

Hepato-Biliary-Pancreatic Surgery

1. Staffs and Students (April,2009)

Professor	Shigeki Arii	
Associate Professor	Shinji Tanaka	
Assistant Professor	Noriaki Nakamura,	Takumi Irie,
	Atsushi Kudo,	Toshiaki Kurokawa
	Norio Noguchi,	Daisuke Ban
Tokunin Assistant Professor	Yasen Mahmut	
Graduate Student	Yoko Zui,	Keisuke Minamimura,
	Arihiro Aihara,	Yusuke Mitsunori
	Satoshi Matsumura,	Ayano Murakata,
	Rama Adikrisna,	Kenichiro Yoshitake,
	Syunsuke Muramatsu,	Chisato Okajima
	Kouta Sato,	Kousuke Ogawa
	Yuichiro Watanabe,	Xirali Mamat,
	Maynur Abdurahman	

2. Educational Vision

Medical School Education: Our mission is to educate students and transform them into high quality surgeons. Leading edge training, from basic to advanced, is provided through one-on-one interaction with advisers. Furthermore, students, as medical professionals, learn how to interact with patients, and establish strong ethics and morals. Especially, in regard to breaking bad news, students learn by dealing with real cases. While students mainly acquire surgical techniques during post-graduate clinical internships, their interest in surgery is nurtured through medical education.

Post-graduate Education: Our mission is to cultivate the capability of students as surgeons and physicians, in order to provide the highest quality patient care. Each student is expected to obtain a specialization in surgery within 5 or 6 years after graduation from medical school. During post-graduate education, we provide incentives for students to become excellent surgeons, conduct original medical research, and allow them to demonstrate their capability in the real world.

3. Research

We are making researches in the important issues which are remained to be resolved in the hepato-biliary-pancreatic surgery and diseases. The research subjects are as follows;

- 1) Research in the molecular mechanisms on the progression of hepato-biliary-pancreatic malignancies
- 2) Research in development of the molecular-targeting therapy for hepato-biliary-pancreatic malignancies.
- 3) Research in the extended indication of the hepatic resection for hepato-biliary malignancies.
- 4) Research in the transporter for bile metabolism
- 5) Research in the improvement of liver preservation
- 6) Research in the microcirculation of the liver
- 7) Research in immunological tolerance for organ transplantation
- 8) Research in technical improvement of laparoscopic surgery

4. Clinical practice

The major diseases we treat are those of liver, biliary tract including gallbladder, pancreas, and spleen, particularly malignant diseases of those organs. Especially, our mission is to treat advanced cancers with multidisciplinary strategy although our mainstay is surgical method. Living liver transplantation is also undertaken for end-stage liver diseases. Laparoscopic surgery is applied to neoplastic diseases as well as benign diseases from the viewpoint of less invasive surgery. The malignant cases we resected was 140 on 2009, which was ranked among high volume centers of our country.

5. Publications

Original Article

1. Gen Y, Yasui K, Zen K, Nakajima T, Tsuji K, Endo M, Mitsuyosi H, Minami M, Itoh Y, Tanaka S, Taniwaki M, Arii S, Okanoue T, Yoshikawa T. A novel amplification target, ARHGAP5, promotes cell spreading and migration by

- negatively regulating Rho A in Huh-7 hepatocellular carcinoma cells. *Cancer Letter*. 2009 275:27-34
2. Zen K, Yasui K, Nakajima T, Zen Y, Zen K, Gen Y, Mitsuyosi H, Mimami M, Mitsufuji S, Tanaka S, Itoh Y, Nakanuma Y, Taniwaki M, Arii S, Okanoue T, Yoshikawa T. ERK5 is a target for gene amplification at 17p11 and promotes cell growth in hepatocellular carcinoma by regulating mitotic entry. *Genes Chromosomes Cancer* 48:109-120,2009
 3. Mahmut Y, Mizushima H, Mogushi K, Obulhasim G, Miyaguchi K, Inoue K, Nakahara I, Ohta T, Aihara A, Tanaka S Arii S, Tanaka H Expression of Aurora B and their alternative variant forms in hepatocellular carcinoma and the adjacent tissue. *Cancer Sci* 100:472-480,2009
 4. Tanaka S, Mogushi K, Yasen M, Noguchi N, Kudo A, Kurokawa T, Nakamura N, Inazawa J, Tanaka H, Arii S. Surgical contribution to recurrence-free survival in patients with macrovascular invasion-negative hepatocellular carcinoma. *J Am Coll Surg*. 208:368-374, 2009
 5. Sui S, Kudo A, Suematsu M, Tanaka S, Nakamura N, Ito K, Arii S. Preservation solutions alter Mrp2-dependent bile flow in cold ischemic rat livers. *J Surg Res*. 2009
 6. Furuta M, Kozaki KI, Tanaka S, Arii S, Imoto I, Inazawa J. miR-124 and miR-203 are epigenetically silenced tumor-suppressive microRNAs in hepatocellular carcinoma. *Carcinogenesis*. 2009 Oct 20. [Epub ahead of print]
 7. Aihara A, Tanaka S, Yasen M, Matsumura S, Mitsunori Y, Murakata A, Noguchi N, Kudo A, Nakamura N, Ito K, Arii S. The selective Aurora B kinase inhibitor AZD1152 as a novel treatment for hepatocellular carcinoma. *J Hepatol*. 2009 Oct 29. [Epub ahead of print]
 8. Tanaka S, Mogushi K, Yasen M, Noguchi N, Kudo A, Nakamura N, Ito K, Miki Y, Inazawa J, Tanaka H, Arii S. Gene-expression phenotypes for vascular invasiveness of hepatocellular carcinomas. *Surgery*. 2009 Nov 26. [Epub ahead of print]
 9. Endo M, Yasui K, Nakajima T, Gen Y, Tsuji K, Dohi O, Zen K, Mitsuyoshi H, Minami M, Itoh Y, Taniwaki M, Tanaka S, Arii S, Okanoue T, Yoshikawa T. Infrequent amplification of JUN in hepatocellular carcinoma *Anticancer Res*. 29:4989-4994, 2009.
 10. Furuta M, Kozaki KI, Tanaka S, Arii S, Imoto I, Inazawa J. miR-124 and miR-203 are epigenetically silenced tumor-suppressive microRNAs in hepatocellular carcinoma. *Carcinogenesis*. 2009

Review Article

1. Tanaka S, Arii S. Medical treatments: in association or alone, their role and their future perspectives : Novel molecular-targeted therapy for hepatocellular carcinoma. *J Hepatobiliary Pancreat Surg*. 2009 Nov 26. [Epub ahead of print]

A case report

1. Ito K, Taira K, Arii S. Intrahepatic bile duct dilatation with a liver cyst and hemangioma: report of a case. *Surg Today* 39(3):256-60,2009.
2. Nakamura N, Kudo A, Ito K, Tanaka S, Arii S. A hepatic lipoma mimicking angiomyolipoma of the liver: report of a case. *Surg Today* 39(9):825-8, 2009.

International Presentation

1. Nakamura N, Kudo A, Ito K, Tanaka S, Arii S. Efficacy of gemcitabine/cisplatin combined chemotherapy for gall bladder cancer. 8th World Congress of the international Hepato-Pancreato-Biliary Association. Mumbai, India,2008.2.27.
2. Tanaka S, Mogushi K, Aihara A, Yasen M, Noguchi N, Kudo A, Kurokawa T, Nakamura N, Miki Y, Inazawa J, Tanaka H, Arii S. Aurora Kinase B pathway as a novel molecular target in invasive hepatocellular carcinoma. AACR Annual Meeting 2009. Denver, America, 2009.4.20. (Poster presentation)
3. Arii S. Surgical strategy for hepatocellular carcinoma. 3rd International KobeLiver Symposium on HCC with a JSH-ILCA Joint Scientific Session, Japan, 2009.6.7. (Symposium)
4. Ochiai T, Igari K, Iida M, Kumagai Y, Toukairin Y, Ito H, Ohta S, Yamazaki S. The treatment strategy of blunt hepatic trauma: analysis of consecutive 170 cases. International Surgical Week 2009, Adelaide, Australia, 2009.9.7.
5. Arii S. Usefulness of Intraoperative Contrast Enhanced Ultrasound in Liver Surgery with Video. 19th World Congress of the international Association of Surgeons, Gastroenterologists, and Oncologists, China, 2009.9.25.
6. Takanori Ochiai, Taiki Masuda, Masayuki Yagi, Masato Nishizawa, Kanako Tsukamoto, Hiromitsu Ito, Kimihiro Igari, Arihiro Aihara, Yoichi Kumagai, Michio Iida, Shigeru Yamazaki. A case report of postoperative intra-abdominal

hematoma associated with laparoscopic partial gastrectomy for gastrointestinal stromal tumor and review of the literatures. International College of Surgeons 2009, Beijing, China, 2009.11.14