</li> <li>•portal system</li> </ul>	<ul style="list-style-type: none"> <li>•Study Support on Portal System</li> <li>•Higher Education System in Scandinavian countries</li> </ul>	Higher Education, Higher Education Evaluation, Danish, Scandinavian Mythology, e-Learning	HORII YUSUKE
	Sociology/History of Science and Technology	Sociology/history of science and technology	<ul style="list-style-type: none"> <li>•Science in the Age of Galileo</li> <li>•History of Industrial Technology</li> </ul>	History of Science and Technology	TANAKA ICHIRO	
	Geography	Geography		<ul style="list-style-type: none"> <li>•Explanation of Holocene environmental change in the Patagonian icefield in South America</li> <li>•Reconstruction of the paleoclimate of the Japanese archipelago based on glacial topography and fluctuation models</li> </ul>	Glacial Geomorphology, Environmental Changes, Geoecology	AOKI TATSUTO
			<ul style="list-style-type: none"> <li>•town planning in ubiquitous society</li> <li>•Urban Analysis with GIS</li> <li>•GIS for schools and communities</li> </ul>	<ul style="list-style-type: none"> <li>•urban space-time system(urban system)</li> <li>•geographic information science</li> <li>•Urban and regional Planning</li> </ul>	Human Geography, GIS	ITO SATORU
			<ul style="list-style-type: none"> <li>•Creation, spread and enlightenment of illustration map</li> </ul>	<ul style="list-style-type: none"> <li>•Distribution and regions for fisheries and seafood, and study on learning and education for food and meal</li> <li>•Support for the action and education for disaster mitigation</li> <li>•Creation, spread and enlightenment of illustration map</li> </ul>		HAYASHI KIYOMI
				<ul style="list-style-type: none"> <li>•Study on the daily activity space in urban environment</li> <li>•Study of regional inequality in health service provision</li> <li>•geography of female labour</li> </ul>	Urban Geography	KAMIYA HIROO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
General	Geography		<ul style="list-style-type: none"> <li>• Experimental Study on Sedimentary Structures</li> <li>• Experimental Study on Landform Caused by Water Flow</li> </ul>		ENDO NORITAKA
			<ul style="list-style-type: none"> <li>• Environmental processes and changes in lake-catchment systems</li> </ul>		KASHIWAYA KENJI
			<ul style="list-style-type: none"> <li>• Theoretical study on "social nature";</li> <li>• critical study on national environmentalism</li> <li>• Geographical study on people's security</li> </ul>	social nature national environmentalism social construction of nature	NAKASHIMA KOJI
Compound New Area	Environment Studies		<ul style="list-style-type: none"> <li>• Evaluation of Air Pollution in Angkor Monument Area in Cambodia and Construction of Monitoring Network</li> <li>• Evaluation of Environmental Pollution Caused by Rubber Sheet Production in Southern Thailand and Environmental Protection Policy</li> <li>• Efficient Decomposition of Hazardous Compounds in Ambient Air Using Supersonic Flow of Nano TiO<sub>2</sub> Aerosol Particles</li> </ul>	Assesment of Atmospheric Environment. Air Pollution Control Technology. Air Cleaning Device.	FURUUCHI MASAMI
			<ul style="list-style-type: none"> <li>• Characteristics of organic matter and its transport in river systems</li> <li>• Characteristics of dissolved organic matter in groundwaters and their complexation properties with radionuclides</li> <li>• Migration behavior of materials in Satoyama and Satoumi</li> </ul>	Environmental monitoring, Organic matter, Radionuclides	NAGAO SEIYA
			<ul style="list-style-type: none"> <li>• Radioactive contamination on land and radiation dose to peoples around the former USSR's Semipalatinsk Nuclear Test Site</li> <li>• Behavior of Ra isotopes in NaCl type saline waters from deep wells</li> </ul>	Radionuclide, Geochemistry, Radiation effect	YAMAMOTO MASAYOSHI
		<ul style="list-style-type: none"> <li>• Development of Determination Methods for Unregulated Hazardous Pollutants</li> <li>• Biological Effects of Diesel Exhaust Particulates</li> </ul>	<ul style="list-style-type: none"> <li>• Study on Mutagenic Polycyclic Aromatic Hydrocarbons : Environmental Behaviors and Biological Effects</li> <li>• Study on New Endocrine Disrupting Chemicals in Environments</li> <li>• Development of New Photometric Detection/Liquid Chromatography for Environmental Chemicals</li> </ul>	Polycyclic Aromatic Hydrocarbon	HAYAKAWA KAZUICHI
			<ul style="list-style-type: none"> <li>• Study on atmospheric reactions of polycyclic aromatic hydrocarbons</li> <li>• Interaction of polycyclic aromatic hydrocarbons with gaseous atmospheric pollutants on Asian dust</li> </ul>		KAMEDA TAKAYUKI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher		
Compound New Area	Environment Studies		<ul style="list-style-type: none"> <li>•Development and stabilization of activated sludge system</li> <li>•Development of wastewater treatment system using sulfur oxidation-reduction</li> <li>•Biomass recycle</li> </ul>	anaerobic-oxic biofilm, nutrient removal, sludge treatment, biomass, population dynamics	YAMAMOTO-IKEMOTO RYOKO		
			<ul style="list-style-type: none"> <li>•Free surface flows of Bingham fluid</li> <li>•Numerical analysis of non-linear dispersive waves</li> <li>•Multi-phase flow</li> </ul>		YUHI MASATOSHI		
			<ul style="list-style-type: none"> <li>•Medical application of magnetic fields</li> <li>•Molecular identification of microorganisms in bioaerosols</li> </ul>		KAKIKAWA MAKIKO		
			<ul style="list-style-type: none"> <li>•Submarine geology of the Japan Sea</li> <li>•Geological Mapping and its Application in Hokuriku District</li> <li>•Environmental Analysis on Lake Tonle Sap, Cambodia</li> </ul>	<ul style="list-style-type: none"> <li>•Quaternary Environmental History in the Indochina Peninsula, Southeast Asia</li> <li>•Depositional History of Sedimentary Basins in Backarc Areas of Arc-Trench Systems</li> <li>•Depositional History of Sedimentary Basins in Hokuriku District, Central Japan</li> </ul>	Sedimentology Marine Geology Palaeoenvironmental analysis Sedimentology Sedimentary Geology Marine Geology Sedimentology Ecology Geology Marine Geology Sedimentary Process Sedimentology	TSUKAWAKI SHINJI	
		Environmental dynamic analysis	<ul style="list-style-type: none"> <li>•Lidar technology for monitoring of atmospheric environment</li> </ul>	<ul style="list-style-type: none"> <li>•Research of biochemical processes on the surface of KOSA particles on the basis of single particle analysis</li> <li>•Long range transport of KOSA and microbiota</li> <li>•Chemical-physical processes of atmospheric aerosol modification</li> </ul>	Uptake of pollutants on Kosa particle surface, Kosa particle collection in the free atmosphere, Long-range transport of atmospheric aerosols, Dynamics of soil-bioaerosols in the atmosphere, Balloon-borne measurements	IWASAKA YASUNOBU	
			<ul style="list-style-type: none"> <li>•Environmental processes and changes in lake-catchment systems</li> </ul>			KASHIWAYA KENJI	
			<ul style="list-style-type: none"> <li>•Cenozoic Benthic Foraminifers</li> <li>•Recent benthic foraminifers in the Japan Sea</li> <li>•Recent shallow water foraminifers in the Japan Sea</li> </ul>		Benthic Foraminifers, Japan Sea, Holocene	KATO MICHIO	
			<ul style="list-style-type: none"> <li>•Bioremediation of toxic compounds in the environment</li> <li>•Fixation of CO<sub>2</sub> in atmosphere</li> </ul>	<ul style="list-style-type: none"> <li>•Study on the Behavior of Trace Element in Hydrophere.</li> <li>•Development of remediation technology utilizing the natural cycle</li> <li>•Research relating to eutrophication and trace elements in aquatic environments</li> </ul>	Hydrosphere Chemistry, Analytical Chemistry	HASEGAWA HIROSHI	
				<ul style="list-style-type: none"> <li>•Modes of Coevolution: A Regulation Approach on Socio-Ecological Systems</li> </ul>		Coevolution, Resilience, Wood-biomass	ICHIHARA AKANE
				<ul style="list-style-type: none"> <li>•Sustainable Regional Development, Integrating Economy and Ecology</li> </ul>		Regional Economic System	SAMUTA HIKARU
				<ul style="list-style-type: none"> <li>•Study for the evaluation of the exposure to polycyclic aromatic hydrocarbons</li> </ul>		Polycyclic aromatic hydrocarbons, biomarker	TORIBA AKIRA
			Environmental impact assessment/environmental policy	<ul style="list-style-type: none"> <li>•Environmental load analysis of wood stoves and development of emission control technology</li> </ul>	<ul style="list-style-type: none"> <li>•Environmental load from biomass combustion</li> </ul>	atmospheric aerosol, biomass combustion	HATA, Mitsuhiro

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Compound New Area	Environment Studies	Environmental impact assessment/environmental policy	<ul style="list-style-type: none"> <li>•Molecular biological analysis of relationship between marine phytoplankton and chemical substrates</li> <li>•Arsenic dynamics effected by microorganisms under aquatic environment</li> <li>•Phylogenetic diversity of a microbial community in the atmosphere of an Asian dust (KOSA)</li> </ul>	bacteria environmental chemicals phytoplankton	MAKI TERUYA	
		Radiation/chemical substance influence science		<ul style="list-style-type: none"> <li>•Evaluation of the impact of environmental neutrons</li> <li>•Environmental neutron distribution in substances</li> <li>•Development of a measurement instrument for extremely low-level radiation</li> </ul>		HAMAJIMA YASUNORI
				<ul style="list-style-type: none"> <li>•Radioactive contamination on land and radiation dose to peoples around the former USSR's Semipalatinsk Nuclear Test Site</li> <li>•Behavior of Ra isotopes in NaCl type saline waters from deep wells</li> </ul>	Radionuclide, Geochemistry, Radiation effect	YAMAMOTO MASAYOSHI
			•Development of ChAT mapping agent for Alzheimer's disease early diagnosis	<ul style="list-style-type: none"> <li>•Study on Syntheses of Radiopharmaceutical for cerebral nerve function diagnosis</li> <li>•Development of a high sensitive evaluation of internal radiation exposure</li> </ul>	Brain,moleculerimaging,radiation	SHIBA KAZUHIRO
			•Simple Analysis Method for Trace of Endocrine Disruptors by Luminescence Detecti	<ul style="list-style-type: none"> <li>•Spectroscopic and Photochemical Characteristics of Endocrine Disruptors</li> <li>•Water Treatment by Hydrochlorous Acid with Bactericidal and Coagulating Abilitie</li> <li>•Degradation of Toxic Chemical Compounds by Visible-Light Driven Photocatalysts</li> </ul>	Laser Spectroscopy Photochromism Transient Absorption Endocrine Disrupting Chemicals Persistent Organic Pollutants Fluorescence-Phosphorescence Photocatalyst Endocrine Disrupting Chemicals Solar Energy	TOKUMURA KUNIHIRO
			•Development of Determination Methods for Unregulated Hazardous Pollutants •Biological Effects of Diesel Exhaust Particulates	<ul style="list-style-type: none"> <li>•Study on Mutagenic Polycyclic Aromatic Hydrocarbons : Environmental Behaviors and Biological Effects</li> <li>•Study on New Endocrine Disrupting Chemicals in Environments</li> <li>•Development of New Photometric Detection/Liquid Chromatography for Environmental Chemicals</li> </ul>	Polycyclic Aromatic Hydrocarbon	HAYAKAWA KAZUICHI
			•Research on anti-cancer drugs targeting cellular responses to DNA damage	<ul style="list-style-type: none"> <li>•Molecular analysis of cellular responses to DNA damage</li> <li>•Functional analysis of DDB complex in cellular responses to DNA damage</li> <li>•Establishment and application of detection systems for UV-induced DNA damage</li> </ul>	DNA repair Hereditary disorder Cancer Signal transduction Cellular response Ultraviolet light	MATSUNAGA TSUKASA
				<ul style="list-style-type: none"> <li>•Molecular mechanism of nucleotide excision repair</li> </ul>	DNA repair Damage response	WAKASUGI MITSUO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Compound New Area	Radiation/chemical substance influence science		<ul style="list-style-type: none"> <li>• Study on atmospheric reactions of polycyclic aromatic hydrocarbons</li> <li>• Interaction of polycyclic aromatic hydrocarbons with gaseous atmospheric pollutants on Asian dust</li> </ul>		KAMEDA TAKAYUKI
			<ul style="list-style-type: none"> <li>• Cellular Signal transduction pathways involved in stress response</li> </ul>	Radiation Biol. and Toxicology Cell Biology Molecular Biology	YAMAMOTO KENICHI
			<ul style="list-style-type: none"> <li>• Study for Radiation Dose Simulation</li> <li>• Study on Effective Dose Equivalent</li> </ul>	Radiation Engineering Radiation Protection Radiation Measurement	KOSHIDA KICHIRO
	Environmental technology/environmental material		<ul style="list-style-type: none"> <li>• Coupling of photocatalyst and ultrasound chemical reactions</li> <li>• Application of photocatalyst nanoparticles for environmental cleanup and medicine</li> <li>• Toxicity evaluation of various chemical substances as indexed by cell activity</li> </ul>	Photocatalyst, bio-nanoparticles, bio-affinity	SHIMIZU NOBUAKI
		• Development of Environmental Protection Technology	<ul style="list-style-type: none"> <li>• Development of System for Fixation and Capture of CO<sub>2</sub> with Zeolite Mist Formation</li> <li>• Study on High-Performance Heat Transfer Surface for Boiling and Condensation Process</li> <li>• Gas Clean Technology by UV Photoelectro Method with Mist Formation</li> </ul>	Heat Transfer Enhancement, Mist Formation, Environmental Heat Transfer, Air Conditioning	TAKIMOTO, Akira
		• Analysis and optimum process design of composting system	<ul style="list-style-type: none"> <li>• Engineering Analysis and Application of Composting Process</li> <li>• Studies on Analysis of Heat and Mass Transfer in Environmental Engineering</li> <li>• Analysis of environment in a sloped • greenhouse for plant growth</li> </ul>	Environmental Analysis, Soil Environment Engineering, Compost Engineering	SEKI HIRAKAZU
			<ul style="list-style-type: none"> <li>• Development and stabilization of activated sludge system</li> <li>• Development of wastewater treatment system using sulfur oxidation-reduction</li> <li>• Biomass recycle</li> </ul>	anaerobic-oxic biofilm, nutrient removal, sludge treatment, biomass, population dynamics	YAMAMOTO-IKEMOTO RYOKO
		• Environmental load analysis of wood stoves and development of emission control technology	<ul style="list-style-type: none"> <li>• Environmental load from biomass combustion</li> </ul>	atmospheric aerosol, biomass combustion	HATA, Mitsuhiro
		• Bioremediation of toxic compounds in the environment • Fixation of CO <sub>2</sub> in atmosphere	<ul style="list-style-type: none"> <li>• Study on the Behavior of Trace Element in Hydrosphere.</li> <li>• Development of remediation technology utilizing the natural cycle</li> <li>• Research relating to eutrophication and trace elements in aquatic environments</li> </ul>	Hydrosphere Chemistry, Analytical Chemistry	HASEGAWA HIROSHI
		• High Efficient Dehumidification Technology • Desiccant Cooling Process driven with a waste heat • Air purification and separation by adsorption process	<ul style="list-style-type: none"> <li>• Development of an adsorptive desiccant cooling driven with low-temperature heat</li> <li>• Air separation and purification process using a cyclic adsorption process</li> <li>• Recovery and enrichment of Carbon dioxide by using adsorption process</li> </ul>	Desiccant Dehumidification, Adsorption, Air separation	KODAMA AKIO



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Compound New Area	Nano structural science	<ul style="list-style-type: none"> <li>•Simulation of deformation behavior of polymeric materials</li> <li>•Modification of mechanical properties of polyolefins</li> </ul>	<ul style="list-style-type: none"> <li>•Morphology and properties of polymeric materials</li> <li>•mathematical chemistry</li> <li>•Polymer based nano-composites</li> </ul>	polymer physics rheology graph theory molecular dynamics	NITTA KOHEI	
			<ul style="list-style-type: none"> <li>•Magnetic Resonance Studies on Dynamics of Molecule and Electron in Solids</li> <li>•Local Structure Analysis of High Electrical Conductive Materials</li> </ul>	Magnetic Resonance. Solid State Physics	MIZUNO MOTOHIRO	
		<ul style="list-style-type: none"> <li>•Study on electronic structures and magnetic properties in Ferredoxins.</li> <li>•Study on electric field effects for the interfaces between magnetic and dielectric surfaces</li> <li>•Magenetic anisotropy and its electric field effect in magnetic films</li> </ul>	<ul style="list-style-type: none"> <li>•First-Principles study of electronic structure for oxide and sulphide spinels</li> <li>•Study of carbon clusters with molecular dynamics simulation</li> <li>•Ab-initio molecular dynamics for magnetic materials.</li> </ul>	Rashba effect, magnetic anisotropy, non-collinear magnetism, ab initio molecular dynamics, magnetic cluster,	ODA, Tatsuki	
			<ul style="list-style-type: none"> <li>•Electron structure in oxide crystal structure</li> <li>•Development and practical application of materials with environmental detoxification functions</li> </ul>	Oxides, X-ray diffraction, thin film, colloid chemistry, photocatalyst	OKUDERA HIROKI	
	Nano materials/nano bioscience		<ul style="list-style-type: none"> <li>•Force spectroscopy based on non-contact atomic force microscopy in UHV</li> <li>•Development of scanning interaction spectro-microscope for fabrication of quantum nano-structures</li> </ul>	Surface science, Scanning Probe Microscopy	ARAI TOYOKO	
		<ul style="list-style-type: none"> <li>•Development of high-speed scanning probe microscopies</li> </ul>	<ul style="list-style-type: none"> <li>•Development and Biological Application of High-speed Atomic Force Microscopy</li> <li>•Study on Motor Proteins</li> <li>•Awards</li> </ul>	motor proteins, single-molecule analysis, Atomic Force Microscope	ANDO TOSHIO	
		<ul style="list-style-type: none"> <li>•Study on electronic structures and magnetic properties in Ferredoxins.</li> <li>•Study on electric field effects for the interfaces between magnetic and dielectric surfaces</li> <li>•Magenetic anisotropy and its electric field effect in magnetic films</li> </ul>	<ul style="list-style-type: none"> <li>•First-Principles study of electronic structure for oxide and sulphide spinels</li> <li>•Study of carbon clusters with molecular dynamics simulation</li> <li>•Ab-initio molecular dynamics for magnetic materials.</li> </ul>	Rashba effect, magnetic anisotropy, non-collinear magnetism, ab initio molecular dynamics, magnetic cluster,	ODA, Tatsuki	
			<ul style="list-style-type: none"> <li>•Development of high-speed atomic force microscope for biological system</li> </ul>		UCHIHASHI TAKAYUKI	

Nano Micro Science

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Compound New Area	Nano Micro Science		<ul style="list-style-type: none"> <li>Development of high-resolution atomic force microscopy technologies for applications for biophysics</li> </ul>	Nanoscale Biology, Nanotechnology, Atomic Force Microscopy, Single molecule measurements	FUKUMA TAKESHI	
		Nano materials/nano bioscience	<ul style="list-style-type: none"> <li>Unusual intracellular signal transduction induced by lipid peroxidation</li> <li>Search for biomarker of oxidative stress in allergy disease</li> <li>Prevention of health damage induced by earthquake</li> </ul>	Oxidative Stress Preventive Medicine Allergic Disease Environmental Chemicals Evaluation of Toxicity	KANBAYASHI YASUHIRO	
			<ul style="list-style-type: none"> <li>Device Applications of Si nanocrystals</li> </ul>	<ul style="list-style-type: none"> <li>Characterization and application of semiconductor nanostructures</li> </ul>	semiconductor, thin film materials, nanostructure	INOKUMA, Takao
			<ul style="list-style-type: none"> <li>Research on Mechanism of Molecular Recognition in Molecular Assembly</li> </ul>	<ul style="list-style-type: none"> <li>Calorimetric study of solutions of amphiphiles</li> <li>Aggregation behavior of surfactants and amino acid-type surfactants</li> <li>Interaction between biomaterials and surfactant</li> </ul>	Solution Chemistry Interface Chemistry	OTA AKIO
		Micro/nanodevice	<ul style="list-style-type: none"> <li>VLSI Design</li> </ul>	<ul style="list-style-type: none"> <li>Emerging Nonvolatile Random Access Memory</li> <li>Wireless Communication LSI</li> <li>Microelectronic Sensors</li> </ul>	Microelectronics, Sensor, Wireless Communication	KITAGAWA, Akio
	Society/Safety System Science	Social system engineering/safety system		<ul style="list-style-type: none"> <li>Research on Multi-objective Decision Making and Economic Analysis</li> <li>Study On Decision Making under Uncertainty</li> <li>Study on Cost Allocation Problems in Information network</li> </ul>	Mathematics in General Social System Engineering Optimization game fuzzy	MAEDA TAKASHI
		Natural disaster science	<ul style="list-style-type: none"> <li>Development of Countermeasure for Soil Liquefaction</li> </ul>	<ul style="list-style-type: none"> <li>Study on Behavior of Lifeline Facilities Subjected to Earthquake.</li> <li>Study on Soil Liquefaction and Anti-liquefaction Measurement</li> <li>Study on Earthquake Disaster Mitigation of Health Care Facilities</li> </ul>	earthquake, hazard mitigation, lifeline	MIYAJIMA MASAKATSU
					Earthquake Engineering, Disaster Prevention Engineering	MURATA AKIRA
					steel structures, composite structures, rockfall mitigation	MAEGAWA KOJI
	Genome Science	Basic genome science		<ul style="list-style-type: none"> <li>Regulation of virulence and genome analysis of Clostridial species</li> </ul>		SHIMIZU TORU
				<ul style="list-style-type: none"> <li>Development of a body map of human genome methylation</li> <li>computational identification of useful knowledge from gene expression data</li> </ul>		YAMADA YOICHI
			<ul style="list-style-type: none"> <li>Global gene expression analysis using microarray</li> <li>Proteome analysis</li> </ul>	<ul style="list-style-type: none"> <li>Analysis of Regulatory Mechanism of Wound-Responsive Gene in Higher Plants</li> <li>Study on mechanism of action of trichothecene phytotoxin in higher plants</li> <li>Functional analysis of transcription factors in plant stress response.</li> </ul>	Plant stress response, transcription factor, plant defense response	NISHIUCHI TAKUMI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher	
Compound New Area	Genome Science	Basic genome science	•Investigation of Early Land Plant Evolution by Comparative Genomics		NISHIYAMA TOMOAKI	
			•Study of biological phenomenon and diversity of organisms by genome sequence comparison	Biophysics Structure of proteins	NAKASHIMA HIROSHI	
			•Data mining from biological and medical data •Text mining and intelligent search for biomedical literature	analysis of biological data	SATOU KENJI	
		Applied genome science	•Data mining from biological and medical data •Text mining and intelligent search for biomedical literature	analysis of biological data	SATOU KENJI	
	Living Organism Molecular Science	Living organism molecular science	•Production of UV absorbing pigments	•Molecular mechanism of anhydrobiosis in the terrestrial cyanobacterium	Stress Physiology, Photosynthesis	SAKAMOTO TOSHIO
				•Development of high-speed atomic force microscope for biological system		UCHIHASHI TAKAYUKI
			•Medical image processing	•Nuclear Cardiology •Quantitative analysis with nuclear medicine •Image information	Nuclear Cardiology, Nuclear Medicine, SPECT, PET	NAKAJIMA KENICHI
			•Role of apoptotic imaging in myocardial ischemia	•C-11, C-14-methionine imaging in rat model of myocardial severe ischemia and reperfusion •Study on Cardiac Function using Nuclear Medicine technique •Study on Cardiac Metabolism •Study on Bone and Soft tissue tumor using Nuclear Medicine technique	Nuclear Medicine, Nuclear Cardiology, cardiac function, cardiac metabolism, tumor, PET/CT, molecular imaging	TAKI JUNICHI
				•Tumor detection and treatment with radiopharmaceuticals	Nuclear Medicine, radionuclide therapy	KINUYA SEIGO
					molecular biology	MATSUKAWA TORU
			•Modification of the function of bilirubin oxidase •Biotechnology of lacquer latex •Biofuel cell	•Transformation of NOx by Enzymes •Function of Multicopper Oxidases and Their Alterations by Mutation and Application to Biofuel Cell •Enzyme Chemistry of Lacquer Latex	metalloprotein, bioinorganic chemistry, Protein engineering	SAKURAI TAKESHI
	Area Studies	Area studies	•Study on History of Bohai •Study on the "T'ang Hui-yao" •History of international relations/exchange in 7th-10th century East Asia		Bohai, Tang-hui-yao, East Asia	FURUHATA TORU
			•Study on the Semitic, Cushitic and Omotic Languages of Ethiopia •Comparative Study of the Semitic languages •Descriptive Study of Amharic		languages of Ethiopia Omotic languages Afro-Asiatic languages	TSUGE YOICHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Compound New Area	Area Studies		<ul style="list-style-type: none"> <li>•Dynamic understanding of cultural affairs (cultural economy studies)</li> </ul>	Economics and Culture,Sport Science	YOSHINO YASUYUKI
			<ul style="list-style-type: none"> <li>•Jewish Problems of Vienna</li> <li>•Jewish Problems of Galicia</li> </ul>	History of Social Thought	NOMURA MARI
		•Politico-economic reforms in Arab countries	<ul style="list-style-type: none"> <li>•Politics and Foreign Relations of Arab Countries</li> <li>•American Policy toward the Middle East</li> <li>•Theoretic Study on Politico-Economic System of Developing Countries</li> </ul>	Arab countries, Developing countries, American Foreign Policy	KASHIMA MASAHIRO
			<ul style="list-style-type: none"> <li>•Ethnographical Study of Balinese Culture</li> <li>•Study on the Interrelation between Indonesian National Culture and Its Local Ethnic Culture</li> <li>•Study on the social change of local communities in Hokuriku region, northern central Japan</li> </ul>		KAGAMI HARUYA
			<ul style="list-style-type: none"> <li>•Hong Kong Politics after the Handover and Hong Kong's Political Influence on the Mainland China</li> </ul>		KURATA TORU
			<ul style="list-style-type: none"> <li>•Study on Residents\' Evaluations of Dwelling Environment</li> <li>•Study on Housing education</li> <li>•Housing needs of the elderly, children, and women</li> </ul>	Housing Science, Home economics education ,City Planning	YAMAGISHI MASAKO
	Gender		<ul style="list-style-type: none"> <li>•Study on Learning about Family</li> <li>•Study on the Curriculum of Home Economics Education</li> </ul>	Curriculum Studies Home Economics	WATAHIKI Tomoko
			<ul style="list-style-type: none"> <li>•A Study of the Nineteenth Century American Literature. Chiefly Concerning on Mark Twain's Works</li> <li>•Gender studies with a focus on men' s studies</li> </ul>	American Literature American Literature Mark Twain Men's Studies	KUBO, Takuya
			<ul style="list-style-type: none"> <li>•Social inequality and health: potentials of social capital in health policy.</li> <li>•Exploring technology familiar with women and creation of new health care system.</li> <li>•Gender politics on women's body parts.</li> </ul>	Sociology, Public Health	HIBINO YURI

## Other

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	environmental literature ecocriticism soundscape		<ul style="list-style-type: none"> <li>•Theorizing Soundscapes in Environmental Literature</li> <li>•Transnational Theoretical Study of Ecocriticism</li> <li>•CEF-Based Objectives in English Teaching and Learning</li> </ul>	environmental literature, ecocriticism, American literature	YUKI Masami
	vector insect ecology vector control		<ul style="list-style-type: none"> <li>•Researches on mosquito biology</li> <li>•Epidemiological study on vector born diseases.</li> </ul>	Mosquito biology, Insect taxonomy, Vector control	OKAZAWA TAKAO
	Obstetrics and Gynecology	<ul style="list-style-type: none"> <li>•Collection of stem cells in umbilical cord</li> <li>•Matrix metalloproteinases in Obstetrics</li> </ul>	<ul style="list-style-type: none"> <li>•Etiology and Treatment of Premature Rupture of Membranes (PROM)</li> <li>•Management of medical and surgical complications in Pregnancy.</li> <li>•Milk ejection reflex and Oxytocin.</li> </ul>	PROM, Complicated Pregnancy, Milk ejection reflex	UCHIDE, Kiyoshi
	computer science mathematical science	<ul style="list-style-type: none"> <li>•Simulation of deformation behavior of polymeric materials</li> <li>•Modification of mechanical properties of polyolefins</li> </ul>	<ul style="list-style-type: none"> <li>•Morphology and properties of polymeric materials</li> <li>•mathematical chemistry</li> <li>•Polymer based nano-composites</li> </ul>	polymer physics rheology graph theory molecular dynamics	NITTA KOHEI
	Fluorescent Materials Hydrophobic Interactions	<ul style="list-style-type: none"> <li>•Selective Degradation of Organic Polutants by Photocatalysis</li> </ul>	<ul style="list-style-type: none"> <li>•Magnetic field and magnetic isotope effects on chemical reactions</li> <li>•Photocatalytic Chemistry</li> <li>•Photochemical Aromatic Nucleophilic Substitution</li> </ul>	Photochemistry, Magnetic Isotope Chemistry, Photochemical Reaction Mechanism, Magnetic Field Effects	NAKAGAKI RYOICHI
	China Neolithic International joint research		<ul style="list-style-type: none"> <li>•Chinese Prehistory</li> <li>•Agricultural Archaeology</li> <li>•Comparative Archaeology</li> </ul>	Chinese Archeology, Comparative Archaeology	NAKAMURA SHINICHI
	Music Education		<ul style="list-style-type: none"> <li>•Study of Teaching Conduct in Classroom Music Instruction</li> <li>•Study on System and Rule of Classroom Music Instruction</li> <li>•Study of Evaluation in Music Education</li> </ul>	Music Education	SHINOHARA HIDEO
	Real Analysis		<ul style="list-style-type: none"> <li>•Harmonic Analysis for Orthogonal Expansions</li> </ul>	Real Analysis	KANJIN YUICHI
	Pharmacognosy		<ul style="list-style-type: none"> <li>•Isolation and Structural Analysis of Biologically Active Natural Products</li> <li>•Study of natural products chemistry for inhibitors of metabolic enzymes</li> <li>•Search for functional substances using the antistress-science evaluation system</li> </ul>	Natural Product Chemistry Pharmacognosy	OTA TOMIHISA
events approach double-entry bookkeeping REA accounting model		<ul style="list-style-type: none"> <li>•Complete understanding of Sorter accounting theory and its modern development</li> <li>•Evolutionary investigation of double accounting as a symbolic system</li> <li>•Development of descriptive accounting theory based on events approach</li> </ul>	events approach double-entry bookkeeping REA accounting model	TAKESHIMA SADAHARU	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Complex Analysis		<ul style="list-style-type: none"> <li>•Study on complex hyperbolic manifolds</li> <li>•Study on holomorphic automorphism groups of bounded domains</li> <li>•Characterizations of complex manifolds by their holomorphic automorphism groups</li> </ul>	Complex Geometry	KODAMA AKIO
	Welfare Policy		<ul style="list-style-type: none"> <li>•Older Persons,Persons with Disabilities and Basic Human Rights</li> <li>•Japan and it's Responsibility for the war</li> <li>•Leprosy problem and human rights</li> </ul>	social security law welfare policy basic human rights	INOUE HIDEO
	Emergency and Critical Care Medicine Surgery	<ul style="list-style-type: none"> <li>•Development of effective educational system in emergency and critical care medicine</li> <li>•Establishment of effective emergency medical service system</li> </ul>	<ul style="list-style-type: none"> <li>•Pathophysiology of ischemia-reperfusion injury in the liver</li> <li>•Induction of ischemic preconditioning</li> <li>•Analysis of factors related to survival in out-of-hospital cardiac arrests</li> </ul>	Emergency Medicine Intensive Care Medicine Anesthesiology	INABA HIDEO
	Occupational Health	<ul style="list-style-type: none"> <li>•Human health effects by chronic cadmium exposure</li> <li>•Establishment of workers' health care system</li> <li>•Human health effects by dioxin</li> </ul>		Chronic Cadmium Intoxication Dioxin	KIDO, Teruhiko
	Cell Physiology		<ul style="list-style-type: none"> <li>•Mechanism of vascular smooth muscle contraction</li> <li>•Studies of the physiological and pathological roles of the lipid mediator sphingosine-1-phosphate</li> <li>•Studies of the physiological and pathological roles of the lipid kinase PI3-kinase</li> </ul>	Cell signaling, Vessel, Cancer	TAKUWA YO
	Mathematical Engineering		<ul style="list-style-type: none"> <li>•Analysis of structure of numerical solutions of differential equations</li> <li>•On dependence of structure of numerical solutions on insertion of random errors</li> <li>•Study of mathematical model describing nonlinear phenomena and their numerical simulation</li> </ul>	Applied Matjematics Mathematical Engineering	HATAUE ITARU
		<ul style="list-style-type: none"> <li>•Indoor Navigation of Vehicles</li> <li>•Sensing Technology for Intelligent Tasks of Robots</li> <li>•Development of Devices and Interfaces for Welfare.</li> </ul>	<ul style="list-style-type: none"> <li>•Development of Mechanism for Home Service Robots</li> <li>•Positioning System for Indoor Mobile Robots</li> <li>•Development of Devices and Interfaces for Welfare</li> </ul>		SEKI HIROAKI
	languages of Ethiopia Omotic languages minority languages		<ul style="list-style-type: none"> <li>•Study on the Semitic, Cushitic and Omotic Languages of Ethiopia</li> <li>•Comparative Study of the Semitic languages</li> <li>•Descriptive Study of Amharic</li> </ul>	languages of Ethiopia Omotic languages Afro-Asiatic languages	TSUGE YOICHI
			<ul style="list-style-type: none"> <li>•Origin of gamma-ray burst, early celestial objects in history of the universe</li> </ul>		MURAKAMI TOSHIO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Measurement and control engineering		<ul style="list-style-type: none"> <li>•Non-invasive and ambulatory physiological measurements and analysis of biological system</li> <li>•Study on innovation measurement of physiological information for home health care</li> <li>•Biomechanical study on biological tissues and development of human support control system</li> </ul>	non-invasive, ambulatory and unconscious biomedical measurements, health care monitoring, welfare engineering	YAMAKOSHI KENICHI
	Biomedical Engineering Biomaterials	<ul style="list-style-type: none"> <li>•Development of new techniques for biological measurement.</li> <li>•Research and development of welfare technology and assistive, device.</li> </ul>	<ul style="list-style-type: none"> <li>•Noninvasive physiological measurements and ambulatory monitoring</li> <li>•Development of biocompatible in vivo sensors</li> <li>•Development of non-positive displacement type blood pump system for extracorporeal circulation and its application</li> </ul>	Biomedical Engineering Biomaterials	TANAKA SHINOBU
	Ecology behavior		<ul style="list-style-type: none"> <li>•The autonomic nervous function research in the rest condition</li> <li>•The research on Sensory function and physial condition</li> <li>•The biological measurement of domestic animal</li> </ul>	Bio-information measurement Ecology	NEMOTO TETSU
		<ul style="list-style-type: none"> <li>•Floor translation system for training of equilibrium function</li> <li>•System for enhancing and causing brain activation with postural change</li> <li>•Evaluation system of muscle activity and posture for backache prevention</li> </ul>	<ul style="list-style-type: none"> <li>•Dynamic postural control and brain activity</li> <li>•Brain activation by movement and posuture</li> <li>•Positional perception of standing posture</li> </ul>	postural control, brain activation, evoked brain potential	FUJIWARA KATSUO
	Mathematics Education		<ul style="list-style-type: none"> <li>•Research in classroom process in school mathematics</li> </ul>	Mathematics Education	OTANI MINORU
			<ul style="list-style-type: none"> <li>•Regulation of virulence and genome analysis of Clostridial species</li> </ul>		SHIMIZU TORU
	Educational and social psychology		<ul style="list-style-type: none"> <li>•A study on the developmental disorder in infants</li> <li>•A study on the attachment style childhood and present attachment style.</li> <li>•A study on the development of sleep-wake rhythm in children</li> </ul>	Science of clinical nursing Science of basic and doal nursing Educational and social psychology	KIMURA RUMIKO
	Low Temperature Physics		<ul style="list-style-type: none"> <li>•Low Temperature Properties of Liquid 3He</li> <li>•Sound Properties of liquid and solid 4He</li> <li>•Magnetic Refrigeration</li> </ul>	Low Temperature Physics	MATSUMOTO Koichi
	History of Social Thought		<ul style="list-style-type: none"> <li>•Jewish Problems of Vienna</li> <li>•Jewish Problems of Galicia</li> </ul>	History of Social Thought	NOMURA MARI
modern british history history of the british history orientalism		<ul style="list-style-type: none"> <li>•Civilizing Mission</li> <li>•British Images of Asia;Cross Cultural History</li> <li>•Orientalism</li> <li>•British Images of Asia in Victorian Britain;Cross Cultural History</li> </ul>	modern british history history of the british empire orientalism	TODA MASAHIRO	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Unjust Enrichment		•Some Problems about Unjust Enrichment	Unjust Enrichment	HASEGAWA TAKASHI
	Labour Economics		•Some Issues on Contemporary Indirect Employment •Flexibility of Labour Market and De-regulation Policy	Social Policy Labour Economics	GOKA KAZUMICHI
		•Research on No and Kyogen •Research on Local Culture •Research on Relations between Literature and Picture	•Japanese Medieval Literature		NISHIMURA SATOSHI
	Social Policy	•International Comparison of Welfare Regimes	•Comparative study of the Systemic Change in the Central Europe •Social Policy of Central Europe in the International Context •Economic System and Welfare Regime in Central Europe	Economic Policy (including Economic Condition) Social Policy	HORIBAYASHI TAKUMI
	Civil law	•Environmental Law, especially on road, view	•Study on Right to demand non-pecuniary damage •Damages on Torts •the compensatory aims	Civil law	KASHIMI YUMIKO
	applied ethics	•Teaching Methods of Engineering Ethics •Cognitive theory of AI	•Non-reductive Physicalism •Philosophy of Mind •Neuroethics and Normative Ethics	philosophy of mind, philosophy of language, environmental ethics	SHIBATA MASAYOSHI
	Asian Legal History		•Study on Criminal Intent under the Qing Dynasty	Asian Legal History	NAKAMURA MASATO
	parallel corpus	•applied corpus linguistic about contrastive study of Japanese and Chinese	•Study on Chinese grammar and semantics •Study of correlation between linguistic and clear thought •constructional network	Chinese semantics & grammar, cognitive linguistics, applied linguistics	OTAKI SACHIKO
	American Literature		•Modern Critical theory, Psychoanalytical Criticism on 19th century's American Literature	psychoanalytic criticism	KOHARA BUNEI
	Near East Archaeology Neolithic		•Origin and development of agriculture and pastoralism, origin of nomadic culture	Near East, Archaeology, Neolithic, Pastoral Nomadism	FUJII SUMIO
	modernization		•Study on Modernization of Agriculture in China	modernization	BENNO SAIICHI
	Banking and Financial Systems	•Business Revitalization and Bank	•Economic Development and Financial Systems •The Monetary Aspects of the Schumpeterian System •Theoretical and Positive research about "the change in the bank behavior caused by the economy circulation".	Banking and Financial Systems	KATO MINEHIRO
NEP famine market		•A Study of War communism in Russia •Transition to NEP in Russia	Russian peasant economic history War=Communism famine NEP	KAJIKAWA SHINICHI	



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Brain & Neuro Science	<ul style="list-style-type: none"> <li>•Measurements on sensation and perception</li> <li>•Object perception in 3D space</li> </ul>	<ul style="list-style-type: none"> <li>•Perceptual and Cognitive Properties of Autism, Developmental Disorders and Cognitive Disorders.</li> <li>•Brain activities in Perception, Cognition and Judgement Process: Brain Imaging Study.</li> </ul>	Perception, Vision, Psychological process, Brain & Neural Mechanism,	KOJIMA HARUYUKI
	Anglo-American Law		<ul style="list-style-type: none"> <li>•Voting Rights Jurisprudence</li> <li>•Comparative Study of Judicial System</li> <li>•First Amendment and Civil Liability</li> </ul>	Anglo-American Law, Racial Discrimination, Jury System, Election Law	HIGASHIKAWA KOJI
	linguistics foreign language education europien langage litterature		<ul style="list-style-type: none"> <li>•Tense and aspect in French</li> <li>•Fonction of French Connectors</li> </ul>	French Linguistics Cognitive science french linguistics cognitif science	SAKAGAMI RURIKO
	the Hou-Han-Shu Wei,Jin,Northern and Southern the Zoumalou Documents		<ul style="list-style-type: none"> <li>•the History of Ancient China</li> </ul>	Wei,Jin,Northern and Southern Dynasties,	ABE SOICHIRO
	Cognitive Linguistics Language Typology German Language		<ul style="list-style-type: none"> <li>•German language studies from the perspectives of cognitive linguistics and linguistic typology</li> </ul>	Cognitive Linguistics Language Typology German Language	MIYASHITA HIROYUKI
			<ul style="list-style-type: none"> <li>•Investigation procedures related to suspect interrogation</li> </ul>		NAKAYAMA HIROYOSHI
	criminal procedure evidence criminal justice		<ul style="list-style-type: none"> <li>•Law of evidence</li> <li>•Le recours aux fichiers de police judiciaire et enquetes administratives</li> </ul>	criminal procedure evidence criminal justice	SATO MIKI
	Fatigue Behavior of Steel Materials		<ul style="list-style-type: none"> <li>•X-Ray Tri-Axial Stress Analysis</li> <li>•Fractal Analysis on Strength Evaluation Materials</li> <li>•Fatigue Behavior of Steel Materials</li> </ul>	X-Ray Tri-Axial Stress Analysis Fractal Analysis on Strength Evaluation Materials Fatigue Behavior of Steel Materials	HIROSE YUKIO
	Kinematics		<ul style="list-style-type: none"> <li>•Study on History of Football in Britain</li> <li>•Study on History of Rugby Football</li> </ul>	Kinematics Kinematics	HATA SHUJI
	Biomechanics		<ul style="list-style-type: none"> <li>•Mechanical Efficiency of Bicycling</li> <li>•Energy Cost of Dribbling on a Treadmill</li> <li>•Effects of PNF Stretching on Passive Tension and Range of Motion</li> </ul>	Sports Biomechanics Teaching Biomechanics Biomechanics	YAMAMOTO HIROO
	Crop Science		<ul style="list-style-type: none"> <li>•Genetic variation On root Systems of Cereal Crops</li> <li>•Research on Agri Eco-System</li> <li>•Research on quality of crops</li> </ul>	Crop Science Food Science and Nutritional Chemistry Crop Science	KUJIRA YUKIO
	fresco Renaissance Italy	<ul style="list-style-type: none"> <li>•mural painting</li> </ul>	<ul style="list-style-type: none"> <li>•Study of the fresco's technique of Agnolo Gaddi in Santa Croce</li> <li>•A Study on the Medieval frescos in the South Italy (Puglia region)</li> </ul>	Italian Art History, fresco, Agnolo Gaddi	MIYASHITA, Takaharu
Textile Engineering	<ul style="list-style-type: none"> <li>•Objective Evaluation of Clothing Appearance</li> <li>•Heat and Moisture Transfer Properties and Comfort of Textile Materials</li> <li>•Mechanical Properties and Handle of Textile Materials</li> </ul>	<ul style="list-style-type: none"> <li>•Analysis of Mechanical Properties and Handle of Textile Materials.</li> <li>•Comfort of Clothing Materials</li> <li>•Objective Evaluation of Clothing Appearance</li> </ul>	Clothing Materials, Textile Engineering, Clothes, Fiber, Yarn, Fabric	MATSUDAIRA MITSUO	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Science Education		<ul style="list-style-type: none"> <li>•The Study of the Student' s Cognition of Nature</li> <li>•Using of Self-Organizing Maps in Science Teaching</li> <li>•Analysis and Evaluation of Science Classes</li> </ul>	Science Education	MATSUBARA MICHIO
	education moral school		<ul style="list-style-type: none"> <li>•Study on Moral Education</li> <li>•John Dewey's Theory of Education</li> <li>•Reconstruction of the Concepts on Modern Education</li> </ul>	education moral school	MATSUSHITA RYOHEI
	History of Modern Education in Japan	•Sport-activities under the old system High-schools in Japan	<ul style="list-style-type: none"> <li>•A Historical Study on the Adoption of School Physical Education and sports of the Local Districts in modern Japan</li> <li>•Influence of French Gymnastics on the Formation of Modern Physical Education System in Japan</li> <li>•comparative history of physical culture</li> </ul>	History of Physical Education and Sport History of Western learning History of Modern Education in Japan	OKUBO HIDEAKI
			<ul style="list-style-type: none"> <li>•Historical Study of Japanese Grammar</li> <li>•Historical Study of Japanese Grammar</li> <li>•(Historical Study of Japanese Vocabulary</li> </ul>		KONDO AKIRA
	City Planning Architecture Planning		<ul style="list-style-type: none"> <li>•Study on Residents\' Evaluations of Dwelling Environment</li> <li>•Study on Housing education</li> <li>•Housing needs of the elderly, children, and women</li> </ul>	Housing Science, Home economics education ,City Planning	YAMAGISHI MASAKO
	Developmental Psychology		<ul style="list-style-type: none"> <li>•Cognitive development and Social development in infancy</li> </ul>	Developmental Psychology	IKEGAMI, Kimiko
	Home Economics		<ul style="list-style-type: none"> <li>•Study on Learning about Family</li> <li>•Study on the Curriculum of Home Economics Education</li> </ul>	Curriculum Studies Home Economics	WATAHIKI Tomoko
	Men's Studies Gender Education American Literature		<ul style="list-style-type: none"> <li>•A Study of the Nineteenth Century American Literature. Chiefly Concerning on Mark Twain's Works</li> <li>•Gender studies with a focus on men' s studies</li> </ul>	American Literature American Literature Mark Twain Men's Studies	KUBO, Takuya
	Health Education		<ul style="list-style-type: none"> <li>•Study of health education inservice training</li> <li>•Study of elementary school health textbooks</li> <li>•role-playing in school health education</li> </ul>	Health Education	IWATA HIDEKI
	Music		<ul style="list-style-type: none"> <li>•The influences of ethnicity on the musical language of contemporary composers</li> <li>•The contemporary vocal music in Japanese</li> <li>•Composition of the contemporary instrumental music</li> <li>•Composition of the contemporary performing arts</li> </ul>	Composition, Contemporary Music	ASAI AKIKO
Plant Protection	<ul style="list-style-type: none"> <li>•Pest control of Agro-forestry pests</li> <li>•Ecology of tropical insects</li> <li>•Conservation of Satoyama</li> </ul>	<ul style="list-style-type: none"> <li>•Insect Population Dynamics in the Tropics</li> <li>•Population Dynamics of Phytophagous Insects</li> <li>•Conservation Satoyama Ecosystems</li> </ul>	Ecology Environmental Preservation Plant Protection	NAKAMURA KOJI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Mathematical Physics			Statistical Mechanics Random Point Field Quantum Field Theory	TAMURA HIROSHI
			<ul style="list-style-type: none"> <li>• Experimental study of intense electron beam and plasma interaction.</li> <li>• Experimental study on an intense microwave generation and its applications.</li> <li>• Experimental studies of polyphase ac discharge.</li> </ul>	Research on basic plasma physics	ANDO RITOKU
	geochemistry		<ul style="list-style-type: none"> <li>• Geochemical study on Cretaceous environment</li> <li>• Stable isotopic study of post- Cretaceous conversion from greenhouse earth to icebox earth</li> </ul>	Stratigraphy paleontology geochemistry	HASEGAWA TAKASHI
	accretionary complex fault volcano	<ul style="list-style-type: none"> <li>• Radiometric dating of lake sediments</li> <li>• Assessment of radiation damage</li> </ul>	<ul style="list-style-type: none"> <li>• Study of the evolution of accretionary complexes</li> <li>• Study of the periodicity in volcanic activity</li> <li>• Study of thermal anomaly around active faults</li> </ul>	Geochronology, accretionary complex, fault and volcano	HASEBE NORIKO
	heat shock response molecular chaperone ATP-dependent protease		<ul style="list-style-type: none"> <li>• Substrate recognition mechanism of molecular chaperones and ATP-dependent protease</li> </ul>	stress response, molecular chaperone, ATP-dependent protease	KANEMORI MASAOKI
	Morphological Evolution Phylogeny Speciation		<ul style="list-style-type: none"> <li>• Evolution of morphogenesis in land plants</li> <li>• Evolution of reproductive organs in gametophyte generation in land plants</li> <li>• Study of gene expression patterns in amphidiploid species</li> </ul>	evolution, morphogenesis, Physcomitrella patens	KOFUJI RUMIKO
	Plant Physiology	<ul style="list-style-type: none"> <li>• Production of UV absorbing pigments</li> </ul>	<ul style="list-style-type: none"> <li>• Molecular mechanism of anhydrobiosis in the terrestrial cyanobacterium</li> </ul>	Stress Physiology, Photosynthesis	SAKAMOTO TOSHIO
	Coordination Chemistry		<ul style="list-style-type: none"> <li>• Synthetic model study of metalloenzymes</li> <li>• Model study for non-heme diiron enzymes</li> <li>• synthesis of metal complexes with thiolate ligands</li> </ul>	Coordination Chemistry	FURUTACHI HIDEKI
	Crystal growth		<ul style="list-style-type: none"> <li>• Pattern Formation in crystal growth</li> </ul>	Crystal growth	SATO MASAHIDE
	Infrared Telescope Grism		<ul style="list-style-type: none"> <li>• Gamma-Ray Burst</li> <li>• Cosmology</li> <li>• High Energy Astrophysics</li> </ul>	High Energy Astrophysics Gamma-Ray Burst Astro-E2 Semi-Conductor Devices Infrared Astrophysics Cosmology	YONETOKU DAISUKE
	Flavoprotein Iron sulfur protein Cytochrome		<ul style="list-style-type: none"> <li>• Reaction mechanism of ferredoxin-NADPH oxidoreductase from gram positive bacteria</li> <li>• Iron sulfur type photosynthetic reaction center from photosynthetic bacteria</li> <li>• Investigation of Fd-dependent oxidoreductases in bacteria</li> </ul>	phototrophic bacteria, electron transfer, kinetics	SEO DAISUKE
			<ul style="list-style-type: none"> <li>• Developmental Study of nervous System.</li> <li>• Plastic changes in central nervous system</li> </ul>		OKOYAMA SHIGEO
	Anesthesiology		<ul style="list-style-type: none"> <li>• Pharmacokinetics</li> <li>• Prediction of difficult intubation</li> <li>• Palliative Care</li> </ul>	Anesthesiology	YAMAMOTO KEN

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Bone fracture		<ul style="list-style-type: none"> <li>•Spine Tumor</li> <li>•bone tumor</li> <li>•Spinal disease</li> </ul>	Bone Tumor Spine Surgery Bone fracture	TOMITA KATSURO
	pathology immunopathology human pathology	<ul style="list-style-type: none"> <li>•Pathology of liver tumors</li> <li>•Pathology of bile ducts</li> <li>•Pathological study of autoimmune liver diseases</li> <li>•pathology of liver disease</li> </ul>	<ul style="list-style-type: none"> <li>•Pathology and pathogenesis of primary biliary cirrhosis</li> <li>•Pathogenesis of hepatolithiasis</li> <li>•Pathogenesis of abnormal portalvenous blood flow</li> </ul>	Hominal Pathology, Liver Pathology, Immunopathology	NAKANUMA YASUNI
	Internal Medicine	<ul style="list-style-type: none"> <li>•Clinical epidemiology for atherosclerosis</li> </ul>	<ul style="list-style-type: none"> <li>•Study of Clinical Decision Making between Patients and Physicians on Diabetes</li> <li>•Clinical epidemiology of Atherosclerosis</li> <li>•Diabetology</li> </ul>	Metabolism Cardiology Internal Medicine general medicine diabetes hyperlipidemia	KOIZUMI JUNJI
	Laboratory hematology	<ul style="list-style-type: none"> <li>•Development of Web Application for Clinical Research</li> <li>•Research on Therapy of Leukemia</li> </ul>	<ul style="list-style-type: none"> <li>•Chemotherapy of hematological malignancy</li> <li>•Bone marrow transplantation of leukemia</li> <li>•Analysis of Pathophysiology of leukemia</li> </ul>	Laboratory hematology Laboratory hematology	OTAKE SHIGEKI
	Nuclear Medicine	<ul style="list-style-type: none"> <li>•Medical image processing</li> </ul>	<ul style="list-style-type: none"> <li>•Nuclear Cardiology</li> <li>•Quantitative analysis with nuclear medicine</li> <li>•Image information</li> </ul>	Nuclear Cardiology, Nuclear Medicine, SPECT, PET	NAKAJIMA KENICHI
	Human anatomy	<ul style="list-style-type: none"> <li>•Pathology of the joint contracture</li> </ul>	<ul style="list-style-type: none"> <li>•Pathological study of the musculoskeletal disorder</li> <li>•Relationship between the body balance and social and cultural factors.</li> <li>•Human Pathology</li> </ul>	Locomotory System, Joint component, Contracture	HOSO MASAHIRO
	Reproductive medicine of bone cartilage and joint	<ul style="list-style-type: none"> <li>•Development of the treatment to promote bone formation</li> <li>•Development of immunotherapy for bone and soft-tissue tumors</li> <li>•Development of new external fixators</li> </ul>	<ul style="list-style-type: none"> <li>•Study on the treatment of musculoskeletal tumors</li> <li>•Study on bone lengthening</li> <li>•The role of fibrinolytic system in the formation of lung metastasis. Elucidation of the mechanism of lung metastasis and the development of the treatment strategy</li> </ul>	Musculoskeletal tumor, Limb lengthening, Deformity correction, External fixation	TSUCHIYA HIROYUKI
	Pathology of the liver	<ul style="list-style-type: none"> <li>•Pathology and Pathogenesis of hepatobiliary disease</li> </ul>	<ul style="list-style-type: none"> <li>•Immunohistochemical investigation of outbreak and development of intrahepatic bile duct cancer coexisting with intrahepatic lithiasis</li> <li>•Mucin core proteins in Hepatobiliary disease</li> <li>•Pathogenesis of Primary biliary cirrhosis.</li> </ul>	Pathology of the liver	SASAKI MOTOKO
	Pathological Model Knockout mice Glycosyltransferase		<ul style="list-style-type: none"> <li>•Roles of glycosylation function in cancer invasion and metastasis</li> <li>•Analysis of asparaginyl endopeptidase function in immune system</li> <li>•Analysis of Hemophagocytic syndrome like disease in legumain deficient mice</li> </ul>	Pathological Model, Knockout mice, Glycosyltransferase,	HASHIMOTO, Noriyoshi

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Nuclear Medicine	•Role of apoptotic imaging in myocardial ischemia	<ul style="list-style-type: none"> <li>•C-11, C-14-methionine imaging in rat model of myocardial severe ischemia and reperfusion</li> <li>•Study on Cardiac Function using Nuclear Medicine technique</li> <li>•Study on Cardiac Metabolism</li> <li>•Study on Bone and Soft tissue tumor using Nuclear Medicine technique</li> </ul>	Nuclear Medicine, Nuclear Cardiology, cardiac function, cardiac metabolism, tumor, PET/CT, molecular imaging	TAKI JUNICHI
	Oral Surgery	•Etiology or treatment strategy on temporomandibular disorders	<ul style="list-style-type: none"> <li>•Study on the Temporomandibular Joint Disease, basically and clinically</li> <li>•Oral surgery</li> </ul>	Oral Surgery	TAKATSUKA SHIGEYUKI
	Gastric carcinogenesis Duodenogastroesophageal reflux Barrett's esophagus		<ul style="list-style-type: none"> <li>•Chemoprevention for Barrett's adenocarcinoma by cyclooxygenase 2 inhibitor</li> <li>•Sentinel navigation surgery</li> </ul>	Gastric cancer Peritoneal metastasis Hyperthermia	FUJIMURA TAKASHI
	higher brain function rehabilitation hearing disorders		<ul style="list-style-type: none"> <li>•Hearing Disorders</li> <li>•higher brain dysfunction</li> <li>•Cochlear Implant</li> </ul>	Speech Pathology, higher brain dysfunction, speech and language disorders, hearing disorders	NOTOYA MASAKO
	Nuclear Medicine		<ul style="list-style-type: none"> <li>•Tumor detection and treatment with radiopharmaceuticals</li> </ul>	Nuclear Medicine, radionuclide therapy	KINUYA SEIGO
	Otolaryngology		<ul style="list-style-type: none"> <li>•Study on Central Auditory System</li> <li>•Effects of oral administration of Japanese Herbal Medicine Juzen-taiho-to in otitis-prone children</li> <li>•Drug-resistant Streptococcus pneumoniae in healthy children</li> </ul>	Otolaryngology	ITO MAKOTO
	Pharmacokinetics		<ul style="list-style-type: none"> <li>•Study on pharmacokinetics of intravenous anesthetics</li> <li>•Cardiac anesthesia</li> <li>•The effects of anesthetics on evoked potentials</li> </ul>	Anesthesiology Pharmacokinetics	TSUBOKAWA TSUNEHISA
	Oral Surgery		<ul style="list-style-type: none"> <li>•Invasion and metastasis of oral squamous cell carcinoma</li> </ul>	Oral Surgery Oral Cancer	KAWASHIRI SHUICHI
			<ul style="list-style-type: none"> <li>•Comprehensive genetic analysis of congenital anomalies, genetic fixation with regard to autistic disorders</li> </ul>	congenital malformation syndrome	NIIDA YO
	Life support Medical education		<ul style="list-style-type: none"> <li>•HO-1 in Cardiovascular homeostasis</li> <li>•Diagnosis of congenital heart disease</li> </ul>	Congenital heart diseases, Diagnosis Vascular Biology, Life support PALS Prevention, Medical Education	OTA KUNIO
	Anatomy		<ul style="list-style-type: none"> <li>•Study of Growth Factors in the Testis and Epididymis</li> <li>•Study of Adhesion Molecule in the Spermatogenesis</li> </ul>	Anatomy	WAKAYAMA TOMOHIKO
angiogenesis oxygen sensor	•pathogenesis and prevention/treatment of diabetic angiopathy	<ul style="list-style-type: none"> <li>•Molecular Basis of the Alzheimer's disease</li> <li>•Signal transduction through protein phosphatases</li> <li>•Molecular mechanism of diabetic angiopathy</li> </ul>	Diabetic Angiopathy, Advanced Glycation Endproducts, Receptor for advanced glycation endproducts, RAGE, Angiogenesis, Alzheimer's disease,	WATANABE TAKUO	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Abdominal Imaging		<ul style="list-style-type: none"> <li>• Study of hepatic microcirculation</li> <li>• Diagnostic imaging of the liver</li> </ul>	Liver Imaging, Interventional radiology	KOBAYASHI SATOSHI
	neuropathic pain pain assessment evoked potential		<ul style="list-style-type: none"> <li>• Study on Stellate Ganglion Block</li> <li>• Effect of percutaneous vertebroplasty on metastatic centrum tumors</li> <li>• Consideration of oxycodone and fentanyl patches for cancer-related pain care</li> </ul>	Anesthesiology pain management cancer pain	YAMADA KEISUKE
	Joint Disease		<ul style="list-style-type: none"> <li>• Pathogenesis of steroid-induced osteonecrosis</li> <li>• Biomechanics of prosthetic joints</li> <li>• Deep venous thrombosis</li> </ul>	Joint Disease	KABATA TAMON
	Oxidative Stress Preventive Medicinne Allergic Disease		<ul style="list-style-type: none"> <li>• Unusual intracellular signal transduction induced by lipid peroxidation</li> <li>• Search for biomarker of oxidative stress in allergy disease</li> <li>• Prevention of health damage induced by earthquake</li> </ul>	Oxidative Stress Preventive Medicine Allergic Disease Environmental Chemicals Evaluation of Toxicity	KANBAYASHI YASUHIRO
	Life science		<ul style="list-style-type: none"> <li>• Morphological and functional studies of the cardiac conducting system, with special reference to internodal tract</li> </ul>	Heart. Cardiac sensory nerve. Cardiac conducting system	YAMAGUCHI TAKESHI
	Hygienic Chemistry Environmental Chemicals Analytical Chemistry	<ul style="list-style-type: none"> <li>• Development of Determination Methods for Unregulated Hazardous Pollutants</li> <li>• Biological Effects of Diesel Exhaust Particulates</li> </ul>	<ul style="list-style-type: none"> <li>• Study on Mutagenic Polycyclic Aromatic Hydrocarbons : Environmental Behaviors and Biological Effects</li> <li>• Study on New Endocrine Disrupting Chemicals in Environments</li> <li>• Development of New Photometric Detection/Liquid Chromatography for Environmental Chemicals</li> </ul>	Polycyclic Aromatic Hydrocarbon	HAYAKAWA KAZUICHI
	Cell Biology Molecular biology Functional biochemistry	<ul style="list-style-type: none"> <li>• Research on anti-cancer drugs targeting cellular responses to DNA damage</li> </ul>	<ul style="list-style-type: none"> <li>• Molecular analysis of cellular responses to DNA damage</li> <li>• Functional analysis of DDB complex in cellular responses to DNA damage</li> <li>• Establishment and application of detection systems for UV-induced DNA damage</li> </ul>	DNA repair Hereditary disorder Cancer Signal transduction Cellular response Ultraviolet light	MATSUNAGA TSUKASA
	biochemistry			molecular biology	MATSUKAWA TORU
	Clinical Pharmacy	<ul style="list-style-type: none"> <li>• Gene dyagnosis for drug sensitivity</li> </ul>	<ul style="list-style-type: none"> <li>• Development of Drug Delivery System for Bone</li> <li>• Studies on development of new cancer chemotherapy</li> <li>• Drug interaction</li> <li>• Development of Personal Drug Therapy</li> </ul>	Molecular pharmacology Clinical Pharmacy	MIYAMOTO KENICHI
	CERAMIC TRADE		<ul style="list-style-type: none"> <li>• CERAMIC TRADE AND CULTURAL INTERCHANGE ALONG THE INDIAN OCEAN</li> <li>• Revival Kutani ware</li> <li>• CERAMIC TRADE AT ARCHAEOLOGICAL SITE IN SOUTH INDIA</li> </ul>	Ceramic Trade, Kutani ware, Islamic period,	SASAKI HANAE

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Drug Metabolism		<ul style="list-style-type: none"> <li>• Human UDP-Glucuronosyltransferase</li> <li>• Genetic polymorphisms of Drug-metabolizing enzymes</li> <li>• Regulation of drug metabolizing enzymes</li> </ul>	Drug metabolism, interindividual difference, genetic polymorphisms	NAKAJIMA MIKI
	Neuropharmacology	<ul style="list-style-type: none"> <li>• bone regeneration</li> <li>• protection against neurodegeneration</li> </ul>	<ul style="list-style-type: none"> <li>• Amino Acid Signaling</li> <li>• Gene expression</li> </ul>	Amino acid signaling	YONEDA YUKIO
			<ul style="list-style-type: none"> <li>• Study for the evaluation of the exposure to polycyclic aromatic hydrocarbons</li> </ul>	Polycyclic aromatic hydrocarbons, biomarkmer	TORIBA AKIRA
	Medicines Policy		<ul style="list-style-type: none"> <li>• Study on access ,quality rational use of and medicines in developing country</li> <li>• Study on Drug Management and Policy</li> <li>• Study on HIV/AIDS Measures</li> </ul>	Counterfeit Medicines, Access Quality, Rational Use of Medicines, HIV/AIDS	KIMURA KAZUKO
	Oxidative Radical Cyclization Polymer-supported Reagent		<ul style="list-style-type: none"> <li>• Study on Asymmetric Reduction of Symmetric Diketones with Baker's Yeast</li> <li>• Study on Asymmetric Reactions using Optically Active Organoselenium Reagents</li> <li>• Study on Oxidative Radical Cyclization using Polymer-supported Mn(III) reagent</li> <li>• Study on Ce(IV)-catalyzed asymmetric oxidative radical reaction</li> </ul>	Synthetic Organic Chemistry	UCHIYAMA MASAHIKO
	DNA repair Genomic instability Cancer prevention		<ul style="list-style-type: none"> <li>• Molecular mechanism of nucleotide excision repair</li> </ul>	DNA repair Damage response	WAKASUGI MITSUO
	transmitter bone glutamate		<ul style="list-style-type: none"> <li>• Glutamate signaling in bone</li> <li>• Exhaustive search and functional analysis of bone-derived secreted molecules.</li> <li>• Research for elucidation of regulatory mechanisms of osteoblasts function by Clock genes.</li> </ul>		HINOI EIICHI
	Strength of Materials		<ul style="list-style-type: none"> <li>• Dynamic Constitutive Equation</li> <li>• Measurement of Impact Load</li> </ul>	Impact,Stress_Analysis,Strength	HOJO AKIHIRO
			<ul style="list-style-type: none"> <li>• Wavefront Synthesis using Wideband Constant Delay Degital filters.</li> </ul>	Educational Technology	MATSUMOTO TOYOJI
	Lattice Defects		<ul style="list-style-type: none"> <li>• Study on Dislocation Motion</li> </ul>	Lattice Defects	OGAKU TOMIYASU
	Strength of material	<ul style="list-style-type: none"> <li>• Structural Design Optimization of Product</li> </ul>	<ul style="list-style-type: none"> <li>• Clarification of impact crushing behavior and energy absorption maximization design</li> <li>• Bionic design research of branch systems and its application to engineering design</li> <li>• Development of structure optimization methods and its application</li> </ul>	Strength of material	YAMAZAKI KOETSU
Cationic ring-opening polymeri		<ul style="list-style-type: none"> <li>• Development of Novel Chiral <math>\pi</math>-Conjugated (Macro)molecular Systems</li> <li>• Development of chiral recognition materials through chemical modifications of polysaccharides</li> <li>• Development of Photoelectric Conversion Materials</li> </ul>	Cationic ring-opening polymeri Anionic living polymerization	KANO SHIGEYOSHI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Soil environment	• Analysis and optimum process design of composting system	• Engineering Analysis and Application of Composting Process • Studies on Analysis of Heat and Mass Transfer in Environmental Engineering • Analysis of environment in a sloped greenhouse for plant growth	Environmental Analysis, Soil Environment Engineering, Compost Engineering	SEKI HIRAKAZU
	run time reliability an urgent vehicle uncertainty of essential time	• the antenna setting plan for medical information digital transmission system • Approach situation investigation of municipality to refuge project by Law concerning Correspondence for the people's protection in situations that would constitute an attack on Japan	• An approximate method of reliability by means of subgraph intensive • Dynamic in Time-of-Day Traffic Assignment Method Combined with Capacity Analysis • A study on the utilization of Public Involvement method for the Road Planning	traffic assignment network reliability analysis citizen participation	TAKAYAMA JUNICHI
	Engineering Materials	• Research on Mechanical Properties of Polymer Composites	• Mechanical Properties of Polymers and Polymer Composites • Thin Film/Surface Science and Technology • Ultra-Precision Polishing	Engineering Materials	YAMADA YOSHINORI
	Heterocyclic Chemistry	• Joint Research on Synthesis of Heterocyclic Compounds Involving Chalcogen Atoms	• Synthesis and Reaction of Highly Reactive Compounds Involving Chalcogen Multiple • Synthesis of Asymmetric Bidentate Ligands Involving Sulfur or Selenium Atoms • Development of New Synthetic Methods Based on Organometallic and Organoheteroatom Chemistry	Synthetic Chemistry Heteroatom Chemistry Organic Chemistry	SEGI MASAHIRO
	substitution fractal Ergodic theory		• Geometry of substitution	substitution, tiling, fractal, Ergodic theory	ENOMOTO FUMIHIKO
	Organic Solar Cell Dye-sensitized Solar Cell Conjugated Polymer		• Study on organic thin film solar cell • Development of air-stable organic EL devices • Efficiently electrochemical water-decomposition using electrode catalysis	Electrochemistry, Organic Solar Cell, Inorganic Functional Materials	TAKAHASHI KOSHIN
	fluorescence probe microphase separation fluorocarbon surfactant		• Synthesis of novel gemini surfactants and functional organized solutions • Self-assembled structures revealed by fluorescent probe methods • Nonrandom distribution of surfactant molecules in mixed micellar systems	Surface Chemistry surfactant molecular assembly solution property	ASAKAWA TSUYOSHI
	oxide films ferroelectric films pulsed laser ablation		• Preparation of Ferroelectric Films by Pulsed Laser Ablation for NVRAM • Preparation of Er-doped Ferroelectric Thin Films by Pulsed Laser Ablation and Field Modulation Effect of Photoluminescence • Preparation and Characterization of Iron Oxide Thin Films	Pulsed laser ablation, Oxide electronics, Ferroelectric thin films	MORIMOTO AKIHARU



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Chemical Engineering Thermodynamics	<ul style="list-style-type: none"> <li>• Supercritical Fluid Dyeing Process</li> <li>• Environmental friendly process development using subcritical hot water</li> </ul>	<ul style="list-style-type: none"> <li>• Thermodynamics of associated solutions</li> <li>• Solvent properties of supercritical fluids</li> <li>• Molecular interactions and solubilities of mixed amino acids in aqueous-organic</li> </ul>	Supercritical carbon dioxide, Chemical Engineering Thermodynamics, Fluid phase equilibria	TAMURA KAZUHIRO
	Numerical Method	<ul style="list-style-type: none"> <li>• Development of new structural system</li> <li>• Performance based design and inspection</li> </ul>	<ul style="list-style-type: none"> <li>• Study on Impact Problems</li> <li>• Study on durability of bridge</li> <li>• Evaluation of the risk of rock falls</li> </ul>	Impact, Structural design, Numerical analysis	MASUYA HIROSHI
	Health Effect of Inhaled Particles	<ul style="list-style-type: none"> <li>• Air Cleaning</li> <li>• Development of air filters</li> </ul>	<ul style="list-style-type: none"> <li>• Contamination Control</li> <li>• Removal and Separation of Aerosol Particles</li> <li>• Lung Deposition of Aerosol Particles</li> </ul>	Aerosol Technology, Nanoparticles, Air filter	OTANI YOSHIO
	Chem. Eng. Thermodynamics		<ul style="list-style-type: none"> <li>• Thermodynamics of non electrolyte solutions.</li> <li>• Polymer reaction process</li> <li>• Computer Simulation from Acetylation to Polycondensation for Liquid Crystalline Polymer Production</li> </ul>	Chem. Eng. Thermodynamics Phase Equilibria Simulation PBT	TADA KAORU
	Materials Science of Concrete		<ul style="list-style-type: none"> <li>• Microstructure and Fracture Process of Cementitious Materials</li> <li>• Mechanical Properties of Fiber Reinforced Cementitious Composites</li> <li>• Early age properties of high strength concrete</li> </ul>	Materials Science	IGARASHI SHINICHI
	Applied Artificial Intelligenc	<ul style="list-style-type: none"> <li>• On Study of Intelligent Pitching Machine</li> <li>• A Study on Badminton Machine</li> </ul>	<ul style="list-style-type: none"> <li>• Mechanical Evaluations of Eggshell</li> <li>• A Study on Pitching Machine</li> <li>• A Study on machining Design with Environmental and Gentleness to Human</li> </ul>	Sports Engineering, Computer Aided Engineering, Artificial Intelligenc	SAKAI Shinobu
	Electron Devices and Apparatus Engineering		<ul style="list-style-type: none"> <li>• Study on Optical Devices</li> <li>• Development of Photonic and Electromagnetic Devices Using by a Traveling Electron Beam</li> </ul>	Applied Optics, Quantum Optics Electron Devices, Apparatus Engineering	KUWAMURA YUJI
	Computational Analysis of Polymer Materials	<ul style="list-style-type: none"> <li>• Macromolecular materials</li> </ul>	<ul style="list-style-type: none"> <li>• Preparation and structural analysis of high molecular weight and functional phenolic resins</li> <li>• Development of functional phenolic oligomers</li> <li>• Development of high performance and high fuctionality for polymer materials</li> </ul>	Analysis of functional polymers Computational Analysis of Polymer Materials	YAMAGISHI TADAAKI
	Marine Engineering	<ul style="list-style-type: none"> <li>• Development of Oil Boom to use under the stormy weather</li> <li>• Study on optimum design of artificial reef</li> </ul>	<ul style="list-style-type: none"> <li>• Study on resonance of fluid in wave field</li> <li>• Study on wave structure sediment interaction in swash zone</li> </ul>		SAITOH TAKEHISA
	Tribology	<ul style="list-style-type: none"> <li>• Friction and Wear Properties of Various Materials under Hydrogen Atmosphere</li> </ul>	<ul style="list-style-type: none"> <li>• Effect of Hydrogen atmosphere on the Friction and Wear of Polymers</li> <li>• Study on Pattern Abrasion of Rubber</li> <li>• Stress and strain measurements of rubber deformed by frictional force</li> <li>• Studies on friction and wear properties of silica-filled SBR</li> </ul>	Tribology, Pattern Wear, Friction deformation, Contact area, Gait, Hydrogen environment, Hydrogel	IWAI TOMOAKI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	sports engineering sports science measurement		<ul style="list-style-type: none"> <li>•Sports Engineering</li> <li>•Development of Measuring Systems</li> <li>•Evaluation of Material Strength</li> </ul>	structural reliability eng. strength of material cellular material sports equipment motion measurement engineering analysis	KAGAWA HIROYUKI
	EM Source Visualization FDTD Simulation Low Frequencies		<ul style="list-style-type: none"> <li>•Visualization of Electromagnetic Waves</li> <li>•Analysis of Plasma Wave Data Observed by Satellites in Space</li> <li>•Design of Plasma Wave Receiver Onboard BepiColombo/MMO</li> </ul>	Electromagnetic wave source estimation and visualization, Low-frequency electromagnetic field sensors, Magnetospheric plasma waves	YAGITANI SATOSHI
	Waste Management	•Chemical Heat Pump System	<ul style="list-style-type: none"> <li>•Development of Adsorption Refrigerators</li> <li>•Gas Formation from Woody Biomass by Pyrolysis</li> <li>•Treatment of Water with Humic Substances by Ultrasonic Irradiation</li> </ul>	Refrigeration Heat Pump Energy Transport	KUMITA MIKIO
	Electrochemistry		<ul style="list-style-type: none"> <li>•Functionalization of chemically modified electrode</li> <li>•Development of non-platinum electrocatalysts for oxygen reduction</li> </ul>	Electrochemistry	YAMAGUCHI TAKAHIRO
	Fluid force Sedimentation Vortex		<ul style="list-style-type: none"> <li>•Study on flow and scour around structures</li> <li>•Study of fluid forces on a cylinder</li> <li>•Lotic power application technology</li> </ul>	Coastal structure Fluid force Vortex	UMEDA SHINYA
	Bridge Vibration		<ul style="list-style-type: none"> <li>•Study on the serviceability of the pedestrian bridge</li> <li>•Study on the environmental vibration around Highway Bridge due to traffic load</li> <li>•Evaluation of the load carrying capacity of rigid frame bridge with H-shaped steel</li> </ul>	Bridge Vibration	FUKADA SAIJI
	Interface Chemistry Surfactant Self Organization	•Research on Mechanism of Molecular Recognition in Molecular Assembly	<ul style="list-style-type: none"> <li>•Calorimetric study of solutions of amphiphiles</li> <li>•Aggregation behavior of surfactants and amino acid-type surfactants</li> <li>•Interaction between biomaterials and surfactant</li> </ul>	Solution Chemistry Interface Chemistry	OTA AKIO
	site investigation geophysical exploration DEM		<ul style="list-style-type: none"> <li>•Velocity logging with a penetration test blow as the vibration source</li> <li>•Development of a distinct element method adjusted for interactions with pore fluid</li> </ul>	site investigation DEM soil dynamics	TAKAHARA TOSHIYUKI
	History of Industrial Design		<ul style="list-style-type: none"> <li>•Utopian Literature</li> <li>•History of Industrial Design</li> </ul>	History of Industrial Design	WATANABE AKITOSHI
	History of Science and Technology		<ul style="list-style-type: none"> <li>•Science in the Age of Galileo</li> <li>•History of Industrial Technology</li> </ul>	History of Science and Technology	TANAKA ICHIRO
American Nature Writings		<ul style="list-style-type: none"> <li>•American Nature Writings</li> <li>•Reinterpretation of H. Melville in 19th Century American Fiction</li> <li>•The meaning of Cape Cod in American Nature Writings</li> </ul>	19th Century American Fiction (especially on Herman Melville) American Nature Writings.	MURAKAMI KIYOTOSHI	
Biocentrism Sense of Place Bioregionalism		<ul style="list-style-type: none"> <li>•Ecology</li> <li>•Study on Natural History of the Modern England.</li> <li>•Environmental Thought</li> </ul>	Philosophy of Environment Natural History of England Nature Writing humans nature environment	IKUTA SHOGO	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	KOREAN HISTORY (Ri Dynasty)		•Relationship Between Korea and Japan In Pre-modern age.	KOREAN HISTORY (Ri Dynasty)	TSURUZONO YUTAKA
	Modern Japanese Literature TANIZAKI Junichiro KAWABATA Yasunari		•Study on Modern Japanese Literature (Mainly on Tanizaki Junichiro)	Modern Japanese Literature, TANIZAKI Junichiro	MAEDA HISANORI
			•Automatized levels of upper and lower limb movements •Development of parallel control of posture and hand and finger movement during floor motion repetitive loading	automatization	TOYAMA HIROSHI
		•Research on Organ Transplantation •Research on Artificial Reproduction •Research on Gene Diagnosis	•Student services in university education •The artificial reproduction and gene diagnosis •The organ transplantation and self-determination		AONO TORU
	Sociolinguistics	•Textlinguistic Analysis of Kafka's Works •Joint Research on Principles of Communicative behaviors	•Sociolinguistic studies •Everyday concepts of Politeness •Textlinguistic analysis of Franz Kafkas Texts	Politeness, Interaction, Kafka	NISHIJIMA YOSHINORI
	grammaticalization modality negation		•Study on Tense and Aspect. •Study on Negation •Study on Grammaticalization	English Linguistics Cognitive Linguistics Linguistic Typology	MORIYA TETSUHARU
		•Profession-Client Communication in Medicine and Welfare System			TAKAHASHI RYOKO
	Japan Sea Submarine Canyon Backarc Basin	•Submarine geology of the Japan Sea •Geological Mapping and its Application in Hokuriku District •Environmental Analysis on Lake Tonle Sap, Cambodia	•Quaternary Environmental History in the Indochina Peninsula, Southeast Asia •Depositional History of Sedimentary Basins in Backarc Areas of Arc-Trench Systems •Depositional History of Sedimentary Basins in Hokuriku District, Central Japan	Sedimentology Marine Geology Palaeoenvironmental analysis Sedimentology Sedimentary Geology Marine Geology Sedimentology Ecology Geology Marine Geology Sedimentary Process Sedimentology	TSUKAWAKI SHINJI
	Genetics Evolution Protozoa		•Evolution of dicyemid mesozoans and their strategy to parasitism •Molecular evolutionary strategies in protists •Life cycle of the dinoflagellates and their phylogenetic position •Nuclear apoptosis in Tetrahymena thermophila •Cellulolysis by the protozoan Tetrahymena	Evolutionary protistology, Parasitism, Differentiation of mitochondria	HIGASHI HIROSHI
	Fiction in English	•Children's Literature	•Cultural Differences in Contemporary English Literature •Cultural Diversity in Contemporary British Theatre •British Contemporary Children's Literature •English Language Education	Children's Literature, Diaspora/Immigrants, Religion and Literature	OYABU KANA
Diabetology Metabolism Gastroenterology		•Gene expression profiles in type 2 diabetes mellitus •Fatty liver-associated metabolic syndrome •Pathophysiology of diabetic nephropathy	Diabetology Metabolism Endocrinology	TAKAMURA TOSHINARI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	LIMB RECONSTRUCTION METASTASIS GENE THERAPY			BONE TUMOR SOFT TISSUE TUMOR LIMB sarcoma Chemotherapy limb salvage	YAMAMOTO NORIO
	Cardiovascular Surgery.		•Study on Myocardial oxygen metabolism on beating heart surgery using near-infrared monitor	Cardiovascular Surgery.	TOMITA SHIGEYUKI
	Blood purification apheresis dialysis	•Therapeutic application of novel anti-inflammatory drugs •Development of novel laboratory medicine and biomarkers	•Pathogenesis and Therapy in Diabetic Nephropathy •Development of novel biomarkers in nephrology and autoimmune diseases. •Molecular mechanism of kidney development and its application for regeneration	Nephrology Clinical immunology	WADA TAKASHI
	Hepatocellular carcinoma gene therapy		•Research for community medicine in Ishikawa Prefecture •Hemodialysis therapy for HCV infection •INF combined hepatic arterial chemotherapy for advanced HCC	Hepatocellular carcinoma Chemotherapy Percutaneous ablation therapy	YAMASHITA TATSUYA
	hypertrophic cardiomyopathy dilated cardiomyopathy phospholamban		•Genetic Diagnosis of Hypertrophic Cardiomyopathy	hypertrophic cardiomyopathy, dilated cardiomyopathy, genetic diagnosis	FUJINO NOBORU
			•Analysis of cardiomyopathy-related genes		KONNO TETSUO
			•Resistance mechanism of molecular-targeted agents in NSCLC •Molecular mechanism of lung cancer & malignant pleural mesothelioma		YAMADA TADAAKI
	Tumor Metastasis Matrix Metalloproteinase Gene		•DNA tumor Virus •tumor Metastasis •Molecules related to cancer metastasis	Molecular Oncology Molecular Virology Tumor Metastasis Matrix Metalloproteinase Gene	SATO HIROSHI
	cancer molecular oncology molecular diagnosis	•Molecular Diagnosis of Colorectal Cancer •Serial Analysis of Gene Expression in Stomach Cancer	•Molecular oncology of gastrointestinal cancer •Surgical oncology for gastrointestinal cancer •Establishment of tissue material resources of human gastrointestinal cancer	Gastrointestinal oncology, Surgical and molecular oncology	MINAMOTO TOSHINARI
	Cancer chemotherapy	•Development of effective diagnosis and therapy for metastatic cancer •Mechanisms of antitumor nucleosides	•Development of effective diagnosis and therapy for metastatic cancer •Development of angiogenesis inhibitors as an anticancer drug •Mechanisms of antitumor action and resistance to antitumor nucleosides	Cancer chemotherapy nucleoside metabolism Cancer Chemotherapy metastasis angiogenesis	ENDO YOSHIO
	Radiology	•Development of endovascular devices	•Diagnosis and treatment of hepatocellular carcinoma •interventional angiography	Radiology	MATSUI OSAMU
Chemotherapy Drug resistance	•Physiology of heme oxygenase and its deficient state	•Treatment of childhood cancer and acute leukemia •Drug resistance •Heme oxygenase-1 deficiency	Pediatric Hematology-Oncology Chemotherapy Drug resistance	KOIZUMI SHOICHI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other			<ul style="list-style-type: none"> <li>•Nasopharyngeal carcinoma associated with Epstein-Barr virus</li> <li>•Study of Sense of Smell</li> <li>•Speech pathological study</li> </ul>	nasopharynx cancer metastasis Nose Olfaction	FURUKAWA MITSURU
	neurogenesis cell transplantation neuronal death	<ul style="list-style-type: none"> <li>•Promotion of「strategy for brain protection」</li> <li>•Repetable battery for assessment of neuropsychological status</li> </ul>	<ul style="list-style-type: none"> <li>•Mechanism of adult neurogenesis and strategy for brain restoration</li> <li>•Ischemic neuronal death specific for the primate hippocampus</li> <li>•Amnesic symptom due to hippocampal neuronal death</li> </ul>	Neuroscience Regenerative Medicine Neurosurgery Neuroscience	YAMASHIMA TETSUMORI
	Surgery for Pancreas and Biliary Tract		<ul style="list-style-type: none"> <li>•Biological Behavior of Pancreatic Cancer</li> </ul>	Surgery for Pancreas and Biliary Tract	OHTA TETSUO
	Liver Disease		<ul style="list-style-type: none"> <li>•Study on viral hepatitis</li> <li>•Molecular biology of hepatocellular carcinoma</li> </ul>	Liver Disease	HONDA, Masao
	Head and neck Tumor		<ul style="list-style-type: none"> <li>•Study on Nasopharyngeal Carcinoma and Epstein-Barr Virus</li> <li>•Mechanism of metastasis in head and neck cancer</li> <li>•Extracorporeal shock wave lithotripsy in salivary stones</li> </ul>	Head and neck Tumor Epstein-Barr Virus	YOSHIZAKI TOMOKAZU
	systemic sclerosis cytokine autoimmunity		<ul style="list-style-type: none"> <li>•Immunology about the pathogenesis of systemic sclerosis</li> <li>•B cells and autoimmunity</li> </ul>	systemic sclerosis autoimmunity cytokine	HASEGAWA MINORU
	stent-graft		<ul style="list-style-type: none"> <li>•Intra-aneurysmal sac pressure change after stent-grafting</li> <li>•Stent-grafting for aortic arch aneurysm</li> <li>•Assessment of therapeutic angiogenic therapy for lower limbs</li> </ul>	Aortic aneurysm stent-graft Clinical angiogenesis	OTAKE HIROSHI
	prostate cancer male infertility steroid	<ul style="list-style-type: none"> <li>•Genetic diagnosis on male infertility</li> </ul>	<ul style="list-style-type: none"> <li>•Study on spermagenetic gene</li> <li>•Steroid metabolism on Prostate</li> </ul>	male infertility Y chromosome	KO EITETSU
	Diagnostic Neuroradiology	<ul style="list-style-type: none"> <li>•MRS in the evaluation of brain tissue.</li> </ul>	<ul style="list-style-type: none"> <li>•In vivo anatomical analysis of arterial contact with trigeminal nerve : Detection with 30-SPGR imaging</li> <li>•Determination of tissue Gd concentration by combined use of Pre-and post Gd-enhanced FLAIR and cSE T1 weighted imaging</li> <li>•Detection capability of the necessity for reemolization of three types of MR angiography in the follow-up of intracranial aneurysms embolized with GDCS</li> </ul>	Diagnostic Neuroradiology	UEDA FUMIAKI
	Anesthesiology		<ul style="list-style-type: none"> <li>•Sensitivity of Neuromuscular Blockers</li> </ul>	Anesthesiology	ITO HIRONORI
			<ul style="list-style-type: none"> <li>•Transcriptional regulation of telomerase</li> </ul>	telomerase	TAKAKURA MASAHIRO
Hypertension	<ul style="list-style-type: none"> <li>•The role of cardiovascular hormone in the pathogenesis of hypertension</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Pathogenesis of Endocrine tumor</li> </ul>	Endocrinology Hypertension	YONEDA TAKASHI	

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Clinical Genetics	<ul style="list-style-type: none"> <li>Applying PDA(Personal Digital Assistant)in Evidence-Based Medicine</li> <li>Applying PDA(Personal Digital Assistant)in Medical Education</li> </ul>	<ul style="list-style-type: none"> <li>Profiling of the medical technologies required for general practice</li> <li>Hazards in applying evidence-based medicine to individual patients</li> <li>Clinical genetics in polycystic kidney disease and other genetic diseases</li> </ul>	General Internal Medicine Clinical Genetics	NOMURA HIDEKI
	Learning and Memory in Caenorhabdis elegans		<ul style="list-style-type: none"> <li>Non-invasive measurement of physical informations</li> <li>Study of bone metabolism using goldfish scale as a model for bone</li> </ul>	Non-invasive measurment of physical information, Prevention of osteoporosis, A scale culture system	KITAMURA, Kei-ichiro
	Clinical Pharmacy Therapeutic Drug Monitoring	<ul style="list-style-type: none"> <li>Study of therapeutic drug monitoring</li> <li>Development of clinical pharmacy education with IT</li> </ul>	<ul style="list-style-type: none"> <li>Clinical pharmaceutical or phamacokinetic study for drug therapeutics and adverse event monittinging</li> <li>Establishment of detection method of counterfeit drugs</li> <li>Study and application of therapeutic drug monitoring</li> <li>Assistance for pharmacist performing pharmaceutcal care by scientific approach</li> </ul>	Clinical Pharmacokinetics Clinical Pharmacology Clinical Pharmacy Therapeutic Drug Monitoring Pharmaceutics Pharmaceuticals	MATSUSHITA RYO
	Family Relation Role Development	<ul style="list-style-type: none"> <li>A Study on QOL in Low risk Pregnancy</li> <li>The Quality of Midwifery Care</li> </ul>	<ul style="list-style-type: none"> <li>The development of maternity assessment tool</li> <li>Educational Maternal Nursing and Midwifery researches</li> <li>A Study on Effort in Childbirth Education</li> </ul>	Maternity Nursing, Midwifery, Childbirth education, Nursing education, Nursing Model, Profesional, carrier	SHIMADA KEIKO
	Science of Nursing		<ul style="list-style-type: none"> <li>Education skill for chronically patiants.</li> <li>A study on the mothod to educate diabetic patient.</li> <li>A study on the complication of diabetes and their QOL(quality of life)</li> </ul>	Science of Nursing	INAGAKI MICHIKO
	Midwifely		<ul style="list-style-type: none"> <li>Study on maternal care of infant cries</li> <li>Study on practice ability of student midwives</li> <li>Development of a scale for sense of hardship with regard to the crying of an infant</li> </ul>	Maternity Nursing, Midwifely	TABUCHI NORIKO
	early-onset type 1 diabetes eating behavior psychological characteristic		<ul style="list-style-type: none"> <li>The development of the abstinence from drinks continuation program of the alcoholic woman</li> <li>Development of remedial narrative approach about the suicide prevention of a beating invalid</li> <li>Measure development for the mental process elucidation about youth-onset type1 diabetes mellitus patients' eating behaviors</li> </ul>	psychiatric nursing, youth-onset type1 diabetes mellitus patients,	KAWAMURA KAZUMI
	Nursing		<ul style="list-style-type: none"> <li>Relation between affirmative recuperation recognition and recuperation</li> <li>condition in hemodialyzed patient of diabetic origin</li> </ul>	Diabetes Nursing	MATSUI KIYOKO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other			<ul style="list-style-type: none"> <li>Development of wound care in nursing</li> <li>Lower-leg ulcers and elements of nursing care</li> </ul>		OKUWA MAYUMI
	Japanese Language Spanish Language Portuguese Language	<ul style="list-style-type: none"> <li>Contrastive Analysis between Japanese and Portuguese</li> <li>Contrastive Analysis between Japanese and Spanish</li> </ul>	<ul style="list-style-type: none"> <li>Contrastive Studies in Spanish, Portuguese and Japanese</li> <li>Practical Studies on the One Year Curriculum of the Japan-Korea Joint Scholarship Program</li> <li>Japanese Language Education using distant-learning devices</li> </ul>	Japanese and Spanish Japanese and Portuguese	OTA AKIRA
	Modern Chinese Literature		<ul style="list-style-type: none"> <li>Study on 1940's Chinese Literature</li> </ul>	Modern Chinese Literature	SUGIMURA AKIKO
			<ul style="list-style-type: none"> <li>Epigenetic regulation of germ cell development</li> </ul>		NARUSE Chie
	neural development transcription factor Drosophila melanogaster		<ul style="list-style-type: none"> <li>Study of neural development in Drosophila</li> </ul>	neural development transcription factor Drosophila melanogaster	KOIZUMI KEITA
	Radiation Engineering		<ul style="list-style-type: none"> <li>Study for Radiation Dose Simulation</li> <li>Study on Effective Dose Equivalent</li> </ul>	Radiation Engineering Radiation Protection Radiation Measurement	KOSHIDA KICHIRO
	nuclear radiochemistry radiopharmaceuticals	<ul style="list-style-type: none"> <li>Development of radioactive tracer</li> </ul>	<ul style="list-style-type: none"> <li>Study on Radionuclide in human body</li> <li>Study on Quality Control in Radiopharmaceuticals</li> <li>Study on Behavior of trace elements in human body</li> </ul>	Radiochemistry Nuclear Medicine Environmental Radiation Science nuclear radiochemistry radiopharmaceuticals	AMANO Ryohei
	Ethics		<ul style="list-style-type: none"> <li>Historical Study on the Idea of Life and Death</li> <li>relations between patients and medical staffs</li> </ul>	Bioethics History of Philosophy Ethics	HOSOMI HIROSHI
	statistics data analysis analysis of variance		<ul style="list-style-type: none"> <li>Study on boundary groups of Teichmüller spaces</li> <li>Study on the ergodic theory of discrete Mobius groups</li> </ul>	Complex Analysis statistics data analysis analysis of variance	INOUE KATSUMI
	Community health nursing home care		<ul style="list-style-type: none"> <li>A Study on Home Health Care for Patients and their Care Givers</li> </ul>	Home health care nursing. Community health care nursing.	TSUKASAKI KEIKO
	Digital image processing	<ul style="list-style-type: none"> <li>Phase change memory</li> </ul>	<ul style="list-style-type: none"> <li>A Study of Nonvolatile Memory Based on Phase Change</li> <li>Image processing of radiological image (radio nuclide image)</li> </ul>	Nonvolatile memory device Digital image processing	NAKAYAMA KAZUYA
	Endocrinology	<ul style="list-style-type: none"> <li>Regional differences of hypertensinogenic factors in Hokuriku area.</li> </ul>	<ul style="list-style-type: none"> <li>Endocrinological study for the mechanism of hypertension and diabetes mellitus</li> </ul>	Endocrinology, Hypertension, Diabetes mellitus	TAKEDA YOSHIYU
			<ul style="list-style-type: none"> <li>Effects of therapeutic exercise for the prevention of dementia</li> <li>Basic studies on physical ability evaluations of elderly people</li> </ul>		YOKOGAWA MASAMI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Magnetic resonance imaging Imaging method Pulse sequence	•Studies on developments of imaging and analytical methods in MRI	<ul style="list-style-type: none"> <li>•Development of Pulse Sequences in Magnetic Resonance Imaging</li> <li>•Assess of Magnetic Resonance(MR)Image Quality</li> <li>•Development of Functional Magnetic Resonance(MR) Imaging and Analysis Methods</li> </ul>	Magnetic resonance imaging Pulse sequence Medical imaging Magnetic resonance imaging Imaging method Medical imaging Magnetic resonance imaging Imaging method Pulse sequence	MIYACHI TOSHIAKI
	long-term care facilities lower back pain incontinence care		<ul style="list-style-type: none"> <li>•Study of low back pain in staff members in long-term care facilities</li> <li>•Development of diaper changing</li> <li>•Study of fall prevention</li> </ul>	gerontology, lower back pain incontinence care	SHOGENJI MIHO
	Rehabilitation	•Modeling of motor control in human	<ul style="list-style-type: none"> <li>•Motion analysis in Activity of Daily Living/basic action or occupational activity</li> <li>•Modeling and simulation analysis of motor control or therapeutic activity</li> <li>•Decision mechanisms for muscle activity levels</li> </ul>	Motor control, Rehabilitation	INUMARU TOSHIYASU
	Ecology		•Ecolution of Sex Chage	Ecology	KINOSHITA EIICHIRO
	Study of Information System		<ul style="list-style-type: none"> <li>•Screening and Evaluation of Workers in Organizations</li> <li>•Fluctuations of Organizations and Self-organizing</li> <li>•Information System of the Business Enterprises</li> </ul>	Organization Imformation System Strategy	SHIRAIISHI HIROYUKI
	Molecular Pharmacology		<ul style="list-style-type: none"> <li>•Genetic polymorphisms of Drug Metabolizing enzymes</li> <li>•Transcriptional regulatron and induction mechanism of drug metabolizing enzymes</li> <li>•Evaluation and projection of toxicity and safety of drugs and environmental chemical substances</li> </ul>	Drug metabolism, Molecular Pharmacology, Toxicology, Cytochrome P450	YOKOI TSUYOSHI
	glaucoma		<ul style="list-style-type: none"> <li>•Pathogenic mechanism of glaucoma optic nerve damage</li> <li>•Optic nerve regeneration and neuroprotection</li> </ul>	glaucoma	SUGIYAMA KAZUHISA
	public administration management		<ul style="list-style-type: none"> <li>•comparative study about improvement of public management improvement</li> <li>•comparative study about strategic management in local government</li> <li>•comparative study about budgeting in local government</li> </ul>	public administration management	YAMASHITA HARUKAZU
	Control of Fusion Plasmas RF Plasma Production High Heat Flux Plasmas		<ul style="list-style-type: none"> <li>•Production and Control of High Temperature Fusion Plasmas and Plasma Application</li> <li>•Application of Power Electronics Technique to High Power Plasma Production</li> <li>•Innovative Applications of High Enthalpy Plasmas</li> </ul>	Fusion Plasmas Plasma Application RF Thermal Plasmas	UESUGI YOSHIHIKO



Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other			<ul style="list-style-type: none"> <li>• Analysis of bradykinin receptor responses</li> <li>• Study on subtypes of muscarinic acetylcholine receptors</li> <li>• Cloning of K<sup>+</sup> channels</li> </ul>		HIGASHIDA HARUHIRO
	Automorphic Forms		<ul style="list-style-type: none"> <li>• L-Functions attached to Automorphic Forms</li> <li>• Study on Automorphic Forms of several variables</li> <li>• Study on Prehomogeneous Vector Spaces</li> </ul>	Number Theory, Automorphic Forms, Automorphic L function, prehomogeneous vector space	SUGANO Takashi
	History of Sociology Welfare of the aged		<ul style="list-style-type: none"> <li>• T. Parsons' Sociological Theory</li> <li>• Methode of Middle-Ranged Survey</li> </ul>	Sociology, History of Sociology	MIZOBE AKIO
	Cognitive Psychology		<ul style="list-style-type: none"> <li>• the functional cerebral asymmetry</li> <li>• information processing of color and shape</li> <li>• human reasoning in the exclusive disjunctive tasks</li> </ul>	Cognitive Psychology	OGISHI MICHITAKA
	Labour Law		<ul style="list-style-type: none"> <li>• annual holiday with pay</li> <li>• collective agreement</li> <li>• Labor market law and policy</li> </ul>	Labor Law, Law-policy of Labor Market, Holiday	NAKO MICHITAKA
	Neuro and Muscular Physiology		<ul style="list-style-type: none"> <li>• Modulations of the synaptic transmission</li> </ul>	Physiology in General Neuro and Muscular Physiology	SHOSAKU TAKAKO
	Wave Energy	<ul style="list-style-type: none"> <li>• Abstraction of energy from water current and wave</li> </ul>	<ul style="list-style-type: none"> <li>• Generation Mechanics of Wave Force</li> <li>• Wave Energy Extraction Mechanics</li> <li>• Seabed Response to Ocean Waves by Mixture Theory.</li> </ul>	Hydraulics Coastal Engineering Wave Energy	ISHIDA HAJIME
	Fracture Mechanics	<ul style="list-style-type: none"> <li>• Finite Element Analysis on the fracture mechanics</li> <li>• Finite Element Analysis for the failure of geomaterials</li> </ul>	<ul style="list-style-type: none"> <li>• Conditions for the shear band formations in finite elastic-plastic deformations</li> <li>• Finite Element Analysis for the deformation of geomaterials, such as a landslide</li> <li>• On the study of energy release rate in fracture mechanics</li> </ul>	Continuum Mechanics Shear band Formation Fracture Mechanics	YATOMI CHIKAYOSHI
	Radio Science Plasma Wave Wave Particle Interaction		<ul style="list-style-type: none"> <li>• Advanced information processing methods in large-scale scientific databases</li> <li>• Near real-time processing techniques for ultra-high-speed input data from a sensor</li> <li>• Remote sensing in a space environment using radio waves</li> </ul>	Intelligent Signal Processing, Inverse Problem, Radio Science, Database, Intelligent Data Processing, Plasma Wave	KASAHARA YOSHIYA
	History of Chinese Calligraphy		<ul style="list-style-type: none"> <li>• Literature and Thought</li> <li>• Lives of Chinese Calligraphers</li> <li>• Methods for Teaching Chinese</li> </ul>	Chinese Classical Literature History of Chinese Calligraphy	YABUCHI, Takayoshi
	Japanese Literature of middle age		<ul style="list-style-type: none"> <li>• Waka of Jien</li> <li>• Shyunzei's theory of Waka</li> <li>• Waka of Saigy(JJ1155I)</li> </ul>	Japanese Literature of middle age	YAMAMOTO HAJIME
	Literary Theory		<ul style="list-style-type: none"> <li>• Study on Stendhal's usage of language</li> <li>• Study on maghreb</li> <li>• Education of French language in Japan</li> </ul>	Stendhal, Algeria, Francophony cultures, French didactics	KASUYA YUICHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Laplace operator Spectral convergence		<ul style="list-style-type: none"> <li>•Dirichlet finite maps and asymptotic geometry of infinite graphs</li> <li>•Convergence theory of metric measure spaces</li> <li>•Random walks and Dirichlet finite maps</li> </ul>	Geometry	KASUE ATSUSHI
	nuclear chemistry		<ul style="list-style-type: none"> <li>•Angular momentum dependence of heavy-ion induced reaction</li> <li>•Study on the mechanisms of heavy-ion nuclear reactions</li> <li>•Chemical properties of heavy elements</li> <li>•Measurement of high-energetic heavy ions with CR-39 detectors by using AFM</li> </ul>	nuclear chemistry	YOKOYAMA AKIHIKO
	Cell aging and carcinogenesis	<ul style="list-style-type: none"> <li>•Development of hormone-drug release system via supramolecular dissociation</li> </ul>	<ul style="list-style-type: none"> <li>•DNA analysis in the study for carcinogenesis of Endometrial cancer and gene therapy</li> <li>•Human papilloma analysis in the carcinogenesis of uterine cervical cancer</li> <li>•Gene therapy for ovarian Cancer</li> </ul>	Molecular pathology in gynecologic field Anti-Cancer chemotherapy in Gynecologic field Cell aging and carcinogenesis	INOUE MASAKI
	Synthetic Organic Chemistry		<ul style="list-style-type: none"> <li>•Regio- and Stereoselective Radical Cyclizations</li> <li>•Organic Synthesis Using Organosulfur Compounds</li> <li>•Natural Product Synthesis</li> </ul>	Synthetic Organic Chemistry	ISHIBASHI HIROYUKI
	Biochemistry	<ul style="list-style-type: none"> <li>•Elucidation and application of the microbial denitrification mechanism.</li> </ul>	<ul style="list-style-type: none"> <li>•Protein engineering of metalloproteins</li> <li>•Studies on structures and functions of multi-metal containing proteins</li> <li>•Studies on structures and functions of amino acid dehydrogenases</li> </ul>	Biochemistry, Molecular Biology, Protein engineering, Metalloproteins	KATAOKA Kunishige
	Neuro chemistry	<ul style="list-style-type: none"> <li>•Analysis of genes and proteins which were responded to environmental change</li> </ul>	<ul style="list-style-type: none"> <li>•Isolation of proteins which are responsible for brain function</li> <li>•Studies on molecular mechanisms of brain dysfunction</li> <li>•Alteration in signal transduction by aging and subsequent carcinogenesis</li> </ul>	Hygiene Neuro chemistry Molecular Biology	SAIJO Kiyofumi
	verification specification theory		<ul style="list-style-type: none"> <li>•design, verification and implementation of real-time software</li> <li>•Formal modeling, specification and verification of embedded systems</li> <li>•Distributed parallel real-time systems</li> </ul>	computer software, dynamic reconfigurable systems, model checking, real-time hybrid systems	YAMANE SATOSHI
			<ul style="list-style-type: none"> <li>•Study on Elizabethan Drama especially on Shakespeare</li> <li>•Study on Correlation between Society and Culture in Renaissance England</li> <li>•Study on Contemporary Critical Theory, especially on New Historicism</li> </ul>	Shakespeare, Renaissance, Modern Critical Theory	TAKADA SHIGEKI
	Metal Crafts	<ul style="list-style-type: none"> <li>•Development of a solid puzzle</li> </ul>	<ul style="list-style-type: none"> <li>•Study on a Teaching Method for Encouraging the Meta-Cognitive Activities in the</li> <li>•Improvement of Teaching Practicum</li> <li>•History of Handicraft Education</li> </ul>	Art Education	WASHIYAMA YASUSHI

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	Communication Disorders		<ul style="list-style-type: none"> <li>•Pragmatics based Approach to Language and Communication Intervention</li> <li>•Conversational Disabilities of High-Functioning Autistic Children</li> <li>•Bilingualism, personality, gender, cultural specificities in HFASD</li> </ul>	Communication Disorders communication disorders	OI MANABU
	Hydrosphere Chemistry	<ul style="list-style-type: none"> <li>•Bioremediation of toxic compounds in the environment</li> <li>•Fixation of CO2 in atomosphere</li> </ul>	<ul style="list-style-type: none"> <li>•Study on the Behavior of Trace Element in Hydrophere.</li> <li>•Development of remediation technology utilizing the natural cycle</li> <li>•Research relating to eutrophication and trace elements in aquatic environments</li> </ul>	Hydrosphere Chemistry, Analytical Chemistry	HASEGAWA HIROSHI
	Cell Cycle Control	<ul style="list-style-type: none"> <li>•Screening of checkpoint abrogators</li> </ul>	<ul style="list-style-type: none"> <li>•Study on the Regulation of Activity of Cyclin-Dependent Kinases</li> <li>•Studies on the Regulation of M Phase in Human Cells</li> <li>•Studies on the Mechanism of DNA Damage Checkpoint in Human Cells</li> </ul>	Cell Cycle Control	YAMASHITA KATSUMI
	Yeast Genetics		<ul style="list-style-type: none"> <li>•Regulatory System of Cell Cycle in Eukaryote</li> </ul>	Regulation of Cell Cycle, Yeast Genetics, Molecular Biology	HAYASHI NAOYUKI
	Synthetic chemistry Bioinorganic Chemistry dioxygen activation		<ul style="list-style-type: none"> <li>•Development of Functional Models of Metalloenzymes?Dioxygen Binding and Activation by Metal Complexes</li> <li>•Dioxygen Binding and Activation by Metal Complexes</li> <li>•Modeling of the Manganese Cluster in the Oxygen Evolving Center in PS II</li> <li>•Dioxygen Activation by Dimetal Complexes</li> <li>•Control of Breaking and Making the Dioxygen O-O bond by Metal Complexes</li> <li>•Dioxygen Activation by Dimetal Complexes</li> </ul>	Inorganic Chemistry, Bioinorganic Chemistry	SUZUKI MASATATSU
	Study on Relations between Linguistic and Cognitive Information	<ul style="list-style-type: none"> <li>•Development of cognitive motivated know-how in foreign Language teaching</li> </ul>	<ul style="list-style-type: none"> <li>•Study on Relations between the Semantic Structure of Language, Human Knowledge a</li> <li>•Cognitive Linguistics with Evolutional Scientific Background</li> <li>•Study on Metaphors, Cognition and Language</li> </ul>	cognition, metaphor, body	TAKEUCHI YOSHIHARU
	multiobjective optimization uncertainty and fuzzy game theory		<ul style="list-style-type: none"> <li>•Research on Multi-objective Decision Making and Economic Analysis</li> <li>•Study On Decision Making under Uncertainty</li> <li>•Study on Cost Allocation Prohbloms in Information network</li> </ul>	Mathematics in General Social System Engineering Optimization game fuzzy	MAEDA TAKASHI
	Life cycle assessment Effective use of heat energy	<ul style="list-style-type: none"> <li>•High Efficient Dehumidification Technology</li> <li>•Desiccant Cooling Process driven with a waste heat</li> <li>•Air purification and separation by adsorption process</li> </ul>	<ul style="list-style-type: none"> <li>•Development of an adsorptive desiccant cooling driven with low-temperature heat</li> <li>•Air separation and purification process using a cyclic adsorption process</li> <li>•Recovery and enrichment of Carbon dioxide by using adsorption process</li> </ul>	Desiccant Dehumidification, Adsorption, Air separation	KODAMA AKIO

Research field	Field of expertise	Research themes under consideration	Research topics	Key words	Researcher
Other	hematopoietic stem cell		<ul style="list-style-type: none"> <li>•molecular mechanisms for self-renewal of stem cells</li> <li>•Maintenance mechanisms for genomic stability</li> </ul>	stem cell self-renewal hematopoietic stem cell	HIRAO ATSUSHI
	Image Analysis		<ul style="list-style-type: none"> <li>•Remote Sensing Image Analysis</li> </ul>	Photogrammetry, Remote sensing, Image analysis	KUBO MAMORU
	Urban Design	<ul style="list-style-type: none"> <li>•Development of Public Participation System Using Internet for Planning and Designing Activities</li> </ul>	<ul style="list-style-type: none"> <li>•Analysis on Land Use Activities in Urban Area and Evaluation of Planning Institutions</li> <li>•Study on Structure of Housing Demand and Supply and Development of Planning</li> <li>•Development of Geographical Information System and Its Application for Urban Planning</li> </ul>	urban planning, regional planning, land use Planning	KAWAKAMI MITSUHIKO
	Metallurgy and Material Processing	<ul style="list-style-type: none"> <li>•Technology with small fear of contamination in environment</li> <li>•Studies on laser processing</li> </ul>	<ul style="list-style-type: none"> <li>•Studies on Temperature Measurement in Machining</li> <li>•Cutting performance of spining tool</li> <li>•Studies on Laser Processing</li> </ul>	Workshop Processes and Production Engineering Metallurgy and Material Processing Prosthodontics and Dental Technology	UEDA TAKASHI
	Lexical Semantics		<ul style="list-style-type: none"> <li>•Study on words from a lexical semantic approach</li> <li>•Syntactic Alternations in English and Japanese</li> </ul>	English Linguistics, Lexical Semantics	SAWADA SHIGEYASU
	Antisense DNA		<ul style="list-style-type: none"> <li>•Angiogenesis</li> <li>•Diabetic angiopathy</li> <li>•Functional genomics</li> </ul>	vascular biology, diabetes	YAMAMOTO HIROSHI
	pressure ulcer wound	<ul style="list-style-type: none"> <li>•Fundamental research for wound and pressue ulcer healing process</li> </ul>	<ul style="list-style-type: none"> <li>•Lymphatics stomata in the diaphragm : their function and formation factor</li> <li>•A study on variations in the gross anatomy</li> <li>•Process of skin wound healing</li> </ul>	Cutaneous wound healing, Lymphology, Gross Anatomy, Histology, Nursing arts	NAKATANI TOSHIO
	Thoracic Surgery		<ul style="list-style-type: none"> <li>•Basic and clinical research on awake off-pump coronary artery bypass grafts</li> </ul>	Thoracic Surgery	WATANABE GO



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