

# Activation and regulation of oncogenic signaling networks in colorectal cancer

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# 2005 Fiscal Year Final Research Report Summary

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## Activation and regulation of oncogenic signaling networks in colorectal cancer

Research Project

### Project/Area Number

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15390391

### Research Category

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Grant-in-Aid for Scientific Research (B)

### Allocation Type

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Single-year Grants

### Section

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一般

### Research Field

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Digestive surgery

### Research Institution

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Kanazawa University

### Principal Investigator

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### Co-Investigator(Kenkyū-buntansha)

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### Project Period (FY)

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2003 – 2005

### Keywords

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Colorectal cancer / Oncogenic signaling /  $\beta$ -catenin / Ubiquitin system /  $\beta$ -TrCP / NF- $\kappa$ B / RNA trans-acting factor

### Research Abstract

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A promising area in current cancer research explores the wide range of molecular events including aberrant/alternative gene splicing, epigenetic changes, cellular signal transduction, transcriptional regulation and post-translational modifications, which determine the fate of cells (growth, differentiation, and programmed cell death). One of such events takes place in the Wnt signaling pathway, and its aberrant activation is involved in malignant transformation of cells,  $\beta$ -catenin has two distinct functions, namely, maintaining cell-to-cell adhesion and mediating the Wnt/ $\beta$ -catenin pathway, which plays pivotal roles in embryogenesis and in certain tumors, particularly development and progression of colorectal cancer (CRC)<sup>16</sup>. On the basis of our previous studies showing association of distinct patterns of  $\beta$ -catenin activation with malignant potential of the tumors and clinical outcome of CRC patients<sup>6</sup>, in the present study we addressed the molecular and cellular mechanisms underlying ...[More](#)

## Research Products (37 results)

All	2006	2005	2004	2003
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All	Journal Article (35 results)	Book (1 results)	Patent(Industrial Property Rights) (1 results)
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[Journal Article] c-kit gene mutation is common and widely distributed in intracranial germinomas	2006	▼
[Journal Article] Loss of imprinting in IGF2 in colorectal carcinoma assessed by microdissection	2006	▼
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[Journal Article] Loss of imprinting in IGF2 in colorectal carcinoma assessed by microdissection.	2006	▼
[Journal Article] A full genome scan for gastric cancer	2005	▼
[Journal Article] Correlation of $\gamma$ -catenin expression with good prognosis in medulloblastomas	2005	▼
[Journal Article] Adhesiveness of $\beta 5$ integrin variant lacking FNK <sup>&lt;767-769&gt;</sup> is similar to that of the prototype containing FNKFNK <sup>&lt;767-769&gt;</sup>	2005	▼
[Journal Article] Deregulated GSK3 $\beta$ activity in colorectal cancer : its association with tumor cell survival and proliferation	2005	▼
[Journal Article] A genetic variant in the gene encoding the stress70 protein chaperone family member STCH is associated with gastric cancer in the Japanese population	2005	▼
[Journal Article] Oncogenic $\beta$ -catenin signaling networks in colorectal cancer	2005	▼
[Journal Article] Detection and characterization of oncogene mutations in preneoplastic and early neoplastic lesions : K-ras oncogene in non-ncoplastic tissue and aberrant crypt foci of colorectal cancer patients.	2005	▼
[Journal Article] A full genome scan for gastric cancer.	2005	▼
[Journal Article] Correlation of $\gamma$ -catenin expression with good prognosis in medulloblastomas.	2005	▼
[Journal Article] Adhesiveness of $\beta 5$ integrin variant lacking FNK <sup>&lt;767-769&gt;</sup> is similar to that of the prototype containing_FNKFNK <sup>&lt;767-769&gt;</sup> .	2005	▼
[Journal Article] Deregulated GSK3 $\beta$ activity in colorectal cancer : its association with tumor cell survival and proliferation.	2005	▼
[Journal Article] A genetic variant in the gene encoding the stress70 protein chaperone family member STCH is associated with gastric cancer in the Japanese population.	2005	▼
[Journal Article] Oncogenic $\beta$ -catenin signaling networks in colorectal cancer.	2005	▼
[Journal Article] Pilot study of low dose, divided maximum tolerated dose of CPT-11 in 21 consecutive patients with metastatic colorectal or gastric cancer	2004	▼
[Journal Article] Epidermoid cyst of the intrapancreatic accessory spleen producing CA19-9	2004	▼
[Journal Article] Associations among $\beta$ -TrCP, an E3 ubiquitin ligase receptor, $\beta$ -catenin and NF- $\kappa$ B in colorectal cancer	2004	▼

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- [Journal Article] Associations among  $\beta$ -TrCP, an E3 ubiquitin ligase receptor,  $\beta$ -catenin and NF- $\kappa$ B in colorectal cancer. 2004 ▼
- [Journal Article] Abnormal expression of E-cadherin,  $\beta$ -catenin and c-erbB-2 in gastric cancer with liver metastasis 2003 ▼
- [Journal Article] Visualizing the gastric wall with a 30-MHz ultrasonic miniprobe : cx vivo imaging of normal gastric sites and sites of early gastric cancer 2003 ▼
- [Journal Article] Virchow's Archive 2003 ▼
- [Journal Article] Endosonographie evaluation of c-kit-positive gastrointestinal stromal tumor 2003 ▼
- [Journal Article] Expression of av integrin family in gastric carcinomas : increased av $\beta$ 6 is associated with lymph node metastasis 2003 ▼
- [Journal Article]  $\beta$ -catenin and ras oncogenes detect most human colorectal cancers 2003 ▼
- [Journal Article] Abnormal expression of E-cadherin,  $\beta$ -catenin and c-erbB-2 in gastric cancer with liver metastasis. 2003 ▼
- [Journal Article] Visualizing the gastric wall with a 30-MHz ultrasonic miniprobe : ex vivo imaging of normal gastric sites and sites of early gastric cancer. 2003 ▼
- [Journal Article] Collagenofibrotic glomerulopathy with a widespread expression of type V collagen. 2003 ▼
- [Journal Article] Endosonographic evaluation of c-kit-positive gastrointestinal stromal tumor. 2003 ▼
- [Journal Article] Expression of av integrin family in gastric carcinomas : increased av $\beta$ 6 is associated with lymph node metastasis. 2003 ▼
- [Journal Article]  $\beta$ -catenin and ras oncogenes detect most human colorectal cancers. 2003 ▼
- [Book] Molecular Toxicology Protocols/Methods of Molecular Biology Vol 291 2004 ▼
- [Patent(Industrial Property Rights)] GSK3 $\beta$ 阻害効果に基づくがんの抑制および抗がん剤の評価方法 2006 ▼

**URL:** [https://kaken.nii.ac.jp/report/KAKENHI-PROJECT-15390391/153903912005kenkyu\\_seika\\_hokoku](https://kaken.nii.ac.jp/report/KAKENHI-PROJECT-15390391/153903912005kenkyu_seika_hokoku)

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