

# Kanazawa Medical University Research Activities and Publications

VOL. 22 2010



Kanazawa Medical University

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# Basic Medicine

## 0100 Department of Anatomy I

### Faculty

Title	Name	Field of Specialization
Professor	HATTA Toshihisa	developmental biology, neuroscience.
Associate Professor	HIGASHI Nobuaki	macroscopic anatomy, embryology.
Senior Assistant Professor	SHIMADA Hiroki	Medical science of free radical.
Senior Assistant Professor	SIMAMURA Eriko	Medical science of free radical.

### Keywords of Research

exo utero development, embryo, fetus, neurogenesis, cytokines, growth factors, hormones, stereology, ELISA, antioxidant, apoptosis, bcl-2, enzyme cytochemistry, electron microscopy, furanonaphthoquinone, free radical, immunohistochemistry, human macroscopic anatomy, mitochondria, NADH-quinone oxidoreductase, paraquat, reactive oxygen species, superoxide, scavenger, VDAC, anomaly of muscles and blood vessels

### Outline of Research

1. Studies on the feto-maternal signal transductions contributing to the fetal development via neuro-immune-endocrine network.
2. Cytochemical study of the cytotoxicity by reactive oxygen species.
3. Biological functions of VDAC family proteins.
4. Macroscopic studies on the variations of muscles and blood vessels.
5. Comparative anatomical studies on the brain evolution

### Publications

#### Originals

- 0100B001 (M.Yamada), J.Udagawa, A.Matsumoto, R.Hashimoto, T.Hatta, M.Nishita, Y.Minami, H.Otani: Ror2 is required for midgut elongation during mouse development, *Dev. Dyn.*, 239:941-953, 2010.
- 0100B002 E.Simamura, H.Shimada, N.Higashi, M.Uchishiba, H.Otani, T.Hatta: Maternal leukemia inhibitory factor (LIF) promotes fetal neurogenesis via a LIF-ACTH-LIF signaling relay pathway, *Endocrinology*, 151:1853-1862, 2010.

#### Reviews

- 0100C001 (H.Otani), J.Udagawa, T.Hatta, Y.Kagohashi, R.Hashimoto, A.Matsumoto, F.Satow, M.Nimura: Individual variation in organ histogenesis as a causative factor in the developmental origins of health and disease: unnoticed congenital anomalies?, *Congenit. Anom. (Kyoto)*, 50:205-211, 2010.

### Presentations at Conference

#### International Conference (Presentations)

- 0100I001 T.Hatta, H.Shimada, E.Simamura, Y.Ishigaki, N.Higashi, T.Tatsuno, F.Takano: Alteratio of gene expression profiles in the fetal cerebrum after injection of leukemia inhibitory factor into dams, Society for NEUROSCIENCE 2010, (San Diego, '10.11).

## 0110 Department of Anatomy II

### Faculty

Title	Name	Field of Specialization
Professor	SHINOHARA Harumichi	gross anatomy, embryology, lymphatic vessels, microscopy.
Associate Professor	SHIMOKAWA Takashi	regeneration of skeletal muscle, development of peripheral nerve.
Senior Assistant Professor	YASUTAKA Satoru	gross anatomy, central nervous system.
Senior Assistant Professor	KOMINAMI Rieko	immunocytochemistry, pituitary, cell proliferation, electron microscopy.

### Keywords of Research

arthrology, osteology, clinical anatomy, development, lymphatic vessels, muscle, innervation, nerve, pituitary, ACTH, LH, GH, ontogenesis, immunocytochemistry, bromodeoxyuridine, proliferation, electron microscopy, rat, PCNA

### Outline of Research

Theme of researches

- 1) Anatomical study of brain white matter by using fiber dissection technique
- 2) Immuno-histochemical study of pituitary gland
- 3) Tissue regeneration in urodele amphibian

## 0120 Department of Physiology I

### Faculty

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Title	Name	Field of Specialization
Professor	KATO Nobuo	Brain Science.
Associate Professor	SUGAI Tokio	Neurophysiology.
Assistant Professor	YAMAMOTO Ryo	Neuroscience.
Research Associate	ADACHI Hiroshi	Neuroscience.
Researcher(Additional Post)	WANG Furong	Analysis of Alzheimer disease model mice in search for new therapeutic approaches.
Researcher(Additional Post)	SUN Peng	Analysis of mood disorder model mice in search for new therapeutic approaches.

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### Keywords of Research

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central nervous system, neurophysiology, electrophysiology, immunohistochemistry, optical imaging, optical recording, olfactory system, olfactory center, chemical sense, vomeronasal organ, vomeronasal nerve, vomeronasal nerve layer, main olfactory bulb, accessory olfactory bulb, piriform cortex, field potential, propagating signal, horizontal propagation, oscillation, rat, guinea pig, slice preparation, in vitro, voltage-sensitive dye, subdivision, intracellular recording, intracellular staining, GABA, GABA<sub>A</sub> receptor, GABA<sub>B</sub> receptor

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### Outline of Research

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The brain is often regarded as a microcosmos, which contains more than a million neurons. Each neuron, however, is not a mere stardust. A single neuron integrates many inputs thereunto, so as to determine whether the output signal is released or not. Neurons are connected to each other by synapses to build neuron network, which underlies brain function. Our primary research interest is to elucidate, in molecular terms, how one or more neurons are able to regulate neuron excitability and synaptic efficiency. In particular, we are interested in studying in vitro how the versatile intracellular messenger calcium ion mediates a number of signals differentially, thereby achieving adequate regulation of synaptic efficiency and neuron excitability. As another research topic, we are also studying feature detection mechanisms in pheromone-based olfactory sensation by using in vivo preparation.

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### Publications

#### Originals

- 0120B001 H.Yoshimura, T.Sugai, M.Honjo, K.Kaneyama, N.Segami, N.Kato: Application of caffeine reveals input frequency-dependent determination of signal-traveling routes between primary and secondary visual cortices in rats, *Neurosci. Res.*, 66:30-36, 2010.
- 0120B002 H.Yoshimura, S.Morimoto, M.Okuro, N.Segami, N.Kato: Evaluations of dementia by EEG frequency analysis and psychological examination, *J. Physiol. Sci.*, 60:383-388, 2010.

## Presentations at Conference

### International Conference (Presentations)

- 0120I001 N.Kato, P.Sun, Y.Zhang, F-R.Wang, L.Wang, R.Yamamoto, T.Sugai, Z-D.Wang, R.Chen: Increased excitability of cingulate cortex neurons in a mouse model of depression, Cold Spring Harbor Asia Conference 1st Francis Crick Neuroscience Symposium, (Suzhou, '10.04).
- 0120I002 N.Kato, F.Wang, Y.Zhang, L.Wang, P.Sun, R.Yamamoto, T.Sugai, Z.Wang: Improved learning parallels normalization of electrophysiological properties after transcranial magnetic stimulation in a mouse alzheimer's disease model, Neuroscience 2010, (San Diego, '10.11).



## 0130 Department of Physiology II

### Faculty

Title	Name	Field of Specialization
Professor	SHIBAMOTO Toshishige	Circulatory Physiology.
Associate Professor	KURATA Yasutaka	Cardiac Electrophysiology.
Senior Assistant Professor	MIYAMAE Shunichi	Cardiac Electrophysiology.
Researcher	OMUKAI Chieko	Circulatory Physiology.
Researcher	KUDA Yuichi	Circulatory Physiology.

### Keywords of Research

physiology, hepatic circulation, pulmonary circulation, sympathetic nervous system, isolated perfused liver, circulatory shock, triple vascular occlusion pressure, pulmonary edema, microcirculation, capillary pressure, vascular resistance distribution, pulmonary circulation, triple vascular occlusion pressure, cardiac electrophysiology, ion channels, pacemaker mechanisms, cardiac arrhythmias, biological pacemaker, mathematical modeling, bifurcation analysis, nonlinear dynamics, computer simulation, smooth muscle, vascular electrophysiology, artery, vein

### Outline of Research

Our works widely cover the area of cardiovascular physiology. We are particularly interested in the mechanisms of regulations of hepatic circulation under normal and anaphylactic conditions, and the mechanisms of cardiac automaticity and arrhythmias as well as their regulations. Using liver perfusion system for rats, we recently elucidated the effects of vasoconstrictive lipid mediators such as PAF on the vascular resistance and oxygen consumption, the attenuating effect of NO on anaphylactic hepatic venoconstriction, and the decreased oxygen consumption during hepatic anaphylaxis. We also explored the inhibitory effect of angiotensin II on inward rectifier K<sup>+</sup> currents via AT1 receptors in rat atrial myocytes, and the possible roles of pacemaker currents in robust pacemaking and driving of biological pacemakers.

### Publications

#### Originals

- 0130B001 H.Takano, T.Shibamoto, W.Zhang, Y.Kurata: Liver volume, as assessed by four ultrasonic crystals arranged to form a tetrahedron, decreases during anaphylactic shock in anesthetized rats, *Shock*, 34:586–591, 2010.
- 0130B002 S.Cui, T.Shibamoto, W.Zhang, Y.Kurata, O.Kashimura, S.Miyamae: Exercise training attenuates anaphylactic venoconstriction in rat perfused liver, but does not affect anaphylactic hypotension in conscious rats, *Clin. Exp. Pharmacol. Physiol.*, 37:889–893, 2010.
- 0130B003 (K.Morikawa), U.Bahrudin, J.Miake, O.Igawa, Y.Kurata, Y.Nakayama, Y.Shirayoshi, I.Hisatome: Identification, isolation and characterization of HCN4-positive pacemaking cells derived from murine embryonic stem cells during cardiac differentiation, *Pacing Clin. Electrophysiol.*, 33:290–303, 2010.
- 0130B004 Y.Kurata, H.Matsuda, I.Hisatome, T.Shibamoto: Roles of hyperpolarization-activated current I<sub>f</sub> in sinoatrial node pacemaking: insights from bifurcation analysis of mathematical models, *Am. J. Physiol. Heart Circ. Physiol.*, 298:H1748–H1760, 2010.

## **Presentations at Conference**

### **International Conference (Presentations)**

- 0130I001 T.Shibamoto, W.Zhang, Y.Kurata, S.Miyamae: Effect of exercise training on anaphylaxis in perfused rat liver and in conscious rat, Experimental Biology 2010, (Anaheim, '10.04).
- 0130I002 T.Shibamoto, W.Zhang, C.Ohmukai, Y.Kuda, Y.Kurata: Mesenteric lymph flow increases during anaphylactic hypotension in anesthetized rats, The 6th International Congress of Pathophysiology, (Montreal, '10.09).

## 0140 Department of Biochemistry I

### Faculty

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Title	Name	Field of Specialization
Professor	IWABUCHI Kuniyoshi	Molecular biology, DNA repair, p53-binding proteins.
Professor	DATE Takayasu	Function of protein Kinase, PKU- $\beta$ /TLK1 and PKU- $\alpha$ /TLK2.
Senior Assistant Professor	HASHIMOTO Mitsumasa	Cell biology, DNA repair, Cell cycle, p53-binding proteins.
Assistant Professor	MATSUI Tadashi	Molecular biology, DNA repair, p53-binding proteins.
Assistant Professor	HASHIMOTO Yumi	Molecular biology, DNA repair, p53-binding proteins.

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### Keywords of Research

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ionizing radiation, DNA double-strand break, checkpoint, DNA repair, cell cycle, p53, 53BP1, signal transduction

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### Outline of Research

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Ionizing radiation (IR) induces a variety of DNA lesions, including DNA double-strand breaks (DSBs). DNA damages activate cell-cycle checkpoints, which monitor DNA damage and transduce signals to coordinate repair and cell cycle progression. Using the yeast two-hybrid system, we have identified two cellular proteins, designated 53BP1 and 53BP2, that interact with the tumor suppressor p53. After exposure of cells to IR, 53BP1 rapidly accumulates at sites of DNA DSBs, suggesting that 53BP1 is involved in cellular responses to DNA DSBs. Our goal is to know functions of 53BP1 in cellular responses to DNA DSBs.

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## 0150 Department of Biochemistry II

### Faculty

Title	Name	Field of Specialization
Professor	YONEKURA Hideto	Molecular mechanisms of angiogenesis, Alternative mRNA processing, MicroRNA function.
Associate Professor	YOSHITAKE Yoshino	MicroRNA involved in angiogenesis, Functions of FGF-2 binding protein.
Assistant Professor	IKEDA Takayuki	Molecular mechanisms of angiogenesis, Alternative mRNA processing.

### Keywords of Research

growth factor, fibroblast growth factor, vascular endothelial growth factor, growth factor receptor, VEGF receptor, cytokines, autocrine/paracrine, angiogenesis, neuro-vascular interaction, tumor growth, diabetic vascular complications, endothelial cell, smooth muscle cell, chondrocyte, osteoblast, RNA interference, microRNA, alternative mRNA processing, centrosome, microtubule stabilizing protein, collagen, collagen tripeptide, hydroxyapatite, spermatogenesis, androgen receptor

### Outline of Research

1. Mechanisms of alternative pre-mRNA splicing and 3'-end processing
2. Cellular and molecular mechanisms in angiogenesis
3. Screening and identification of genes and microRNAs involved in neuro-vascular interaction
4. Molecular mechanisms in development of diabetic vascular complications

### Publications

#### Originals

- 0150B001 (K.Ohe), T.Watanabe, S.Harada, S.Munesue, Y.Yamamoto, H.Yonekura, H.Yamamoto: Regulation of alternative splicing of the receptor for advanced glycation endproducts (RAGE) through G-rich cis-elements and heterogenous nuclear ribonucleoprotein H, *J. Biochem.*, 147:651-659, 2010.
- 0150B002 (S.Takasawa), M.Kuroki, K.Nata, N.Noguchi, T.Ikeda, A.Yamauchi, H.Ota, A.Itaya-Hironaka, S.Sakuramoto-Tsuchida, I.Takahashi, T.Yoshikawa, T.Shimosegawa, H.Okamoto: A novel ryanodine receptor expressed in pancreatic islets by alternative splicing from type 2 ryanodine receptor gene, *Biochem. Biophys. Res. Commun.*, 397:140-145, 2010.
- 0150B003 H.Nakajima, Y.Ishigaki, QI-S.Xia, T.Ikeda, Y.Yoshitake, H.Yonekura, T.Nojima, T.Tanaka, H.Umehara, N.Tomosugi, T.Takata, T.Shimasaki, N.Nakaya, I.Sato, K.Kawakami, K.Koizumi, T.Minamoto, Y.Motoo: Induction of HITS, a newly identified family with sequence similarity 107 protein (FAM107B), in cancer cells by heat shock stimulation, *Int. J. Oncol.*, 37:583-593, 2010.

## 0160 Department of Pharmacology

### Faculty

Title	Name	Field of Specialization
Professor	NISHIO Matomo	Electrophysiological and pharmacological study of excitable and non-excitable cells, Pharmacology of cardiovascular drugs.
Professor(Additional Post)	ISHIBASHI Takaharu	Kinetics of NO(nitric oxide)-related compounds in cardiovascular system.
Senior Assistant Professor	YOSHIDA Junko	Pharmacology in cardiovascular system, Cancer chemotherapy.
Researcher	ABE Fusae	Pharmacology of cardiovascular drugs, Kinetics of NO-related compounds in cardiovascular systems, Cancer chemotherapy.
Researcher	LIU He	Pharmacology of cardiovascular drugs, Kinetics of NO-related compounds in cardiovascular systems, Cancer Chemotherapy.

### Keywords of Research

electropharmacology, electrophysiology, ionic channel, patch clamp, excitable membrane, cardiovascular system, ischemic disease, marine toxin, ATP-sensitive K<sup>+</sup> channel, store-operated Ca<sup>2+</sup> channel, intracellular Ca<sup>2+</sup>, coronary circulation, nitric oxide, hemodynamics, nitric oxide-releasing vasodilators, nitrosothiols, signal transduction, anti-tumor drug, proliferation, cell biology

### Outline of Research

- 1 Electrophysiological and pharmacological study on the regulatory mechanisms of excitable and non-excitable cells
- 2 Signaling mechanisms of bioactive substances
- 3 Electropharmacology of the drugs acting on the cardiovascular system
- 4 Pharmacological study of the ischemic cardiomyocytes
- 5 Kinetics of NO(nitric oxide)-related compounds in cardiovascular system

### Publications

#### Originals

- 0160B001 J.Yoshida, T.Ishibashi, M.Yang, M.Nishio: Amlodipine, a Ca<sup>2+</sup> channel blocker, suppresses phosphorylation of epidermal growth factor receptor in human epidermoid carcinoma A431 cells, *Life Sci.*, 86:124-132, 2010.
- 0160B002 (K.Ozaki), T.Hori, T.Ishibashi, M.Nishio, Y.Aizawa: Effects of chronic cigarette smoking on endothelial function in young men, *J. Cardiol.*, 56:307-313, 2010.

### Presentations at Conference

#### International Conference (Symposium)

- 0160H001 T.Ishibashi: Fundamental characteristics of nitrite in biological systems, The International Symposium on Food, Nutrition and Vascular function, (Tokushima, '10.02).

### International Conference (Presentations)

- 0160I001 T.Ishibashi, N.Nishizawa, M.Nakamoto, J.Yoshida, M.Nishio: Arterio-venous difference in plasma nitrite concentration is not indicated at steady-state in anesthetized animals, The 6th International Conference on the Biology, Chemistry, and Therapeutic Applications of Nitric Oxide, (Kyoto, '10.06), Nitric Oxide, 22(Suppl.):S13-S14, 2010.

## 0170 Department of Oncologic Pathology

### Faculty

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Title	Name	Field of Specialization
Professor(Additional Post)	KOHNO Hiroyuki	Experimental pathology, Tumor immunology.
Assistant Professor	OYAMA Takeru	Mechanisms of carcinogenesis.

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### Keywords of Research

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cancer chemoprevention, antioxidant, flavonoid, carotenoid, COX-2 inhibitor, organoselenium, intercellular communication, intermediate biomarker, detoxification enzyme, PCNA, BrdU, apoptosis, cytology, hepatocellular carcinoma, Min mice, inflammation

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### Outline of Research

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Cancer is the result of abnormal genetic control of cell growth that arises from structural alterations in DNA or mutations. Many mutations occur in somatic cells during the lifetime of an individual and some may result in cancer. There is evidence that dietary factors can impede this process. For example, epidemiological studies reveal that the quarter of the population with the lowest dietary intake of fruits and vegetables has roughly twice the cancer risk for most types of cancer compared with the quarter with the highest intake. In recent years the possible chemoprevention of cancer by specific chemical constituents of fruits and vegetables has attracted much attention. Also, several drugs, i.e., COX-2 inhibitors and iNOS inhibitors have been found to effectively inhibit cancer development in animal carcinogenesis models and human clinical studies. Our mission of The Department of Oncologic Pathology is to advance the science and application of cancer prevention through multidisciplinary strategies in research, clinical service, and education using novel animal models and imaging system.

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### Publications

#### Originals

- 0170B001 M.Matoba, T.Kondo, T.Tanaka, M.Kitadate, K.Oota, H.Tonami: Noninvasive monitoring of radiation-induced early therapeutic response using high-resolution MR imaging and proton MR spectroscopy in VX2 carcinoma, *J. Radiat. Res.*, 51:699-705, 2010.
- 0170B002 H.Nakajima, Y.Ishigaki, Qi-S.Xia, T.Ikeda, Y.Yoshitake, H.Yonekura, T.Nojima, T.Tanaka, H.Umehara, N.Tomosugi, T.Takata, T.Shimasaki, N.Nakaya, I.Sato, K.Kawakami, K.Koizumi, T.Minamoto, Y.Motoo: Induction of HITS, a newly identified family with sequence similarity 107 protein (FAM107B), in cancer cells by heat shock stimulation, *Int. J. Oncol.*, 37:583-593, 2010.

## 0180 Department of Pathophysiological and Experimental Pathology

### Faculty

Title	Name	Field of Specialization
Professor	KATSUDA Shogo	Vascular pathology, Pathophysiology of ECM.
Professor	UEDA Yoshimichi	Bone and soft tissue tumor, Pulmonary pathology.
Associate Professor	SATO Katsuaki	Neuropathology.
Assistant Professor	SHIMASAKI Miyako	molecular pathology of the lung cancer.
Researcher	TANG Lihua	

### Keywords of Research

atherosclerosis, extracellular matrix, lung carcinoma, bone and soft tissue tumor, metastasis, invasion, apoptosis, diagnostic histopathology, cardiomyopathy, matrix metalloproteinase, bone tumor, molecular genetics, molecular pathology, neuronal death, nitric oxide synthase, angiogenesis, HMGI-C, Fas/Fas ligand, NF  $\kappa$  B

### Outline of Research

1. Study on the pathogenesis of atherosclerosis, particularly from the aspect of extracellular matrix (ECM). The major subjects are: 1) collagens in human atherosclerosis, 2) cellular interactions and growth regulatory molecules, and 3) ECM degradation and matrix metalloproteinases.
2. Study on the functional gene networks involved in the progression of human lung cancer, especially regarding epithelial-mesenchymal transition of cancer cells, in order to establish novel molecular targets for the treatment. We are analyzing gene expression profiling data bioinformatically by means of ITP, one of the largest data-base for functional gene network/pathway analysis.
3. To elucidate mechanisms of neuronal injury by amyloid  $\beta$  protein, presumed to have essential role on Alzheimer's disease, we identify amyloid  $\beta$  protein-binding proteins in neuron by proteome analysis and explore functional disturbances of these proteins.

### Publications

#### Originals

- 0180B001 L.Zhang, K.Higashi, Y.Ishigaki, Y.Ueda, T.Sakuma, T.Takegami, M.Oguchi, K.Xu, Y.Ohta, H.Nishida, H.Tonami: Assessment of VEGF-D expression measured by immunohistochemical staining and F-18 FDG uptake on PET as biological prognostic factors for recurrence in patients with surgically resected lung adenocarcinoma, *Ann. Nucl. Med.*, 24:533-540, 2010.
- 0180B002 K.Usuda, M.Sagawa, H.Aikawa, M.Ueno, M.Tanaka, Y.Machida, Xi.Zhao, Y.Ueda, K.Higashi, T.Sakuma: Correlation between glucose transporter-1 expression and  $^{18}\text{F}$ -fluoro-2-deoxyglucose uptake on positron emission tomography in lung cancer, *Gen. Thorac. Cardiovasc. Surg.*, 58:405-410, 2010.
- 0180B003 T.Mikami, T.Ichiseki, A.Kaneuji, Y.Ueda, T.Sugimori, K.Fukui, T.Matsumoto: Prevention of steroid-induced osteonecrosis by intravenous administration of vitamin E in a rabbit model, *J. Orthop. Sci.*, 15:674-677, 2010.

#### Reviews

- 0180C002 Y.Ueda, M.Shimasaki, Y.Machida, Y.Takahara, Y.Himi, Y.Ishigaki, K.Sato, T.Sakuma, H.Toga, S.Kawakami, S.Katsuda: Aquaporin as a novel player in cancer cell the invasion of cancer cells, *J. Kanazawa. Med. Univ.*, 35:55-60, 2010 (in Japanese) .



## Case Reports

- 0180D001 (K.Oe), T.Araki, H.Ogawa, A.Nakashima, K.Sato: Fatal cytomegalovirus infection with CD4+ T-lymphocytopenia during corticosteroid therapy for bronchial asthma, *J. Infect. Chemother.*, 16:131-134, 2010.
- 0180D002 K.Sato, T.Imai, Y.Shirota, Y.Ueda, S.Katsuda: Combined large cell neuroendocrine carcinoma and adenocarcinoma of the gallbladder, *Pathol. Res. Pract.*, 206:397-400, 2010.
- 0180D003 (K.Oe), T.Araki, A.Nakashima, K.Sato, T.Konno, M.Yamagishi: Late onset of cholesterol crystal embolism after thrombolysis for cerebral infarction, *Intern. Med.*, 49:833-836, 2010.
- 0180D004 K.Sato, K.Terai, M.Ozaki, Y.Ueda, S.Katsuda: Odontogenic myxofibroma with HMGA2 overexpression and *HMGA2* rearrangement, *Pathol. Int.*, 60:760-764, 2010.

## Presentations at Conference

### International Conference (Presentations)

- 0180I001 Y.Machida, Y.Ueda, M.Shimasaki, M.Sato, M.Sagawa, S.Katsuda, T.Sakuma: Relationship of auaporin 1,3 and 5 expression levels in non-neoplastic lung tissue to cellular differentiation, invasive growth and metastasis potential., *ATS 2010 International conference*, (New Orleans, '10.05).

## 0190 Department of Microbiology

### Faculty

Title	Name	Field of Specialization
Professor	OHARA Yoshiro	Neurovirology, Neuroimmunology.
Associate Professor	MURAKI Yasushi	Virology.
Assistant Professor	HIMEDA Toshiki	Neurovirology.
Assistant Professor	OKUWA Takako	Virology.

### Keywords of Research

Theiler's murine encephalomyelitis virus, central nervous system, demyelination, persistent infection, multiple sclerosis

### Outline of Research

Studies on pathomechanism of virus induced demyelination

### Publications

#### Originals

- 0190B001 K.Ichinose-Asakura, N.Taniura, T.Himeda, M.Nojiri, T.Okuwa, Y.Ohara: Leader(L) of Theiler's murine encephalomyelitis virus (TMEV) is required for virus growth in a murine macrophage-like cell line, *Virus Res.*, 147:224-230, 2010.
- 0190B002 T.Himeda, T.Okuwa, Y.Muraki, Y.Ohara: Cytokine/chemokine profile in J774 macrophage cells persistently infected with DA strain of Theiler's murine encephalomyelitis virus (TMEV), *J. Neurovirol.*, 16: 219-229, 2010.
- 0190B003 T.Okuwa, N.Taniura, M.Saito, T.Himeda, Y.Ohara: Opposite effects of two nonstructural proteins of Theiler's murine encephalomyelitis virus regulates apoptotic cell death in BHK-21 cells, *Microbiol. Immunol.*, 54:639-643, 2010.
- 0190B004 K.Saito, M.Saito, N.Taniura, T.Okuwa, Y.Ohara: Activation of the PI3K-Akt pathway by human T cell leukemia virus type 1 (HTLV-1) oncoprotein Tax increases Bcl3 expression, which is associated with enhanced growth of HTLV-1-infected T cells, *Virology*, 403:173-180, 2010.

#### Others

- 0190F004 Y.Ohara, T.Okuwa, T.Himeda: The role of nonstructural proteins of Theiler's murine encephalomyelitis virus, L and L\*, in virus demyelination, Report of Lactobacillus Meeting 2009, 200-202, 2010 (in Japanese).

### Presentations at Conference

#### International Conference (Presentations)

- 0190I001 Y.Muraki, T.Okuwa, T.Furukawa, Y.Matsuzaki, K.Sugawara, T.Himeda, S.Hongo, Y.Ohara: Role of palmitoylation of CM2 in the influenza C virus replication, Options for the control of influenza VII, (Hong Kong, '10.09).
- 0190I002 T.Himeda, M.Nojiri, T.Okuwa, Y.Muraki, Y.Ohara: Mitochondrial targeting of anti-apoptotic protein L\* of Theiler's murine encephalomyelitis virus (TMEV), Europic 2010, (St. Andrews, '10.09).

0190I003 Y.Ohara, T.Himeda, T.Okuwa, Y.Muraki: The profile of cytokine expression involved with virus persistence and virus-induced demyelination, 10th International Congress of Neuroimmunology, (Barcelona, '10.10).

## 0200 Department of Immunology

### Faculty

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Title	Name	Field of Specialization
Professor	NAKAMURA Akira	Immunology.
Associate Professor	SHIMIZU Shoji	Immunology, Protective immunology, Tumor immunology.
Assistant Professor	MATSUBA Shintaro	Immunological pharmacology.

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### Keywords of Research

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allergy, autoimmune disease, immunoglobulin-like receptor

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### Outline of Research

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The focus of our work is to investigate the regulatory functions of immunoglobulin-like receptors, including Fc receptors (FcRs), paired immunoglobulin-like receptors (PIRs), and other immunoreceptors. In particular, we research the relationship between immunoreceptors and diseases by using animal models for human diseases.

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### Publications

#### Originals

- 0200B001 M.Sakuma, S.Matsuba, H.Matsuno, K.Uchikawa, T.Itou, S.Shimizu, N.Yamaguchi: Effect of hot-spring hydrotherapy on lymphocyte subsets expressing  $\beta_2$ -adrenergic receptors, The Journal of the Japanese Society of Balneology, 73:101-108, 2010 (in Japanese) .
- 0200B002 M.Sakuma, M.Arai, S.Matsuba, N.Yamaguchi: Effects of acupuncture on intracellular cytokine and hormone levels in human peripheral blood, Cytometry Res., 20:41-48, 2010 (in Japanese) .

## 0210 Department of Medical Zoology

### Faculty

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Title	Name	Field of Specialization
Senior Assistant Professor	OIKAWA Yosaburo	diagnosis of parasitic disease, tick-borne disease.
Senior Assistant Professor	ICHIKAWA Hidetaka	Immunological study for parasitic diseases.

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### Keywords of Research

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parasite, cysticercosis, tick born disease, immunodiagnosis, antigen purification, circulating antigen, excretory/secretory products, IgE antibody, molecular biological diagnosis, cysteine proteinase, Acanthamoeba, atopic dermatitis, mite, Myobia musculi, Leptotrombidium

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### Outline of Research

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The main subjects of our department are as follows:

1.Development of immunological and molecular biological diagnosis of parasitic diseases.2.Epidemiological research of tick-born diseases in the Noto Peninsula,Ishikawa Prefect.

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### Publications

#### Originals

0210B001 Y.Oikawa, A.Kobayashi, K.kitagawa: Anti-acanthamoeba efficacy in pimarcine (natamycin) whici is antimycotic drug, Ann. rep. Ohara Hosp., 50:27-30, 2010 (in Japanese) .

## 0220 Department of Pathology and Laboratory Medicine

### Faculty

Title	Name	Field of Specialization
Professor	NOJIMA Takayuki	surgical pathology, molecular pathology, basic science on bone and soft tissue tumors.
Professor	MINATO Hiroshi	Surgical pathology, Pathological study of head and neck, lung, mediastinum, and pleura.
Senior Assistant Professor	KUROSE Nozomu	surgical pathology, molecular pathology.
Assistant Professor	KINOSHITA Eriko	surgical pathology, molecular pathology.
Assistant Professor	NAKADA Satoko	surgical pathology.

### Keywords of Research

pathology, surgical pathology, molecular pathology, ultrastructure, cytology, laboratory medicine, standardization of blood gas analysis, pulmonary function test, pulmonary pathology, "lung, mediastinum, and pleura", head and neck, salivary gland

### Outline of Research

1. Severe patients with chronic obstructive pulmonary diseases (COPD) frequently show expiratory flow limitation (FL) during spontaneous breathing, which is a marker of severely deteriorated pulmonary function and determines the prognosis of this disease. I have developed a new technique to detect FL with a brief interruption of airflow during spontaneous breathing and have been studying for increasing the accuracy of this method.
2. Accuracy assurance of blood gas analysis: The recent blood gas analyzers are small, portable, and do measurements on bedside (POCY: Point of Care Testing). However, it is difficult to maintain the accuracy of blood gas analysis because of the disposable electrodes in this type of equipments. I have been developing a method of accuracy assurance for these equipments with newly developed standard materials for blood gas analysis.

### Publications

#### Originals

- 0220B001 (Y.Nakanuma), Y.Zen, K.Harada, M.Sasaki, A.Nonomura, T.Uehara, K.Sano, F.Kondo, T.Fukasato, K.Tsuneyama, M.Ito, K.Wakasa, M.Nomoto, H.Minato, H.Haga, M.Kage, H.Yano, J.Haratake, S.Aishima, T.Masuda, H.Aoyama, A.Miyakawa-Hayashino, T.Matsumoto, H.Sanefuji, H.Ojima, T-C.Chen, E.Yu, J-H.Kim, YN.Park, W.Tsui: Application of a new histological staging and grading system for primary biliary cirrhosis to liver biopsy specimens: interobserver agreement, *Pathol. Int.*, 60:167-174, 2010.
- 0220B002 H.Nakajima, Y.Ishigaki, QI-S.Xia, T.Ikeda, Y.Yoshitake, H.Yonekura, T.Nojima, T.Tanaka, H.Umehara, N.Tomosugi, T.Takata, T.Shimasaki, N.Nakaya, I.Sato, K.Kawakami, K.Koizumi, T.Minamoto, Y.Motoo: Induction of HITS, a newly identified family with sequence similarity 107 protein (FAM107B), in cancer cells by heat shock stimulation, *Int. J. Oncol.*, 37:583-593, 2010.

#### Case Reports

- 0220D001 (J.Shimizu), Y.Arano, N.Ishikawa, M.Oda, I.Matsumoto, H.Minato: Clinicopathological study of surgically treated cases of tracheobronchial adenoid cystic carcinoma, *Gen. Thorac. Cardiovasc. Surg.*, 58:82-86, 2010.
- 0220D002 (J.Shimizu), C.Ikeda, Y.Arano, I.Adachi, M.Morishita, S.Yamaguchi, N.Ishikawa, G.Watanabe, H.Minato: Advanced lung cancer invading the left atrium, treated with pneumonectomy combined with left atrium resection under cardiopulmonary bypass, *Ann Thorac Cardiovasc Surg*, 16:286-290, 2010.

- 0220D003 H.Minato, S.Kaji, E.Kinoshita, N.Kurose, T.Nojima, M.Kohno, K.Konuma, H.Ikawa: Solitary intrapulmonary cystic lymphangioma in an infant: A case report with literature review, *Pathol. Res. Pract.*, 206:851–856, 2010.
- 0220D004 (S.Miwa), S.Kitamura, T.Shirai, K.Hayashi, H.Nishida, A.Takeuchi, T.Nojima, H.Tsuchiya: Desmoplastic small round cell tumour successfully treated with caffeine-assisted chemotherapy: a case report and review of the literature, *Anticancer Res.*, 30:3769–3774, 2010.
- 0220D005 (J.Shimizu), Y.Arano, I.Adachi, M.Morishita, B.Fuwa, S.Yokokawa, S.Minami, M.Hiroshi: Adenosquamous carcinoma of the lung in a patient with complete situs inversus, *Medical journal of Mutual Aid Association*, 59:18–22, 2010 (in Japanese) .
- 0220D006 M.miki, Y.Masaki, T.Nakamura, H.Iwao, A.Nakajima, T.Sakai, T.Sawaki, T.Kawanami, M.Kaito, N.Kurose, Y.Fujita, M.Tanaka, T.Fukushima, Y.Hirose, H.Umehara: Primary neurolymphomatosis of the cervical nerve root, *The Japanese Journal of Clinical Hematology*, 51:564–567, 2010 (in Japanese) .
- 0220D007 I.Sato, N.Ueda, E.Kinoshita, H.Mnato, K.Ohno, N.Nakata, T.Shimasaki, H.Nakajima, T.Kosaka, Y.Motoo: Curatively resected case of non-functioning pancreatic neuroendocrine carcinoma with multiple liver metastases after dpwmstaging with S-1 monotherapy, *Cancer & chemotherapy*, 37:1341–1344, 2010 (in Japanese) .

#### **Others**

- 0220F001 (J.Shimizu), Y.Arano, C.Ikeda, I.Adachi, N.Ishikawa, Y.Hirano, H.Minato: Modification of the surgical procedure to enable the complete resection of lung cancer with carcinomatous pleuritis, *Surg Today*, 40:890–893, 2010.

## 0230 Department of Social and Environmental Medicine

### Faculty

Title	Name	Field of Specialization
Professor	YAMADA Yuichi	Occupational Health, Epidemiology of circulatory and respiratory diseases.
Associate Professor	ISHIZAKI Masao	Occupational Health, Job stress.
Associate Professor(Additional Post)	HONDA Ryumon	Environmental health, Statistical analysis, Analytical chemistry.
Senior Assistant Professor	NAKATA Minori	Industrial hygiene, Occupational medicine, Musculoskeletal disorders.
Senior Assistant Professor	NOBORISAKA Yuka	Occupational Health, Job stress.

### Keywords of Research

occupation, work-related disease, mental health, cardiovascular disease, non-specific pulmonary disease, musculoskeletal disease, metabolic syndrome, hypertension, job stress, absenteeism, alcohol consumption, cigarette consumption, shift work, work time

### Outline of Research

To clarify the health effects of social environmental factors—mainly occupational factors, and establish appropriate, policies for health promotion

### Publications

#### Originals

- 0230B001 (K.Nambunmee), R.Honda, M.Nishijo, W.Swaddiwudhipong, H.Nakagawa, W.Ruangyuttikarn: Bone resorption acceleration and calcium reabsorption impairment in a Thai population with high cadmium exposure, *Toxicol. Mech. Methods.*, 20:7–13, 2010.
- 0230B002 Q.LI, Y.Morikawa, M.Sakurai, K.Nakamura, K.Miura, M.Ishizaki, T.Kido, Y.Naruse, Y.Suwazono, H.Nakagawa: Occupational class and incidence rates of cardiovascular events in middle aged men in Japan, *Ind. Health*, 48:324–330, 2010.
- 0230B003 M.Nakashima, M.Sakurai, K.Nakamura, K.Miura, K.Yoshita, Y.Morikawa, M.Ishizaki, K.Murakami, T.Kido, Y.Naruse, S.Sasaki, H.Nakagawa: Dietary glycemic index, glycemic load and blood lipid levels in middle-aged Japanese men and women, *J. Atheroscler. Thromb.*, 17:1082–1095, 2010.
- 0230B004 W.Hirokawa, K.Nakamura, M.Sakurai, Y.Morikawa, K.Miura, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Mild metabolic abnormalities, abdominal obesity and the risk of cardiovascular diseases in middle-aged Japanese men, *J. Atheroscler. Thromb.*, 17:934–943, 2010.
- 0230B005 K.Nakamura, M.Sakurai, K.Miura, Y.Morikawa, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Homeostasis model assessment of insulin resistance and the risk of cardiovascular events in middle-aged non-diabetic Japanese men, *Diabetologia*, 53:1894–1902, 2010.
- 0230B006 R.Honda, W.Swaddiwudhipong, M.Nishijo, P.Mahasakpan, W.Teeyakasem, W.Ruangyuttikarn, S.Satarug, C.Padungtod, H.Nakagawa: Cadmium induced renal dysfunction among residents of rice farming area downstream from a zinc-mineralized belt in Thailand, *Toxicol. Lett.*, 198:26–32, 2010.



- 0230B007 (A.Inoue), N.Kawakami, M.Ishizaki, A.Shimazu, M.Tsuchiya, M.Tabata, M.Akiyama, A.Kitazume, M.Kuroda: Organizational justice, psychological distress, and work engagement in Japanese workers, *Int. Arch. Occup. Environ. Health.*, 83:29–38, 2010.
- 0230B008 (N.Kalezic), Y.Noborisaka, M.Nakata, A.G.Crenshaw, S.Karlsson, E.Lyskov, P.O.Eriksson: Cardiovascular and muscle activity during chewing in whiplash-associated disorders (WAD), *Arch. Oral Biol.*, 55:447–453, 2010.
- 0230B009 (R.Sato), T.Kido, R.Honda, M.Nishijo, H.Nakagawa, E.Kobayashi, Y.Suwazono: Seventeen-year observation on urinary cadmium and  $\beta_2$ -microglobulin in inhabitants after cessation of cadmium-exposure in Japan, *Bull. Environ. Contam. Toxicol.*, 84:363–367, 2010.
- 0230B010 (I.Ishikawa), S.Hayama, K.Morita, T.Nakazawa, H.Yokoyama, R.Honda, K.Satoh, T.Kakuma: Long-term natural history of acquired cystic disease of the kidney, *Ther Apher Dial*, 14:409–416, 2010.
- 0230B011 (A.Inoue), N.Kawakami, T.Haratani, F.Kobayashi, M.Ishizaki, T.Hayashi, O.Fujita, Y.Aizawa, S.Miyazaki, H.Hiro, T.Masumoto, S.Hashimoto, S.Araki: Job stressors and long-term sick leave due to depressive disorders among Japanese male employees: findings from the Japan work stress and health cohort study, *J. Epidemiol. Community Health.*, 64:229–235, 2010.
- 0230B012 (W.Swaddiwudhipong), P.Limpatanachote, M.Nishijo, R.Honda, P.Mahasakpan, S.Krintratun: Cadmium-exposed population in Mae Sot district, Tak province: 3. associations between urinary cadmium and renal dysfunction, hypertension, diabetes, and urinary stones, *J. Med. Assoc. Thai.*, 93:231–238, 2010.
- 0230B013 (P.Limpatanachote), W.Swaddiwudhipong, M.Nishijo, R.Honda, P.Mahasakpan, K.Nambunmee, W.Ruangyuttikarn: Cadmium-exposed population in Mae Sot district, Tak province: 4 bone mineral density in persons with high cadmium exposure, *J. Med. Assoc. Thai.*, 93:1451–1457, 2010.

## Presentations at Conference

### International Conference (Presentations)

- 0230I001 M.Ishizaki, H.Nakagawa, N.Kawakami, A.Inoue, Y.Morikawa, T.Kido, Y.Yamada: Relationship between job stress and job performance in a factory, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to Journal of Epidemiology, 20(Suppl 1):295, 2010.
- 0230I002 K.Nakamura, W.Hirokawa, M.Sakurai, Y.Morikawa, K.Miura, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Mild metabolic abnormality and risk of cardiovascular diseases among middle-aged Japanese men, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to Journal of Epidemiology, 20(Suppl 1):191, 2010.
- 0230I003 M.Sakurai, M.Nakashima, K.Nakamura, K.Miura, K.Yoshita, Y.Morikawa, M.Ishizaki, K.Murakami, T.Kido, Y.Naruse, S.Sasaki, H.Nakagawa: Dietary glycemic index, glycemic load and blood lipid levels in middle-aged Japanese men and women, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to Journal of Epidemiology, 20(Suppl 1):216, 2010.
- 0230I004 M.Nakashima, Y.Morikawa, M.Sakurai, K.Nakamura, K.Miura, M.Ishizaki, T.Kido, Y.Naruse: Association between long working hours and sleep problems in white-collar workers, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01).
- 0230I005 M.Nakata, M.Yoshizawa, Y.Yamada, K.Kagechika, P.O.Eriksson: Pressure pain thresholds at different body regions in chronic musculoskeletal disorders (MSD) vs healthy, Seventh International Conference on Prevention of Work-Related Musculoskeletal Disorders, (Angers, '10.08).
- 0230I006 M.Nishijo, W.Swaddiwudhipong, K.Nambunmee, W.Ruangyuttikarn, R.Honda, Y.Morikawa, H.Nakagawa: Effect of cadmium on health risk of arteriosclerosis; a study of Thai population environmentally exposed to cadmium, 6th conference on molecular mechanisms of metal toxicity and carcinogenesis, (Kentucky, '10.11).

## 0240 Department of Epidemiology and Public Health

### Faculty

Title	Name	Field of Specialization
Professor	NAKAGAWA Hideaki	Epidemiology of cardiovascular diseases, occupational medicine, preventive medicine.
Professor(Additional Post)	MORIKAWA Yuko	Cardiovascular epidemiology, occupational medicine.
Associate Professor	NISHIJO Muneko	Environmental epidemiology, epidemiology of cadmium pollution.
Associate Professor	SAKURAI Masaru	Cardiovascular epidemiology, preventive cardiology.
Associate Professor(Additional Post)	NAKAMURA Koshi	Epidemiology of Cardiovascular disease and Lifestyle-related disease Lifestyle/Disease and Medical expenditure.
Senior Assistant Professor(Additional Post)	NAKANISHI Yumiko	Preventive medicine.

### Keywords of Research

epidemiology, public health, hypertension, diabetes mellitus, shift work, nutrition, calcium, stress, smoking, insulin resistance, work-related disease, environmental pollution, cadmium, renal tubular dysfunction, intractable disease, cardiovascular disease, stroke, hyperlipidemia, dietary habits, salt, magnesium, health promotion, alcohol, lipid peroxide, community registry, silicosis, Itai-itai disease, congenital anomaly, medical decision making, dioxin

### Outline of Research

Epidemiology and Prevention of Lifestyle-related Diseases(mainly of Cardiovascular Diseases)  
Environmental Epidemiology  
Epidemiology of Occupation-related Diseases  
Epidemiology of Congenital Anomalies  
Epidemiology of Interactable Diseases  
Clinical Epidemiology

### Publications

#### Originals

- 0240B001 (K.Nambunmee), R.Honda, M.Nishijo, W.Swaddiwudhipong, H.Nakagawa, W.Ruangyuttikarn: Bone resorption acceleration and calcium reabsorption impairment in a Thai population with high cadmium exposure, *Toxicol. Mech. Methods.*, 20:7-13, 2010.
- 0240B002 (The Emerging Risk Factors Collaboration), H.Nakagawa, Collaborators(273): C-reactive protein concentration and risk of coronary heart disease,stroke, and mortality:an individual participant meta-analysis, *Lancet*, 375:132-140, 2010.
- 0240B003 (K.Miura), N.Okuda, T.C.Turin, N.Takashima, H.Nakagawa, K.Nakamura, K.Yoshita, A.Okayama, H.Ueshima, NIPPON DATA80/90 Research Group: Dietary salt intake and blood pressure in a representative Japanese population: baseline analyses of NIPPON DATA80, *J Epidemiol*, 20(Suppl):S524-S530, 2010.
- 0240B004 (N.Okuda), K.Miura, K.Yoshita, Y.Matsumura, A.Okayama, Y.Nakamura, T.Okamura, S.Saitoh, K.Sakata, T.Ojima, TC.Turin, H.Ueshima, H.Nakagawa, NIPPON DATA80/90 Research Group: Integration of data from NIPPON DATA80/90 and National Nutrition Survey in Japan: for cohort studies of representative Japanese on nutrition, *J Epidemiol*, 20(Suppl):S506-S514, 2010.

- 0240B005 Q.LI, Y.Morikawa, M.Sakurai, K.Nakamura, K.Miura, M.Ishizaki, T.Kido, Y.Naruse, Y.Suwazono, H.Nakagawa: Occupational class and incidence rates of cardiovascular events in middle aged men in Japan, *Ind. Health*, 48:324–330, 2010.
- 0240B006 M.Nakashima, M.Sakurai, K.Nakamura, K.Miura, K.Yoshita, Y.Morikawa, M.Ishizaki, K.Murakami, T.Kido, Y.Naruse, S.Sasaki, H.Nakagawa: Dietary glycemic index, glycemic load and blood lipid levels in middle-aged Japanese men and women, *J. Atheroscler. Thromb.*, 17:1082–1095, 2010.
- 0240B007 (N.Takashima), K.Miura, A.Hozawa, A.Kadota, T.Okamura, Y.Nakamura, T.Hayakawa, N.Okuda, A.Fujiyoshi, SY.Nagasawa, T.Kadowaki, Y.Murakami, Y.Kita, A.Okayama, H.Ueshima, H.Nakagawa, NIPPON DATA 90 Research Group, Collaborator(19): Population attributable fraction of smoking and metabolic syndrome on cardiovascular disease mortality in Japan: a 15-year follow up of NIPPON DATA90, *BMC Public Health*, 10:306, 2010.
- 0240B008 (U.Tamura), T.Tanaka, T.Okamura, T.Kadowaki, H.Yamato, H.Tanaka, M.Nakamura, A.Okayama, H.Ueshima, Z.Yamagata, HIPOP–OHP research group, H.Nakagawa: Changes in weight, cardiovascular risk factors and estimated risk of coronary heart disease following smoking cessation in Japanese male workers:HIPOP–OHP study, *J. Atheroscler. Thromb.*, 17:12–20, 2010.
- 0240B009 W.Hirokawa, K.Nakamura, M.Sakurai, Y.Morikawa, K.Miura, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Mild metabolic abnormalities, abdominal obesity and the risk of cardiovascular diseases in middle-aged Japanese men, *J. Atheroscler. Thromb.*, 17:934–943, 2010.
- 0240B010 (Z.Guo), K.Miura, TC.Turin, A.Hozawa, N.Okuda, T.Okamura, S.Saitoh, K.Sakata, H.Nakagawa, A.Okayama, K.Yoshita, T.Kadowaki, S.R Choudhury, Y.Nakamura, B.L Rodriguez, JD.Curb, P.Elliott, J.Stamler, H.Ueshima: Relationship of the polyunsaturated to saturated fatty acid ratio to cardiovascular risk factors and metabolic syndrome in Japanese:the INTERLIPID study, *J. Atheroscler. Thromb.*, 17:777–784, 2010.
- 0240B011 (S.Katano), Y.Nakamura, A.Nakamura, Y.Murakami, T.Tanaka, H.Nakagawa, T.Takebayashi, H.Yamato, A.Okayama, K.Miura, T.Okamura, H.Ueshima, HIPOP–OHP Research Group: Relationship among physical activity,smoking,drinking and clustering of the metabolic syndrome diagnostic components, *J. Atheroscler. Thromb.*, 30:644–50, 2010.
- 0240B012 K.Nakamura, M.Sakurai, K.Miura, Y.Morikawa, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Homeostasis model assessment of insulin resistance and the risk of cardiovascular events in middle-aged non-diabetic Japanese men, *Diabetologia*, 53:1894–1902, 2010.
- 0240B013 R.Honda, W.Swaddiwudhipong, M.Nishijo, P.Mahasakpan, W.Teeyakasem, W.Ruangyuttikarn, S.Satarug, C.Padungtod, H.Nakagawa: Cadmium induced renal dysfunction among residents of rice farming area downstream from a zinc–mineralized belt in Thailand, *Toxicol. Lett.*, 198:26–32, 2010.
- 0240B014 (R.Oka), J.Kobayashi, A.Inazu, K.Yagi, S.Miyamoto, M.Sakurai, K.Nakamura, K.Miura, H.Nakagawa, M.Yamagishi: Contribution of visceral adiposity and insulin resistance to metabolic risk factors in Japanese men, *Metabolism*, 59:748–754, 2010.
- 0240B015 (H.Yatuya), H.Toyoshima, K.Yamagishi, K.Tamakoshi, M.Taguri, A.Harada, Y.Ohashi, Y.Kita, Y.Naito, M.Yamada, N.Tanabe, H.Iso, H.Ueshima, H.Nakagawa, Japan Arteriosclerosis Longitudinal Study (JALS) group: Body mass index and risk of stroke and myocardial infarction in a relatively lean population: meta-analysis of 16 Japanese cohorts using individual data, *Circ. Cardiovasc. Qual. Outcomes.*, 3:498–505, 2010.
- 0240B016 (D.D.Nhu), T.Kido, R.Naganuma, H.Suzuki, N.Kuroda, S.Honma, P.T.Tai, S.Maruzeni, M.Nishijo, H.Nakagawa, N.N.Hung, L.T.H.Thom, L.K.Son: Salivary cortisol and cortisone levels, and breast milk dioxin concentrations in Vietnamese primiparas, *Toxicol. Environ. Chem.*, 92:1939–1952, 2010.
- 0240B017 Y.Ishigaki, T.Kurihara, Y.Nakamura, X.Zhao, T.Takata, S.Izumi, T.Takegami, N.Tomosugi, H.Nakagawa: Ultrastructural localization of Upf2 and its binding to mRNA molecules in human cells, *Journal of Electron Microscopy Technology for Medicine and Biology*, 24:8–13, 2010.
- 0240B018 (R.Sato), T.Kido, R.Honda, M.Nishijo, H.Nakagawa, E.Kobayashi, Y.Suwazono: Seventeen-year observation on urinary cadmium and  $\beta_2$ -microglobulin in inhabitants after cessation of cadmium-exposure in Japan, *Bull. Environ. Contam. Toxicol.*, 84:363–367, 2010.

- 0240B019 (W.Swaddiwudhipong), P.Limpatanachote, M.Nishijo, R.Honda, P.Mahasakpan, S.Krintratun: Cadmium-exposed population in Mae Sot district, Tak province:3. associations between urinary cadmium and renal dysfunction,hypertension,diabetes, and urinary stones, *J. Med. Assoc. Thai.*, 93:231-238, 2010.
- 0240B020 (P.Limpatanachote), W.Swaddiwudhipong, M.Nishijo, R.Honda, P.Mahasakpan, K.Nambunmee, W.Ruangyuttikarn: Cadmium-exposed population in Mae Sot district, Tak province: 4 bone mineral density in persons with high cadmium exposure, *J. Med. Assoc. Thai.*, 93:1451-1457, 2010.
- 0240B021 (R.Oka), K.Miura, M.Sakurai, K.Nakamura, K.Yagi, S.Miyamoto, T.Moriuchi, H.Mabuchi, J.Koizumi, H.Nomura, Y.Takeda, A.Inazu, A.Nohara, MA.Kawashiri, S.Nagasawa, J.Kobayashi, M.Yamagishi: Impacts of visceral adipose tissue and subcutaneous adipose tissue on metabolic risk factors in middle-aged Japanese, *Obesity*, 18:153-60, 2010.
- 0240B022 K.Nakamura, T.Okamura, T.Hayakawa, H.Kanda, A.Okayama, H.Ueshima, Health Promotion Research Committee of the Shiga National Health Insurance Organizations: Medical expenditures of men with hypertension and/or a smoking habit: a 10-year follow-up study of national health insurance in Shiga, Japan, *Hypertens. Res.*, 33:802-807, 2010.

### Reviews

- 0240C001 (R.Huxley), K.Nakamura, M.Woodward: Modification of the effect of lipids on the risk of cardiovascular diseases by cigarette smoking, *Clin. Lipidol.*, 5:413-420, 2010.
- 0240C004 K.Nakamura, H.Nakagawa: Prevention of stroke, *Journal of Medical Technology*, 54:1487-1493, 2010 (in Japanese) .
- 0240C005 K.Nakamura: Impacts of cardiovascular risk factors on medical expenditures, *Hokuriku Japanese Journal of Public Health*, 37:1-6, 2010 (in Japanese) .

### Short Communications

- 0240E001 (E.Hamaguchi), T.Takamura, M.Sakurai, E.Mizukoshi, Y.Zen, Y.Takeshita, S.Kurita, K.Arai, T.Yamashita, M.Sasaki, Y.Nakanuma, S.Kaneko, The histological course of nonalcoholic fatty liver disease in Japanese patients: Tight glycemic control, rather than weight reduction, ameliorates liver fibrosis, *Diabetes Care.*, 33:284-286, 2010.

### Others

- 0240F014 M.Sakurai, T.Takamura, K.Miura, S.Kaneko, H.Nakagawa: J-shaped relationship between anthropometric indices and risk for diabetes in relatively lean Japanese, *Journal of Metabolic Syndrome*, 6:36-43, 2010 (in Japanese) .

## Presentations at Conference

### International Conference (Presentations)

- 0240I001 M.Ishizaki, H.Nakagawa, N.Kawakami, A.Inoue, Y.Morikawa, T.Kido, Y.Yamada: Relationship between job stress and job performance in a factory, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to *Journal of Epidemiology*, 20(Suppl 1):295, 2010.
- 0240I002 K.Nakamura, W.Hirokawa, M.Sakurai, Y.Morikawa, K.Miura, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Mild metabolic abnormality and risk of cardiovascular diseases among middle-aged Japanese men, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to *Journal of Epidemiology*, 20(Suppl 1):191, 2010.

- 0240I003 M.Sakurai, M.Nakashima, K.Nakamura, K.Miura, K.Yoshita, Y.Morikawa, M.Ishizaki, K.Murakami, T.Kido, Y.Naruse, S.Sasaki, H.Nakagawa: Dietary glyceic index, glyceic load and blood lipid levels in middle-aged Japanese men and women, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to Journal of Epidemiology, 20(Suppl 1):216, 2010.
- 0240I004 M.Nakashima, Y.Morikawa, M.Sakurai, K.Nakamura, K.Miura, M.Ishizaki, T.Kido, Y.Naruse: Association between long working hours and sleep problems in white-collar workers, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01).
- 0240I005 K.Kitaoka, M.Nagai, H.Nakagawa, S.Masuda, K.Ogino: Burnout levelo of the Japanese working population, ICOHN & ACOHN Joint Conference 2010, (Yokohama, '10.08).
- 0240I006 M.Nishijo, W.Swaddiwudhipong, K.Nambunmee, W.Ruangyuttikam, R.Honda, Y.Morikawa, H.Nakagawa: Effect of cadmium on health risk of arteriosclerosis; a study of Thai population environmentary exposed to cadmium, 6th conference on molecular mechanisums of metal toxicity and carcinogenesis, (Kentucky, '10.11).

## 0250 Department of Legal Medicine

### Faculty

Title	Name	Field of Specialization
Professor	KITAMURA Osamu	Forensic Pathology, Drug Dependence.
Senior Assistant Professor	WANG Lu	Tumor pathology, Endocrine pathology, Forensic pathology.
Assistant Professor	TAKEICHI Toshiaki	hemorheologie.

### Keywords of Research

drug abuse, methamphetamine, brain damage, forensic autopsy, drowning, immunohistochemistry, proteinase K

### Outline of Research

Mechanism of methamphetamine abuse  
Immunohistochemical analysis of brain damage in forensic autopsy cases  
Application of proteinase K for diatome detection in the diagnosis of drowning

### Publications

#### Originals

- 0250B001 O.Kitamura, T.Takeichi, L.Wang, I.Tokunaga, A.Ishigami, S.Kubo: Microglial and astrocytic changes in the striatum of methamphetamine abusers, *Leg Med (Tokyo)*, 12:57-62, 2010.
- 0250B002 E.L.Wang, Z.Qian, M.Nakasono, T.Tanahashi, K.Yoshimoto, Y.Bando, E.Kudo, M.Shimada, T.Sano: High expression of Toll-like receptor 4/myeloid differentiation factor 88 signals correlates with poor prognosis in colorectal cancer, *Br. J. Cancer*, 102:908-915, 2010.
- 0250B003 (A.Ishigami), S.Kubo, O.Kitamura, I.Tokunaga, A.Nishimura: Two autopsy cases that died after surviving a hanging attempt: significance of hemorrhage around the larynx and pharynx, *The Japanese Journal of Forensic Pathology*, 16:40-45, 2010 (in Japanese) .

## 0260 Department of Medical Education

### Faculty

Title	Name	Field of Specialization
Professor	YASUDA Yukio	undergraduate clinical teaching, graduate education of physicians, medical education.
Associate Professor	HORI Ariyuki	medical education, clinical neurology, clinical sleep medicine, neurophysiology, medical informatics, problem-based learning.
Senior Assistant Professor	FUKUNAGA Toshiharu	laboratory medicine, standardization of blood gas analysis, pulmonary function test.
Assistant Professor	KURODA Naohiro	medical informatics, electronic medical record system, medical education.

### Keywords of Research

medical informatics, electronic recording, evidence-based medicine, information technology, computer-aided PBL

### Outline of Research

Improving medical education including a new course of integrated problem-based learning, a medical interview training course before medical practice, management of medical informatics, practical training course using simulators, developing new assessment for students' practice, and providing new educational environment using e-syllabi.

### Presentations at Conference

#### International Conference (Presentations)

- 0260I001 A.Yamaya, J.Huang, T.Fukunaga, S.Shinomiya, S.Kitadate, Y.Takahara, M.Saito, K.Kojima, Y.Fujimoto, T.Oikawa, K.Nakagawa, K.Tsuchihara, M.Iguchi, M.Takahashi, K.Osanai, H.Toga: Peripheral airway resistance determined with the interruption technique in COPD patients, American Thoracic Society 2010 International Conference, (New Orleans, '10.05), Am. J. Respir. Crit. Care Med., 181:A2118, 2010.
- 0260I002 M.Saito, J.Huang, S.Shinomiya, S.Kitadate, Y.Takahara, A.Yamaya, K.Kojima, Y.Fujimoto, T.Oikawa, K.Nakagawa, T.Fukunaga, K.Tsuchihara, M.Iguchi, K.Osanai, H.Toga: Upper airway function assessed with negative expiratory pressure technique during wakefulness in patients with obstructive sleep apnea, American Thoracic Society 2010 International Conference, (New Orleans, '10.05), Am. J. Respir. Crit. Care Med., 181:A2209, 2010.





# Clinical Medicine

## 0300 Department of Cardiovascular Medicine

### Faculty

Title	Name	Field of Specialization
Professor	KAJINAMI Koji	Atherosclerosis, lipid metabolism.
Associate Professor	KITAYAMA Michihiko	Ischemic heart disease, Coronary intervention.
Associate Professor	KAWAI Yasuyuki	Ischemic heart disease, Coronary intervention.
Associate Professor(Additional Post)	ASAJI Takayoshi	Heart failure.
Senior Assistant Professor	AKAO Hironobu	Ischemic heart disease, Coronary intervention.
Senior Assistant Professor	FUJIOKA Nakaba	Arrhythmia, Catheter ablation.
Senior Assistant Professor(Additional Post)	UENISHI Hiroaki	Ischemic heart disease, Coronary intervention.
Assistant Professor	TAKEDA Kenji	Molecular Biology.
Assistant Professor	ISHIDA Ryoko	Ischemic heart disease, Coronary intervention.
Assistant Professor	KASENO Kenichi	Arrhythmia, Catheter ablation.
Assistant Professor	MOTOYAMA Atsushi	Ischemic heart disease, Coronary intervention.
Assistant Professor	IWADARE Mizuho	Atherosclerosis, hypertension.
Assistant Professor	WAKASA Minoru	Heart failure.

### Keywords of Research

heart failure, hypertension, myocardial infarction, myocarditis, autonomic nervous function, atherosclerosis, metabolic syndrome, brain natriuretic peptide, angina pectoris, apoptosis, homocysteine, coronary calcification, valvular disease, autoantibody, myocardial biopsy, cardiac PET, coronary intervention, dilated cardiomyopathy, gene therapy, long QT, myocardial viability, pacemaker, aortitis syndrome, arrhythmia, catheter ablation, renin-angiotensin system, IABP, microvascular angina, gene polymorphism, circadian variation

### Outline of Research

- 1 Exploring risk factors and determinants of responsiveness to treatment or prognosis in cardiovascular diseases
- 2 Development of new therapeutics using the gene expression modification or the stem cell research technique
- 3 Visualization and quantification of the biological signal in cardiovascular system

### Publications

#### Originals

- 0300B001 (E.Yamashita), H.Takamatsu, H.Tada, H.Toide, H.Okaniwa, N.Takemura, T.Sasaki, Y.Miki, E.Fuke, T.Hayashi, T.Sakamoto, K.Nakamura, R.Fukazawa, C.Sato, K.Goto, K.Kaseno, K.Kumagai, S.Naito, H.Hoshizaki, S.Oshima: Transesophageal echocardiography for thrombus screening prior to left atrial catheter ablation, *Circ. J.*, 74:1081-6, 2010.
- 0300B002 (I.Matsunari), H.Aoki, Y.Nomura, N.Takeda, W.P.Chen, J.Taki, K.Nakajima, S.G.Nekolla, S.Kinuya, K.Kajinami: Iodine-123 metaiodobenzylguanidine imaging and carbon-11 hydroxyephedrine positron emission tomography compared in patients with left ventricular dysfunction, *Circ. Cardiovasc. Imaging.*, 3:595-603, 2010.

0300B003 (K.Arakawa), T.Kudo, M.Ikawa, N.Morikawa, Y.Kawai, K.Sahashi, J D.Lee, M.Kuriyama, I.Miyamori, H.Okazawa, M.Yoneda: Abnormal myocardial energy-production state in mitochondrial cardiomyopathy and acute response to L-arginine infusion —C-11 acetate kinetics revealed by positron emission tomography —, Circ. J., 74:2702-2711, 2010.

## **Presentations at Conference**

### **International Conference (Presentations)**

- 0300I001 H.Akao, M.Kitayama, Y.Kawai, R.Ishida, A.Motoyama, M.Wakasa, H.Aoki, R.Saito, K.Fujibayashi, K.Kajinami: Potential Role of Pentraxin 3(PTX3) in Advanced Coronary Atherosclerosis : Coronary Rotational Atherectomy Study, The American College of Cardiology 59th Annual Scientific Session, (Atlanta, '10.03).
- 0300I002 K.Kojima, A.Motoyama, M.Watanabe, K.Tanabe, H.Aoki, R.Saito, H.Akao, Y.Kawai, M.Kitayama, K.Fujibayashi, K.Kajinami: Lipid profile in japanese patients who developed coronary artery disease during statin therapy, The 78th European Atherosclerosis Society Congress, (Hamburg, '10.06).

## 0310 Department of Respiriology (Respiratory Medicine)

### Faculty

Title	Name	Field of Specialization
Professor	TOGA Hirohisa	lung physiology, sleep disordered breathing.
Associate Professor	OSANAI Kazuhiro	lung cell and molecular biology, COPD.
Senior Assistant Professor	HUANG Jyongsu	lung physiology, sleep disordered breathing.
Senior Assistant Professor	IGUCHI Masaharu	clinical respiratory medicine, lung cancer.
Senior Assistant Professor	TAKAHASHI Masakatsu	clinical respiratory medicine, pulmonary tuberculosis.
Assistant Professor	TOBE Takeyasu	clinical respiratory medicine.
Assistant Professor	TSUCHIHARA Katsuma	clinical respiratory medicine, lung cancer.
Assistant Professor	OIKAWA Taku	clinical respiratory medicine, lung cancer.
Assistant Professor	NAKAGAWA Ken	clinical respiratory medicine, lung cancer.
Assistant Professor	FUJIMOTO Yuki	clinical respiratory medicine.
Assistant Professor	KOJIMA Koji	clinical respiratory medicine.
Assistant Professor	KOBAYASHI Makoto	lung inflammation.
Assistant Professor	SAITO Masatoshi	clinical respiratory medicine, sleep.

### Keywords of Research

acute lung injury, cytokine, matrix metalloproteinase, pulmonary alveolar type II cell, sleep apnea syndrome, acoustic reflection technique, lung cancer, apoptosis

### Outline of Research

1. Pathogenesis and therapy of acute lung injury
2. Cell biology of pulmonary alveolar epithelium
3. Pathogenesis and therapy of sleep-disordered breathing
4. Cell biology of lung cancer cells

### Publications

#### Originals

- 0310B001 K.Osanai, J.Higuchi, R.Oikawa, M.Kobayashi, K.Tsuchihara, M.Iguchi, J.Huang, D.R.Voelker, H.Toga: Altered lung surfactant system in a Rab38-deficient rat model of Hermansky-pudlak syndrome, *Am. J. Physiol. Lung Cell Mol. Physiol.*, 298:L243-L251, 2010.
- 0310B002 (M.Ichinose), K.Seyama, M.Nishimura, Y.Fukuchi, A.Nagai, M.Mishima, K.Kubo, H.Toga, Beta-2 Agonist Research and Evaluation Committee in COPD (BAREC) study group: Additive effects of transdermal tulobuterol to inhaled tiotropium in patients with COPD, *Respir Med.*, 104:267-274, 2010.
- 0310B003 (H.Kimura), H.Toga, M.Yamaya, M.Mishima, T.Nukiwa, S.Kudo: Current situations and issues in respiratory medicine in Japan, *JMAJ.*, 53:178-184, 2010.

- 0310B004 K.Usuda, M.Sagawa, H.Aikawa, M.Ueno, M.Tanaka, Y.Machida, K.Tsuchihara, K.Nakagawa, T.Sakuma: Lidocaine administration on the throat under amnesia improves patient satisfaction in flexible bronchoscopy, *The Journal of the Japan Society for Respiratory Endoscopy*, 32:409–415, 2010.
- 0310B005 K.Usuda, M.Sagawa, H.Aikawa, M.Ueno, M.Tanaka, Y.Machida, K.Tsuchihara, K.Nakagawa, T.Sakuma: Midazolam for sedation in bronchoscopic examination –a questionnaire on patient satisfaction–, *The Journal of the Japan Society for Respiratory Endoscopy*, 32:133–137, 2010 (in Japanese) .
- 0310B006 Y.Takahara: Involvement of aquaporin 1 and 5 overexpression in metastasis potential of human osteosarcoma, *J. Kanazawa. Med. Univ.*, 35:113–121, 2010 (in Japanese) .
- 0310B007 A.Yamaya: Peripheral airway resistance determined with airflow interruption during spontaneous breathing in patients with chronic obstructive pulmonary disease, *J. Kanazawa. Med. Univ.*, 35:141–151, 2010 (in Japanese) .

#### Reviews

- 0310C002 Y.Ueda, M.Shimasaki, Y.Machida, Y.Takahara, Y.Himi, Y.Ishigaki, K.Sato, T.Sakuma, H.Toga, S.Kawakami, S.Katsuda: Aquaporin as a novel player in cancer cell the invasion of cancer cells, *J. Kanazawa. Med. Univ.*, 35:55–60, 2010 (in Japanese) .

#### Others

- 0310F002 Y.Saito, K.Naruhashi, Y.Ikeda, A.Kubo, Y.Takahashi, K.Tsuchihara, K.Nishio: Validation of reducing initial dosage of carboplatin plus weekly paclitaxel for advanced non-small-cell lung cancer based on a voidance of adverse effects, *Japanese journal of pharmaceutical health care and sciences*, 36:493–501, 2010 (in Japanese) .

### Presentations at Conference

#### International Conference (Presentations)

- 0310I001 A.Yamaya, J.Huang, T.Fukunaga, S.Shinomiya, S.Kitadate, Y.Takahara, M.Saito, K.Kojima, Y.Fujimoto, T.Oikawa, K.Nakagawa, K.Tsuchihara, M.Iguchi, M.Takahashi, K.Osanai, H.Toga: Peripheral airway resistance determined with the interruption technique in COPD patients, *American Thoracic Society 2010 International Conference*, (New Orleans, '10.05), *Am. J. Respir. Crit. Care Med.*, 181:A2118, 2010.
- 0310I002 M.Saito, J.Huang, S.Shinomiya, S.Kitadate, Y.Takahara, A.Yamaya, K.Kojima, Y.Fujimoto, T.Oikawa, K.Nakagawa, T.Fukunaga, K.Tsuchihara, M.Iguchi, K.Osanai, H.Toga: Upper airway function assessed with negative expiratory pressure technique during wakefulness in patients with obstructive sleep apnea, *American Thoracic Society 2010 International Conference*, (New Orleans, '10.05), *Am. J. Respir. Crit. Care Med.*, 181:A2209, 2010.

## 0320 Department of Gastroenterology

### Faculty

Title	Name	Field of Specialization
Professor	ARISAWA Tomiyasu	Gastro-intestinal disorders.
Professor	TSUTSUMI Mikihiro	Mechanism of alcoholic liver disease.
Associate Professor	TSUCHISHIMA Mutsumi	Anti-viral therapy of viral hepatitis.
Senior Assistant Professor	SHIROEDA Hisakazu	Endoscopic therapy of early gastric cancer.
Senior Assistant Professor	OZAKI Kazuaki	Mechanism of portal hypertention in alcoholic liver injury.
Senior Assistant Professor	YANO Hirokazu	Clinico-epidemiology of alcoholic liver injury.
Assistant Professor	SHIROEDA Shoko	Clinical feature and treatment of severe acute pancreatitis.
Assistant Professor	FUKUMURA Atsushi	Etiology and clinical feature of acute hepatitis.
Assistant Professor	OTSUKA Toshimi	Clinico-pathological study of nonalcoholic steatohepatitis.
Assistant Professor	FUKUYAMA Tomoki	Chemotherapy for gastrointestinal malignant disease.
Assistant Professor(Additional Post)	SAITO Takashi	Treatment for metabolic syndrome.

### Keywords of Research

alcohol metabolism, alcoholic liver injury, carbohydrate deficient transferrin, cytochrome P4502E1, mitochondrial DNA mutation, hepatic fibrosis, hepatic stellate cell, hepatocyte apoptosis, chemical carcinogenesis, non-alcoholic steatohepatitis, FLS-ob mouse, metabolic syndrome, insuline resistance, leptin, adiponectin, oxidative stress, anti-oxidative enzyme, chronic type C hepatitis, HCV-RNA genotype, interferon therapy, chronic type B hepatitis, anti-viral treatment, treatment of hepatocellular carcinoma, radiofrequency ablation, arterial infusion therapy, early gastric cancer, endoscopic mucosal resection, endoscopic submucosal dissection, inflammatory bowel disease, ischemic colitis

### Outline of Research

- 1 Basic and clinical study of digestive disease
  - ①Treatment for esophageal and gastric varices associated with portal hypertension
  - ②Endoscopic treatment for early cancer of the esophagus, stomach and colon
  - ③Hepatic support system for severe alcoholic hepatitis
  - ④Clinical feature and treatment for nonalcoholic steatohepatitis
- 2 Experimental study of alcoholic organ injury
  - ①Pathogenesis and treatment for alcoholic hepatitis
  - ②Pathogenesis of hepatic fibrosis induced by alcohol
  - ③Effect of alcohol on chemical carcinogenesis of the liver
  - ④Pathogenesis for nonalcoholic steatohepatitis

## Publications

### Originals

- 0320B001 (T.Tahara), T.Shibata, T.Arisawa, M.Nakamura, H.Yamashita, D.Yoshioka, M.Okubo, J.Yonemura, Y.Maeda, N.Maruyama, T.Kamano, Y.Kamiya, H.Fujita, Y.Nakagawa, M.Nagasaka, M.Iwata, I.Hirata: CpG island promoter methylation (CIHM) status of tumor suppressor genes correlates with morphological appearances of gastric cancer, *Anticancer Res.*, 30:239-244, 2010.
- 0320B002 (T.Tahara), T.Shibata, M.Nakamura, H.Yamashita, D.Yoshioka, M.Okubo, J.Yonemura, Y.Maeda, N.Maruyama, T.Kamano, Y.Kamiya, H.Fujita, Y.Nakagawa, M.Nagasaka, M.Iwata, I.Hirata, T.Arisawa: Increased number of CpG island hypermethylation in tumor suppressor genes of non-neoplastic gastric mucosa correlates with higher risk of gastric cancer, *Digestion*, 82:27-36, 2010.
- 0320B003 (T.Tahara), T.Shibata, M.Nakamura, H.Yamashita, D.Yoshioka, I.Hirata, T.Arisawa: Homozygous TRPV1 315C influences the susceptibility to functional dyspepsia, *J. Clin. Gastroenterol.*, 44:e1-e7, 2010.
- 0320B004 (T.Tahara), T.Shibata, M.Nakamura, H.Yamashita, D.Yoshioka, M.Okubo, N.Maruyama, T.Kamano, Y.Kamiya, H.Fujita, M.Nagasaka, M.Iwata, K.Takahama, M.Watanabe, I.Hirata, T.Arisawa: Chronic aspirin use suppresses CDH1 methylation in human gastric mucosa, *Dig. Dis. Sci.*, 55:54-59, 2010.
- 0320B005 (T.Tahara), T.Shibata, M.Nakamura, H.Yamashita, D.Yoshioka, M.Okubo, J.Yonemura, Y.Maeda, N.Maruyama, T.Kamano, Y.Kamiya, H.Fujita, Y.Nakagawa, M.Nagasaka, M.Iwata, I.Hirata, T.Arisawa: Association between IL-17A, -17F and MIF polymorphisms predispose to CpG island hypermethylation in gastric cancer, *Int. J. Mol. Med.*, 25:471-477, 2010.
- 0320B006 H.Shiroeda, T.Tahara, M.Nakamura, T.Shibata, T.Nomura, H.Yamada, R.Hayashi, T.Saito, M.Yamada, T.Fukuyama, T.Otsuka, H.Yano, K.Ozaki, M.Tsuchishima, M.Tsutsumi, T.Arisawa: Association between functional promoter polymorphisms of macrophage migration inhibitory factor(MIF)gene and ulcerative colitis in Japan, *Cytokine.*, 51:173-177, 2010.
- 0320B007 (T.Tahara), T.Shibata, H.Yamashita, D.Yoshioka, I.Hirata, T.Arisawa: Promoter methylation status of multidrug resistance 1 (MDR1) gene in noncancerous gastric mucosa correlates with *Helicobacter Pylori* infection and gastric cancer occurrence, *Cancer Invest.*, 28:711-716, 2010.
- 0320B008 (T.Tahara), T.Shibata, F.Wang, H.Yamashita, I.Hirata, T.Arisawa: Genetic polymorphisms of molecules associated with innate immune responses, TRL2 and MBL2 genes in Japanese subjects with functional dyspepsia, *J. Clin. Biochem. Nutr.*, 47:217-223, 2010.
- 0320B009 (M.Okubo), T.Tahara, T.Shibata, H.Yamashita, M.Nakamura, D.Yoshioka, J.Yonemura, T.Ishizuka, T.Arisawa, I.Hirata: Association between common genetic variants in pre-microRNAs and gastric cancer risk in Japanese population, *Helicobacter.*, 15:524-531, 2010.
- 0320B010 (T.Tahara), T.Shibata, M.Nakamura, H.Yamashita, D.Yoshioka, M.Okubo, J.Yonemura, Y.Maeda, N.Maruyama, T.Kamano, Y.Kamiya, H.Fujita, Y.Nakagawa, M.Nagasaka, M.Iwata, I.Hirata, T.Arisawa: Association between cyclin D1 polymorphism with CpG island promoter methylation status of tumor suppressor genes in gastric cancer, *Dig. Dis. Sci.*, 55:3449-3457., 2010.
- 0320B011 H.Shiroeda, T.Tahara, M.Nakamura, T.Shibata, H.Yamada, T.Nomura, R.Hayashi, T.saito, T.Fukuyama, T.Otsuka, H.Yano, K.Ozaki, M.Tsuchishima, M.Tsutsumi, T.Arisawa: Functional promoter polymorphisms of macrophage migration inhibitory factor in peptic ulcer diseases, *Int. J. Mol. Med.*, 26:707-711, 2010.

### Reviews

- 0320C002 T.Arisawa, T.Tahara, M.Nakamura: A genetic background of ulcer diseases induced by NSAID/aspirin, *Japanese Journal of Clinical Medicine*, 68:2113-2118, 2010 (in Japanese) .

## Case Reports

- 0320D001 (T.Tahara), T.Shibata, M.Nakamura, H.Yamashita, D.Yoshioka, M.Okubo, N.Maruyama, T.Kamano, Y.Kamiya, Y.Nakagawa, H.Fujita, M.Nagasaka, M.Iwata, K.Takahama, M.Watanabe, T.Arisawa, I.Hirata: Gastrointestinal stromal tumor of the stomach with narrow stalk-like based, uneven protruding appearance presenting with severe acute anemia despite small size, *Case Rep Gastroenterol.*, 4:111-117, 2010.
- 0320D002 (M.Nakamura), T.Shibata, T.Tahara, D.Yoshioka, M.Okubo, Y.Mizoguchi, M.Kuroda, T.Arisawa, I.Hirata: The usefulness of magnifying endoscopy with narrow-band imaging to distinguish carcinoma in flat elevated lesions in the stomach diagnosed as adenoma by using biopsy samples, *Gastrointest. Endosc.*, 71:1070-1075, 2010.
- 0320D003 S.Siroeda, H.Siroeda, T.Ootsuka, M.Yamada, T.Fukuyama, T.Saito, R.Hayashi, T.Nomura, H.Yano, K.Ozaki, T.Arisawa, M.Yokoi, T.Kosaka, M.Tsutsumi: A case of jejunal GIST diagnosed by double-balloon endoscopy, *Endosc. Forum digest. dis.*, 26:44-49, 2010 (in Japanese) .

## Short Communications

- 0320E001 (T.Shibata), T.Tahara, J.Yonemura, M.Okubo, D.Yoshioka, M.Nakamura, T.Ishizuka, T.Arisawa, I.Hirata: The G-protein  $\beta 3$  polymorphism is associated with diffuse type gastric cancer in Japanese, *Asian Pac. J. Cancer Prev.*, 11:1195-1199, 2010.

## Others

- 0320F001 (T.Tahara), T.Shibata, M.Nakamura, M.Okubo, D.Yoshioka, T.Arisawa, I.Hirata.: The mucosal pattern in the non-neoplastic gastric mucosa by using magnifying narrow-band imaging endoscopy significantly correlates with gastric cancer risk, *Gastrointest. Endosc.*, 71:429-430, 2010.

## Presentations at Conference

### International Conference (Presentations)

- 0320I001 A.Nakagawa, N.Imaizumi, M.Nishizawa, K.Uehara, T.Fukuyama, T.Arisawa, K.Ishikura, T.Takamura, S.Kaneko, D.Koya: Gene expressions of proprotein convertase4 and furin in tumors causing non-islet cell tumor hypoglycemia, 14th International Congress of Endocrinology, (Kyoto, '10.03), *Endocrine Journal* (14th International Congress of Endocrinology Program & Abstracts), 57(Suppl.2):S584, 2010.
- 0320I002 (T.Tahara), T.Shibata, M.Nakamura, M.Okubo, D.Yoshioka, Y.Nakagawa, M.Iwata, M.Nagasaka, T.Arisawa, I.Hirata: Increased number of CpG islands hyper methylation(CIHM)of tumor suppressor genes in non-neoplastic gastric mucosa correlates with higher risk of gastric cancer(GC)including its various clinico-pathological subtypes, *Digestive Disease Week 2010*, (New Orleans, '10.05).
- 0320I003 (M.Okubo), T.Tahara, T.Shibata, M.Nakamura, D.Yoshioka, T.Arisawa, I.Hirata: Change in gastric mucosal patterns seen by magnifying NBI endoscopy during H.pylori eradication, *Digestive Disease Week 2010*, (New Orleans, '10.05).
- 0320I004 (T.Shibata), T.Tahara, T.Arisawa, I.Hirata: The associations of polymorphisms of inflammatory genes and mechanisms of functional dyspepsia, *Digestive Disease Week 2010*, (New Orleans, '10.05).
- 0320I005 (M.Nakamura), T.Shibata, T.Tahara, T.Arisawa, I.Hirata: Usefulness of transnasal endoscopy in areas where endoscopic submucosal dissection is problematic, *Digestive Disease Week 2010*, (New Orleans, '10.05).
- 0320I006 (M.Nakamura), T.Shibata, T.Tahara, T.Arisawa, I.Hirata: The effect of PPI-Short term treatment with anti ulcer drug for cost performance and improvement of ESD-derived artificial ulcer, *Asian Pacific Digestive Week*, (Malaysia, '10.09).
- 0320I007 (M.Nakamura), T.Shibata, T.Tahara, T.Arisawa, I.Hirata: Usefulness of transnasal endoscopy where endoscopic submucosal dissection is problematic, *Asian Pacific Digestive Week*, (Malaysia, '10.09).



0320I008 J.George, M.Tsutsumi, J.D'Armiento: MMP-13 deletion attenuates N-nitrosodimethylamine induced hepatic fibrosis in mice, American Association for the Study of Liver Diseases 2010, (Boston, '10.11).

## 0330 Department of Nephrology

### Faculty

Title	Name	Field of Specialization
Professor	YOKOYAMA Hitoshi	Clinicopathological study of nephritic and nephrotic syndrome, Clinical study of blood purification, Clinicopathological study of renal transplantation.
Professor(Additional Post)	TOMOSUGI Naohisa	Proteomics in clinical nephrology.
Associate Professor	ASAKA Mitsuhiro	Cellular immunity in uremia, Clinicopathological study of primary nonfunction and chronic allograft nephropathy in renal transplantation.
Senior Assistant Professor	YAMAYA Hideki	Clinical nephrology.
Senior Assistant Professor	OKUYAMA Hiroshi	Clinical nephrology.
Assistant Professor	ADACHI Hiroki	Clinical nephrology.
Assistant Professor	CHIKAZAWA Yoshihiro	Clinical nephrology.
Assistant Professor	NAKAGAWA Masaru	Clinical nephrology.
Assistant Professor	HAYAMA Satoshi	Clinical nephrology.
Assistant Professor	ATSUMI Hirokatsu	Clinical nephrology.
Assistant Professor	IMURA Junko	Clinical nephrology.
Assistant Professor	FUJIMOTO Keiji	Clinical nephrology.
Assistant Professor	KIMURA Shogo	Clinical nephrology.

### Keywords of Research

acquired renal cystic disease, CT scan, renal cell carcinoma, dialysis patient, cytogenetics, chromosome, PCR, karyotype, metalloproteinase, mesangial cell, renal disease, hemodialysis, hematuria, proteinuria, ADPKD, renal transplantation, hyperuricemia, nephrotic syndrome, hyperparathyroidism, bone disease, imaging, RCC, cystic disease, chronic renal failure, survival, IgA, glomerulonephritis, acute renal failure, vitamin D, CAPD

### Outline of Research

We performed the clinicopathological studies of nephritic and nephrotic syndrome, especially in human lupus nephritis. We confirmed the usefulness of ISN/RPS 2003 lupus nephritis classification in the long-term followed cohort analysis. We also analyzed the genetic backgrounds of familial focal segmental glomerulosclerosis (FSGS), and studied the early remission induction therapy of minimal change nephrotic syndrome and FSGS. In the fields of renal transplantation, we analyzed primary non-functioning kidneys and patients with chronic allograft nephropathy. As concern to chronic kidney diseases (CKD), we revealed the CKD population in Ishikawa Prefecture based on the health check program of general population. As the application of proteomics analyses, we studied the uremic toxins and iron metabolism, especially hepcidin, in chronic renal failure of both human and animal models. We applied blood purification and proteomics techniques in some co-ordinal works of various research fields.

## Publications

### Originals

- 0330B001 (M.Matsumoto), T.Tsujino, Masaaki Lee-Kawabata, Y.Naito, H.Akahori, T.Sakoda, M.Ohyanagi, N.Tomosugi, T.Masuyama: Iron regulatory hormone hepcidin decreases in chronic heart failure patients with anemia, *Circ. J.*, 74:301-306, 2010.
- 0330B002 (M.Hashizume), Y.Uchiyama, N.Horai, N.Tomosugi, M.Mihara: Tocilizumab, a humanized anti-interleukin-6 receptor antibody, improved anemia in monkey arthritis by suppressing IL-6-induced hepcidin production, *Rheumatol. Int.*, 30:917-923, 2010.
- 0330B003 (Y.Kaneko), H.Miyajima, A.Piperno, N.Tomosugi, H.Hayashi, N.Morotomi, K.Tsuchida, T.Ikeda, A.Ishikawa, Y.Ota, S.Wakusawa, K.Yoshioka, S.Kono, S.Pelucchi, A.Hattori, Y.Tatsumi, T.Okada, M.Yamagishi: Measurement of serum hepcidin-25 levels as a potential test for diagnosing hemochromatosis and related disorders, *J. Gastroenterol.*, 45:1163-1171, 2010.
- 0330B004 (S.Kono), K.Yoshida, N.Tomosugi, T.Terada, Y.Hamaya, S.Kanaoka, H.Mitajima: Biological effects of mutant ceruloplasmin on hepcidin-mediated internalization of ferroportin, *Biochim. Biophys. Acta*, 1802:968-975, 2010.
- 0330B005 (S.Nakazawa J.Song), N.Tomosugi, H.Kawabata, T.Ishikawa, T.Nishikawa, K.Yoshizaki: Down-regulation of hepcidin resulting from long-term treatment with an anti-IL-6 receptor antibody (tocilizumab) improves anemia of inflammation in multicentric Castleman disease, *Blood*, 116:3627-3634, 2010.
- 0330B006 (H.Hayashi), A.Piperno, N.Tomosugi, K.Hayashi, F.Kimura, S.Wakusawa, M.Yano, Y.Tatsumi, A.Hattori, S.Pelucchi, Y.Katano, H.Goto: Patients with chronic hepatitis C may be more sensitive to iron hepatotoxicity than patients with HFE-hemochromatosis, *Intern. Med.*, 49:2371-2377, 2010.
- 0330B007 (T.Kosuge), T.Sawada, M.Shimoda, J.Kita, N.Tomosugi, K.Kubota: Increased hepcidin production impairs iron metabolism after pancreatoduodenectomy, *World J Surg.*, 34:2452-2456, 2010.
- 0330B008 Y.Ishigaki, T.Kurihara, Y.Nakamura, X.Zhao, T.Takata, S.Izumi, T.Takegami, N.Tomosugi, H.Nakagawa: Ultrastructural localization of Upf2 and its binding to mRNA molecules in human cells, *Journal of Electron Microscopy Technology for Medicine and Biology*, 24:8-13, 2010.
- 0330B009 A.Saito, Y.Matsumoto, Y.Oyama, M.Asaka, H.Yokoyama: Effectiveness of weekly percutaneous maxacalcitol injection therapy in patients with secondary hyperparathyroidism, *Ther Apher Dial*, 14:98-103, 2010.
- 0330B010 (I.Ishikawa), S.Hayama, K.Morita, T.Nakazawa, H.Yokoyama, R.Honda, K.Satoh, T.Kakuma: Long-term natural history of acquired cystic disease of the kidney, *Ther Apher Dial*, 14:409-416, 2010.
- 0330B011 S.Kimura: A new insight into circulating fibrocytes in human renal allograft fibrosis, *J. Kanazawa. Med. Univ.*, 35:106-112, 2010 (in Japanese) .

### Case Reports

- 0330D001 H.Atsumi, M.Asaka, S.Kimura, J.Imura, K.Fujimoto, Y.Chikazawa, M.Nakagawa, H.Okuyama, H.Yamaya, M.Moriyama, T.Tanaka, K.Suzuki, H.Yokoyama: A case of second renal transplantation with acute antibody-mediated rejection complicated with BK virus nephropathy, *Clin. Transplant.*, 24:35-38, 2010.

## Presentations at Conference

### International Conference (Key Note Lecture)

- 0330G001 H.Yokoyama: 2010 Report of J-RBR(Japan Renal Biopsy Registry) and J-KDR(Japan Kidney Disease Registry)-Data base for clinicopathological studies constructed by the Japanese Society of Nephrology, The 4th Research Forum on Chronic Kidney Disease, (Nagoya, '10.02).

### International Conference (Symposium)

- 0330H001 H.Yokoyama: Non-immunological factors and non-classical HLA class I in chronic allograft injury(CAI), Scientific Joint Meeting 2010, (Uchinada, '10.05).
- 0330H002 T.Shimasaki, Y.Ishigaki, T.Takata, Y.Nakamura, A.Kitano, K.Kawakami, N.Tomosugi, T.Minamoto, Y.Motoo: Effect of GSK3  $\beta$  inhibition against Gemcitabine-induced epithelial-mesenchymal transition and invasive ability of pancreatic cancer cells: its therapeutic implication, Joint Meeting of the International Association of Pancreatology and the Japan Pancreas Society 2010, (Fukuoka, '10.07), Pancreas, 25:291, 2010.

### International Conference (Presentations)

- 0330I001 H.Yamaya, H.Adachi, S.Kimura, M.Asaka, H.Yokoyama: Statins and lower LDL-C/HDL-C ratio preserved the function of transplanted kidneys under controlled blood pressure, The kidney and the vascular system:emerging culprits in pathogenesis and advances in therapy, (Kyoto, '10.04).
- 0330I002 (A.Nakagawa), K.Yamamoto, H.Sako, T.Yoshimoto, K.Hara, S.Urashima, S.Kawaguchi, S.Nakano, D.Koya, H.Yokoyama: The effects of a vitamin micrnutrient bebeverage (VCRESC) on end stage renal failure (ESKD) patients vitamin and homocysteine (Hcy) values after long term consumption, it is a case report, The kidney and the vascular system:emerging culprits in pathogenesis and advances in therapy, (Kyoto, '10.04).
- 0330I003 A.Nakagawa, K.Yamamoto, H.Sako, T.Yoshimoto, K.Hara, S.Urashima, S.Kawaguchi, S.Nakano, D.Koya, H.Yokoyama: The effects of a vitamin micrnutruent bebeverage (VCRESC) on end stage renal failure (ESKD) paitient vitamin and homocysteine (Hcy) values after long term consumption, it is a case report, Kidney and Vascular System: Emerging Culprits in Pathogenesis and Advances in Therapy, (Kyoto, '10.04), Kidney and Vascular System: Emerging Culprits in Pathogenesis and Advances in Therapy Final (Program & book of abstracts), 167, 2010.

## 0340 Department of Endocrinology and Metabolism

### Faculty

Title	Name	Field of Specialization
Professor	KOYA Daisuke	diabetes, hypertension, obesity, aging.
Associate Professor	NAKAGAWA Atsushi	diabetes, pituitary diseases.
Associate Professor	NISHIZAWA Makoto	diabetes, insulin secretion, thyroid diseases.
Senior Assistant Professor	KONISHI Kazunori	diabetes, arteriosclerosis.
Senior Assistant Professor	TSUDA Shinichi	diabetes, hypertension, arteriosclerosis.
Assistant Professor	ITO Hiroki	adrenal diseases, diabetes, thyroid diseases.
Assistant Professor	IMAIZUMI Noriko	diabetes.
Assistant Professor	FURUYA Keisuke	diabetes, thyroid diseases.
Assistant Professor	KITADA Munehiro	diabetes, diabetical renal disease, hypertension.
Assistant Professor	ASTUMI Hisanari	diabetes.

### Keywords of Research

diabetic nephropathy, diabetic retinopathy, diabetic neuropathy, obesity, aldosterone, adrenal zona glomerulosa, transmembrane signaling mechanism, angiotensin, protein kinase C, blood pressure, ambulatory blood pressure monitoring, hypertension, autonomic dysfunction, microalbuminuria, insulin resistance, incretin, entero-insular axis, mitochondrial gene mutation, renin, Type 2 diabetes, artificial pancreas, selective hypoaldosteronism, Basedows disease, thyroid tumor, chronic thyroiditis, glucose metabolism, endothelial function, nitric oxide, hyperlipidemia, antihypertensive therapy

### Outline of Research

We study the relationship between intracellular oxidative stress and an anti-aging substance SIRT1 under diabetic conditions. SIRT1, an enzyme relating to the anti-aging effect of calorie restriction, was shown to inhibit oxidative stress-induced apoptosis of renal mesangial cells in vitro. At present, using diabetic animals, we investigate expressions of SIRT1 under various conditions of oxidative stress and prevention effects of over-expression of SIRT1 against diabetic complications.

Our clinical researches of the relation between the diurnal pattern of blood pressure and cardiovascular events among diabetics are highly evaluated because of the long-term prospective observation. Recently, we have also focused on the metabolic syndrome and blood pressure pattern to find out the participation of adiponectin.

We also study the abdominal vagal afferent signals sensing gut hormones, which are pivotal for postprandial glucose homeostasis.

### Publications

#### Originals

- 0340B001 (K.Shikata), M.Haneda, D.Koya, Y.Suzuki, Y.Tomino, K.Yamada, S.Maeda, N.Kawakami, T.Uzu, M.Nishimura, C.Sato, D.Ogawa, H.Makino: Diabetic nephropathy remission and regression team trial in Japan (DNETT-Japan): rationale and study design, *Diabetes Res. Clin. Pract.*, 87:228-232, 2010.
- 0340B002 (J.Nakazawa), K.Isshiki, T.Sugimoto, S.Araki, S.Kume, Y.Yokomaku, M.C.Kanasaki, M.Sakaguchi, D.Koya, M.Haneda, A.Kashiwagi, T.Uzu: Renoprotective effects of asialoerythropoietin in diabetic mice against ischaemia-reperfusion-induced acute kidney injury, *Nephrology (Carlton)*, 15:93-101, 2010.

- 0340B003 (S.Kume), T.Uzu, K.Horiike, M.C.Kanasaki, K.Isshiki, S.Araki, T.Sugimoto, M.Haneda, A.Kashiwagi, D.Koya: Calorie restriction enhances cell adaptation to hypoxia through Sirt1-dependent mitochondrial autophagy in mouse aged kidney, *J. Clin. Invest.*, 120:1043–1055, 2010.
- 0340B004 (K.Yamagata), H.Makino, T.Akizawa, K.Iseki, S.Itoh, K.Kimura, D.Koya, I.Narita, T.Mitarai, M.Miyazaki, Y.Tsubakihara, T.Watanabe, T.Wada, O.Sakai: Design and methods of a strategic outcome study for chronic kidney disease: frontier of renal outcome modifications in Japan, *Clin. Exp. Nephrol.*, 14:144–151, 2010.
- 0340B005 (S.Araki), M.Haneda, D.Koya, K.Isshiki, S.Kume, T.Sugimoto, H.Kawai, Y.Nishio, A.Kashiwagi, T.Uzu, H.Maegawa: Association between urinary type IV collagen level and deterioration of renal function in type 2 diabetic patients without overt proteinuria, *Diabetes Care.*, 33:1805–1810, 2010.
- 0340B006 (M.Kikuchi), M.Haneda, D.Koya, K.Tobe, Y.Onishi, A.Couturier, N.Mimori, Y.Inaba, M.Goodman: Efficacy and tolerability of vildagliptin as an add-on to glimepiride in Japanese patients with type 2 diabetes mellitus, *Diabetes Res. Clin. Pract.*, 89:216–223, 2010.
- 0340B007 (M.Soumura), S.Kume, K.Isshiki, N.Takeda, S.Araki, Y.Tanaka, T.Sugimoto, M.C.Kanasaki, Y.Nishio, M.Haneda, D.Koya, A.Kashiwagi, H.Maegawa, T.Uzu: Oleate and eicosapentaenoic acid attenuate palmitate-induced inflammation and apoptosis in renal proximal tubular cell, *Biochem. Biophys. Res. Commun.*, 402:265–271, 2010.

### Reviews

- 0340C001 M.Kitada, Z.Zhang, A.Mima, G.L.King: Molecular mechanisms of diabetic vascular complications, *JDI.*, 1:77–89, 2010.
- 0340C002 (S.Kume), T.Uzu, A.Kashiwagi, D.Koya: SIRT1, a calorie restriction mimetic, in a new therapeutic approach for type 2 diabetes mellitus and diabetic vascular complications, *Endocr. Metab. Immune Disord. Drug Targets*, 10:16–24, 2010.
- 0340C003 F.Liang, D.Koya: Acupuncture: is it effective for treatment of insulin resistance?, *Diabetes Obes Metab.*, 12:555–569, 2010.

### Case Reports

- 0340D001 K.Konishi, A.Saito, K.Ishigami, M.Fukura, M.Hasegawa, N.Yamashita, T.Kanda, T.Ito, T.Kigoshi, Y.Izumi, N.Takekoshi: Hypoglycemia in elderly diabetes mellitus-free patients: Case reports and a review of literature, *J. Kanazawa. Med. Univ.*, 35:13–15, 2010.
- 0340D002 K.Ishigami, N.Yamashita, K.Konishi, A.Saito, M.Fukura, M.Hasegawa, T.Kanda, T.Ito, T.Kigoshi, Y.Izumi, N.Takekoshi: Hypernatremia, rhabdomyolysis and acute renal failure, *J. Kanazawa. Med. Univ.*, 35:68–69, 2010.

### Others

- 0340F001 (J.A.Baur), D.Chen, E.N.Chini, K.Chua, H.Y.Cohen, R.de Cabo, C.Deng, S.Dimmeler, D.Gius, L.P.Guarente, S.L.Helfand, S.Imai, H.Itoh, T.Kadowaki, D.Koya, C.Leeuwenburgh, M.McBurney, Y.Nabeshima, C.Neri, P.Oberdoerffer, R.G.Pestell, B.Rogina, J.Sadoshima, V.Sartorelli, M.Serrano, D.A.Sinclair, C.Steegborn, M.Tatar, H.A.Tissenbaum, Q.Tong: Dietary restriction: standing up for sirtuins, *Science (80- )*, 329:1012–1013, 2010.

## Presentations at Conference

### International Conference (Presentations)

- 0340I001 O.Tachibana, Y.Sasagawa, K.Torigoe, S.Siraga, K.Yamamoto, K.Okamoto, T.Iida, T.Akai, H.Iizuka, A.Nakagawa, D.Koya: Inflammatory cytokines from Rathke cleft cysts are possible inducers of secondary hypophysitis, 14th International Congress of Endocrinology, (Kyoto, '10.03), *Endocrine Journal (14th International Congress of Endocrinology Program & Abstracts)*, 57(Suppl.2):S507, 2010.

- 0340I002 D.Koya, S.Kume, E.Kobori: Effectiveness of calorie restriction on ameliorating diabetic nephropathy possibly through its anti-inflammatory action, 14th International Congress of Endocrinology, (Kyoto, '10.03), Endocrine Journal (14th International Congress of Endocrinology Program & Abstracts), 57(Suppl.2):S563, 2010.
- 0340I003 A.Nakagawa, N.Imaizumi, M.Nishizawa, K.Uehara, T.Fukuyama, T.Arisawa, K.Ishikura, T.Takamura, S.Kaneko, D.Koya: Gene expressions of proprotein convertase4 and furin in tumors causing non-islet cell tumor hypoglycemia, 14th International Congress of Endocrinology, (Kyoto, '10.03), Endocrine Journal (14th International Congress of Endocrinology Program & Abstracts), 57(Suppl.2):S584, 2010.
- 0340I004 O.Tachibana, Y.Sasagawa, K.Torigoe, K.Yamamoto, S.Siraga, K.Okamoto, T.Akai, H.Iizuka, A.Nakagawa, D.Koya: Expression of interleukin-1  $\beta$ , interleukin-6, interleukin-12p40 and TNF  $\alpha$  in human Rathke cleft cysts-A possible inducer of secondary hypophysitis associated with Rathke cleft cyst-, 14th International Congress of Endocrinology, (Kyoto, '10.03).
- 0340I005 D.Koya, K.Shikata, H.Makino: Diabetic nephropathy remission and remission team trial in Japan (DNETT-Japan), 3rd Korea-Japan-China Kidney conference, (Korea, '10.03)
- 0340I006 (A.Nakagawa), K.Yamamoto, H.Sako, T.Yoshimoto, K.Hara, S.Urashima, S.Kawaguchi, S.Nakano, D.Koya, H.Yokoyama: The effects of a vitamin micronutrient beverage (VCRESC) on end stage renal failure (ESKD) patients vitamin and homocysteine (Hcy) values after long term consumption, it is a case report, The kidney and the vascular system:emerging culprits in pathogenesis and advances in therapy, (Kyoto, '10.04).
- 0340I007 (S.Kume), T.Uzu, S.Araki, M.Haneda, D.Koya: Calorie restriction enhances cell adaptation to hypoxia through Sirt1-dependent mitochondrial autophagy in mouse aged kidney, Kidney and Vascular System: Emerging Culprits in Pathogenesis and Advances in Therapy, (Kyoto, '10.04), Kidney and Vascular System: Emerging Culprits in Pathogenesis and Advances in Therapy Final (Program & book of abstracts), 120, 2010.
- 0340I008 (S.Araki), M.Haneda, D.Koya, A.Kashiwagi, H.Maegawa, T.Uzu: Increased urinary typeIV collagen level predicts a deterioration of renal function in type2 diabetic patients without overt proteinuria, Kidney and Vascular System: Emerging Culprits in Pathogenesis and Advances in Therapy, (Kyoto, '10.04), Kidney and Vascular System: Emerging Culprits in Pathogenesis and Advances in Therapy Final (Program & book of abstracts), 144, 2010.
- 0340I009 A.Nakagawa, K.Yamamoto, H.Sako, T.Yoshimoto, K.Hara, S.Urashima, S.Kawaguchi, S.Nakano, D.Koya, H.Yokoyama: The effects of a vitamin micronutrient beverage (VCRESC) on end stage renal failure (ESKD) patient vitamin and homocysteine (Hcy) values after long term consumption, it is a case report, Kidney and Vascular System: Emerging Culprits in Pathogenesis and Advances in Therapy, (Kyoto, '10.04), Kidney and Vascular System: Emerging Culprits in Pathogenesis and Advances in Therapy Final (Program & book of abstracts), 167, 2010.

## 0350 Department of Hematology and Immunology

### Faculty

Title	Name	Field of Specialization
Professor	UMEHARA Hisanori	Hematology and Immunology.
Associate Professor	FUKUSHIMA Toshihiro	Hematology and Immunology, Clinical Pharmacology.
Associate Professor	MASAKI Yasufumi	Hematology and Immunology, Transfusion Medicine.
Associate Professor	TANAKA Masao	Rheumatology, Immunology.
Senior Assistant Professor	FUJITA Yoshimasa	Rheumatology, Immunology.
Assistant Professor	SAWAKI Toshioki	Hematology and Immunology.
Assistant Professor	KAWANAMI Takafumi	Hematology and Immunology.
Assistant Professor	JIN Zhexiong	Immunology.
Assistant Professor	SAKAI Tomoyuki	Hematology and Immunology.
Research Doctor	MIKI Miyuki	Hematology and Immunology.

### Keywords of Research

autoimmune disorder, Sjögren's syndrome, malignant lymphoma, bone marrow transplantation, monoclonal lymphoproliferation, EB virus and tumorigenesis, stem cell, chemotherapy, leukemia cell line, apoptosis, chemokines, lipid raft, signal transduction, fractalkine, adhesion molecule, rheumatoid arthritis, systemic lupus erythematosus

### Outline of Research

We practice the translational research to develop the new anti-cancer or immunosuppressive drugs through basic research in the fields of Hematology and Immunology.

A) Studies of immunological abnormalities and pathophysiology of autoimmune diseases: 1) Effects of chemokines on vascular injury and Th1 response during chronic inflammation. 2) Function of microdomain (lipid rafts) on lymphocyte activation and its contribution in autoimmune diseases. 3) Analysis of immunological disorder in sphingomyelin knockout mice. 4) Discovery and functional analysis of the new auto-antigens in rheumatoid arthritis. 5) Detection of stem cells in salivary glands and its implication for regenerative medicine.

B) Studies of hematological malignancies and development of anti-cancer drugs. 1) Analysis of EB-virus proteins and their roles in lymphoproliferative disorders. 2) Molecular biological analysis of drug resistance. 3) Roles of sphingomyelin on apoptosis.

### Publications

#### Originals

- 0350B001 (E.Lafont), D.Milhas, S.Carpentier, V.Garcia, Z.Jin, H.Umehara, T.Okazaki, K.Schulze-Osthoff, T.Levade, H.Benoist, B.Segui: Caspase-mediated inhibition of sphingomyelin synthesis is involved in FasL-triggered cell death, *Cell Death Differ.*, 17:642-654, 2010.
- 0350B002 (K.Shimada), T.Murase, K.Matsue, M.Okamoto, N.Ichikawa, N.Tsukamoto, N.Niitsu, H.Miwa, H.Asaoku, H.Kosugi, A.Kikuchi, M.Matsumoto, Y.Saburi, Y.Masaki, K.Yamamoto, M.Yamaguchi, S.Nakamura, T.Naoe, T.Kinoshita: Central nervous system involvement in intravascular large B-cell lymphoma: a retrospective analysis of 109 patients, *Cancer Sci.*, 101:1480-1486, 2010.



- 0350B003 Y.Jiang, Z.Jin, H.Umehara, T.Ota: Cholesterol-dependent induction of dendrite formation by ginsenoside Rh2 in cultured melanoma cells, *Int. J. Mol. Med.*, 26: 787–793, 2010.
- 0350B004 (T.Sato), T.Fujii, T.Yokoyama, Y.Fujita, Y.Imura, N.Yukawa, D.Kawabata, T.Noijima, K.Ohmura, T.Usui, T.Mimori: Anti-U1 RNP antibodies in cerebrospinal fluid are associated with central neuropsychiatric manifestations in systemic lupus erythematosus and mixed connective tissue disease, *Arthritis Rheum*, 62:3730–3740, 2010.
- 0350B005 H.Nakajima, Y.Ishigaki, QI-S.Xia, T.Ikeda, Y.Yoshitake, H.Yonekura, T.Noijima, T.Tanaka, H.Umehara, N.Tomosugi, T.Takata, T.Shimasaki, N.Nakaya, I.Sato, K.Kawakami, K.Koizumi, T.Minamoto, Y.Motoo: Induction of HITS, a newly identified family with sequence similarity 107 protein (FAM107B), in cancer cells by heat shock stimulation, *Int. J. Oncol.*, 37:583–593, 2010.
- 0350B006 C.Huang, Z.Jin, L.Dong, X.Tong, S.Yue, T.Kawanami, T.Sawaki, T.Sakai, M.Miki, H.Iwao, A.Nakajima, Y.Masaki, Y.Fukushima, M.Tanaka, Y.Fujita, H.Nakajima, T.Okazaki, H.Umehara: Cisplatin augments FAS-mediated apoptosis through lipid rafts, *Anticancer Res.*, 30:2065–2072, 2010.
- 0350B007 Y.Cao, Z.Jin, X.Tong, S.Yue, T.Sakai, T.Kawanami, T.Sawaki, M.Miki, H.Iwao, A.Nakajima, Y.Masaki, Y.Fukushima, Y.Fujita, H.Nakajima, T.Okazaki, H.Umehara: Synergistic effects of topoisomerase I inhibitor, SN38, on Fas-mediated apoptosis, *Anticancer Res.*, 30:3911–3918, 2010.
- 0350B008 (Y.Takamatsu), K.Sunami, H.Hata, K.Nagafuji, I.Choi, M.Higuchi, K.Uozumi, Y.Masaki, K.Tamura: A phase I study of bortezomib in combination with doxorubicin and intermediate-dose dexamethasone (iPAD therapy) for relapsed or refractory multiple myeloma, *Int. J. Hematol.*, 92:503–509, 2010.
- 0350B009 M.Tanaka, K.Murakami, S.Ozaki, Y.Imura, X.Tong, T.Watanabe, T.Sawaki, T.Kawanami, D.Kawabata, T.Fujii, T.Usui, Y.Masaki, T.Fukushima, Z.Jin, H.Umehara, T.Mimori: DIP2 disco-interacting protein 2 homolog A (*Drosophila*) is a candidate receptor for follistatin-related protein/follistatin-like 1 – analysis of their binding with TGF- $\beta$  superfamily proteins, *FEBS J.*, 277:4278–4289, 2010.
- 0350B010 (T.Saeki), S.Nishi, N.Imai, T.Ito, H.Yamazaki, M.Kawano, M.Yamamoto, H.Takahashi, S.Matsui, S.Nakada, T.Origuchi, A.Hirabayashi, N.Homma, Y.Tsubata, T.Takata, Y.Wada, A.Saito, S.Fukase, K.Ishioka, K.Miyazaki, Y.Masaki, H.Umehara, S.Sugai, I.Narita: Clinicopathological characteristics of patients with IgG4-related tubulointerstitial nephritis, *Kidney Int.*, 78:1016–1023, 2010.
- 0350B011 (Y.Sato), M.Kojima, K.Takata, T.Morito, K.Mizobuchi, T.Tanaka, D.Inoue, H.Shioimi, H.Iwao, T.Yoshino: Multicentric castlemans’ disease with abundant IgG4-positive cells: a clinical and pathological analysis of six cases, *J. Clin. Pathol.*, 63:1084–1089, 2010.
- 0350B012 A.Nakajima: Transcriptome analysis of IgG4-related disease, *J. Kanazawa. Med. Univ.*, 35:89–96, 2010 (in Japanese) .
- 0350B013 H.Iwao: Proteomics analysis in IgG4-related disease, *J. Kanazawa. Med. Univ.*, 35:131–139, 2010 (in Japanese) .
- 0350B014 M.Miki: DNaseI activity in patients with systemic lupus erythematosus(SLE), *J. Kanazawa. Med. Univ.*, 35:159–165, 2010 (in Japanese) .

## Reviews

- 0350C001 (Y.Sato), K.Notohara, M.Kojima, K.Takata, Y.Masaki, T.Yoshino: IgG4-related disease:historical overview and pathology of hematological disorders, *Pathol. Int.*, 60:247–258, 2010.
- 0350C002 Y.Masaki, S.Sugai, H.Umehara: IgG4-related diseases including Mikulicz’s disease and sclerosing pancreatitis: diagnostic insights, *J. Rheumatol.*, 37:1380–1385, 2010.

## Case Reports

- 0350D001 M.Matoba, K.Oota, H.Tonami, Y.Masaki, T.Sakai, H.Umehara: Palliative radiotherapy with 1 x 8 Gy using conformal radiotherapy for chemotherapy-refractory, recurrent, aggressive lymphomas, *Jpn. J. Radiol.*, 28:220–223, 2010.

- 0350D002 T.Fukushima, T.Nakamura, M.Miki, T.Sakai, H.Iwao, A.Nakajima, T.Sawaki, Y.Fujita, M.Tanaka, Y.Masaki, Y.Hirose, H.Umehara: Complete response obtained by bortezomib plus dexamethasone in a patient with relapsed multiple myeloma with multiple plasmacytomas, *Anticancer Res.*, 30:3791–3794, 2010.
- 0350D003 M.miki, Y.Masaki, T.Nakamura, H.Iwao, A.Nakajima, T.Sakai, T.Sawaki, T.Kawanami, M.Kaito, N.Kurose, Y.Fujita, M.Tanaka, T.Fukushima, Y.Hirose, H.Umehara: Primary neurolymphomatosis of the cervical nerve root, *The Japanese Journal of Clinical Hematology*, 51:564–567, 2010 (in Japanese) .

## **Presentations at Conference**

### **International Conference (Presentations)**

- 0350I001 H.Umehara, L.Dong, K.Watanabe, T.Okazaki: Impaired T cell functions in SMS1–knock out mice, 14th International congress of immunology, (Kobe, '10.08).
- 0350I002 Y.Fujita, H.Yamagiwa, T.Mimori, H.Umehara: Leptin protects B lymphocytes from starvation–induced apoptosis, 14th International congress of immunology, (Kobe, '10.08).
- 0350I003 T.Kawanami, T.Sawaki, T.Sakai, H.Iwao, A.Nakajima, M.Miki, Z.Jin, Y.Fujita, M.Tanaka, Y.Masaki, T.Fukushima, H.Umehara: Identification of human salivary stem cells from cultured labial minor salivary cells, 14th International congress of immunology, (Kobe, '10.08).

## 0360 Department of Neurology

### Faculty

Title	Name	Field of Specialization
Professor	MATSUI Makoto	Clinical neurology, Neuroimmunology, Clinical Immunology.
Professor	TANAKA Keiko	Clinical neurology, Neuroimmunology.
Senior Assistant Professor	NAGAYAMA Shigemi	Clinical neurology, Neuroimmunology.
Senior Assistant Professor	KAWAMURA Kazuyuki	Clinical neurology, Neuroimmunology.
Assistant Professor	NAKANISHI Megumi	Clinical neurology, Neuroimmunology.
Assistant Professor	GONDO Yuichiro	Clinical neurology.
Assistant Professor	NAKATA Michiyo	Clinical neurology.
Research Associate	INADA Hiroyuki	Applied animal science.
Research Doctor	HASHIBA Naomi	Clinical neurology.

### Keywords of Research

clinical neurophysiology, epilepsy, apoptosis, cerebrovascular diseases, neuropathies, molecular genetics, ischemic strokes, autoantibody, neuroimmunology, neuroinfection, experimental autoimmune encephalomyelitis

### Outline of Research

Development of new therapeutic strategies for the neuroimmunological disorders, including multiple sclerosis, by clarifying their etiologies that may be elucidated from meticulous clinical and experimental approaches using experimental animal models, which have been established due to recent advances in basic immunology.

### Publications

#### Originals

- 0360B001 (M.Matsui), M.Tahara, M.Tanaka, K.Tanaka, M.Matsui, T.Konishi: CD8<sup>+</sup>CD11a<sup>high</sup> cells decreased in multiple sclerosis but not in neuromyelitis optica, *Eur. Neurol.*, 63:159–163, 2010.
- 0360B002 (T.Shimohata), K.yanagawa, K.Tanaka, M.Nishizawa: Clinical features of poor-prognosis with adult bacterial meningitis, *Clinical Neurology*, 50:137–140, 2010 (in Japanese) .
- 0360B003 (T.Oda), F.Kanda, H.Hamaguchi, K.Tanaka, T.Toda: Clinical features and response to treatment in patients positive anti-aquaporin-4 antibody, *Neurological Medicine*, 73:194–198, 2010 (in Japanese) .
- 0360B004 (T.Kezuka), Y.Matsunaga, A.Kobayashi, Y.Moritake, M.Takagi, K.Tanaka, H.Goto: Visual field in optic neuritis with seropositive anti-aquaporin 4 antibody, *Japanese journal of clinical ophthalmology Rinsho ganka.*, 64:317–322, 2010 (in Japanese) .

#### Reviews

- 0360C001 K.Tanaka: pathogenesis of paraneoplastic neurological syndromes, *Brain and nerve.*, 62:309–318, 2010 (in Japanese) .
- 0360C002 K.Tanaka: Anti-Purkinje cell antibody(Anti-Yo/type 1 antibody), *Japanese Journal of Clinical Medicine*, 68:526–529, 2010 (in Japanese) .

- 0360C003 K.Tanaka: Anti-NMDA receptor antibody, Japanese Journal of Clinical Medicine, 68:651–654, 2010 (in Japanese) .
- 0360C004 K.Tanaka: Paraneoplastic neurological syndromes with reference to anti-neuronal autoantibodies, Clinical Neurology, 50:371–378, 2010 (in Japanese) .
- 0360C006 K.Tanaka, M.Tanaka: Differential diagnosis of neuromyelitis optica spectrum disorders, Brain and nerve., 62:953–960, 2010 (in Japanese) .

#### Case Reports

- 0360D001 M.Nakanishi, M.Kaito, Y.Gondo, H.Takada, M.Matsui, G.Hirose: Moyamoya disease presenting with an acute confusional state in an elderly patient, J. Stroke Cerebrovasc. Dis., 247–250, 2010.
- 0360D002 (N.Tachibana), T.Shirakawa, K.Ishii, Y.Takahashi, K.Tanaka, K.Arima, T.Yoshida, S.Ikeda: Expression of various glutamate receptors including *N*-Methyl-D-Aspartate Receptor (NMDAR) in an ovarian teratoma removed from a young woman with anti-NMDAR encephalitis, Intern. Med., 49:2167–2173, 2010.
- 0360D003 (A.Tanaka), T.Yoshida, T.Yamada, R.Isayama, Y.Fujiwara, K.Shiga, K.Yamada, K.Tanaka, M.Nakagawa: A case of cerebral aquaporinopathy, Mult.Scler, 16:1252–1254, 2010.
- 0360D004 (M.Ogasawara), K.Shikishima, T.Sakai, M.Takagi, K.Tanaka: A case of neuromyelitis optica developing into myelitis 25 years after optic neuritis, Jpn. J. Ophthalmol., 54:372–373, 2010.
- 0360D005 (H.Yoshida), A.Ando, K.Sho, M.Akioka, E.Kawai, E.Arai, T.Nishimura, A.Shinde, H.Masaki, K.Takahashi, M.Takagi, K.Tanaka: Anti-aquaporin-4 antibody-positive optic neuritis treated with double-filtration plasmapheresis, J. Ocul. Pharmacol. Ther., 26:381–385, 2010.
- 0360D006 (K.Tesseki), H.Kataoka, M.Terashima, M.Kawahara, T.Taoka, K.Tanaka, S.Ueno: Biphasic paraneoplastic brainstem encephalitis associated with anti-Ri antibody, J. Neurooncol., 100:141–143, 2010.
- 0360D007 M.miki, Y.Masaki, T.Nakamura, H.Iwao, A.Nakajima, T.Sakai, T.Sawaki, T.Kawanami, M.Kaito, N.Kurose, Y.Fujita, M.Tanaka, T.Fukushima, Y.Hirose, H.Umehara: Primary neurolymphomatosis of the cervical nerve root, The Japanese Journal of Clinical Hematology, 51:564–567, 2010 (in Japanese) .

#### Short Communications

- 0360E001 (R.Motoyama), K.Shiraishi, K.Tanaka, M.Kinoshita, M.Tanaka: Anti-NMDA receptor antibody encephalitis with recurrent optic neuritis and epilepsy, Clinical Neurology, 50:585–588, 2010 (in Japanese) .

#### Others

- 0360F001 (T.Sano), K.Tanaka, N.Ito: Anti-Hu-antibody-associated paraneoplastic neurological syndrome accompanying testicular cancer, Int. J. Urol., 17:99, 2010.

### Presentations at Conference

#### International Conference (Key Note Lecture)

- 0360G001 M.Matsui, N.Hashiba, S.Araya, H.Inada, S.Nagayama, K.Tanaka, T.Konishi: Differences in cellular immunity associated with active disease in patients with MS and NMO, 10th International Congress of Neuroimmunology, (Barcelona, '10.10).

#### International Conference (Presentations)

- 0360I001 K.Tanaka, M.Nakata, M.Matsui, K.Sakimura: Clinical spectrum of anti-NMDA receptor antibody related encephalitis diagnosed by cell-based immunofluorescence detection system, 10th International congress of Neuroimmunology, (Barcelona, '10.10).

## 0560 Department of Medical Oncology

### Faculty

Title	Name	Field of Specialization
Professor	MOTOO Yoshiharu	Medical Oncology, Tumor Cell Biology, Gastroenterology.
Associate Professor	NAKAJIMA Hideo	Medical Oncology, Immunology, Molecular Biology.
Senior Assistant Professor	SHIMASAKI Takeo	Medical Oncology, Gastroenterology, Bioinformatics.
Assistant Professor	NAKAYA Naoki	Medical Oncology.

### Keywords of Research

medical oncology, clinical oncology, gastroenterology, chemotherapy, tumor biology

### Outline of Research

We are studying on pancreatic cancer, which is one of the most untreatable cancers. One of our projects is the research on the cancerous expression of pancreatitis-associated proteins in human pancreatic cancer. We are cooperating with INSERM in Marseille, France. The second project is the identification and characterization of new heat-shock proteins. The third one is the elucidation of the molecular mechanisms of gemcitabine resistance of pancreatic cancer cells. We are cooperating with Cancer Research Institute of Kanazawa University, especially on glycogen synthase kinase. Other projects include the metabolome approach on the prediction of adverse reaction of anti-cancer drugs, and the proteome analysis on the discovery of new molecular markers for pancreatic cancer.

### Publications

#### Originals

- 0560B001 J.Yamakawa, J.Moriya, T.Takahashi, A.Ishige, Y.Motoo, F.Yoshizaki, T.Kanda: A Kampo medicine, boiogito, inhibits obesity in ovariectomized rats, *Evid Based Complement Alternat Med*, 7:87-95, 2010.
- 0560B002 (T.Shiroiwa), Y.Motoo, K.Tsutani: Cost-effectiveness analysis of *KRAS* testing and cetuximab as last-line therapy for colorectal cancer, *Mol Diagn Ther.*, 14:375-384, 2010.
- 0560B003 H.Nakajima, Y.Ishigaki, Qi-S.Xia, T.Ikeda, Y.Yoshitake, H.Yonekura, T.Nojima, T.Tanaka, H.Umehara, N.Tomosugi, T.Takata, T.Shimasaki, N.Nakaya, I.Sato, K.Kawakami, K.Koizumi, T.Minamoto, Y.Motoo: Induction of HITS, a newly identified family with sequence similarity 107 protein (FAM107B), in cancer cells by heat shock stimulation, *Int. J. Oncol.*, 37:583-593, 2010.
- 0560B004 C.Huang, Z.Jin, L.Dong, X.Tong, S.Yue, T.Kawanami, T.Sawaki, T.Sakai, M.Miki, H.Iwao, A.Nakajima, Y.Masaki, Y.Fukushima, M.Tanaka, Y.Fujita, H.Nakajima, T.Okazaki, H.Umehara: Cisplatin augments FAS-mediated apoptosis through lipid rafts, *Anticancer Res.*, 30:2065-2072, 2010.
- 0560B005 Y.Cao, Z.Jin, X.Tong, S.Yue, T.Sakai, T.Kawanami, T.Sawaki, M.Miki, H.Iwao, A.Nakajima, Y.Masaki, Y.Fukushima, Y.Fujita, H.Nakajima, T.Okazaki, H.Umehara: Synergistic effects of topoisomerase I inhibitor, SN38, on Fas-mediated apoptosis, *Anticancer Res.*, 30:3911-3918, 2010.
- 0560B007 N.Nakaya: TP53INP1 Regulates the cellular sensitivity to gemcitabine, *J. Kanazawa. Med. Univ.*, 35:152-158, 2010 (in Japanese).

#### Reviews

- 0560C001 (C.Cano), Y.Motoo, JL.Lovanna: Epithelial- to- mesenchymal transition in pancreatic adenocarcinoma, *Scientific World Journal.*, 10:1947-1957, 2010.

- 0560C002 T.Shimasaki, Y.Ishigaki, T.Minamoto, Y.Motoo: Application of molecular medicine to pancreatic cancer, The Journal of Japan Pancreas Society, 25:35–45, 2010 (in Japanese) .

### Case Reports

- 0560D001 (M.Tachibana), Y.Hashimoto, T.Sone, N.Ooishi, T.Ueno, Y.Motoo: Two cases of atypical adenoma of the thyroid—is atypical adenoma of the thyroid a true benign lesion?—, J. Jpn. Soc. Clin. Cytol., 49:190–195, 2010 (in Japanese) .
- 0560D003 J.Moriya, J.Yamakawa, Y.Motoo: A case of carpal tunnel syndrome treated by the combination with san'oshashinto and tokakujokito, Pain and kampo medicine, 20:81–83, 2010 (in Japanese) .
- 0560D004 I.Sato, N.Ueda, E.Kinoshita, H.Mnato, K.Ohno, N.Nakata, T.Shimasaki, H.Nakajima, T.Kosaka, Y.Motoo: Curatively resected case of non-functioning pancreatic neuroendocrine carcinoma with multiple liver metastases after dpwmstaging with S-1 monotherapy, Cancer & chemotherapy, 37:1341–1344, 2010 (in Japanese) .

### Others

- 0560F001 (Q.Bian), Y.Motoo, H.Nakajima, T.Shimasaki, Y.Ishigaki: Molecular analysis on responses of TP53INP1-knockout mouse embryonic fibroblasts to anti-cancer agents, Study report 2009 Japan China Sasakawa Medical Fellowship, 125–128, 2010.

## Presentations at Conference

### International Conference (Key Note Lecture)

- 0560G001 Y.Motoo, K.Tsutani: “Tsutaeru ” Project on evidence of Kampo medicine: activities of the special committee for EBM, Japan Society for Oriental Medicine, The 15th International Congress of Oriental Medicine, (Makuhari, '10.02).
- 0560G002 Y.Motoo: Traditional Japanese medicine in clinical practice guidelines and in multidisciplinary cancer treatment, The 14th International Conference on Oriental Medicine of Daegu Haany & Dong-Eui University 2010, (Daegu, '10.11).

### International Conference (Symposium)

- 0560H001 T.Shimasaki, Y.Ishigaki, T.Takata, Y.Nakamura, A.Kitano, K.Kawakami, N.Tomosugi, T.Minamoto, Y.Motoo: Effect of GSK3  $\beta$  inhibition against Gemcitabine-induced epithelial-mesenchymal transition and invasive ability of pancreatic cancer cells: its therapeutic implication, Joint Meeting of the International Association of Pancreatology and the Japan Pancreas Society 2010, (Fukuoka, '10.07), Pancreas, 25:291, 2010.
- 0560H002 Y.Motoo: Stress responses of pancreatic cancer cells and their significance in invasion and metastasis, International Symposium on Primo-Vascular System 2010, (Jecheon, '10.09).
- 0560H003 Y.Motoo: Current status of cancer treatment in Japan, Academic lecture series on cancer: basic and clinical aspects, (Shanghai, '10.09).
- 0560H004 Y.Motoo: East Meets West: Japanese experience with special reference to cancer treatment, The First Beijing International Symposium on Integrative Medicine, (Beijing, '10.10).
- 0560H005 Y.Motoo: Clinical practice guidelines containing Kampo products in Japan, First Korea-Japan Workshop on EBM in Traditional East Asian Medicine, (Seoul, '10.10).
- 0560H006 Y.Motoo: New Work Item Proposal (NWIP) No.2 from Japan, Joint ISO/TC215 and CEN/TC251 Working Groups meeting, (Rotterdam, '10.10).

### International Conference (Presentations)

- 0560I001 J.Yamakawa, J.Moriya, Y.Motoo: Three kampo medicines have different activities to regulate gene expressions in differentiated rat white adipocytes, The 15th International Congress of Oriental Medicine, (Makuhari, '10.02).
- 0560I002 J.Moriya, J.Yamakawa, Y.Motoo: Resveratrol improves hippocampal atrophy in mice with chronic fatigue by enhancing neurogenesis, The 15th International Congress of Oriental Medicine, (Makuhari, '10.02).
- 0560I003 Y.Motoo, T.Togo, H.Toyotama, T.Seki: New work item proposal of traditional medicine, ISO/TC215 WG3 TM-TF, (Rio de Janeiro, '10.05).
- 0560I004 J.Moriya, J.Yamakawa, Y.Motoo: Resveratrol improves hippocampal atrophy in mice with chronic fatigue by enhancing neurogenesis and inhibiting apoptosis of granular cells, The 9th Meeting of the Consortium for Globalization of Chinese Medicine 2010, (Hong Kong, '10.08).
- 0560I005 (T.Shiroiwa), Y.Motoo, K.Tsutani: Cost-effectiveness analysis of K-ras testing and cetuximab for metastatic colorectal cancer in Japan, ISPOR 4th Asia-Pacific Conference, (Phuket, '10.09).

## 0565 Department of Infectious Diseases

### Faculty

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Title	Name	Field of Specialization
Professor	IINUMA Yoshitsugu	Clinical Infectious Diseases, Infection Control and Prevention.

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### Keywords of Research

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Infectious diseases, Antimicrobial drug resistance, Immunocompromised host, Acid-fast bacilli, Antimicrobial drugs

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### Outline of Research

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1. Antimicrobial drug resistant bacilli infections
  2. Infectious diseases in severe immunocompromised host
  3. Acid-fast bacilli infections
  4. Appropriate use of antimicrobial drugs
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## 0630 Department of General Internal Medicine

### Faculty

Title	Name	Field of Specialization
Senior Assistant Professor	YAMAKAWA Junichi	General medicine, Kampo medicine.
Assistant Professor	MORIYA Junji	General medicine, Kampo medicine.

### Keywords of Research

neurology, clinical epidemiology, alternative, clinical ethics, hospital management, general practise, obesity, infection

### Outline of Research

The kampo medicine to the metabolic syndrome and chronic fatigue syndrome.

### Publications

#### Originals

- 0630B001 J.Yamakawa, J.Moriya, T.Takahashi, A.Ishige, Y.Motoo, F.Yoshizaki, T.Kanda: A Kampo medicine, boiogito, inhibits obesity in ovariectomized rats, *Evid Based Complement Alternat Med*, 7:87-95, 2010.
- 0630B002 R.Chen, F.Liang, S.Morimoto, Q.Li, J.Moriya, J.Yamakawa, T.Takahashi, K.Iwai, T.Kanda: The effects of a PPAR $\alpha$  agonist on myocardial damage in obese diabetic mice with heart failure, *Int. Heart J.*, 51:199-206, 2010.
- 0630B003 Z.Shijie, J.Moriya, J.Yamakawa, R.Chen, T.Takahashi, H.Sumino, T.Nakahashi, K.Iwai, S.Morimoto, N.Yamaguchi, T.Kanda: Mao-to prolongs the survival of and reduces TNF- $\alpha$  expression in mice with viral myocarditis, *Evid Based Complement Alternat Med*, 7:341-349, 2010.

#### Reviews

- 0630C001 R.Chen, J.Moriya, J.Yamakawa, T.Takahashi, T.Kanda: Traditional chinese medicine for chronic fatigue syndrome, *Evid Based Complement Alternat Med*, 7:3-10, 2010.

#### Case Reports

- 0630D002 J.Moriya, J.Yamakawa, Y.Motoo: A case of carpal tunnel syndrome treated by the combination with san'oshashinto and tokakujokito, *Pain and kampo medicine*, 20:81-83, 2010 (in Japanese) .

### Presentations at Conference

#### International Conference (Presentations)

- 0630I001 J.Yamakawa, J.Moriya, Y.Motoo: Three kampo medicines have different activities to regulate gene expressions in differentiated rat white adipocytes, *The 15th International Congress of Oriental Medicine*, (Makuhari, '10.02).
- 0630I002 J.Moriya, J.Yamakawa, Y.Motoo: Resveratrol improves hippocampal atrophy in mice with chronic fatigue by enhancing neurogenesis, *The 15th International Congress of Oriental Medicine*, (Makuhari, '10.02).
- 0630I003 J.Moriya, J.Yamakawa, Y.Motoo: Resveratrol improves hippocampal atrophy in mice with chronic fatigue by enhancing neurogenesis and inhibiting apoptosis of granular cells, *The 9th Meeting of the Consortium for Globalization of Chinese Medicine 2010*, (Hong Kong, '10.08).

## 0370 Department of Geriatric Medicine

### Faculty

Title	Name	Field of Specialization
Professor	MORIMOTO Shigeto	Geriatrics, Hypertension, Calcium Metabolism, Dementia, Osteoporosis.
Professor(Additional Post)	IWAI Kunimitsu	Geriatrics, Circulation, Cell Biology, Cardiology.
Senior Assistant Professor	NAKASHI Takeshi	Geriatrics, Circulation, Hypertension, Atherosclerosis, Cardiology.
Senior Assistant Professor	TSUCHIYA Hiroshi	Geriatrics, Circulation, Atherosclerosis.
Assistant Professor	OKURO Masashi	Geriatrics, Circulation, Hypertension, Atherosclerosis.
Assistant Professor	NOMURA Koji	Geriatrics, Circulation.
Assistant Professor	SATO Kazuto	Geriatrics, Circulation.
Assistant Professor	IRITANI Osamu	Geriatrics, Circulation.
Assistant Professor	ISHIGAMI Keiichiro	Geriatrics, Dementia.
Assistant Professor	ATSUMI Mikiko	Geriatrics, Circulation.
Research Doctor	OHASHI Isao	Geriatrics, Hypertension, Atherosclerosis.
Research Doctor	TAKATA Meiko	Geriatrics.

### Keywords of Research

elderly, cardiac function, mitral stenosis, dynamic exercise, flow convergence region, dementia, computer, diastolic function, ultrasound, aortic distensibility, adenocarcinoma, stroke volume, carotid arterial stiffness, high frequency ultrasound, hypertension, antihypertensive treatment, color Doppler echocardiography, echocardiography, diabetes mellitus, cardiac disease, carotid artery, atherosclerosis, isolated systolic hypertension, Double cancer, squamous carcinoma, cardiac output, carotid arterial elastic modulus, Hasegawa's dementia scale, eicosapentaenoic acid, nitrendipine

### Outline of Research

The main fields of research of our Department are to elucidate pathogenesis and to develop new treatments for acute diseases in the elderly including pneumonia, stroke, heart failure, and ischemic heart diseases, of hypertension, and of elderly syndromes including dementia, falls/fractures, dysphagia, and bedridden. Besides these, we also research about genetic backgrounds for many elderly diseases using analysis of SNIPs, and about pathogenesis of atherosclerosis using culture of arterial cells.

### Publications

#### Originals

- 0370B001 R.Chen, F.Liang, S.Morimoto, Q.Li, J.Moriya, J.Yamakawa, T.Takahashi, K.Iwai, T.Kanda: The effects of a PPAR $\alpha$  agonist on myocardial damage in obese diabetic mice with heart failure, *Int. Heart J.*, 51:199–206, 2010.
- 0370B002 H.Yoshimura, S.Morimoto, M.Okuro, N.Segami, N.Kato: Evaluations of dementia by EEG frequency analysis and psychological examination, *J. Physiol. Sci.*, 60:383–388, 2010.

- 0370B003 M.Atsumi, Y.Koizumi, K.Ishigami, K.Satoh, O.Iritani, M.Okuro, S.Morimoto: Increased level of LDL cholesterol in elderly patients with acute ischemic stroke associated with severe hypertension, J. Kanazawa. Med. Univ., 35:166–171, 2010.
- 0370B004 Z.Shijie, J.Moriya, J.Yamakawa, R.Chen, T.Takahashi, H.Sumino, T.Nakahashi, K.Iwai, S.Morimoto, N.Yamaguchi, T.Kanda: Mao-to prolongs the survival of and reduces TNF- $\alpha$  expression in mice with viral myocarditis, Evid Based Complement Alternat Med, 7:341–349, 2010.

#### Case Reports

- 0370D001 K.Konishi, A.Saito, K.Ishigami, M.Fukura, M.Hasegawa, N.Yamashita, T.Kanda, T.Ito, T.Kigoshi, Y.Izumi, N.Takekoshi: Hypoglycemia in elderly diabetes mellitus-free patients :Case reports and a review of literature, J. Kanazawa. Med. Univ., 35:13–15, 2010.
- 0370D002 K.Ishigami, N.Yamashita, K.Konishi, A.Saito, M.Fukura, M.Hasegawa, T.Kanda, T.Ito, T.Kigoshi, Y.Izumi, N.Takekoshi: Hyponatremia, rhabdomyolysis and acute renal failure, J. Kanazawa. Med. Univ., 35:68–69, 2010.

#### Others

- 0370F001 R.Chen, F.Liang, K.Ishigami, T.Kanda, L.Zeng, A.Saito, M.Hasegawa, N.Yamashita, T.Itoh, T.Kigoshi, Y.Izumi, N.Takekoshi, S.Morimoto: Clinical risk factors in regional brain ischemia using single photon emission computed tomography, J. Am. Geriatr. Soc., 58:1411–1412, 2010.

### Presentations at Conference

#### International Conference (Presentations)

- 0370I001 K.Iwai, K.Yanagida, M.Atsumi, H.Yano, K.Nomura, J.Sakai, H.Murai, T.Nakahashi, H.Tsuchiya, S.Morimoto: Anthihypertensive therapy induced transient coma in patient with severe stenosis of the common carotid arteries, 14th International Congress of Endocrinology(ICE2010), (Kyoto, '10.03), 14th International Congress of Endocrinology(ICE2010) Endocrine Journal Program & Abstracts, 57(Suppl.2):S568, 2010.
- 0370I002 M.Okuro, K.Tabuchi, TC.Sudhof, S.Nishino: Deficiency of synaptic cell–adhesion molecule, neurexin-3, and wake-promoting response to amphetamine, 24th Associated Professional Sleep Societies, (San Antonio, '10.06), SLEEP 2010 24th Annual of the Associated Professional Sleep Societies Abstract, 33:A46 (Suppl.), 2010.
- 0370I003 H.Murai, T.Nakahashi, H.Nakamura, W.Arakawa, T.Higashikawa, M.Atsumi, K.Iwai, S.Morimoto: The advantage of high-salt tube nutrition for the elderly patients with acute disease, 32nd ESPEN Congress, (Nice-France, '10.09), Abstracts of the 32nd ESPEN Congress, 5:ABS-296(Suppl.), 2010.

## 0380 Department of Pediatrics

### Faculty

Title	Name	Field of Specialization
Professor	SAIKAWA Yutaka	Pediatric hematology, Pediatric oncology.
Associate Professor	NAKAMURA Tsuneyuki	Pediatric cardiology.
Senior Assistant Professor	ITO Masatsune	Pediatric endocrinology, Pediatric metabolism, Inborn errors of metabolism.
Senior Assistant Professor	KOBAYASHI Azusa	Neonatology.
Senior Assistant Professor	NAKAMURA Toshimi	Pediatric allergy, Pediatric immunology.
Senior Assistant Professor	FUJIKI Takuma	Pediatric nephrology.
Assistant Professor	AKITA Chisato	Pediatric cardiology.
Assistant Professor	YAMAMURA Junichi	Pediatric Psychosomatic Disorder, Infectious Disease of Childhood, Clinical Virology, Fast and Easy Detection System for Infectious agent.
Assistant Professor	SATO Hitoshi	Infectious disease in children, Molecular biology, Child neurology, Inborn errors of metabolism.
Assistant Professor	OKADA Naoki	Pediatric hematology, Pediatric oncology.
Assistant Professor	HIRAMATSU Masayuki	Pediatric allergy, Pediatric immunology.
Assistant Professor	HORISAWA Torou	Pediatric hematology, Pediatric oncology.
Assistant Professor	KITAOKA Chika	Pediatric cardiology.
Research Doctor	KITO Toshiyuki	Pediatric allergy, Pediatric immunology.
Research Doctor	YAMAMOTO Akiko	Child neurology.

### Keywords of Research

DNA diagnosis, fatty acid oxidation, malignancy in childhood, peripheral blood stem cell, pituitary dwarfism, growth disorders in children, Kawasaki's disease, Adriamycin-induced cardiomyopathy, methylmalonic acidemia, infant botulism, leukemia in children, juvenile diabetes, congenital adrenal hyperplasia, congenital heart disease, arrhythmia in childhood

### Outline of Research

Clinical and basic research are actively going on at pediatric department in the area of Neonatology, Pediatric Infectious Diseases, Pediatric Cardiology, Pediatric Allergy and Immunology, Pediatric Hematology and Oncology, Pediatric Neurology, Psychosomatic Medicine, Pediatric Endocrinology, Inborn Errors of Metabolism.

### Publications

#### Originals

- 0380B001 (K.Yamaji), T.Okamoto, S.Yokota, A.Watanabe, Y.Horikoshi, K.Asami, A.Kikuta, N.Hyakuna, Y.Saikawa, J.Ueyama, T.Watanabe, M.Okada, T.Tagu, H.Kanegane, K.Kogawa, M.Chin, A.Iwai, T.Matsushita, Y.Shimomura, T.Hori, M.Tsurusawa: Minimal residual disease-based augmented therapy in childhood acute lymphoblastic leukemia: A report from the Japanese childhood cancer and leukemia study group, *Pediatr Blood Cancer*, 55:1287-1295, 2010.

- 0380B002 (T.Tagu), Y.Shimomura, T.Hori, Y.Horikoshi, A.Ogawa, M.Itoh, A.Watanabe, Y.Saikawa, J.Ueyama, N.Hyakuna, M.Chin, S.Iizuka, M.Miyake, A.Iwai, A.Kamitamari, H.Kanegane, N.Sato, M.Tsurusawa: A Morphology-Based Approach for the Treatment of Children with Acute Myeloid Leukemia: A Report from the Japanese Children's Cancer and Leukemia Study Group AML 9805 Study, *The Japanese Journal of Pediatric Hematology*, 24:283-291, 2010.
- 0380B003 (K.Hirono), N.Yoshimura, M.Taguchi, K.Watanabe, T.Nakamura, F.Ichida, T.Miyawaki: Bosentan induces clinical and hemodynamic improvement in candidates for right-sided heart bypass surgery, *J. Thorac. Cardiovasc. Surg.*, 140:346-351, 2010.
- 0380B004 (Y.Ikawa), N.Sugimoto, S.Koizumi, A.Yachie, Y.Saikawa: Dense methylation of types 1 and 2 regulatory regions of the CD10 gene promoter in infant acute lymphoblastic leukemia with MLL/AF4 fusion gene, *J. Pediatr. Hematol. Oncol.*, 32:4-10, 2010.

#### Case Reports

- 0380D001 C.Akita, T.Nakamura: Extrahepatic portosystemic venous shunt presenting as galactosaemia, *Pediatr. Radiol.*, 40:1300, 2010.

### Presentations at Conference

#### International Conference (Presentations)

- 0380I001 T.Akita, J.Yokote, C.Akita, T.Nakamura: Surgical simulation of complex congenital heart defects by CARTO XP Navigation system, *The 3rd Congress of Asia-Pacific Pediatric Cardiac Society*, (Urayasu, '10.07).
- 0380I002 M.Ito, H.Sato, A.Yamamoto, H.Kakinuma, Y.Saikawa: High serum lactic acid levels as a new biological marker in patients with monocarboxylate transporter 8 deficiencies, *Annual Symposium of the Society for the Study of Inborn Errors of Metabolism*, (Istanbul, '10.08)
- 0380I003 T.Akai, H.Iizuka, S.Siraga, Y.Sasagawa, S.Kawakami, Y.Saikawa: Referral pattern of craniosynostosis paien-Is it early enough?, *38th Annual meeting of the internaional sociey for pediatric neurosurgery*, (Korea, '10.10).

## 0390 Department of Neuropsychiatry

### Faculty

Title	Name	Field of Specialization
Professor	KAWASAKI Yasuhiro	Cognitive neurosciences, Neuropsychology, Neuroimaging, Psychopharmacology, Neurophysiology.
Professor	KUBOTA Takashi	Schizophrenia, Psychopharmacology, Epilepsy.
Senior Assistant Professor	IWASAKI Shinzo	Psycho Physiology, Neuropsychology, Brain Imaging.
Senior Assistant Professor	WATANABE Kenichiro	Neuropsychology, Neuropharmacology.
Senior Assistant Professor	KITAMOTO Fukumi	Psychotherapy, Clinical Psychology.
Senior Assistant Professor	MONKAWA Akikazu	Brain imaging, Schizophrenia.
Senior Assistant Professor	MONKAWA Tomomi	Psychopharmacology, Neuropsychology.
Assistant Professor	KOIZUMI Hazuki	Clinical Psychology, Cognitive-behavioral therapy.
Assistant Professor	KOSEKI Yojyu	Brain imaging.
Assistant Professor	SHIMIZU Satoru	Brain imaging.
Assistant Professor	MASUDA Shinji	Schizophrenia.

### Keywords of Research

aged patients, age of onset, agrammatism, amitriptyline, amnesic syndrome, amnesia, amnesias, amoxapline, an interdict, anorexia nervosa, anxiety, aphasic subtypes, apperceptive and associative forms, associated societies, astrocytoma, attention deficit hyperactivity disorder(ADHD), acute reactive psychosis, aging

### Outline of Research

- 1.Study on regional identification of brain language areas by functional MRI—application for surgical therapy of epilepsy
- 2.Study on action mechanisms of antipsychotic drugs by regional cerebral blood flow measurement using SPECT
- 3.Study on action mechanisms of antipsychotic drugs by neurotransmitter measurement using microdialysis in animal experiments
- 4.Neuropsychological study on dementia or disturbance of high neuronal function such as aphasia
- 5.Clinical study on psychiatric disturbance in epilepsy
- 6.Study on cognitive-behavioural therapy for obsessive compulsive disorder
- 7.Study on music therapy for dementia

### Publications

#### Originals

- 0390B001 (X.Li), S.Shimizu, I.Jibiki, K.Watanabe, T.Kubota: Correlations between Z-scores of VSRAD and regional cerebral blood flow of SPECT in patients with Alzheimer's disease and mild cognitive impairment, *Psychiatry Clin. Neurosci.*, 64:284-292, 2010.
- 0390B002 M.Sho: Effects of risperidone and blonanserin on excitatory synaptic transmission, and dopamine and serotonin levels in the hippocampus in rabbits, *J. Kanazawa. Med. Univ.*, 35:77-88, 2010 (in Japanese) .
- 0390B003 H.Koizumi: Functional magnetic resonance imaging study of neuronal activation during cognitive tasks related to frontal lobe functions in patients with obsessive-compulsive disorder, *J. Kanazawa. Med. Univ.*, 35:187-195, 2010 (in Japanese) .

## Others

- 0390F001 S.Shimizu, K.Watanabe, I.Jibiki: Auditory hallucinations associated with clinical dosage of paroxetine:a case report, Psychiatry Clin. Neurosci., 64:666-667, 2010.

## Presentations at Conference

### International Conference (Presentations)

- 0390I001 H.Koizumi, R.Hashimoto: Functional magnetic resonance imaging study of neuronal activation during cognitive tasks related to frontal lobe functions in patients with obsessive-compulsive disorder, European Association for Behavioural and Cognitive Therapies, (Milano, '10.10).

## 0400 Department of Diagnostic and Therapeutic Radiology

### Faculty

Title	Name	Field of Specialization
Professor	TONAMI Hisao	Head and Neck Radiology, MRI Diagnosis.
Professor	WATANABE Naoto	Nuclear Medicine.
Associate Professor	MATOKA Munetaka	Interventional Radiology, Diagnostic Imaging.
Associate Professor	TANIGUCHI Mitsuru	Cardiac Nuclear Medicine.
Senior Assistant Professor(Additional Post)	KUGINUKI Yasuaki	Diagnostic Imaging.
Assistant Professor	KONDO Tamaki	Diagnostic Imaging.
Assistant Professor	TAKAHASHI Tomoko	Nuclear Medicine, Diagnostic Imaging.
Assistant Professor	KITADATE Masataka	Diagnostic Imaging.
Assistant Professor	DOAI Mariko	Diagnostic Imaging.
Assistant Professor	TOYOTA Ichiro	Diagnostic Imaging.
Assistant Professor(Additional Post)	OTA Kiyotaka	Radiation Therapy.

### Keywords of Research

MRI, MRS, CT, US, IVR, radiotherapy, RI, PET, BAI, lung cancer, perfusion, diffusion, FDG, MTC, radiosurgery, brachitherapy, PEI, Sjögren, radiation, MRA, MRCP, color doppler, bone mineral, biopsy, RN, upper GI, TAE, metallic stent, contrast medium

### Outline of Research

1. Assessment of Tumor Microperfusion and Therapeutic Effect Influencing by Radiotherapy, Chemotherapy and Transarterial Embolization using MD-CT, MRI and MRS.
2. Assessment of Tumor Proliferative Potential and Malignant Grade using MRS, SPECT and PET.
3. Biological Study of Radiation Injury of Tumor and Normal Tissue after Stereotactic Radiosurgery by 3-D Radiotherapy Planning System.
4. Study of Inhibiting Neointimal Proliferation after Angioplasty by <sup>192</sup>Ir Intraarterial Irradiation.

### Publications

#### Originals

- 0400B001 L.Zhang, K.Higashi, Y.Ishigaki, Y.Ueda, T.Sakuma, T.Takegami, M.Oguchi, K.Xu, Y.Ohta, H.Nishida, H.Tonami: Assessment of VEGF-D expression measured by immunohistochemical staining and F-18 FDG uptake on PET as biological prognostic factors for recurrence in patients with surgically resected lung adenocarcinoma, *Ann. Nucl. Med.*, 24:533-540, 2010.
- 0400B002 M.Matoba, T.Kondo, T.Tanaka, M.Kitadate, K.Oota, H.Tonami: Noninvasive monitoring of radiation-induced early therapeutic response using high-resolution MR imaging and proton MR spectroscopy in VX2 carcinoma, *J. Radiat. Res.*, 51:699-705, 2010.
- 0400B003 Y.Kuginuki: Usefulness of hepatic ADC measured using 3T-MRI in evaluation of liver fibrosis, *J. Kanazawa. Med. Univ.*, 35:178-186, 2010 (in Japanese) .



## Case Reports

- 0400D001 M.Matoba, K.Oota, H.Tonami, Y.Masaki, T.Sakai, H.Umehara: Palliative radiotherapy with 1 x 8 Gy using conformal radiotherapy for chemotherapy-refractory, recurrent, aggressive lymphomas, *Jpn. J. Radiol.*, 28:220-223, 2010.

## 0410 Department of Cardiovascular Surgery

### Faculty

Title	Name	Field of Specialization
Professor	AKITA Toshiaki	Cardiovascular surgery.
Professor	SHIKATA Hiroo	Vascular surgery.
Associate Professor	MORIOKA Koichi	Cardiovascular surgery.
Senior Assistant Professor	KOBATA Takashi	Vascular surgery.
Senior Assistant Professor	YOKOTE Jun	Cardiovascular surgery.
Assistant Professor	NISHIZAWA Hisateru	Cardiovascular surgery.
Assistant Professor	NONAKA Toshimichi	Cardiovascular surgery.
Assistant Professor	KIYOSAWA Jun	Cardiovascular surgery.
Assistant Professor	NOGUCHI Yasuhisa	Cardiovascular surgery.
Assistant Professor	MIZUNO Fumito	Cardiovascular surgery.
Assistant Professor	MIKAMI Naofusa	Cardiovascular surgery.

### Keywords of Research

Cardiac surgery, vascular surgery, respiratory surgery, pacemaker implantation, Arrhythmia surgery, ventricular assist device, arteriosclerosis obliterans, thromboangitis obliterans, valvular surgery, coronary bypass surgery, surgery for congestive heart failure, artificial vascular graft, endovascular stent grafting, respiratory surgery, lung cancer

### Outline of Research

- 1.Elucidation of different mechanism for ischemia-reperfusion injury of immature and mature heart; Development of cardioplegia specific for neonate cardiac surgery.
- 2.Development of tailor-made cardiac reshaping net for heart failure patients
- 3.Endovascular stent-grafting for aortic aneurysm
- 4.Minimally invasive catheter ablation for varicose vein

### Publications

#### Originals

- 0410B001 (H.Shigematsu), T.Nishibe, Y.Obitsu, K.Matsuzaki, A.Ishida, T.Miyata, S.Shindo, K.Hida, T.Ohta, M.Ando, T.Kawasaki, T.Yasugi, T.Matsumoto: Three-year cardiovascular events and disease progress in patients with peripheral arterial disease: results from the Japan Medication Therapy for Peripheral Arterial Disease(J-METHOD), *Int Angiol.*, 29:2-13, 2010.

### Presentations at Conference

#### International Conference (Presentations)

- 0410I001 T.Akita, J.Yokote, C.Akita, T.Nakamura: Surgical simulation of complex congenital heart defects by CARTO XP Navigation system, The 3rd Congress of Asia-Pacific Pediatric Cardiac Society, (Urayasu, '10.07).

## 0660 Department of Respiriology (Thoracic Surgery)

### Faculty

Title	Name	Field of Specialization
Professor	SAKUMA Tsutomu	thoracic surgery, lung cancer, video assisted thoracoscopic surgery, pulmonary edema.
Professor	SAGAWA Motoyasu	thoracic surgery, lung cancer, video assisted thoracoscopic surgery, epidemiology of mass screening.
Associate Professor	USUDA Katsuo	thoracic surgery, video assisted thoracoscopic surgery, lung cancer, mediastinal tumor, early lung cancer, interventional bronchology, clinical cytology.
Senior Assistant Professor	AIKAWA Hirokazu	thoracic surgery, lung cancer, video assisted thoracoscopic surgery.
Assistant Professor	MACHIDA Yuichiro	thoracic surgery, lung cancer, pulmonary circulation.
Assistant Professor	UENO Masakatsu	thoracic surgery, lung cancer, pulmonary circulation.
Assistant Professor	TANAKA Makoto	thoracic surgery, lung cancer, pulmonary circulation.

### Keywords of Research

thoracic surgery, lung cancer, mediastinal tumor, lung transplantation, video assisted thoracoscopic surgery, chemotherapy, lung injury, alveolar epithelial cell, bronchoscopy, thoracoscopy, laser therapy, pneumothorax

### Outline of Research

Lung tumor

1. Screening test for lung cancer
2. Virtual bronchoscopy
3. Ion channel on cancer cells
4. Chemotherapy
5. Surgical treatment
6. Video assisted thoracoscopic surgery (VATS)

Mediastinal and pleural tumors

1. FDG-PET for mediastinal tumor
2. VATS
3. Surgical treatment and chemotherapy for malignant mesothelioma

Lung injury

1. Perioperative lung injury
2. Beta-agonist and antagonist therapy
3. Ischemia reperfusion lung injury
4. Aspiration lung injury
5. RAGE mice

New instruments

1. Bronchoscopy
2. Thoracoscopy

## Publications

### Originals

- 0660B001 L.Zhang, K.Higashi, Y.Ishigaki, Y.Ueda, T.Sakuma, T.Takegami, M.Oguchi, K.Xu, Y.Ohta, H.Nishida, H.Tonami: Assessment of VEGF-D expression measured by immunohistochemical staining and F-18 FDG uptake on PET as biological prognostic factors for recurrence in patients with surgically resected lung adenocarcinoma, *Ann. Nucl. Med.*, 24:533-540, 2010.
- 0660B002 K.Usuda, M.Sagawa, H.Aikawa, M.Ueno, M.Tanaka, Y.Machida, Xi.Zhao, Y.Ueda, K.Higashi, T.Sakuma: Correlation between glucose transporter-1 expression and <sup>18</sup>F-fluoro-2-deoxyglucose uptake on positron emission tomography in lung cancer, *Gen. Thorac. Cardiovasc. Surg.*, 58:405-410, 2010.
- 0660B003 K.Usuda, M.Sagawa, H.Aikawa, M.Ueno, M.Tanaka, Y.Machida, K.Tsuchihara, K.Nakagawa, T.Sakuma: Lidocaine administration on the throat under amnesia improves patient satisfaction in flexible bronchoscopy, *The Journal of the Japan Society for Respiratory Endoscopy*, 32:409-415, 2010.
- 0660B004 K.Usuda, M.Sagawa, H.Aikawa, M.Ueno, M.Tanaka, Y.Machida, K.Tsuchihara, K.Nakagawa, T.Sakuma: Midazolam for sedation in bronchoscopic examination –a questionnaire on patient satisfaction–, *The Journal of the Japan Society for Respiratory Endoscopy*, 32:133-137, 2010 (in Japanese) .

### Reviews

- 0660C001 (C.Hamashima), D.Aoki, E.Miyagi, E.Saito, T.Nakayama, M.Sagawa, H.Saito, T.Sobue: The Japanese guideline for cervical cancer screening, *Jpn. J. Clin. Oncol.*, 30:2-18, 2010.
- 0660C002 M.Sagawa, K.Usuda, H.Aikawa, M.Ueno, Y.Machida, M.Tanaka, T.Sakuma: Personalized medicine for non-small cell lung cancer, *J. Kanazawa. Med. Univ.*, 35:9-12, 2010 (in Japanese) .
- 0660C003 Y.Ueda, M.Shimasaki, Y.Machida, Y.Takahara, Y.Himi, Y.Ishigaki, K.Sato, T.Sakuma, H.Toga, S.Kawakami, S.Katsuda: Aquaporin as a novel player in cancer cell the invasion of cancer cells, *J. Kanazawa. Med. Univ.*, 35:55-60, 2010 (in Japanese) .

### Case Reports

- 0660D001 M.Ueno, K.Usuda, M.Sagawa, M.Tanaka, H.Aikawa, T.Sakuma: Surgical treatment of metastatic malignant solitary fibrous tumor: a case report, *The Journal of the Japanese Association for Chest Surgery*, 24:225-228, 2010 (in Japanese) .

### Short Communications

- 0660E001 K.Usuda, M.Sagawa, H.Aikawa, M.Tanaka, Y.Machida, M.Ueno, T.Sakuma: Do Japanese thoracic surgeons think that dissection of the pulmonary ligament is necessary after an upper lobectomy?, *Surg Today*, 40:1097-1099, 2010.

## Presentations at Conference

### International Conference (Presentations)

- 0660I001 Y.Machida, Y.Ueda, M.Shimasaki, M.Sato, M.Sagawa, S.Katsuda, T.Sakuma: Relationship of aquaporin 1,3 and 5 expression levels in non-neoplastic lung tissue to cellular differentiation, invasive growth and metastasis potential, *ATS 2010 International conference*, (New Orleans, '10.05).

## 0420 Department of Surgical Oncology

### Faculty

Title	Name	Field of Specialization
Professor	KOSAKA Takeo	Surgical treatment of gastric cancer.
Professor	NOGUCHI Masakuni	Surgery of breast cancer.
Associate Professor	NAKANO Yasuharu	Surgery of breast cancer.
Associate Professor	UEDA Nobuhiko	Surgical treatment of hepatobiliary and pancreatic disease.
Associate Professor	OMOTE Kazuhiko	Surgical treatment of gastric cancer.
Associate Professor	KINAMI Shinichi	Surgical treatment of gastric cancer.
Senior Assistant Professor	YOSHITANI Shinichiro	Surgery of colorectal cancer.
Assistant Professor	FUNAKI Hiroshi	Surgical treatment of gastric cancer.
Assistant Professor	YOKOI Miki	Surgery of breast cancer.
Assistant Professor	HOSOKAWA Kenzo	Surgery of digestive diseases.

### Keywords of Research

pancreato-biliary cancer, pattern of tumor invasion, laparoscopic surgery, safe and secure procedure, establishment of the laparoscopic surgery, laparoscopic surgery for malignant disease, surgical procedure, generalization and standardization, functional preserving operation, education and training, engineering and robotics

### Outline of Research

- A treatment strategy for advanced pancreato-biliary cancer, based on the pattern of tumor invasion
- Investigation concerning laparoscopic surgical procedure for safe and secure operation, and its establishment.
- Study of generalization and standardization for laparoscopic surgery in the gastrointestinal disease.
- Study of safeness in the laparoscopic surgery for malignant disease and functional preserving laparoscopic operation.
- Study on the education and training for laparoscopic surgery.
- Introduction of the recently evolving engineering and robotics to laparoscopic surgery.

### Publications

#### Originals

- 0420B001 M.Noguchi, M.Yokoi, Y.Nakano: Axillary reverse mapping with indocyanine fluorescence imaging in patients with breast cancer, *J. Surg. Oncol.*, 101:217-221, 2010.
- 0420B002 (A.Motoyoshi), M.Noguchi, M.Earashi, Y.Zen, H.Fujii: Histopathological and immunohistochemical evaluations of breast cancer treated with radiofrequency ablation, *J. Surg. Oncol.*, 102:385-391, 2010.
- 0420B003 N.Ueda, T.Kosaka: Optimal lymphadenectomy in advanced gallbladder cancer -From experience of authors-, *Journal of Japanese College of Surgeons*, 35:516-522, 2010 (in Japanese) .

#### Reviews

- 0420C001 M.Noguchi: Axillary reverse mapping for breast cancer, *Breast Cancer Res. Treat.*, 119:529-535, 2010.

## Case Reports

- 0420D002 I.Sato, N.Ueda, E.Kinoshita, H.Mnato, K.Ohno, N.Nakata, T.Shimasaki, H.Nakajima, T.Kosaka, Y.Motoo: Curatively resected case of non-functioning pancreatic neuroendocrine carcinoma with multiple liver metastases after dpwmstaging with S-1 monotherapy, *Cancer & chemotherapy*, 37:1341-1344, 2010 (in Japanese) .
- 0420D003 (A.Nakanishi), M.Urade, S.Sasaki, T.Nakano, N.Ueda: A case report of chemoradiotherapy with novails and gemcitabine for advanced unresectable pancreatic cancer and postoperative recurrence, *Journal of Japanese College of Surgeons*, 35:647-652, 2010 (in Japanese) .
- 0420D004 S.Yoshitani, T.Ohnishi, Y.Tomita, Y.Ohno, K.Hosokawa, M.Yokoi, H.Funaki, S.Kinami, K.Omote, N.Ueda, Y.Nakano, T.Kosaka: A case report of pathologically complete response with chemo-radiation for rectal cancer, *Cancer & chemotherapy*, 37:2632-2634, 2010 (in Japanese) .
- 0420D005 H.Funaki, T.Ohnishi, Y.Ohno, Y.Tomita, K.Hosokawa, M.Yokoi, S.Yoshitani, S.Kinami, K.Omote, N.Ueda, Y.Nakano, T.Kosaka: A case of AGC with pCR after preoperative chemotherapy including S-1 plus cisplatin, *Cancer & chemotherapy*, 37:2430-2432, 2010 (in Japanese) .
- 0420D006 S.Siroeda, H.Siroeda, T.Ootsuka, M.Yamada, T.Fukuyama, T.Saito, R.Hayashi, T.Nomura, H.Yano, K.Ozaki, T.Arisawa, M.Yokoi, T.Kosaka, M.Tsutsumi: A case of jejunal GIST diagnosed by double-balloon endoscopy, *Endosc. Forum digest. dis.*, 26:44-49, 2010 (in Japanese) .

## Others

- 0420F001 M.Noguchi: Axillary reverse mapping for preventing lymphedema in axillary lymph node dissection and/or sentinel lymph node biopsy, *Breast Cancer*, 17:155-157, 2010.

## Presentations at Conference

### International Conference (Presentations)

- 0420I001 S.Yoshitani, K.Hosokawa, T.Kosaka: Identification of risk factors for stage II colorectal cancer in patients with recurrence, XXIV ISUCRS Biennial Congress, (Seoul, '10.03), XXIV ISUCRS Biennial Congress Abstract Book, 233-234, 2010.
- 0420I002 T.Kosaka, Y.Tomita, T.Onishi, Y.Ono, K.Hosokawa, M.Yokoi, H.Funaki, S.Yoshitani, S.Kinami, K.Omote, N.Ueda, Y.Nakano: Neoadjuvant chemotherapy with a combination of S-1 and cisplatin in nonresectable advanced gastric cancer, The 17th Czech-Japan Surgical Symposium, (Kanazawa, '10.06).
- 0420I003 K.Omote, S.Kinami, K.Hosokawa, M.Yokoi, H.Funaki, S.Yoshitani, N.Ueda, Y.Nakano, T.Kosaka: Laparoscopic surgery for early gastric cancer -Experience in our institute-, The 17th Czech-Japan Surgical Symposium, (Kanazawa, '10.06).
- 0420I004 S.Kinami, T.Kosaka, S.Yoshitani, K.Omote, N.Ueda, Y.Nakano, S.Fushida, T.Fujimura, T.Ohta: The clinical advantage of the sentinel node biopsy for early gastric cancer in conducting the pylorus preserving procedure, The 17th Czech-Japan Surgical Symposium, (Kanazawa, '10.06).
- 0420I005 K.Omote, S.Kinami, K.Hosokawa, M.Yokoi, H.Funaki, S.Yoshitani, N.Ueda, Y.Nakano, T.Kosaka: Laparoscopic surgery for early gastric cancer, ESMO conference: 12th World congress on gastrointestinal cancer, (Barcelona, '10.06), *Annals of Oncology*, 21 suppl.6: vi88, 2010.
- 0420I006 T.Kosaka, K.Hosokawa, M.Yokoi, S.Kinami, K.Omote: Neoadjuvant chemotherapy with a combination of S-1 and cisplatin in nonresectable advanced gastric cancer: A short communication, ESMO conference: 12th World congress on gastrointestinal cancer, (Barcelona, '10.06), *Annals of Oncology*, 21 suppl.6: vi117, 2010.
- 0420I007 T.Kosaka, S.Kinami, K.Omote, M.Yokoi: Prognostic significance of nutritional factors in curatively resected gastric cancer patients, 21st Meeting of the European Association for Cancer Research, (Oslo, '10.06), *EJC Supplements*, 8:154, 2010.

- 0420I008 K.Omote, S.Kinami, T.Ohnishi, Y.Tomita, Y.Ohno, K.Hosokawa, M.Yokoi, H.Funaki, S.Yoshitani, N.Ueda, Y.Nakano, T.Kosaka: Laparoscopic gastrectomy for early gastric cancer, 9th International Conference of the Asian Clinical Oncology Society, (Gifu, '10.08).
- 0420I009 H.Funaki, T.Ohnishi, Y.Ohno, Y.Tomita, K.Hosokawa, M.Yokoi, S.Yoshitani, S.Kinami, K.Omote, N.Ueda, Y.Nakano, T.Kosaka: Pathological complete response in advanced gastric cancer Stage IV after preoperative chemotherapy including S-1 plus Cisplatin -- Report of a case, 9th International Conference of the Asian Clinical Oncology Society, (Gifu, '10.08).
- 0420I010 S.Kinami, T.Kosaka, T.Onishi, Y.Tomita, K.Hosokawa, M.Yokoi, S.Yoshitani, K.Omote, N.Ueda, Y.Nakano: The application of Liga-Sure precise to the lymph node dissection in gastric cancer surgery, 9th International Conference of the Asian Clinical Oncology Society, (Gifu, '10.08).
- 0420I011 M.Yokoi, Y.Ohno, Y.Nakano, T.Kosaka, M.Noguchi: A Novel Technique for Breast-conserving Surgery, The 3rd International Oncoplastic Breast Surgery Symposium 2010, (Tokyo, '10.11).

## 0430 Department of Orthopedics Surgery

### Faculty

Title	Name	Field of Specialization
Professor	MATSUMOTO Tadami	Hip surgery.
Professor	KAWAHARA Norio	Spinal surgery.
Professor(Additional Post)	OKADA Masato	Peripheral nerve surgery, Trauma.
Associate Professor	FUJITA Takuya	Spinal surgery.
Associate Professor	KANEUJI Ayumi	Hip and Knee surgery, Sports medicine.
Senior Assistant Professor	SUGIMORI Tanzo	Hip and Knee surgery, Sports medicine.
Senior Assistant Professor	OKUDA Tetsuhito	Spinal surgery.
Senior Assistant Professor	MAEOKA Hayato	Trauma.
Senior Assistant Professor	ICHISEKI Toru	Hip surgery.
Assistant Professor	HOSOKAWA Hidetaka	Spinal surgery.
Assistant Professor	HATANO Eijyu	Spinal surgery.
Assistant Professor	MIAKI Kohei	Hip surgery.
Assistant Professor	HIROMURA Kentaro	Trauma.
Assistant Professor	YASUDA Yoshihito	Spinal surgery.
Assistant Professor	FUKUI Kiyokazu	Hip surgery.
Assistant Professor	KITAMURA Kenji	Hip surgery.
Assistant Professor	TAKADA Naruki	Trauma.
Assistant Professor	TOMIDOKORO Jun	Hip Surgery.
Research Doctor	AKAGAWA Makoto	orthopaedic surgery.
Research Doctor	ORITA Yugo	orthopaedic surgery.

### Keywords of Research

herniated nucleus pulposus, spondylosis, spondylolysis, spondylolisthesis, degenerative spondylolisthesis, giant cell tumor, coxarthrosis, gonarthrosis, carpal tunnel syndrome, acromioclavicular dislocation, gonarthrosis purulenta, nerve graft, patellar tendon rupture, rheumatoid arthritis, benign chondroblastoma, patella subluxation syndrome, posterior lumbar interbody fusion, osteotomy, lumbar disc decompression, hallux valgus, synovectomy, total hip arthroplasty, tendon suture, humeral shaft fracture, osteonecrosis

### Outline of Research

There are three types of proximal femur in Japanese hip osteoarthritis patients and we are developing a new femoral prosthesis that would be more suitable for the Japanese patient using a computer aided design system. Additionally we are researching some factors such as an intravascular obstructive lesion or oxidative stress that would be a cause for steroid induced osteonecrosis of femoral head to prevent the occurrence of the disease.

Furthermore, we have been trying to elucidate the mechanism of degeneration of lumbar disc. It has been reported that apoptosis of vertebral disc cells occurs in the degenerative intervertebral disc. However, its molecular mechanism remains to be defined. The gene expression of Bax and Bcl-2 was analyzed in degenerative intervertebral disc. As a result, mechanical stress of the disc induces apoptosis through Bax, reducing the number of cells and the synthesis of



## Publications

### Originals

- 0430B001 (Y.Takatori), K.Ito, M.Sofue, Y.Hirota, M.Itoman, T.Matsumoto, Y.Hamada, H.Shindo, H.Yamada, Y.Yasunaga, H.Ito, S.Mori, I.Owan, G.Fujii, H.Ohashi, T.Mawatari, T.Iga, N.Takahira, T.Sugimori, H.Sugiyama, K.Okano, T.Karita, K.Ando, T.Hamaki, T.Hirayama, K.Iwata, M.Matsuura, S.Jingushi: Analysis of interobserver reliability for radiographic staging of coxarthrosis and indexes of acetabular dysplasia: a preliminary study, *J. Orthop. Sci.*, 15:14–19, 2010.
- 0430B002 (M.Sakaguchi), T.Tanaka, W.Fukushima, T.Kubo, Y.Hirota, A.Kaneuji, T.Matsumoto, (Idiopathic ONF Multicenter Case–Control Study Group): Impact of oral corticosteroid use for idiopathic osteonecrosis of the femoral head: a nationwide multicenter case–control study in Japan, *J. Orthop. Sci.*, 15:185–191, 2010.
- 0430B003 T.Mikami, T.Ichiseki, A.Kaneuji, Y.Ueda, T.Sugimori, K.Fukui, T.Matsumoto: Prevention of steroid–induced osteonecrosis by intravenous administration of vitamin E in a rabbit model, *J. Orthop. Sci.*, 15:674–677, 2010.
- 0430B004 (S.Jingushi), S.Ohfuji, M.Sofue, Y.Hirota, M.Itoman, T.Matsumoto, Y.Hamada, H.Shindo, Y.Takatori, H.Yamada, Y.Yasunaga, H.Ito, S.Mori, I.Owan, G.Fujii, H.Ohashi, Y.Iwamoto, K.Miyanishi, T.Iga, N.Takahira, T.Sugimori, H.Sugiyama, K.Okano, T.Karita, K.Ando, T.Hamaki, T.Hirayama, K.Iwata, S.Nakasone, M.Matsuura, T.Mawatari: Multiinstitutional epidemiological study regarding osteoarthritis of the hip in Japan, *J. Orthop. Sci.*, 15:626–631, 2010.
- 0430B007 M.Okada, E.Hatano, K.Hiromura, H.Maeoka, T.Matsumoto: Clinical results of the displaced intra–articular calcaneal fractures treated by open reduction and internal fixation, *The Journal of the Japanese Society for Surgery of the Foot*, 31:117–121, 2010 (in Japanese) .
- 0430B008 T.Fujita, T.Okuda, H.Hosokawa, E.Hatano, Y.Yasuda, T.Matsumoto: Clinical outcome of posterior cervical decompression using a tubular retractor for cervical radiculopathy with a minimum follow–up of 2 years, *J Spine Res.*, 1:1507–1511, 2010 (in Japanese) .
- 0430B015 T.Okuda, T.Fujita, A.Kaneuji, E.Hatano, T.Ichiseki, Y.Yasuda, K.Fukui, T.Matsumoto: Incidence of spondylolysis, spondylolisthesis and degenerative scoliosis of the lumbar spine in patients with terminal stage hip osteoarthritis, *J Spine Res.*, 1:1964–1967, 2010 (in Japanese) .

## Presentations at Conference

### International Conference (Presentations)

- 0430I001 T.Okuda, T.Fujita, H.Hosokawa, E.Hatano, Y.Yasuda, T.Matsumoto: Relationship between cage position and disc angle at the fused level in posterior lumbar interbody fusion, *Argospine 2010 Symposium*, (Paris, '10.01).
- 0430I002 K.Fukui, A.Kaneuji, T.Sugimori, T.Ichiseki, T.Matsumoto: A radiological study on the true anatomical position of the acetabulum in Japanese adult females, *The 20th Japanese–Korean Combined Orthopaedic Symposium (JKCOS 2010)*, (Ibusuki, '10.06), *The 20th Japanese–Korean Combined Orthopaedic Symposium Program & Abstracts*, 142, 2010.
- 0430I003 K.Fukui, A.Kaneuji, T.Sugimori, T.Ichiseki, T.Matsumoto: A radiological study on the center of the hip in acetabular dysplasia, *14eme Reunion de Societe Franco–Japonaise d'Orthopedie*, (Hiroshima, '10.09).
- 0430I004 K.Fukui, A.Kaneuji, T.Sugimori, T.Ichiseki, T.Matsumoto: Isolated acetabular revision without removal of the wellfixed uncemented stem for early return to society, *85e SOFCOT(Societe Francaise de Chirurgie Orthopedique et Traumatologique)*, (Paris, '10.11).

## 0440 Department of Neurosurgery

### Faculty

Title	Name	Field of Specialization
Professor	IIZUKA Hideaki	spinal disease, brain tumor, peripheral nerve disease.
Professor	TACHIBANA Osamu	brain tumor, hypothalamic and pituitary tumor.
Professor	AKAI Takuya	brain tumor, pediatric neurosurgical disease.
Associate Professor	TAKADA Hisashi	cerebrovascular disease, head injury, interventional neurosurgery.
Senior Assistant Professor	IIDA Takaaki	spinal disease, peripheral nerve disease.
Senior Assistant Professor	OKAMOTO Kazuya	brain tumor, stereotactic radiosurgery.
Assistant Professor	SASAGAWA Yasuo	brain tumor.
Assistant Professor	SIRAGA Syunsuke	general neurosurgery.
Assistant Professor	YAMAMOTO Jiro	general neurosurgery.
Assistant Professor	TORIGOE Keiichiro	general neurosurgery.
Research Doctor	TSUKADA Tsuyoshi	general neurosurgery.

### Keywords of Research

brain neoplasm, glioma, meningioma, neurinoma, skull base tumor, subarachnoid hemorrhage, cerebral aneurysm, arteriovenous malformation, stroke, radiosurgery, endovascular therapy, microvascular decompression, skull base surgery, spinal surgery, spinal fusion, atlantoaxial dislocation, cervical spondylosis, ossification of the spinal ligament, syringomyelia, spinal dysraphism, spinal neoplasm, spinal injury, neural injury, experimental spinal injury, spinal cord compression, cerebral ischemia

### Outline of Research

The purpose of research is to regenerate the damaged neurological function by disclosing the pathogenesis of brain, spinal cord and peripheral nerve diseases. The goal of research is to contribute to improve patient prognosis. For the purpose, the researchers have to find out problems based on their clinical view points and solve those questions. The subjects of disease are brain tumors, spinal diseases, cerebrovascular diseases, head injuries and congenital anomalies.

#### 1. Brain tumor

- 1) development of tumor differentiation induction therapy for malignant gliomas
- 2) disclose the poor prognosis factors in malignant gliomas (by genetic sub classification and protein expression study)
- 3) prediction of treatment results in the stereotactic radiosurgery against metastatic brain tumors ( by genetic classification and protein expression study)
- 4) radiological diagnosis of cystic pituitary tumors
- 5) disclose the pathogenesis of secondary hypophysitis

#### 2. Spine and spinal cord disease

- 1) disclose the cord degeneration mechanism by spinal cord compression model
- 2) long term treatment results and affecting factors in spinal surgery

#### 3. Cerebrovascular disease

- 1) disclose the molecular biological mechanism for acquisition of cerebral ischemia

#### 4. Head injury

- 1) operation methods and recurrence in chronic subdural hematoma

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5. Congenital anomaly  
1) treatment of hydrocephalus in fetus model  
2) disclose the responsible gene and surgical treatment for craniosynostosis
- 

## Publications

### Originals

- 0440B001 (H.Shima), M.Hasegawa, O.Tachibana, M.Nomura, J.Yamashita, Y.Ozaki, J.Kawai, M.Higuchi, H.Kado: Ocular dominance affects magnitude of dipole moment: an MEG study, *Neuroreport.*, 21:817-821, 2010.

### Case Reports

- 0440D001 M.Nakanishi, M.Kaito, Y.Gondo, H.Takada, M.Matsui, G.Hirose: Moyamoya disease presenting with an acute confusional state in an elderly patient, *J. Stroke Cerebrovasc. Dis.*, 247-250, 2010.

## Presentations at Conference

### International Conference (Presentations)

- 0440I001 O.Tachibana, Y.Sasagawa, K.Torigoe, S.Siraga, K.Yamamoto, K.Okamoto, T.Iida, T.Akai, H.Iizuka, A.Nakagawa, D.Koya: Inflammatory cytokines from Rathke cleft cysts are possible inducers of secondary hypophysitis, 14th International Congress of Endocrinology, (Kyoto, '10.03), *Endocrine Journal* (14th International Congress of Endocrinology Program & Abstracts), 57(Suppl.2):S507, 2010.
- 0440I002 O.Tachibana, Y.Sasagawa, K.Torigoe, K.Yamamoto, S.Siraga, K.Okamoto, T.Akai, H.Iizuka, A.Nakagawa, D.Koya: Expression of interleukin-1  $\beta$ , interleukin-6, interleukin-12p40 and TNF  $\alpha$  in human Rathke cleft cysts-A possible inducer of secondary hypophysitis associated with Rathke cleft cyst-, 14th International Congress of Endocrinology, (Kyoto, '10.03).
- 0440I003 T.Akai, H.Iizuka, S.Siraga, Y.Sasagawa, S.Kawakami, Y.Saikawa: Referral pattern of craniosynostosis patients-Is it early enough?, 38th Annual meeting of the international society for pediatric neurosurgery, (Korea, '10.10).

## 0450 Department of Plastic and Reconstructive Surgery

### Faculty

Title	Name	Field of Specialization
Professor	KAWAKAMI Shigehiko	Plastic and Reconstructive Surgery.
Senior Assistant Professor	SHIMADA Kenichi	Plastic and Reconstructive Surgery.
Senior Assistant Professor	MORITA Reiji	Plastic and Reconstructive Surgery.
Senior Assistant Professor	KISHIBE Miyuki	Plastic and Reconstructive Surgery.
Senior Assistant Professor	YAMAMOTO Yasunori	Plastic and Reconstructive Surgery.
Senior Assistant Professor	YAMASHITA Masanobu	Plastic and Reconstructive Surgery.
Assistant Professor	NISHIBU Yasuhiro	Plastic and Reconstructive Surgery.
Assistant Professor	HIMI Yuji	Plastic and Reconstructive Surgery.
Assistant Professor	NISHIO Akiko	Plastic and Reconstructive Surgery.
Assistant Professor	TAGUCHI Rie	Plastic and Reconstructive Surgery.
Assistant Professor	DAIZO Haruhisa	Plastic and Reconstructive Surgery.
Assistant Professor	MIYANAGA Toru	Plastic and Reconstructive Surgery.
Assistant Professor	KOMURO Akito	Plastic and Reconstructive Surgery.
Researcher	QUAN Liangliang	Plastic and Reconstructive Surgery.

### Keywords of Research

fibroblasts, FGF receptor, pressure ulcer, TGF- $\beta$ , TGF- $\beta$  receptor, keratinocytes, wound healing, craniofacial surgery, zygoma, cleft lip, cleft palate, microtia, tissue expansion, craniofacial cleft, orbital advancement, microsurgery, free flap, medial pedis flap, adipofascial turnover flap, burn reconstruction, burn wound management, MRI in congenital anomaly

### Outline of Research

- 1) Wound healing  
Promoting effects of wound dressings or drugs in wound healing process are studied clinically.
- 2) Tissue engineering  
Regeneration of the skin and subcutaneous tissue using artificial materials are studied clinically and experimentally
- 3) Cranio-maxillo-facial surgery  
New operative procedures in cranio-maxillo-facial fields are attempted to develop.

## Publications

### Originals

- 0450B001 L.Quan, R.Morita, S.Kawakami: Toxic shock syndrome toxin-1(TSST-1)antibody levels in Japanese children, *Burns*, 36:716-721, 2010.
- 0450B002 N.Koizumi: Basic fibroblast growth factor stimulates proliferation and differentiation of perichondrocytes of rabbit auricular cartilage *in Vivo*, *J. Kanazawa. Med. Univ.*, 35:122-130, 2010 (in Japanese) .

### Reviews

- 0450C002 Y.Ueda, M.Shimasaki, Y.Machida, Y.Takahara, Y.Himi, Y.Ishigaki, K.Sato, T.Sakuma, H.Toga, S.Kawakami, S.Katsuda: Aquaporin as a novel player in cancer cell the invasion of cancer cells, *J. Kanazawa. Med. Univ.*, 35:55-60, 2010 (in Japanese) .

## Presentations at Conference

### International Conference (Presentations)

- 0450I001 H.Daizo, M.Yamashita, M.Kishibe, K.Shimada, S.Kawakami: Surgical outcome of five cases denunstrating fibrous dysplasia in the craniofacial lesion, The 10th Korea-Japan Cingress of Plastic and Reconstructive Surgery, (Korea, '10.06).
- 0450I002 Y.Himi, N.Koizumi, S.Kawakami: Proliferative and differentiative effects of basic Fibroblast Growth Factor(bFGF)on the elastic cartilage in rabbit ear, The 10th Korea-Japan Cingress of Plastic and Reconstructive Surgery, (Korea, '10.06).
- 0450I003 M.Kishibe, S.Kawakami: An anatomical study of mimic muscles and facial nerve: Dissection from the deep surface, the 20th China-Japan Joint Congress on Plastic Surgery, (Shanghai, '10.08).
- 0450I004 R.Morita, M.Yamashita, M.Kishibe, K.Shimada, S.Kawakami: Sentinel navigation surgery with combination method with dye and radioisotopes for malignant melanoma and non-melanoma cutaneous malignancies, the 20th China-Japan Joint Congress on Plastic Surgery, (Shanghai, '10.08).
- 0450I005 M.Kadohira, T.Kurosawa, M.Yamashita, M.Kishibe, K.Shimada, S.Kawakami: Clinical investigations of the cases with macrostomia in Kanazawa medical university hospital, the 20th China-Japan Joint Congress on Plastic Surgery, (Shanghai, '10.08).
- 0450I006 A.Komuro, N.Koizumi, R.Morita, S.Kawakami: An 11-year experience in the surgical management, the 20th China-Japan Joint Congress on Plastic Surgery, (Shanghai, '10.08).
- 0450I007 T.Akai, H.Iizuka, S.Siraga, Y.Sasagawa, S.Kawakami, Y.Saikawa: Referral pattern of craniosynostosis paien-Is it early enough?, 38th Annual meeting of the internaional sociey for pediatric neurosurgery, (Korea, '10.10).

## 0460 Department of Pediatric Surgery

### Faculty

Title	Name	Field of Specialization
Professor	IKAWA Hiromichi	Pediatric surgery, Defecatory function, Liver transplantation
Professor	KOHNO Miyuki	Pediatric surgery, Pediatric endoscopic surgery, Pediatric urology
Senior Assistant Professor	MASUYAMA Hiroaki	Pediatric surgery, Liver transplantation
Assistant Professor	OSHIKIRI Takahiro	Pediatric surgery
Assistant Professor	YASUI Yoshitomo	Pediatric surgery.
Research Doctor	KUWAHARA Tsuyoshi	Pediatric surgery.
Research Doctor	TAKAHASHI Sadayoshi	Pediatric surgery

### Keywords of Research

inguinal hernia, hydrocele of the cord, acute abdomen, quality of life, endoscopy, congestive gastroenteropathy, biliary atresia, epidemiology, spontaneous cure, prevalence, neonatal surgery, vesicoureteral reflux, urostoma, intravenous hyperalimentation, hydrocele testis, cryptorchism, appendicitis, anorectal malformation, endoscopic surgery, gastro-esophageal reflux, liver transplantation, pediatric surgical common disease, natural history, pediatric solid malignant tumor, pediatric urology, phimosis, intestinal stoma

### Outline of Research

Hemodynamic evaluation of PDA flow to decide the optimal timing for radical operation of congenital diaphragmatic hernia.  
The importance of rectal branch to induce high amplitude propagated colonic contraction.  
Clinical study of pediatric endoscopic surgery.  
Histochemical study of extracellular matrices which accelerate the hepatic fibrosis of biliary atresia.

### Publications

#### Originals

- 0460B001 M.Kohno, H.Ikawa, T.Kuwahara, S.Takahashi, Y.Yasui, T.Oshikiri, H.Masuyama: The postoperative bowel function with transanal endorectal pull-through and transabdominal procedure (Z-shaped anastomosis) for Hirschsprung's disease, J. Kanazawa. Med. Univ., 35:1-8, 2010 (in Japanese) .

#### Case Reports

- 0460D001 M.Kohno, H.Ikawa, K.Konuma, H.Masuyama, H.Fukumoto, E.Ogawa, S.Takahashi, N.Kurose: Laparoscopic enucleation of a gastroenteric duplication cyst arising in a pancreatic tail that did not communicate with the pancreatic duct: report of a case, Surg Today, 40:81-284, 2010.
- 0460D002 H.Minato, S.Kaji, E.Kinoshita, N.Kurose, T.Nojima, M.Kohno, K.Konuma, H.Ikawa: Solitary intrapulmonary cystic lymphangioma in an infant: A case report with literature review, Pathol. Res. Pract., 206:851-856, 2010.

## **Presentations at Conference**

### **International Conference (Symposium)**

- 0460H001 H.Masuyama, H.Ikawa, T.Kuwahara, S.Takahashi, H.Fukumoto, M.Kohno: Is transanal endorectal pull through beneficial for colonic motility defecation?, XXIII International Symposium on Paediatric Surgical Research, (Tokyo, '10.09).

### **International Conference (Presentations)**

- 0460I001 M.Kohno, H.Ikawa, K.Konuma, H.Masuyama, T.Oshikiri, S.Takahashi, T.Kuwahara: Extended perineal anorectoplasty to avoid damaging the rectal branch of pelvic plexus of imperforate anus with rectoprostatic urethral fistula, 43rd Pacific Association of Pediatric Surgeons, (Kobe, '10.04).
- 0460I002 H.Masuyama, H.Ikawa, T.Kuwahara, S.Takahashi, H.Fukumoto, M.Kohno: Minimal damage to rectal branches of Pelvic Plexus during surgery can achieve good postoperative colonic motility after transanal endorectal pull-through(TAEPT)for Hirschsprung's disease, 43rd Pacific Association of Pediatric Surgeons, (Kobe, '10.04).

## 0470 Department of Ophthalmology

### Faculty

Title	Name	Field of Specialization
Professor	SASAKI Hiroshi	cataract, epidemiology, uveitis.
Professor	KITAGAWA Kazuko	ocular infection, Sjogren's syndrome, keratoconjunctivitis sicca, lacrimal fluid, proteomics.
Associate Professor(Additional Post)	KOJIMA Masami	cataract, ophthalmological optics, electromagnetic ocular injury, epidemiology.
Senior Assistant Professor	FUKUDA Masamichi	ocular pharmacology, intraocular, penetration.
Senior Assistant Professor	SAKAMOTO Yasuo	ophthalmological optics.
Senior Assistant Professor	NAGAI Kota	cataract, epidemiology,
Senior Assistant Professor	KAWAKAMI Yutaka	cataract, thyroid ocular.
Assistant Professor	FUJITA Nobuyuki	uveitis.
Assistant Professor	YAGUCHI Hiromoto	corneal epithelium, glaucoma.
Assistant Professor	HAGIWARA Kenta	ocular infection.
Assistant Professor	INAGAKI Shinsuke	ocular infection.
Assistant Professor	OSADA Hiromi	cataract, ophthalmology.
Assistant Professor	SHIBATA Naoko	cataract, ophthalmology.
Research Associate	HATSUSAKA Natsuko	ophthalmological optics.

### Keywords of Research

proteomics, cataract classification, corneal epithelium, crystallin lens, dry eye, glaucoma, image analysis, lens sectioning technique, melanin, ocular toxicology, Scheimpflug photography, tear secretion, UV-B, UV-induced ocular disease, UV-dosimetry, lens organ culture, age related cataract, cataract epidemiology, cytotoxicity, fluoroquinolone, herpetic keratitis, intraocular drug dynamics, lens epithelium, light scattering, retroillumination image, Sjogren's syndrome, three-dimensional image, V-E, intraocular lens(IOL), cell culture

### Outline of Research

There are five major themes for research in our department including: 1) ophthalmic epidemiology, 2) clinical research for crystalline lens and intraocular lens (IOL), 3) basic research of cataract, 4) clinical research for keratoconjunctival diseases and 5) ophthalmic pharmacology. Concerning 1), we have performed epidemiological studies in climatically different places (Ishikawa and Kagoshima, Japan, Singapore, Iceland and China). These studies have included prevalence, incidence and risk factors of cataract, pterygium, high myopia, glaucoma and age-related macular degeneration. For 2), we have worked on image analysis of the crystalline lens, drew up a new classification system for cataract, and done research on visual performance in cataractous eye and IOL. Regarding 3), we have evaluated effects of anti-cataractous drugs using animal models and also investigated the mechanism of posterior capsular opacity (PCO). Development of a preventative drug for PCO is undergoing. Considering 4), a new precise and simple technique for diagnosis of Sjogren's syndrome using proteomics of tears is under development. Clinical research for diagnosis and treatment for ophthalmic infective diseases is also underway. And for 5), ocular dynamics of eye drops, effectiveness and toxicity of eye drops, and a new method for measuring corneal damage in vivo are all being investigated.



## Publications

### Originals

- 0470B001 (JP.Whitcher), CH.Shiboski, SC.Shiboski, AM.Heidenreich, K.Kitagawa, S.Zhang, S.Hamann, G.Larkin, NA.Mcnamara, JS.Greenspan, TE.Daniels: A simplified quantitative method for assessing keratoconjunctivitis sicca from the Sjogren's syndrome international registry, *Am. J. Ophthalmol.*, 149:405-415, 2010.
- 0470B002 J.Qu, H.Sasaki, Y.Sakamoto, Y.Kawakami, K.Sasaki, F.Jonasson: Higher-order ocular aberrations caused by crystalline lens waterclefts, *J. Cataract Refract. Surg.*, 36:799-805, 2010.
- 0470B003 (A.Hirata), M.Kojima, H.Kawai, Y.Yamashiro, S.Watanabe, H.Sasaki, O.Fujiwara: Acute dosimetry and estimation of threshold-inducing behavioral signs of thermal stress in rabbits at 2.45-GHz microwave exposure, *IEEE Trans. Microw. Theory Tech.*, 57:1234-1242, 2010.
- 0470B004 (A.Arnarsson), F.Jonasson, KF.Damji, MS.Gottfredsdottir, T.Sverrisson, H.Sasaki: Exfoliation syndrome in the Reykjavik eye study : risk factors for baseline prevalence and 5-year incidence, *Br. J. Ophthalmol.*, 94:831-835, 2010.
- 0470B005 Y.Oikawa, A.Kobayashi, K.kitagawa: Anti-acanthamoeba efficacy in pimaricine (natamycin) whici is antimycotic drug, *Ann. rep. Ohara Hosp.*, 50:27-30, 2010 (in Japanese) .

## Presentations at Conference

### International Conference (Presentations)

- 0470I001 M.Kojima, Y.Yamashiro, T.Sasaki, Y.Suzuki, K.Sasaki, H.Sasaki: Analysis of heat transportation to crystalline lens surface by aqueous aqueous humor convection, *The Association for Research in Vision and Ophthalmology*, (Florida, '10.05).
- 0470I002 (T.Tarura), K.Sasaki, Y.Sakamoto, N.Hatsusaka, D.Lom, HM.Cheng, F.Jonasson, H.Sasaki: A comparison of ocular sturcture and optical systems in eyes of middle-aged Taiwanese and Icelanders, *The Association for Research in Vision and Ophthalmology*, (Florida, '10.05).
- 0470I003 H.Sasaki, N.Mita, Y.Sakamoto, E.Shibuya, N.Hatsusaka, F.Jonasson, K.Sasaki: Verification of predictive accuracy of index of lens transparency using a Scheimpflug camera and 12-year follow-up, *The Association for Research in vision and Ophthalmology*, (Florida, '10.05).
- 0470I004 M.Fukuda, H.Sasaki, K.Kitagawa, A.Kawai, Y.Seki, M.Yoshikawa: Comparison of degree of penetration of  $\beta$ -biocker ophthalmic solution with and without preservative into rabbit aqueous humor, *The association for Research in Vision and Ophthalmology*, (Florida, '10.05).
- 0470I005 N.Hatsusaka, Y.Sakamoto, N.Mita, E.Shibuya, J.Qu, H.Sasaki: Relationship of axial length to myopic influence on nuclear cataract, *The Association for Research in vision and Ophthalmology*, (Florida, '10.05).
- 0470I006 N.Shibata, K.Kitagawa, Y.Sakamoto, Y.Yamashiro, N.Fujita, N.Hatsusaka, H.Sasaki: Changes in corneal higher order aberration after pterygium excision, *The Association for Research in Vision and Ophthalmology*, (Florida, '10.05).
- 0470I007 Y.Yamashiro, K.Sato, A.Hirata, M.Kojima, T.Sakai, S.Watanabe, M.Taki, Y.Suzuki, K.Sasaki, H.Sasaki: Normalized temperature elevation velocity in ocular tissues by 18-40 GHz radio-frequency exposure, *The Association for Research in Vision and Ophthalmology*, (Florida, '10.05).
- 0470I008 Y.Sakamoto, N.Hatsusaka, E.Shibuya, N.Mita, J.Qu, H.Sasaki, H.Nakaizumi, K.Sasaki: Deterioration nquality of vision by nono-opaque watercleft lens defects, *The 8th Asian Cataract Research Conference*, (Hangzhou, '10.06).
- 0470I009 H.Osada, Y.Yamashiro, R.Honda, M.Kojima, Y.Sakamoto, N.Hatsusaka, M.Tarura, Y.Kawakami, J.Qu, HM.Cheng, K.Sasaki, H.Sasaki: Prevalence of cataract in anurban region of Taiwan comparison with three different areas in China and an area in Japan, *The 8th Asian Cataract Research Conference*, (Hangzhou, '10.06).

- 0470I010 M.Kojima, Y.Yamashiro, K.Sasaki, H.Sasaki: Examination of threshold 60 Ghz Millimeter wave ocular exposure in rabbit, The 8th Asian Cataract Research Conference, (Hangzhou, '10.06).
- 0470I011 N.Hatsusaka, Y.Sakamoto, E.Shibuya, N.Mita, Y.Kawakami, N.Fujita, H.Osada, S.Inagaki, N.Shibata, H.Sasaki: Refractive power of nuclear cataract eyes and influence on myopia, The 8th Asian Cataract Research Conference, (Hangzhou, '10.06).
- 0470I012 N.Mita, N.Hatsusaka, E.Shibuya, Y.Sakamoto, F.Jonasson, K.Sasaki, H.Sasaki: Prediction of aging change in lens of normal Icelanders Reykjavik eye Study, The 8th Asian Cataract Research Conference, (Hangzhou, '10.06).
- 0470I013 E.Shibuya, J.Qu, Y.Sakamoto, N.Hatsusaka, N.Mita, M.Kojima, F.Jonasson, K.Sasaki, H.Sasaki: Natural course of cortical opacity over 12 years Reykjavik Eye study, The 8th Asian Cataract Research Conference, (Hangzhou, '10.06).
- 0470I014 (Y.Suzuki), M.Kojima, T.Sakai, Y.Yamashiro, T.Taguchi, A.Koike, M.Taki, K.Sasaki, H.Sasaki: Experimental analysis on the thermal convection of aqueous humor in anterior chamber driven by the millimeter-wave exposure at 77GHZ, The Bioelectromagnetics Society 32nd annual Meeting, (Seoul, '10.06).
- 0470I015 M.Kojima, S.Taiji, Y.Yamashiro, Y.Suzuki, S.Watanabe, M.Taki, K.Sasaki, H.Sasaki: Mechanism of ocular temperature difference between 18 and 40 HGZ exposure, The Bioelectromagnetics Society 32nd annual Meeting, (Seoul, '10.06).
- 0470I016 Y.Yamashiro, A.Hirata, K.Sato, M.Kojima, T.Sakai, S.Watanabe, K.Wake, M.Taki, Y.Suzuki, Y.Kamimura, Y.Sakamoto, Y.Kawakami, K.Sasaki, H.Sasaki: Comparison of temperature in ocular tissues by 18-40 GHZ radio-frequency exposure, The Bioelectromagnetics Society 32nd annual Meeting, (Seoul, '10.06).
- 0470I017 (A.Koike), Y.Suzuki, T.Taguchi, M.Kojima, Y.Yamashiro, T.Sakai, S.Watanabe, M.Taki, K.Sasaki, H.Sasaki: Velocimetry on thermal convection flow of aqueous humor in anterior chamber caused by millimeter-wave exposure, 2010 Asia-Pacific Radio Science Congerence, (Toyama, '10.09).
- 0470I018 M.Kojima, Y.Yamashiro, H.Sasaki, K.Sasaki, T.Sakai, K.Wake, S.Watanabe, Y.Kamimura, A.Hirata, Y.Suzuki, M.Taki: Verification of safety guidelines for 60 GHz millimeter wave ocular exposure, 2010 Asia-Pacific Radio Science Congerence, (Toyama, '10.09).

## 0480 Department of Otolaryngology

### Faculty

Title	Name	Field of Specialization
Professor	MIWA Takaki	Otorhinolaryngology, Head and Neck Surgery
Professor	SUZUKA Yuko	Otology, Audiology, Equilibrium, Neuro-otology, phonation, Medical education
Professor	TSUJI Hiroyuki	Head and neck oncology, Head and neck surgery
Senior Assistant Professor	SHIGA Hideaki	Rhinology, Olfactory disorders
Senior Assistant Professor	HORIGUCHI Akiko	Equilibrium, Vestibular research, Laryngology, Voice restruction
Senior Assistant Professor	SHIMODE Yuzo	Head and neck oncology, surgery, Thyroid gland tumor research
Assistant Professor	MIYAZAWA Toru	Head and neck oncology, Head and neck surgery
Assistant Professor	YAMADA Kanako	Rhinology
Assistant Professor	SAKAI Aya	Sleep apnea syndrome
Assistant Professor	KITAMURA Miwa	Pediatric otology, Pollinosis
Assistant Professor	YAMAMOTO Junpei	General otorhinolaryngology, Olfactory disorders

### Keywords of Research

olfactory disorders, neurotology, tympanoplasty, cochlear implant, middle ear implant, virtual endoscopy, computer-aided surgery, endoscopic nasal surgery, laser surgery, sleep apnea & snore surgery, skull base surgery, head and neck tumor surgery, molecular biology, oncology, laryngology, speech rehabilitation, acoustic neuroma surgery, navigation surgery, tele-medicine, thyroid tumor surgery, virtual education for surgery

### Outline of Research

Basic and clinical research for the diagnosis and treatment of olfactory disorders  
Central mechanism of audiological function by MEG  
Clinical research for Head and Neck tumor and Oncology  
Restriction for phonation with Provox 2 prosthesis  
Research for Thyroid and parathyroid gland  
Clinical research for snore and sleep apnea

### Publications

#### Originals

0480B002 (T.Tsukatani), T.Miwa, T.Yoshizaki: Nasal fracture reduction using ultrasonography, Pract. otol., 103:813-818, 2010 (in Japanese) .

#### Reviews

0480C015 T.Miwa: Recent progress of basic research on olfactory reception and the pathology of olfactory disorders, Pract. otol., 103:1073-1081, 2010 (in Japanese) .

## Case Reports

- 0480D002 A.Sakai, H.Ishimasa, H.Tsuji: A case of cystic hygroma in the parotid gland of an adult, Journal of Japan Society for Head and Neck Surgery, 20:69-74, 2010 (in Japanese) .
- 0480D003 K.Yamada, H.Shiga, J.Yamamoto, T.Miwa: A case of recurrent frontal sinusitis -The usefulness of Mini-Trephine-, Oto-rhino-laryngology Tokyo, 53:327-330, 2010 (in Japanese) .

## Presentations at Conference

### International Conference (Presentations)

- 0480I001 T.Miwa, H.Shiga, J.Taki, S.Kinuya, K.Washiyama: Olfactory scintigraphy in normal volunteer by intranasal Tl-201 administration, ACHEMS 2010 Annual Meeting, (San Francisco, '10.04).
- 0480I002 H.Shiga, A.Tsuchida, K.Washiyama, J.Yamamoto, S.Yagi, T.Yoshizaki, M.Furukawa, R.Amano, T.Miwa: Regeneration of olfactory nerve is accelerated by oral intake of TJ-137 (Chinese medicine; Kamikihitou) in vivo, The 29th International Symposium on Infection and Allergy of the Nose, (Geneva, '10.06).
- 0480I003 H.Shiga, J.Taki, S.Kinuya, M.Furukawa, T.Miwa: Thallium olfacto-scintigraphy visualizes nasal transport to the olfactory bulb, The 29th International Symposium on Infection and Allergy of the Nose, (Geneva, '10.06).
- 0480I004 A.Sakai, T.Miwa: Selection of Treatment for Obstructive Sleep Apnea Syndrome Based on Dynamic MRI Scanning, The 7th International Symposium of Tonsils and Mucosal Barriers of the Upper Airways, (Asahikawa, '10.07).

## 0490 Department of Dermatology

### Faculty

Title	Name	Field of Specialization
Professor	MOCHIZUKI Takashi	Medical mycology, Dermatormycosis.
Associate Professor	TANABE Hiroshi	Medical mycology, Decubitus.
Associate Professor	KAWASAKI Masako	Medical mycology.
Associate Professor	NISHIBU Akiko	Immunology.
Senior Assistant Professor	WATANABE Seiji	Medical mycology.
Senior Assistant Professor	ABE Shinya	Skin tumor and growth factors.
Senior Assistant Professor	FUJII Toshiki	Dermatopathology.
Senior Assistant Professor	ISHIZAKI Yasuko	Dermatopathology, cutaneous malignant tumor.
Assistant Professor	TAKEDA Kiminobu	Medical mycology.
Assistant Professor	FUJITA Jun	Medical mycology.
Assistant Professor	HASEI Maki	Skin tumor and growth factors, Medical mycology.
Assistant Professor	ANZAWA Kazushi	Medical mycology.
Research Doctor	YOSHIMURA Rieko	Medical mycology.
Research Doctor	HATTA Jyunko	Image analysis.
Research Doctor	NANBU Masayuki	Dermatopathology.

### Keywords of Research

fungi, dermatophytes, *Candida* species, *Sporothrix* species, dematiaceous fungi, mitochondrial DNA, restriction fragment length polymorphism, ribosomal DNA, phylogeny, taxonomy, molecular epidemiology, molecular typing, electron microscopy, dermatopathology, skin tumor, decubitus, immunopathology, immunology, langerhans cell

### Outline of Research

Research activities in the Department of Dermatology are mainly in the fields of cutaneous mycosis and medical mycology. We introduced a nail drilling method for onychomycosis, to improve the methods of sampling, diagnosis and treatment by antimycotics. For tinea capitis and tinea corporis spreading over wrestling, judo and sumo wrestlers, we support dermatologists for identifying the causative fungi, *Trichophyton tonsurans*, and collect the nationwide epidemiological data. We try to find an effective infection control system combining with a hairbrush sampling method and antimycotics to the epidemics.

In the field of basic mycology, a new technique based on the analysis of intergenic regions of certain genomes are found to be useful to detect intra-species variations of *T. mentagrophytes*. Besides, the other aim of our research is to disclose the phylogenetic relationships of *Trichophyton* species based on multi-locus gene analysis and mating tests, and to understand those species as they are.

In the most recent years, we began to study the pathophysiology of deep tissue injury, which is an uncommon clinical type of decubitus after surgical operations.

### Books

- 0490A003 T.Mochizuki: Fungal Infections, Therapy of Skin Diseases (In Krieg T, Bickers D, Miyachi Y (Eds), 149–156, Springer-Verlag, Berlin Heidelberg Germany, 2010.

## Publications

### Originals

- 0490B001 (S.Watanabe), T.Harada, M.Hiruma, K.Iozumi, T.Katoh, T.Mochizuki, W.Naka: Epidemiological survey of foot diseases in Japan: Results of 30 000 foot checks by dermatologists, *J. Dermatol.*, 37:397–406, 2010.
- 0490B002 K.Anzawa, M.Kawasaki, T.Mochizuki, H.Ishizaki: Successful mating of *Trichophyton rubrum* with *Arthroderma simii*, *Med. Mycol.*, 48:629–634, 2010.
- 0490B003 A.Wakasa, K.Anzawa, M.Kawasaki, T.Mochizuki: Molecular typing of *Trichophyton mentagrophytes* var. *interdigitale* isolated in a university hospital in Japan based on the non-transcribed spacer region of the ribosomal RNA gene, *J. Dermatol.*, 37:431–440, 2010.
- 0490B004 (M.Yanagihara), M.Kawasaki, H.Ishizaki, K.Anzawa, S.Udagawa, T.Mochizuki, Y.Sato, N.Tachikawa, H.Hanakawa: Tiny keratotic brown lesions on the interdigital web between the toes of a healthy man caused by *Curvularia* species infection and a review of cutaneous *Curvularia* infections, *Mycoscience.*, 51:224–233, 2010.
- 0490B005 M.Kawasaki, K.Anzawa, A.Wakasa, K.Takeda, T.Mochizuki, H.Ishizaki, B.Hemashettar: Matings among three teleomorphs of *Trichophyton mentagrophytes*, *Jpn. J. Med. Mycol.*, 51:143–152, 2010.

### Case Reports

- 0490D001 K.Takeda, J.Fujita, T.Fujii, H.Tanabe, T.Mochizuki, M.Yanagihara: Case of remitting seronegative symmetrical synovitis with pitting edema (RS3PE syndrome) showing dermatomyositis-like eruption, *J. Dermatol.*, 37:102–106, 2010.
- 0490D003 M.Nanbu, T.Fujii, S.Abe, M.Kawasaki, T.Mochizuki: Cutaneous phaeohyphomycosis Caused by *Exophiala jeanselmei*, *Skin research*, 9:173–179, 2010 (in Japanese) .
- 0490D004 T.Sakamoto, T.Ushigami, K.Anzawa, T.Fujii, S.Abe, T.Mochizuki, Y.Hayashi: A Case of Sporotrichosis Promptly Diagnosed by Direct PCR, *Skin research*, 9:254–259, 2010 (in Japanese) .

## Presentations at Conference

### International Conference (Presentations)

- 0490I001 M.Kawasaki, K.Anzawa, A.Nishibu, H.Tanabe, H.Ishizaki, T.Mochizuki: Mating behavior and phylogenetic incongruity among *Trichophyton* and *Arthroderma* species, 9th International Mycological Congress, IMC9: The biology of fungi, (Edinburgh, '10.08).
- 0490I002 K.Takeda, A.Nishibu, H.Tanabe, K.Anzawa, M.Kawasaki, T.Mochizuki, H.Ishizaki: Twenty three cases of tinea capitis at the Kanazawa Medical University Hospital, The First Eastern Asia Dermatology Congress, (Fukuoka, '10.09).

## 0500 Department of Urogenital Surgery

### Faculty

Title	Name	Field of Specialization
Professor	SUZUKI Koji	kidney stone disease, kidney transplantation, hyperparathyroidism
Professor	TANAKA Tatsuro	kidney transplantation, endourology
Associate Professor	MIYAZAWA Katsuhito	kidney stone disease, endourology, prostate cancer
Senior Assistant Professor	KAWAMURA Kenji	kidney stone disease, urogenital cancer
Senior Assistant Professor	MORIYAMA Manabu	kidney transplantation, kidney stone disease
Assistant Professor	SUGA Koudai	general urology
Assistant Professor	CHIKAZAWA Ippei	general urology
Assistant Professor	TOKUNAGA Kousuke	general urology
Assistant Professor	TACHIBANA Hiromichi	general urology
Assistant Professor	ISHII Takeo	general urology
Assistant Professor	MORITA Nobuyo	general urology

### Keywords of Research

chronic renal failure, renal transplantation, acquired cystic disease of the kidney, secondary hyperparathyroidism, acute rejection, immunosuppression, renal stone, ESWL, TUL, endourology, calcium oxalate, glycosaminoglycans, heparan sulfate, crystal matrix protein, prothrombin, scanning microscopy, renal cell carcinoma, flow cytometry, BPH, prostatic cancer, bladder cancer, p53, urinary incontinence

### Outline of Research

clinical research on renal transplantation, mechanism of urolithiasis

### Publications

#### Originals

- 0500B001 M.Moriyama, T.Tanaka, N.Morita, T.Ishii, I.Chikazawa, K.Suga, K.Miyazawa, K.Suzuki: Renal protective effects of erythropoietin on ischemic reperfusion injury, *Cell Transplant.*, 19:713-721, 2010.
- 0500B002 T.Tanaka, N.Morita, T.Ishii, H.Tachibana, K.Tokunaga, I.Chikazawa, K.Suga, M.Moriyama, K.Miyazawa, K.Suzuki: Cadaveric kidney donation from non-heart beating donor and deceased donor kidney transplantation in kanazawa medical university hospital, *J. Kanazawa. Med. Univ.*, 35:55-60, 2010 (in Japanese) .
- 0500B003 M.Moriyama, T.Tanaka, K.Suzuki: Renal protective effects of erythropoietin on ischemic reperfusion injury, *Acta Urol. Jpn.*, 56:473-479, 2010 (in Japanese) .

#### Case Reports

- 0500D001 H.Atsumi, M.Asaka, S.Kimura, J.Imura, K.Fujimoto, Y.Chikazawa, M.Nakagawa, H.Okuyama, H.Yamaya, M.Moriyama, T.Tanaka, K.Suzuki, H.Yokoyama: A case of second renal transplantation with acute antibody-mediated rejection complicated with BK virus nephropathy, *Clin. Transplant.*, 24:35-38, 2010.

## Others

0500F002 T.Tanaka, S.Takahara: Marginal—Donor and Recipient—, Acta Urol. Jpn., 56:467-468, 2010 (in Japanese) .

## Presentations at Conference

### International Conference (Presentations)

0500I001 M.Moriyama: Renal protective effects of erythropoiesis stimulation agent on ischemic reperfusion injury, XXIII International Congress of the Transplantation Society, (Vancouver, '10.08).



## 0510 Department of Obstetrics and Gynecology

### Faculty

Title	Name	Field of Specialization
Professor	MAKINODA Satoru	reproductive physiology, perinatal medicine, gynecologic oncology, ovulation and cytokines.
Associate Professor	SASAGAWA Toshiyuki	Gynecologic Pathology, Tumor Virology, Sexually Transmitted Infection Research, Immunology.
Associate Professor(Additional Post)	FUJII Ryota	perinatal medicine, reproductive endocrinology.
Senior Assistant Professor	WATANABE Yukio	perinatal medicine, reproductive endocrinology, perinatal diagnosis.
Senior Assistant Professor	WASADA Tomoo	reproductive medicine, perinatal medicine, gynecologic oncology.
Senior Assistant Professor	OKA Yasuko	perinatal medicine, reproductive medicine.
Senior Assistant Professor	TAKAGI Hiroaki	perinatal medicine, reproductive medicine, gynecologic oncology.
Senior Assistant Professor	TOMIZAWA Hideki	perinatal medicine, reproductive medicine.
Senior Assistant Professor	FUJITA Satoko	perinatal medicine, reproductive medicine.
Assistant Professor	SASAKURA Chihaya	perinatal medicine, perinatal diagnosis.
Assistant Professor	NEYATANI Natsuko	perinatal medicine, climacteric medicine.

### Keywords of Research

hypothalamus-pituitary system, prenatal diagnosis, malignant tumor of female genital organs, fertilization and nidation, postmenopausal osteoporosis, endothelin, corpus luteum insufficiency, hormone-replacement therapy, nutrition and metabolism in pregnant women, abnormal sexual differentiation, toxikosis of pregnancy, myoma uteri, climacteric symptoms, mechanism of abortion, endometriosis, HGF, cytokine, G-CSF, IL-6, ovulation, hemodynamics, vaginal agenesis

### Outline of Research

<Reproductive Endocrinology>

(Ovarian function and Cytokines)

Mechanism of luteolysis regulated by IL-6

Mechanism of ovulation regulated by G-CSF and its clinical application

(Water transport in the female genital tract)

Mechanism of aquaporin water channels in the ovary and oviduct

(Ovulatory process and Ovarian blood flow)

Prediction of ovulation using ovarian blood flow measurement

<Perinatology>

(Mechanism of Labor pains)

Relation between labor pains and G-CSF, and its clinical application for the prediction of premature labor

(Prenatal diagnosis for Fetus)

New method for fetal diagnosis using ultrasonography

Retrospective analysis for fetal MRI findings, compared with pathological and neonatal diagnosis

(Prognostic factor for early pregnant loss)

Analysis for hCG, Progesterone and G-CSF as prognostic factor for early pregnant loss

## Presentations at Conference

### International Conference (Presentations)

- 0510I001 S.Makinoda: Ninety percents of LUF during clomiphene-hCG treatment can be prevented by using G-CSF, 26th Annual Meeting of European Society of Human Reproduction and Embryology, (Rome, '10.06).
- 0510I002 R.Fujii: Possible Involvement of Interleukin-6 in Human Luteolysis, 26th Annual Meeting of European Society of Human Reproduction and Embryology, (Rome, '10.06).
- 0510I003 T.Sasagawa, Md. Mosfequr Rahman, H.Tomizawa, S.Fujita, H.Takagi, Y.Oka, R.Fujii, S.Makinoda: A novel ablative therapy using phenol for cervical intraepithelial lesions and condyloma acuminata, 26th International Papillomavirus Conference, (Montreal, '10.07).
- 0510I004 (F.Ito), K.Ideta, T.Irie, T.Sasagawa: Multi-center study on human papillomavirus associated diseases in Japan (J-HERS), 26th International Papillomavirus Conference, (Montreal, '10.07).
- 0510I005 H.Tomizawa, S.Fujita, Y.Oka, H.Takagi, T.Wasada, R.Fujii, T.Sasagawa, S.Makinoda: Novel treatment for Luteinized Unruptured Follicle (LUF) using Granulocyte Colony-Stimulating Factor (G-CSF), 20th World Congress on Fertility and Sterility, (Munich, '10.09).
- 0510I006 T.Wasada, Y.Oka, S.Makinoda: Myometrial blood flow analysis in pregnant women with IUGR, 20th World Congress on Ultrasound in Obstetrics and Gynecology, (Prague, '10.10).
- 0510I007 Y.Oka, T.Wasada, S.Makinoda: The usefulness of MRI in the diagnosis of fetal lung maturity, 20th World Congress on Ultrasound in Obstetrics and Gynecology, (Prague, '10.10).
- 0510I008 T.Sasagawa: Novel immunology-based therapies for HPV-related cervical neoplasia, 9th International Workshop Immunotherapy 2010, (Havana, '10.11).

## 0520 Department of Anesthesiology and Perioperative Medicine

### Faculty

Title	Name	Field of Specialization
Professor	TSUCHIDA Hideaki	Cardiovascular effects of anesthetics.
Senior Assistant Professor	SHIRAISHI Miharuru	Clinical anesthesia, Pain medicine, Palliative medicine.
Assistant Professor	NISHIIKE Satoshi	Clinical anesthesia, Nerve block, Vascular reactivity.
Assistant Professor	SUGIURA Soichiro	Clinical anesthesia, Intensive care medicine, Vascular reactivity.
Assistant Professor	HORIUCHI Katsura	Clinical anesthesia, Intensive care medicine.
Assistant Professor	KIDA Hiromasa	Clinical anesthesia, Pediatric anesthesia, Shock.
Assistant Professor	YAMAOKA Yuko	Clinical anesthesia, Palliative medicine.
Assistant Professor	MAGARA Ayuko	Clinical anesthesia, Palliative medicine.
Assistant Professor	HIRAMATSU Akiko	Clinical anesthesia.
Assistant Professor	MURATA Yuriko	Clinical anesthesia.
Assistant Professor	HIRAMATSU Toshiaki	Clinical anesthesia, Vascular reactivity.
Assistant Professor	BEN Asami	Clinical anesthesia.
Assistant Professor	YUGI Haruka	Clinical anesthesia.
Assistant Professor	TANAKA Yasunori	Clinical anesthesia.

### Keywords of Research

anesthetic volatile, anesthetic intravenous, cardiovascular system, vascular smooth muscle, endothelium, palliative care, postoperative pain relief, paraquat, sepsis, delayed neuronal death, apoptosis, inducible nitric oxide synthase, brain ischemia, epidural blockade, cytochrome P-450, liver mitochondria, nitric oxide, hypothermia

### Outline of Research

In a clinical setting, we have been studying the effects of various anesthetics or vasoactive drugs on hemodynamics in perioperative patients. Especially, we are now studying the effects of beta1-selective antagonists on hemodynamics and prognosis in patients undergoing noncardiac surgery. In the laboratory, we have examined 1) the effects of septic shock on vasoreactivity in the rat thoracic aorta or the mesenteric arteriole, and 2) the effects of transient forebrain ischemia on apoptotic death of the hippocampal pyramidal neuron in Mongolian gerbil.

### Publications

#### Short Communications

- 0520E001 H.Kida, S.Nishiike, S.Sugiura, M.Shiraishi, H.Tsuchida: Anesthetic management for posterior spinal fusion in a patient with ankylosing spondylitis and osteoporosis, *The Japanese journal of anesthesiology*, 59:390-392, 2010 (in Japanese).

## Others

- 0520F002 S.Sugiura, M.Shiraishi, S.Nishiike, K.Horiuchi, H.Kida, Y.Yamaoka, A.Magara, A.Hiramatsu, Y.Murata, T.Hiramatsu, A.Ben, Y.Tanaka, H.Yugi, H.Tsuchida: Anesthesia for one-lung ventilation, Journal of clinical anesthesia, 34: 1029-1033, 2010 (in Japanese) .

## 0650 Department of Rehabilitation Medicine

### Faculty

Title	Name	Field of Specialization
Professor	KAGECHIKA Kenji	rehabilitation medicine, osteoporosis, disuse syndrome, higher brain dysfunction.
Senior Assistant Professor(Additional Post)	NAKATA Minori	Treatment and rehabilitation of musculoskeletal disorders, caused by work-related, whiplash-injury-associated, and other origins.

### Keywords of Research

gait analysis, force plate, kinematic measurements, electromyogram, power spectrum, bone and joint problem, femoral neck fracture, low back pain, hemiplegia, paraplegia, osteoporosis, dysphagia, instruction of ADL

### Outline of Research

- 1) Using spectral analysis in the EMG frequency, we will clarify the control in motor units of lower extremity muscles during walking cycle.
- 2) For the purpose of developing the therapeutic exercise, we are studying the sway paths of center of gravity for the patient with osteoarthritis of the hip who underwent hip surgery.
- 3) We have made the clinical pathway of the patient with femoral neck fracture. Hereafter we are going to study about the outcome, then to improve this clinical pathway, for the patient to return home with satisfaction.
- 4) We will establish the evaluation for dysphagia, analyzing results of videofluoroscopic and videoendoscopic examination of swallowing. Secondly, we are going to establish the standard of indication for swallowing training.

### Publications

#### Originals

- 0650B001 (N.Kalezic), Y.Noborisaka, M.Nakata, A.G.Crenshaw, S.Karlsson, E.Lyskov, P.O.Eriksson: Cardiovascular and muscle activity during chewing in whiplash-associated disorders (WAD), Arch. Oral Biol., 55:447-453, 2010.

### Presentations at Conference

#### International Conference (Presentations)

- 0650I001 M.Nakata, M.Yoshizawa, Y.Yamada, K.Kagechika, P.O.Eriksson: Pressure pain thresholds at different body regions in chronic musculoskeletal disorders(MSD) vs healthy, Seventh International Conference on Prevention of Work-Related Musculoskeletal Disorders, (Angers, '10.08).

## 0550 Department of Emergency Medicine

### Faculty

Title	Name	Field of Specialization
Professor	WATOH Yukihiro	Emergency, Emergency medical system, Disaster Medicine.
Associate Professor	OGURA Kenichi	Emergency, Neurosurgery.
Senior Assistant Professor	MASHIBA Satoru	Emergency, Anaphylaxis.
Assistant Professor	MURASAKA Kenshi	Emergency, Neurosurgery.
Assistant Professor	MORITA Hideki	Emergency.
Assistant Professor	GOTO Tetsuro	Emergency.
Assistant Professor	MIZUNUMA Mariko	Emergency.
Research Doctor	IWAI Junichi	Emergency.

### Keywords of Research

acute poisoning, resuscitation, disaster medicine, emergency room, intensive care

### Outline of Research

Evaluative research of Emergency Medicine, EMS system, and Disaster management.

### Presentations at Conference

#### International Conference (Symposium)

0550H001 Y.Watoh: A line-up of earthquake-related diseases-in causal and temporal classification-, Mizunami International Symposium on Earthquake Casualties and Health Consequences, (Mizunami, '10.11).

#### International Conference (Presentations)

0550I001 J.Iwai, A.Watanabe, M.Mizunuma, T.Goto, H.Morita, K.Murasaka, S.Mashiba, K.Ogura, Y.Watoh: A trial and evaluation of the physician-driven ambulance for five years, The 10th Asia Pacific Conference on Disaster Medicine, (Sapporo, '10.08), 10th APCDM, 138, 2010.

0550I002 K.Ogura, S.Mashiba, A.Watanabe, J.Iwai, M.Mizunuma, T.Goto, H.Morita, K.Murasaka, Y.Watoh: Comparative evaluation of the two DMAT's response, The 10th Asia Pacific Conference on Disaster Medicine, (Sapporo, '10.08), 10th APCDM, 206, 2010.

## 0570 District medical

### Faculty

Title	Name	Field of Specialization
Professor	KANDA Tsugiyasu	Cardiovascular distase, Diabetes Mellitus, Mental distase.

### Keywords of Research

cytokine, myocarditis, atherosclerosis, chronic fatigue syndrome, immunotherapy

### Outline of Research

The main investigation in our department is to find the cytokine effect as the immunotherapy in the animal model or clinical field.

1. The treatment of heart failure with myocarditis in an animal model.
2. The treatment trial of cytokine regulation in the atherosclerosis.
3. The cytokine treatment against chronic fatigue syndrome.

### Publications

#### Originals

- 0570B001 J.Yamakawa, J.Moriya, T.Takahashi, A.Ishige, Y.Motoo, F.Yoshizaki, T.Kanda: A Kampo medicine, boiogito, inhibits obesity in ovariectomized rats, *Evid Based Complement Alternat Med*, 7:87-95, 2010.
- 0570B002 R.Chen, F.Liang, S.Morimoto, Q.Li, J.Moriya, J.Yamakawa, T.Takahashi, K.Iwai, T.Kanda: The effects of a PPAR $\alpha$  agonist on myocardial damage in obese diabetic mice with heart failure, *Int. Heart J.*, 51:199-206, 2010.
- 0570B003 Z.Shijie, J.Moriya, J.Yamakawa, R.Chen, T.Takahashi, H.Sumino, T.Nakahashi, K.Iwai, S.Morimoto, N.Yamaguchi, T.Kanda: Mao-to prolongs the survival of and reduces TNF- $\alpha$  expression in mice with viral myocarditis, *Evid Based Complement Alternat Med*, 7:341-349, 2010.

#### Case Reports

- 0570D001 K.Konishi, A.Saito, K.Ishigami, M.Fukura, M.Hasegawa, N.Yamashita, T.Kanda, T.Ito, T.Kigoshi, Y.Izumi, N.Takekoshi: Hypoglycemia in elderly diabetes mellitus-free patients :Case reports and a review of literature, *J. Kanazawa. Med. Univ.*, 35:13-15, 2010.
- 0570D002 K.Ishigami, N.Yamashita, K.Konishi, A.Saito, M.Fukura, M.Hasegawa, T.Kanda, T.Ito, T.Kigoshi, Y.Izumi, N.Takekoshi: Hyponatremia, rhabdomyolysis and acute renal failure, *J. Kanazawa. Med. Univ.*, 35:68-69, 2010.

## 0530 Department of Oral and Maxillofacial Surgery

### Faculty

Title	Name	Field of Specialization
Professor	SEGAMI Natsuki	oral and maxillofacial surgery, temporomandibular joint disorders, oral cancer, orthognathic surgery.
Associate Professor	YOSHMURA Hiroshi	temporomandibular joint disorders, stomatology, neuroscience.
Associate Professor	DEMURA Noboru	orthodontics, stomatology.
Senior Assistant Professor	KANEYAMA Keiseki	oral cancer, stomatology, oral and maxillofacial surgery, orthognathic surgery.
Senior Assistant Professor	AOKI Hideaki	Rehabilitation Medicine, Oral and Maxillofacial Surgery.
Senior Assistant Professor	ONO Tohru	oral and maxillofacial surgery, oral infection, temporomandibular joint disorders, oral oncology, dental implant.
Assistant Professor	TAKAHASHI Motohiro	temporomandibular joint disorders, stomatology.
Assistant Professor	HONJOU Miho	Orthodontics.

### Keywords of Research

stomatology, oral and maxillofacial surgery, orthodontics, temporomandibular joint, arthroscopy, magnetic resonance imaging, oral cancer, metastasis, orthognathic surgery

### Outline of Research

1. Basic and clinical research for disorders of temporomandibular joints.
2. Molecular biological research for growth and metastasis of tumors in oral region.
3. Pathophysiological research for abnormal development of oral and maxillofacial region.
4. Research for surgical orthognathics for jaw deformity.
5. Integration mechanisms of oral sensory information in the central nervous systems.

### Publications

#### Originals

- 0530B001 H.Yoshimura, T.Sugai, M.Honjo, K.Kaneyama, N.Segami, N.Kato: Application of caffeine reveals input frequency-dependent determination of signal-traveling routes between primary and secondary visual cortices in rats, *Neurosci. Res.*, 66:30-36, 2010.
- 0530B002 K.Kaneyama, N.Segami, H.Yoshmura, M.Honjo, N.Demura: Increased levels of soluble cytokine receptors in the synovial fluid of temporomandibular joint disorders in relation to joint effusion on magnetic resonance images, *J. Oral Maxillofac. Surg.*, 68:1088-1093, 2010.
- 0530B003 H.Yoshimura, S.Morimoto, M.Okuro, N.Segami, N.Kato: Evaluations of dementia by EEG frequency analysis and psychological examination, *J. Physiol. Sci.*, 60:383-388, 2010.



## **Presentations at Conference**

### **International Conference (Presentations)**

- 0530I001 N.Segami: Eminectomy with/without high condylectomy under local anesthesia for habitual dislocation of the TMJ, 20th Congress of the european association for cranio-maxillofacial surgery, (Bruges, '10.09).
- 0530I002 H.Aoki: Dysfunction of auditory tube after lower jaw surgery, AAO-HNSF annual meeting 2010, (Boston, '10.09).

# School of Nursing

## 8010 Basic Nursing

### Faculty

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Title	Name	Field of Specialization
Associate Professor	SAKAI Keiko	Proficiency and stressor of teachers in nursing.
Senior Assistant Professor	SAKAI Keiko	Communication Skills.
Assistant Professor	KIMOTO Miki	Experiences of diabetic patients that hemodialysis begins hold family's desire.
Assistant Professor	KYUJI Kazuyo	Nursing Students and Professional Sprit.

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### Keywords of Research

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teachers in nursing, proficiency, stressor, sleep apnea syndrome, QOL, bi-cultural nursing, feelings and QOL, senior citizen, care-house

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### Outline of Research

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1. Feelings and QOL of senior citizens living care-house run by a municipal government or private sector.
  2. Proficiency and stressor of teachers in nursing.
  3. Quality of life of persons with sleep apnea syndrome.
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## 8030 Psychiatric and Mental Health Nursing

### Faculty

Title	Name	Field of Specialization
Professor	KITAOKA Kazuyo	Occupational Mental Health, Job Stress, Burnout, Rehabilitation of People with Mental Disability.
Assistant Professor	NAGAI Makie	Occupational Mental Health.

### Keywords of Research

occupational health, occupational mental health, job stress, burnout, the Maslach Burnout Inventory, MBI, rehabilitation, mental disability

### Outline of Research

The major research theme is 'Occupational Mental Health' and 'Rehabilitation of People with Mental Disability'. We've been doing the burnout study for banishing it. The professor has published the Japanese version of *the Maslach Burnout Inventory (MBI)*, global scale for measure of burnout. We also put our effort to seek the methodology to support those people with mental disability.

### Publications

#### Originals

- 8030B001 (K.Ohnishi), Y.Ohgushi, M.Nakano, H.Fujii, H.Tanaka, K.Kitaoka, J.Nakahara, Y.Narita: Moral distress experienced by psychiatric nurses in Japan, *Nurs Ethics.*, 17:726-740, 2010.
- 8030B002 M.Nagai, K.Kitaoka: Components of learning of nursing students in simulation as psychiatric outpatients, *Journal of Japan Academy of Psychiatric and Mental Health Nursing*, 19:128-136, 2010 (in Japanese) .
- 8030B003 (R.Baba), T.Sasahara, K.Kitaoka, M.Umeuchi, Y.Kizawa: Palliative care certified nurses' job satisfaction, burnout and related factors, *Palliative Care Res.*, 5:127-136, 2010 (in Japanese) .

### Presentations at Conference

#### International Conference (Symposium)

- 8030H001 K.Kitaoka: Burnout among nurses in Japan, The International Academic Symposium of the 110th Anniversary Celebration of Tongji Hospital, (Wuhan, '10.10).

#### International Conference (Presentations)

- 8030I001 (S.Kendall), K.Kitaoka, F.Ochiai, A.Tsuda, M.Nagai, M.Uchida, T.Hashimoto: A comparative study of the effect of group based parenting support on parental stress and outcomes for children in both the UK and Japan, The Going Global 4 Conference, (London, '10.03).
- 8030I002 K.Kitaoka, M.Nagai, H.Nakagawa, S.Masuda, K.Ogino: Burnout level of the Japanese working population, ICOHN & ACOHN Joint Conference 2010, (Yokohama, '10.08).

## 8040 Adult Nursing

### Faculty

Title	Name	Field of Specialization
Professor	TAMURA Sachiko	Nephrology Nursing, Transplant Nursing.
Professor	KONYA Chizuko	Wound Care, Stoma care, Continence care
Associate Professor	HIRAYAMA Emiko	Nursing Ethics, Medical Ethics, Caring.
Assistant Professor	UCHIDA Maki	Cancer Nursing, Terminal Care.
Assistant Professor	KITAMURA Yoshiko	Cancer Nursing.
Assistant Professor	YAMAZAKI Matsumi	Therapeutic Exercise in patients with Chronic Disease.

### Keywords of Research

Nephrology Nursing, Transplant Nursing, Chronic Disease Nursing, Terminal Care, Cancer Nursing, Nursing Ethics, Wound care, Stoma care, Continence care

### Outline of Research

Clinical Medical-Surgical Nursing.

### Publications

#### Originals

- 8040B001 M.Yamazaki, M.Inagaki: Mechanisms involved the continuation of exercise in patients with type2 diabetes mellitus, Journal of Japanese Society of Nursing Research, 33:41-50, 2010 (in Japanese) .

### Presentations at Conference

#### International Conference (Presentations)

- 8040I001 (S.Kendall), K.Kitaoka, F.Ochiai, A.Tsuda, M.Nagai, M.Uchida, T.Hashimoto: A comparative study of the effect of group based parenting support on parental stress and outcomes for children in both the UK and Japan, The Going Global 4 Conference, (London, '10.03).
- 8040I002 (M. Ueta), C.Konya, J. Sugama, T. Nakatani, M. Okuwa, J. Matsuo, S. Fukuda, M. Dai, H. Sanada: Ultrasonographic evaluation of unusual periwound tissues of pressure ulcers, WOCN/WCET Joint Conference, (Phoenix, Arizona, '10.06), J Wound Ostomy Continence Nurs., 2010;37(3):s124, 2010.
- 8040I003 (S. Iizaka), G. Nakagami, M. Ueta, J. Matsuo, C.Konya, J. Sugama, T. Nagase, H. Sanada: Association between granulation tissue color and nutritional status in patients with pressure ulcers : development of a quantitative indicator by digital image analysis, WOCN/WCET Joint Conference, (Phoenix, Arizona, '10.06), J Wound Ostomy Continence Nurs., 37(3):s129, 2010.

## 8050 Nursing of the Elderly

### Faculty

Title	Name	Field of Specialization
Associate Professor	TAKAYAMA Naoko	community/elderly nursing science.
Senior Assistant Professor	KOIZUMI Yumi	community/elderly nursing science.
Assistant Professor	HASHIMOTO Tomoe	community/elderly nursing science.

### Keywords of Research

Nursing of the Elderly

### Outline of Research

Verification of Nursing Care about Daily living activities and their communication of the elderly with Dementia,also,the effectiveness of the elderly Dementia prevention on the basis Local residents.

The Study of General Principle of Florence Nightingale connected with Nurse's recognition and expression in Nursing phenomenon.

### Publications

#### Originals

- 8050B001 M.Atsumi, Y.Koizumi, K.Ishigami, K.Satoh, O.Iritani, M.Okuro, S.Morimoto: Increased level of LDL cholesterol in elderly patients with acute ischemic stroke associated with severe hypertension, J. Kanazawa. Med. Univ., 35:166-171, 2010.

### Presentations at Conference

#### International Conference (Presentations)

- 8050I001 (S.Kendall), K.Kitaoka, F.Ochiai, A.Tsuda, M.Nagai, M.Uchida, T.Hashimoto: A comparative study of the effect of group based parenting support on parental stress and outcomes for children in both the UK and Japan, The Going Global 4 Conference, (London, '10.03).

## 8060 Child Nursing

### Faculty

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Title	Name	Field of Specialization
Associate Professor	TSUDA Akiko	Pediatric Nursing.
Assistant Professor	TERAI Takahiro	Pediatric Nursing.

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### Keywords of Research

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child, parenting, parenting support, attachment, daily living life, biological rhythm

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### Outline of Research

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The study on biological rhythm and life style in childhood.

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### Presentations at Conference

#### International Conference (Presentations)

- 8060I001 (S.Kendall), K.Kitaoka, F.Ochiai, A.Tsuda, M.Nagai, M.Uchida, T.Hashimoto: A comparative study of the effect of group based parenting support on parental stress and outcomes for children in both the UK and Japan, The Going Global 4 Conference, (London, '10.03).

## 8070 Maternity Nursing

### Faculty

Title	Name	Field of Specialization
Professor	OCHIAI Fumie	Maternity Health, Child Health, Midwifery.
Associate Professor	SASANO Kyoko	Critical nursing, Nursing education.
Assistant Professor	TSUBOMOTO Takiko	Maternity Nursing.
Assistant Professor	YAMAZAKI Chisato	Maternity Nursing.
Research Associate	YORITSUNE Kaoru	Life development nursing.

### Keywords of Research

Practice, Pregnancy, Midwife, "Maternity Nursing, perinatal", after childbirth, breastfeeding, parenting stress maternity Nursing, Mother and child nursing, Child care, Mother, Mother-child relation

### Outline of Research

Mother-child relation, Nursing education, Education effect, Breastfeeding, Parenting stress, Mother's feeling in child care.

### Publications

#### Originals

8070B001 (Y.Shimizu), S.Sekimizu, T.Endo, F.Ochiai: Mothers' childcare happiness—Influence of employment status on mothers'happiness in child care—, Japanese Journal of Maternal Health, 51:367-375, 2010 (in Japanese) .

### Presentations at Conference

#### International Conference (Presentations)

8070I001 (S.Kendall), K.Kitaoka, F.Ochiai, A.Tsuda, M.Nagai, M.Uchida, T.Hashimoto: A comparative study of the effect of group based parenting support on parental stress and outcomes for children in both the UK and Japan, The Going Global 4 Conference, (London, '10.03).



## 8080 Community Nursing

### Faculty

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Title	Name	Field of Specialization
Professor	FUKUMA Kazumi	Community Health Nursing.
Senior Assistant Professor	SAKURAI Shihomi	Community Health Nursing.
Assistant Professor	HAMAZAKI Yuko	public health nursing, study of elder abuse.

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### Keywords of Research

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community nursing-care activity, community nursing education, Health promotion, successful aging, activity of community organization

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### Outline of Research

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We aim at the research of community nursing that contributes to sustain and improve quality of life and health of people in the community. We have been studying about community nursing-care activity, community nursing education, Health promotion, successful aging and elder abuse

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### Presentations at Conference

#### International Conference (Presentations)

8080I001 Yuko Hamazaki: Investigation of what the nursing students have learnt from the narrative of intractable disease patient in the participating class, 2nd Japan china Nursing Conferene abstract journal, (Tokyo, '10.10)

## 8090 Home Care Nursing

### Faculty

Title	Name	Field of Specialization
Professor	KATO Kinko	Home Care Nursing, Public Health Nursing, Psychiatric Mental Health Nursing in Community.
Senior Assistant Professor	MAEDA Shuko	home care, home health care nurse.
Assistant Professor	KOHNO Yumiko	home care nursing, home care nursing teaching method, discharge support.

### Keywords of Research

home healthcare nursing, home visit nursing, infection control, visiting nurse service station, continuing education, education program

### Outline of Research

Practice and restructuring of the infection control education program for home visiting nurses

## 8100 Human Science

### Faculty

Title	Name	Field of Specialization
Professor	ISHIBASHI Takaharu	Cardiovascular Pharmacology.
Professor	OKADA Masato	Peripheral nerve surgery, Trauma.
Professor	KOHNO Hiroyuki	Experimental Pathology, Tumor immunology.
Professor	MORIKAWA Yuko	Cardiovascular epidemiology, occupational medicine.
Professor	IWAI Kunimitsu	Geriatrics, Circulation, Cell Biology, Cardiology.
Associate Professor	KOJIMA Masami	Study of Cataractogenesis mechanisms, Relation of the intraocular temperature during infrared exposure and environmental temperature.
Associate Professor	HONDA Ryumon	Environment and health, Epidemiology.
Associate Professor	FUJII Ryota	perinatal medicine, reproductive endocrinology.

### Keywords of Research

T. Ishibashi/ Nitric Oxide, T. Ishibashi/ Nitrite, T. Ishibashi/ Vasodilators, M. Okada/ Calcaneal fracture, M. Okada/ carpal tunnel syndrome, M. Kojima/electromagnetic radiation, M. Kojima/ultraviolet exposure, M. Kojima/infrared rays exposure

### Outline of Research

T. Ishibashi: Studies of kinetics of NO and NO related compound in vivo and mechanism of action of NO releasing vasodilators.  
M. Okada: Percutaneous osteosynthesis of calcaneal fractures. Endoscopic surgical treatment of carpal tunnel syndrome.  
M. Kojima: Study of ocular effect from electromagnetic radiation (electric wave, ultraviolet rays, and infrared rays) exposure.

### Publications

#### Originals

- 8100B001 (K.Nambunmee), R.Honda, M.Nishijo, W.Swaddiwudhipong, H.Nakagawa, W.Ruangyuttikarn: Bone resorption acceleration and calcium reabsorption impairment in a Thai population with high cadmium exposure, *Toxicol. Mech. Methods.*, 20:7–13, 2010.
- 8100B002 Q.LI, Y.Morikawa, M.Sakurai, K.Nakamura, K.Miura, M.Ishizaki, T.Kido, Y.Naruse, Y.Suwazono, H.Nakagawa: Occupational class and incidence rates of cardiovascular events in middle aged men in Japan, *Ind. Health*, 48:324–330, 2010.
- 8100B003 M.Nakashima, M.Sakurai, K.Nakamura, K.Miura, K.Yoshita, Y.Morikawa, M.Ishizaki, K.Murakami, T.Kido, Y.Naruse, S.Sasaki, H.Nakagawa: Dietary glycemic index, glycemic load and blood lipid levels in middle-aged Japanese men and women, *J. Atheroscler. Thromb.*, 17:1082–1095, 2010.
- 8100B004 W.Hirokawa, K.Nakamura, M.Sakurai, Y.Morikawa, K.Miura, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Mild metabolic abnormalities, abdominal obesity and the risk of cardiovascular diseases in middle-aged Japanese men, *J. Atheroscler. Thromb.*, 17:934–943, 2010.

- 8100B005 K.Nakamura, M.Sakurai, K.Miura, Y.Morikawa, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Homeostasis model assessment of insulin resistance and the risk of cardiovascular events in middle-aged non-diabetic Japanese men, *Diabetologia*, 53:1894–1902, 2010.
- 8100B006 (A.Hirata), M.Kojima, H.Kawai, Y.Yamashiro, S.Watanabe, H.Sasaki, O.Fujiwara: Acute dosimetry and estimation of threshold-inducing behavioral signs of thermal stress in rabbits at 2.45-GHz microwave exposure, *IEEE Trans. Microw. Theory Tech.*, 57:1234–1242, 2010.
- 8100B007 R.Honda, W.Swaddiwudhipong, M.Nishijo, P.Mahasakpan, W.Teeyakasem, W.Ruangyuttikarn, S.Satarug, C.Padungtod, H.Nakagawa: Cadmium induced renal dysfunction among residents of rice farming area downstream from a zinc-mineralized belt in Thailand, *Toxicol. Lett.*, 198:26–32, 2010.
- 8100B008 R.Chen, F.Liang, S.Morimoto, Q.Li, J.Moriya, J.Yamakawa, T.Takahashi, K.Iwai, T.Kanda: The effects of a PPAR $\alpha$  agonist on myocardial damage in obese diabetic mice with heart failure, *Int. Heart J.*, 51:199–206, 2010.
- 8100B009 (R.Sato), T.Kido, R.Honda, M.Nishijo, H.Nakagawa, E.Kobayashi, Y.Suwazono: Seventeen-year observation on urinary cadmium and  $\beta_2$ -microglobulin in inhabitants after cessation of cadmium-exposure in Japan, *Bull. Environ. Contam. Toxicol.*, 84:363–367, 2010.
- 8100B010 (I.Ishikawa), S.Hayama, K.Morita, T.Nakazawa, H.Yokoyama, R.Honda, K.Satoh, T.Kakuma: Long-term natural history of acquired cystic disease of the kidney, *Ther Apher Dial*, 14:409–416, 2010.
- 8100B011 (W.Swaddiwudhipong), P.Limpatanachote, M.Nishijo, R.Honda, P.Mahasakpan, S.Krintratun: Cadmium-exposed population in Mae Sot district, Tak province:3. associations between urinary cadmium and renal dysfunction,hypertension,diabetes, and urinary stones, *J. Med. Assoc. Thai.*, 93:231–238, 2010.
- 8100B012 (P.Limpatanachote), W.Swaddiwudhipong, M.Nishijo, R.Honda, P.Mahasakpan, K.Nambunmee, W.Ruangyuttikarn: Cadmium-exposed population in Mae Sot district, Tak province: 4 bone mineral density in persons with high cadmium exposure, *J. Med. Assoc. Thai.*, 93:1451–1457, 2010.
- 8100B013 Z.Shijie, J.Moriya, J.Yamakawa, R.Chen, T.Takahashi, H.Sumino, T.Nakahashi, K.Iwai, S.Morimoto, N.Yamaguchi, T.Kanda: Mao-to prolongs the survival of and reduces TNF- $\alpha$  expression in mice with viral myocarditis, *Evid Based Complement Alternat Med*, 7:341–349, 2010.
- 8100B014 M.Okada, E.Hatano, K.Hiromura, H.Maeoka, T.Matsumoto: Clinical results of the displaced intra-articular calcaneal fractures treated by open reduction and internal fixation, *The Journal of the Japanese Society for Surgery of the Foot*, 31:117–121, 2010 (in Japanese) .

## Presentations at Conference

### International Conference (Presentations)

- 8100I001 M.Ishizaki, H.Nakagawa, N.Kawakami, A.Inoue, Y.Morikawa, T.Kido, Y.Yamada: Relationship between job stress and job performance in a factory, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to Journal of Epidemiology, 20(Suppl 1):295, 2010.
- 8100I002 K.Nakamura, W.Hirokawa, M.Sakurai, Y.Morikawa, K.Miura, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Mild metabolic abnormality and risk of cardiovascular diseases among middle-aged Japanese men, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to Journal of Epidemiology, 20(Suppl 1):191, 2010.
- 8100I003 M.Sakurai, M.Nakashima, K.Nakamura, K.Miura, K.Yoshita, Y.Morikawa, M.Ishizaki, K.Murakami, T.Kido, Y.Naruse, S.Sasaki, H.Nakagawa: Dietary glycemic index, glycemic load and blood lipid levels in middle-aged Japanese men and women, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to Journal of Epidemiology, 20(Suppl 1):216, 2010.

- 8100I004 M.Nakashima, Y.Morikawa, M.Sakurai, K.Nakamura, K.Miura, M.Ishizaki, T.Kido, Y.Naruse: Association between long working hours and sleep problems in white-collar workers, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01).
- 8100I005 K.Iwai, K.Yanagida, M.Atsumi, H.Yano, K.Nomura, J.Sakai, H.Murai, T.Nakahashi, H.Tsuchiya, S.Morimoto: Anthihypertensive therapy induced transient coma in patient with severe stenosis of the common carotid arteries, 14th International Congress of Endocrinology(ICE2010), (Kyoto, '10.03), 14th International Congress of Endocrinology(ICE2010) Endocrine Journal Program & Abstracts, 57(Suppl.2):S568, 2010.
- 8100I006 M.Kojima, Y.Yamashiro, T.Sasaki, Y.Suzuki, K.Sasaki, H.Sasaki: Analysis of heat transportation to crystalline lens surface by aqueous aqueous humor convection, The Association for Research in Vision and Ophthalmology, (Florida, '10.05).
- 8100I007 Y.Yamashiro, K.Sato, A.Hirata, M.Kojima, T.Sakai, S.Watanabe, M.Taki, Y.Suzuki, K.Sasaki, H.Sasaki: Normalized temperature elevation velocity in ocular tissues by 18-40 GHz radio-frequency exposure, The Association for Research in Vision and Ophthalmology, (Florida, '10.05).
- 8100I008 H.Osada, Y.Yamashiro, R.Honda, M.Kojima, Y.Sakamoto, N.Hatsusaka, M.Tarura, Y.Kawakami, J.Qu, HM.Cheng, K.Sasaki, H.Sasaki: Prevalence of cataract in anurban region of Taiwan comparison with three different areas in China and an area in Japan, The 8th Asian Cataract Research Conference, (Hangzhou, '10.06).
- 8100I009 M.Kojima, Y.Yamashiro, K.Sasaki, H.Sasaki: Examination of threshold 60 Ghz Millimeter wave ocular exposure in rabbit, The 8th Asian Cataract Research Conference, (Hangzhou, '10.06).
- 8100I010 E.Shibuya, J.Qu, Y.Sakamoto, N.Hatsusaka, N.Mita, M.Kojima, F.Jonasson, K.Sasaki, H.Sasaki: Natural course of cortical opacity over 12 years Reykjavik Eye study, The 8th Asian Cataract Research Conference, (Hangzhou, '10.06).
- 8100I011 (Y.Suzuki), M.Kojima, T.Sakai, Y.Yamashiro, T.Taguchi, A.Koike, M.Taki, K.Sasaki, H.Sasaki: Experimental analysis on the thermal convection of aqueous humor in anterior chamber driven by the millimeter-wave exposure at 77GHZ, The Bioelectromagnetics Society 32nd annual Meeting, (Seoul, '10.06).
- 8100I012 Y.Yamashiro, A.Hirata, K.Sato, M.Kojima, T.Sakai, S.Watanabe, K.Wake, M.Taki, Y.Suzuki, Y.Kamimura, Y.Sakamoto, Y.Kawakami, K.Sasaki, H.Sasaki: Comparison of temperature in ocular tissues by 18-40 GHz radio-frequency exposure, The Bioelectromagnetics Society 32nd annual Meeting, (Seoul, '10.06).
- 8100I013 (A.Koike), Y.Suzuki, T.Taguchi, M.Kojima, Y.Yamashiro, T.Sakai, S.Watanabe, M.Taki, K.Sasaki, H.Sasaki: Velocimetry on thermal convection flow of aqueous humor in anterior chamber caused by millimeter-wave exposure, 2010 Asis-Pacific Radio Science Congerence, (Toyama, '10.09).
- 8100I014 M.Kojima, Y.Yamashiro, H.Sasaki, K.Sasaki, T.Sakai, K.Wake, S.Watanabe, Y.Kamimura, A.Hirata, Y.Suzuki, M.Taki: Verification of sagety guidelines for 60 GHz millimeter wave ocular exposure, 2010 Asis-Pacific Radio Science Congerence, (Toyama, '10.09).
- 8100I015 H.Murai, T.Nakahashi, H.Nakamura, W.Arakawa, T.Higashikawa, M.Atsumi, K.Iwai, S.Morimoto: The advantage of high-salt tube nutrion for the elderly patients with acute disease, 32nd ESPEN Congress, (Nice-France, '10.09), Abstracts of the32nd ESPEN Congress, 5:ABS-296(Suppl.), 2010.
- 8100I016 M.Nishijo, W.Swaddiwudhipong, K.Nambunmee, W.Ruangyuttikam, R.Honda, Y.Morikawa, H.Nakagawa: Effect of cadmium on health risk of arteriosclerosis; a study of Thai population environmentary exposed to cadmium, 6th conference on molecular mechanisms of metal toxicity and carcinogenesis, (Kentucky, '10.11).



# Liberal Arts

## 0040 Department of Life Science (Natural Science:Physics)

### Faculty

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Title	Name	Field of Specialization
Associate Professor	SUGITANI Michio	Optical imaging of signal propagation in the piriform cortex.
Associate Professor	NAKAMURA Kiyoshi	Study on Physics Education for Medical College, Study on Room Acoustics.

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### Keywords of Research

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piriform cortex, signal propagation, physical experiment, demonstration, elementary particle physics, acoustic environment, optical recording

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### Outline of Research

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Sugitani: Optical imaging of signal propagation in the piriform cortex  
Nakamura: In order that the student who majors in life science may deepen an understanding of a lecture, and in order to enable independent learning, we are developing the student support which used a demonstration experiment and intranet.

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## 0050 Department of Life Science (Natural Science:Chemistry)

### Faculty

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Title	Name	Field of Specialization
Senior Assistant Professor	MAEDA Masayo	Molecular oncology, Metastasis of Cancer Cells.

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### Keywords of Research

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Metastasis, Metastasis Inducing Gene, RhoGDI  $\beta$  (LyGDI/D4GDI/RhoGDI2)

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### Outline of Research

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Rho guanine nucleotide dissociation inhibitors (RhoGDIs) regulate the activity of Rho family GTPases. Our studies have indicated that RhoGDI  $\beta$  (LyGDI/D4GDI/RhoGDI2) plays a role in cancer metastasis.

Further investigation of the details of RhoGDI  $\beta$ 's role in cancer progression and metastasis is important. It will lead to a better treatment for cancer.

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## 0060 Department of Life Science (Natural Science: Biology)

### Faculty

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Title	Name	Field of Specialization
Professor	HORI Isao	Development of ascidians
Associate Professor	SHOJI Hiroki	Developmental Biology, Molecular Biology, Biochemistry.

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### Keywords of Research

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planaria, acoel, regeneration, differentiation, ultrastructure, pharynx, sponge, metamorphosis, immunoelectron microscopy, neurosynaps, neurosecretory cell, lectin, galectin,  $\beta$ -galactoside, Xenopus, development, placenta, trophoblast

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### Outline of Research

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- 1) Functional analysis of Galectins, a family of  $\beta$ -galactosides binding proteins.
    - a) Roles of Galectins in animal development.
    - b) Roles of Galectins in the formation of placenta.
    - c) Regulations of virus growth by Galectins.
  - 2) Electron microscopic analysis of the mechanisms of regeneration of planarians.
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## 0090 Department of Life Science (Physical Education)

### Faculty

Title	Name	Field of Specialization
Professor	TAMURA Nobuki	OtherGraduate School, Division of Physical Recreation.
Associate Professor	UEDA Fumio	Physical strength and a study about the athletic capability, A basketball competition.
Senior Assistant Professor	TSUDA Ryosuke	Exercise physiology, Pedagogy of physical education.

### Keywords of Research

hygiene of exercise, physical fitness, near-infrared spectroscopy, muscle strength, small group learning, health related training, prescribed exercise, wheelchair basketball, sports medicine, motor ability, working skeletal muscle oxygenation, lower leg, problem learning, effects in iron deficiency, prescription of exercise program, improvement of physical fitness, physical fitness, exercise prescription, soccer

### Outline of Research

Tamura : I do the exercise tolerance test for the people who must attempt the healthy physical fitness. Based on the result, I make the appropriate prescription in the people and guide them in the motion. After two, four, six and twelve month, I investigate the effects of the motion. The prescription is made again again, if the good effect by the motion is not obtained.  
Ueda : To evaluate the students' physical fitness and health condition collectively, I practice the physical fitness and the motor ability test, measure their physique, and understand their condition. Making them as a basis on the guidance of teaching, I try to promote the students physical fitness and health condition.  
Tsuda : Our research includes prevention of lifestyle-related diseases for middle aged and elderly persons. In addition, our research focuses on improvement of physical fitness through soccer for children taking physical education in school.

### Publications

#### Originals

- 0090B001 R.Tsuda, N.Tamura, F.Ueda: The relationships between habits of exercise, physical fitness, and awareness about health and physical fitness in students at Kanazawa Medical University, Mem. Lib. Kanazawa Med. Univ., 38:65-69, 2010 (in Japanese) .

## 0010 Department of Human Science (Humanities)

### Faculty

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Title	Name	Field of Specialization
Professor	HIRAGUCHI Tetsuo	environmental-ethnoarchaeology, peace studies.
Associate Professor	TAKEDA Koichi	Philosophy, History of logic.

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### Keywords of Research

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zoo-archaeology, cetacean, dolphin, whale, faunal remains, environmental archaeology, whaling, ancient diet, Palaeolithic period, Jomon period, ethno-archaeology, anthropological education, peace study, logic, metaphysics, form, content, predicate, category, deduction, induction, matter, being, substance, definition

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### Outline of Research

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Hiraguchi:Environmental and ethnological archaeology (especially prehistoric whaling), anthropological education for medical students, and peace studies.

Takeda:It has been asserted that logic and metaphysics are different to each other in Aristotle because his logic is a organon of science. However, his logic is the system where reasonings are dependent on the contents of propositions, while modern formal logic involves abstraction of any content. In Aristotle, Metaphysics studys the order of things which are contents of logic. From this point, I aim to explicate the relation between logic and metaphysics in Aristotle.

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## 0030 Department of Human Science (Mathematics)

### Faculty

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Title	Name	Field of Specialization
Professor	MATSUDA Hiroo	Lorentz manifolds, Curves in Euclidean space.
Associate Professor	YOSHINO Kenichi	Algebra theory, number theory.

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### Keywords of Research

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Bertrand curve, Mannheim curve, isotropy group, harmonic form, class number, ideal class group, cyclotomic field, Mannheim curve, Frenet frame, curvature, Lie group, Lorentzian manifold, harmonic analysis, isometry group, abelian field, class number parity, cyclotomic unit

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### Outline of Research

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Matsuda : We define a generalized Mannheim curve in Euclidean space. And we give characterizations of generalized Mannheim curve and examples of generalized Mannheim curve.

Yoshino : The determination of class number and the ideal class group of the cyclotomic field

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## 0070 Department of Human Science (Foreign Languages:English)

### Faculty

Title	Name	Field of Specialization
Professor	SHIBUYA Yoshiho	English linguistics, Phonetics.
Senior Assistant Professor	KAKIZAKI Kenichi	Contemporary Jewish American Authors' Works.
Senior Assistant Professor	BURKE STEVEN Thomas	English.
Senior Assistant Professor	CRAIG Woods	English, Medical English.

### Keywords of Research

articulatory phonetics, acoustic phonetics, English phonology, Japanese phonology, pronunciation, L2 research, language acquisition, medical research article, novel, individualism, quest, existentialism, Bildungsroman, humor, irony, narration, suffering, humanity cross-cultural differences, cultural variation, NLP, Python programming language, medical English

### Outline of Research

Shibuya: Main research topic is Japanese speakers' pronunciation of English. How phonology (what is in the mind of speakers) and phonetics (mostly the gestural movement of articulators) of L1 (here, Japanese) influence the pronunciation of Japanese speakers of English is studied.

kakizaki: To understand about contemporary American Jewish author and a Nobel laureate, Saul Bellow's idea on the fundamental questions about human existence: "Where are we going? What are we doing here?" To understand his writing technique of novels and his idea on the art.

Burke: My most recent research interest has been the connection and power that extensive reading has on English acquisition for EFL students.

Woods: Using computer software for natural language processing of the English found in medical articles to determine the most commonly used words, forms and structures.

### Publications

#### Originals

- 0070B001 K.Kakizaki: The collapse of the self in "The yellow wallpaper", Mem. Lib. Kanazawa Med. Univ., 38:15-25, 2010.
- 0070B002 K.Kakizaki: Legacy in ravelstein, Mem. Lib. Kanazawa Med. Univ., 38:27-37, 2010.
- 0070B003 T.Burke steven: Developing and assessing a reading class for medical students, Mem. Lib. Kanazawa Med. Univ., 38:39-45, 2010.
- 0070B004 T.Burke steven: A preliminary evaluation of KMMU's 2010 California and Hawaii, USA study abroad programs, Mem. Lib. Kanazawa Med. Univ., 38:47-54, 2010.
- 0070B005 W.Craig: Checking th Quality of criterion-referenced tests, Mem. Lib. Kanazawa Med. Univ., 38:55-64, 2010.
- 0070B006 K.Kakizaki: The african american and the jew in Mr.Sammler's planet, J. Engl. Lang. Lit., 58:77-91, 2010.
- 0070B007 K.Kakizaki: The control of distance in the narration in Mr.Sammler's planet, Kanazawa English Studies, 27:147-160, 2010.

## 0080 Department of Human Science (Foreign Languages:German)

### Faculty

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Title	Name	Field of Specialization
Associate Professor	HARA Akira	Austria literature led by Hofmannsthal.
Professor	KOCHI Munehiro	Interpretationen von Goethes Werken, Begriff von Bildung.

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### Keywords of Research

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end of the century, culture, the middle Ages, Modern times, Europe

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### Outline of Research

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Hara : In the German-language area from the end of the 19th century to the beginning of the 20th century, many prominent intellectuals appeared in various fields of culture. Hofmannsthal is also one of such intellectuals in the field of literature. He almost spent the entirety of his life in Vienna, but his influence reaches the whole spiritual world of modern Europe. I analyze his acquaintanceship with intellectuals of that time and extract the essence of the modern culture in the German-language area and furthermore in all Europe.

Kouchi : Das Europa im zweiten Hälfte des 18. Jahrhunderts ist die Wendezeit von der noch einflussreichen mittelalterlichen Denkweise zur neuen modernen, wie sie der Historiker Reinhart Koselleck die „Sattelzeit“ nennt. Wie man sich damals mit dem Wechsel des Paradigmas auseinander setzte, möchte ich im Fall vom deutschen Dichter Goethe untersuchen und in seinen Werken wie Romanen und Dramen zeigen.

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### Publications

#### Originals

0080B001 M.Kochi: Wilhelm Mommsen : Die politischen Anschauungen Goethes(4), Mem. Lib. Kanazawa Med. Univ., 38:71-88, 2010 (in Japanese) .

## 0081 Department of Human Science (Linguistics)

### Faculty

Title	Name	Field of Specialization
Professor	AINODA Noriko	How do the Japanese medical students acquire medical terms in English as a second language? My research focuses on this question using both linguistic and phonetic knowledge, with the research evidence in cognitive science.

### Keywords of Research

Linguistics, phonetics, English language education, medical education

### Outline of Research

Metacognition is an essential factor for lifelong learning of which skills should be fostered during undergraduate medical education. To seek longitudinal changes in metacognitive processes through problem-based learning (PBL), the year 3 students' reflective comments were categorically analyzed. The results showed that "knowledge of ignorance," one of metacognitive skills, could be fostered in PBL.





**University Hospital**

## 0690 Department of Endoscopy

### Faculty

Title	Name	Field of Specialization
Professor	ITO Tohru	Diagnosis for esophagus, gastro-intestine, colon, liver & bile duct disease. Endoscopic treatment of its disease, especially, superficial type esophageal cancer, early gastric cancer, early colon cancer.
Associate Professor	URASHIMA Sachio	Diagnosis for esophagus, gastro-intestine, colon, liver & bile duct disease. Endoscopic treatment of its disease, especially, superficial type esophageal cancer, early gastric cancer, early colon cancer.
Senior Assistant Professor	KITAKATA Hidekazu	Diagnosis for esophagus, gastro-intestine, colon, disease. Endoscopic treatment of its disease, especially, superficial type esophageal cancer, early gastric cancer, early colon cancer.
Assistant Professor	KAWAURA Ken	Diagnosis for esophagus, gastro-intestine, colon, disease. Endoscopic treatment of its disease, especially, superficial type esophageal cancer, early gastric cancer, early colon cancer.
Assistant Professor	HAMADA Kazu	Diagnosis for esophagus, gastro-intestine, colon, disease. Endoscopic treatment of its disease, especially, superficial type esophageal cancer, early gastric cancer, early colon cancer.

### Keywords of Research

Endoscopy, Diagnosis, treatment, Esophagus, Stomach, Colon, ESD, EMR

### Outline of Research

1. A study for endoscopic diagnosis of early digestive organ cancer. (Esophagus, Stomach, Colon)
2. A study for endoscopic treatment of early digestive organ cancer. (Esophagus, Stomach, Colon)
3. A study for prediction of lymph node metastasis of early digestive organ cancer. (Esophagus, Stomach, Colon)

### Publications

#### Originals

- 0690B001 M. Sakuma, S. Matsuba, H. Matsuno, K. Uchikawa, T. Itou, S. Shimizu, N. Yamaguchi: Effect of hot-spring hydrotherapy on lymphocyte subsets expressing  $\beta_2$ -adrenergic receptors, The Journal of the Japanese Society of Balneology, 73:101-108, 2010 (in Japanese).

### Presentations at Conference

#### International Conference (Key Note Lecture)

- 0690G001 T. Itou: Diagnosis and treatment of early gastric cancer, 10th International Workshop & Symposium on Therapeutic Endoscopy & Gastroenterology, (Suzhou, '10.06).

## 0620 Department of Pathology

### Faculty

Title	Name	Field of Specialization
Professor(Additional Post)	MINATO Hiroshi	Anatomical pathology, Laboratory medicine, Pathological study of pulmonary and mediastinal lesion, Pathological study of head & neck tumor.
Senior Assistant Professor(Additional Post)	KUROSE Nozomu	surgical pathology, molecular pathology
Assistant Professor(Additional Post)	KINOSHITA Eriko	surgical pathology, molecular pathology

### Keywords of Research

surgical pathology, cytopathology, molecular pathology, ultrastructural pathology, general pathology, clinical pathology, diagnosis, histochemistry, immunostaining, PCR, in situ hybridization

### Outline of Research

1. Anatomical pathology, Laboratory medicine, Pathological study of pulmonary and mediastinal lesion, Pathological study of head & neck tumor.
2. cellular pathology.
3. molecular pathology.

### Publications

#### Originals

- 0620B001 (Y.Nakanuma), Y.Zen, K.Harada, M.Sasaki, A.Nonomura, T.Uehara, K.Sano, F.Kondo, T.Fukusato, K.Tsuneyama, M.Ito, K.Wakasa, M.Nomoto, H.Minato, H.Haga, M.Kage, H.Yano, J.Haratake, S.Aishima, T.Masuda, H.Aoyama, A.Miyakawa-Hayashino, T.Matsumoto, H.Sanefuji, H.Ojima, T-C.Chen, E.Yu, J-H.Kim, YN.Park, W.Tsui: Application of a new histological staging and grading system for primary biliary cirrhosis to liver biopsy specimens: interobserver agreement, *Pathol. Int.*, 60:167-174, 2010.

#### Case Reports

- 0620D001 (J.Shimizu), Y.Arano, N.Ishikawa, M.Oda, I.Matsumoto, H.Minato: Clinicopathological study of surgically treated cases of tracheobronchial adenoid cystic carcinoma, *Gen. Thorac. Cardiovasc. Surg.*, 58:82-86, 2010.
- 0620D002 (J.Shimizu), C.Ikeda, Y.Arano, I.Adachi, M.Morishita, S.Yamaguchi, N.Ishikawa, G.Watanabe, H.Minato: Advanced lung cancer invading the left atrium, treated with pneumonectomy combined with left atrium resection under cardiopulmonary bypass, *Ann. Thorac. Cardiovasc. Surg.*, 16:286-290, 2010.
- 0620D003 (J.Shimizu), Y.Arano, I.Adachi, M.Morishita, B.Fuwa, S.Yokokawa, S.Minami, M.Hiroshi: Adenosquamous carcinoma of the lung in a patient with complete situs inversus, *Medical journal of Mutual Aid Association*, 59:18-22, 2010 (in Japanese) .
- 0620D004 M.miki, Y.Masaki, T.Nakamura, H.Iwao, A.Nakajima, T.Sakai, T.Sawaki, T.Kawanami, M.Kaito, N.Kurose, Y.Fujita, M.Tanaka, T.Fukushima, Y.Hirose, H.Umehara: Primary neurolymphomatosis of the cervical nerve root, *The Japanese Journal of Clinical Hematology*, 51:564-567, 2010 (in Japanese) .
- 0620D005 I.Sato, N.Ueda, E.Kinoshita, H.Mnato, K.Ohno, N.Nakata, T.Shimasaki, H.Nakajima, T.Kosaka, Y.Motoo: Curatively resected case of non-functioning pancreatic neuroendocrine carcinoma with multiple liver metastases after dpwmstaging with S-1 monotherapy, *Cancer & chemotherapy*, 37:1341-1344, 2010 (in Japanese) .

## Others

- 0620F001 (J.Shimizu), Y.Arano, C.Ikeda, I.Adachi, N.Ishikawa, Y.Hirano, H.Minato: Modification of the surgical procedure to enable the complete resection of lung cancer with carcinomatous pleuritis, Surg Today, 40:890-893, 2010.

## 0640 Endoscopy Center

### Faculty

Title	Name	Field of Specialization
Assistant Professor	SAITO Takashi	Treatment for metabolic syndrome.

### Keywords of Research

early esophageal cancer, gastric esophageal reflux disorder, esophageal ulcer, esophageal varix, thrombosis of esophageal varix, peptic ulcer, acute gastric mucosal lesion, proton pump inhibitor, lansoplazole metabolism, helicobacter pylori, eradication therapy of helicobacter pylori, early gastric cancer, endoscopic mucosal resection, endoscopic submucosal dissection, endoscopic ultrasound, marking rivet, early colon cancer, apoptosis, vascular endothelial growth factor, ulcerative colitis, Crohn disease

### Outline of Research

- 1.Endoscopic treatment for early cancer of digestive organ
- 2.Endoscopic treatment for esophageal and gastric varices associated with portal hypertension
- 3.Endoscopic treatment for choledochal stone
- 4.Endoscopic diagnosis for pulmonary cancer

### Publications

#### Originals

- 0640B001 H.Shiroeda, T.Tahara, M.Nakamura, T.Shibata, T.Nomura, H.Yamada, R.Hayashi, T.Saito, M.Yamada, T.Fukuyama, T.Otsuka, H.Yano, K.Ozaki, M.Tsuchishima, M.Tsutsumi, T.Arisawa: Association between functional promoter polymorphisms of macrophage migration inhibitory factor(MIF)gene and ulcerative colitis in Japan, Cytokine., 51:173-177, 2010.
- 0640B002 H.Shiroeda, T.Tahara, M.Nakamura, T.Shibata, H.Yamada, T.Nomura, R.Hayashi, T.saito, T.Fukuyama, T.Otsuka, H.Yano, K.Ozaki, M.Tsuchishima, M.Tsutsumi, T.Arisawa: Functional promoter polymorphisms of macrophage migration inhibitory factor in peptic ulcer diseases, Int. J. Mol. Med., 26:707-711, 2010.

#### Case Reports

- 0640D001 S.Siroeda, H.Siroeda, T.Ootsuka, M.Yamada, T.Fukuyama, T.Saito, R.Hayashi, T.Nomura, H.Yano, K.Ozaki, T.Arisawa, M.Yokoi, T.Kosaka, M.Tsutsumi: A case ob jejunal GIST diagnosed by double-baloon endoscopy, Endosc. Forum digest. dis., 26:44-49, 2010 (in Japanese) .

## 0700 Multidisciplinary Cancer Center

### Faculty

Title	Name	Field of Specialization
Professor(Additional Post)	TANAKA Tatsuro	Urology.
Professor(Additional Post)	TSUJI Hiroyuki	Head & Neck Surgery.
Associate Professor(Additional Post)	MATOBA Munetaka	Radiation Oncology.
Associate Professor(Additional Post)	MASAKI Yasufumi	Hematology/Oncology.
Senior Assistant Professor(Additional Post)	OMOTE Kazuhiko	Surgical treatment of gastric cancer.
Senior Assistant Professor(Additional Post)	WASADA Tomoo	reproductive medicine, perinatal medicine, gynecologic oncology.
Assistant Professor(Additional Post)	OKAMOTO Kazuya	brain tumor, stereotactic radiosurgery.
Assistant Professor(Additional Post)	TSUCHIHARA Katsuma	clinical respiratory medicine, lung cancer.
Assistant Professor(Additional Post)	FUKUYAMA Tomoki	Chemotherapy for gastrointestinal malignant disease.

### Keywords of Research

out patient chemotherapy, clinical investigation, biomarker, multidisciplinary cancer

### Outline of Research

Our main task is outpatient chemotherapy, which is requested by other Departments of the hospital. We are also involved in clinical trials on chemotherapy, and in translational research using clinical samples such as blood and urine of patients.

### Publications

#### Originals

- 0700B001 H.Shiroeda, T.Tahara, M.Nakamura, T.Shibata, T.Nomura, H.Yamada, R.Hayashi, T.Saito, M.Yamada, T.Fukuyama, T.Otsuka, H.Yano, K.Ozaki, M.Tsuchishima, M.Tsutsumi, T.Arisawa: Association between functional promoter polymorphisms of macrophage migration inhibitory factor(MIF)gene and ulcerative colitis in Japan, *Cytokine.*, 51:173-177, 2010.
- 0700B002 (T.Shiroiwa), Y.Motoo, K.Tsutani: Cost-effectiveness analysis of *KRAS* testing and cetuximab as last-line therapy for colorectal cancer, *Mol Diagn Ther.*, 14:375-384, 2010.
- 0700B003 H.Nakajima, Y.Ishigaki, Qi-S.Xia, T.Ikeda, Y.Yoshitake, H.Yonekura, T.Nojima, T.Tanaka, H.Umehara, N.Tomosugi, T.Takata, T.Shimasaki, N.Nakaya, I.Sato, K.Kawakami, K.Koizumi, T.Minamoto, Y.Motoo: Induction of HITS, a newly identified family with sequence similarity 107 protein (FAM107B), in cancer cells by heat shock stimulation, *Int. J. Oncol.*, 37:583-593, 2010.
- 0700B004 H.Shiroeda, T.Tahara, M.Nakamura, T.Shibata, H.Yamada, T.Nomura, R.Hayashi, T.saito, T.Fukuyama, T.Otsuka, H.Yano, K.Ozaki, M.Tsuchishima, M.Tsutsumi, T.Arisawa: Functional promoter polymorphisms of macrophage migration inhibitory factor in peptic ulcer diseases, *Int. J. Mol. Med.*, 26:707-711, 2010.

## Reviews

- 0700C001 (C.Cano), Y.Motoo, J.L.Lovanna: Epithelial- to- mesenchymal transition in pancreatic adenocarcinoma, *Scientific World Journal.*, 10:1947-1957, 2010.
- 0700C002 T.Shimasaki, Y.Ishigaki, T.Minamoto, Y.Motoo: Application of molecular medicine to pancreatic cancer, *The Journal of Japan Pancreas Society*, 25:35-45, 2010 (in Japanese) .

## Case Reports

- 0700D001 (M.Tachibana), Y.Hashimoto, T.Sone, N.Ooishi, T.Ueno, Y.Motoo: Two cases of atypical adenoma of the thyroid—is atypical adenoma of the thyroid a true benign lesion?—, *J. Jpn. Soc. Clin. Cytol.*, 49:190-195, 2010 (in Japanese) .
- 0700D002 I.Sato, N.Ueda, E.Kinoshita, H.Mnato, K.Ohno, N.Nakata, T.Shimasaki, H.Nakajima, T.Kosaka, Y.Motoo: Curatively resected case of non-functioning pancreatic neuroendocrine carcinoma with multiple liver metastases after dpwmstaging with S-1 monotherapy, *Cancer & chemotherapy.*, 37:1341-1344, 2010 (in Japanese) .
- 0700D003 S.Siroeda, H.Siroeda, T.Ootsuka, M.Yamada, T.Fukuyama, T.Saito, R.Hayashi, T.Nomura, H.Yano, K.Ozaki, T.Arisawa, M.Yokoi, T.Kosaka, M.Tsutsumi: A case ob jejunal GIST diagnosed by double-baloon endoscopy, *Endosc. Forum digest. dis.*, 26:44-49, 2010 (in Japanese) .

## Others

- 0700F001 (Q.Bian), Y.Motoo, H.Nakajima, T.Shimasaki, Y.Ishigaki: Molecular analysis on responses of TP53INP1-knockout mouse embryonic fibroblasts to anti-cancer agents, *Study report 2009 Japan China Sasakawa Medical Fellowship*, 125-128, 2010.

## Presentations at Conference

### International Conference (Key Note Lecture)

- 0700G001 Y.Motoo, K.Tsutani: “Tsutaeru ” Project on evidence of Kampo medicine: activities of the special committee for EBM, *Japan Society for Oriental Medicine, The 15th International Congress of Oriental Medicine*, (Makuhari, '10.02).
- 0700G002 Y.Motoo: Traditional Japanese medicine in clinical practice guidelines and in multidisciplinary cancer treatment, *The 14th International Conference on Oriental Medicine of Daegu Haany & Dong-Eui University 2010*, (Daegu, '10.11).

### International Conference (Symposium)

- 0700H001 T.Shimasaki, Y.Ishigaki, T.Takata, Y.Nakamura, A.Kitano, K.Kawakami, N.Tomosugi, T.Minamoto, Y.Motoo: Effect of GSK3  $\beta$  inhibition against Gemcitabine-induced epithelial-mesenchymal transition and invasive ability of pancreatic cancer cells: its therapeutic implication, *Joint Meeting of the International Association of Pancreatology and the Japan Pancreas Society 2010*, (Fukuoka, '10.07), *Pancreas*, 25:291, 2010.
- 0700H002 Y.Motoo: Stress responses of pancreatic cancer cells and their significance in invasion and metastasis, *International Symposium on Primo-Vascular System 2010*, (Jecheon, '10.09).
- 0700H003 Y.Motoo: Current status of cancer treatment in Japan, *Academic lecture series on cancer: basic and clinical aspects*, (Shanghai, '10.09).
- 0700H004 Y.Motoo: East Meets West: Japanese experience with special reference to cancer treatment, *The First Beijing International Symposium on Integrative Medicine*, (Beijing, '10.10).
- 0700H005 Y.Motoo: Clinical practice guidelines containing Kampo products in Japan, *First Korea-Japan Workshop on EBM in Traditional East Asian Medicine*, (Seoul, '10.10).



0700H006 Y.Motoo: New Work Item Proposal (NWIP) No.2 from Japan, Joint ISO/TC215 and CEN/TC251 Working Groups meeting, (Rotterdam, '10.10).

**International Conference (Presentations)**

0700I001 J.Yamakawa, J.Moriya, Y.Motoo: Three kampo medicines have different activities to regulate gene expressions in differentiated rat white adipocytes, The 15th International Congress of Oriental Medicine, (Makuhari, '10.02).

0700I002 J.Moriya, J.Yamakawa, Y.Motoo: Resveratrol improves hippocampal atrophy in mice with chronic fatigue by enhancing neurogenesis, The 15th International Congress of Oriental Medicine, (Makuhari, '10.02).

0700I003 Y.Motoo, T.Togo, H.Toyotama, T.Seki: New work item proposal of traditional medicine, ISO/TC215 WG3 TM-TF, (Rio de Janeiro, '10.05).

0700I004 J.Moriya, J.Yamakawa, Y.Motoo: Resveratrol improves hippocampal atrophy in mice with chronic fatigue by enhancing neurogenesis and inhibiting apoptosis of granular cells, The 9th Meeting of the Consortium for Globalization of Chinese Medicine 2010, (Hong Kong, '10.08).

0700I005 (T.Shiroiwa), Y.Motoo, K.Tsutani: Cost-effectiveness analysis of K-ras testing and cetuximab for metastatic colorectal cancer in Japan, ISPOR 4th Asia-Pacific Conference, (Phuket, '10.09).

## 0670 Lifestyle-related Diseases Center

### Faculty

Title	Name	Field of Specialization
Professor(Additional Post)	KIGOSHI Toshikazu	intracellular signaling of hormones, aldosterone secretion.
Professor(Additional Post)	TAMURA Nobuki	Physical physiology(The exercise testing and prescription from the physiological and biochemical research), Effects of the anemia on the physical activity, Exercise therapy for the lifestyle-related disease, Training for health Medical Education.
Associate Professor	ASAJI Takayoshi	Heart failure.
Associate Professor(Additional Post)	HORI Ariyuki	medical education, clinical neurology, clinical sleep medicine, neurophysiology, medical informatics, problem-based learning.
Associate Professor(Additional Post)	ITO Tomohiko	Endocrinology.
Senior Assistant Professor	UENISHI Hiroaki	Cardiovascular Medicine.
Senior Assistant Professor	KUDOH AKAZAWA Sumiyo	gender specific medicine, hypertension, molecular biology.
Senior Assistant Professor(Additional Post)	NAKANISHI Yumiko	Preventive medicine.
Assistant Professor	KAMODA Sachiko	lifestyle-related disease, Preventive medicine.
Assistant Professor	TERADA Maiko	lifestyle-related disease.
Assistant Professor	HAYASAKI Hisae	lifestyle-related disease.
Assistant Professor(Additional Post)	KITADA Munehiro	diabetes, hypertension.

### Keywords of Research

life-style related disease, metabolic syndrome, impaired glucose tolerance, hypertension, hyperlipidemia, smoking, stroke, myocardial infarction, diet, exercise, smoking

### Outline of Research

Prevention of life-style-related diseases by exercise, diet and stop-smoking.

### Presentations at Conference

#### International Conference (Presentations)

- 0670I001 (Hi.Akazawa), N.Yasuda, S.Kudoh akazawa, I.Komuro: Cardiac overexpression of angiotensin II type1 receptor induces ventricular remodeling independently of angiotensin II, Gordon Research Conferences, (Los Angeles, '10.02).

## 0610 Health Management Center

### Faculty

Title	Name	Field of Specialization
Director	TAKASE Shujiro	Gastroenterology.
Professor	KAWAHARA Hiromu	Liver injury and oxidative stress.
Professor(Additional Post)	NAKAGAWA Hideaki	Epidemiology of cardiovascular diseases, occupational medicine, preventive medicine.
Professor(Additional Post)	YASUDA Yukio	evidence-based health care.
Professor(Additional Post)	MORIKAWA Yuko	Cardiovascular epidemiology, occupational medicine.
Associate Professor	NAKAMURA Koshi	Epidemiology of Cardiovascular disease and Lifestyle-related disease Lifestyle/Disease and Medical expenditure.
Associate Professor(Additional Post)	ISHIZAKI Masao	Occupational health, Epidemiology for cardiovascular disease.
Associate Professor(Additional Post)	NISHIJO Muneko	Environmental epidemiology, epidemiology of cadmium pollution.
Senior Assistant Professor	NAKANISHI Yumiko	Preventive medicine.
Senior Assistant Professor	KUGINUKI Yasuaki	hemodynamics.
Assistant Professor	OTA Kiyotaka	Radiology.

### Keywords of Research

health examination, screening, metabolic syndrome, obesity, hypertension, insulin resistance, hyperlipidemia, smoking, alcohol intake, life style, "stress, dietary habits", "nutrient intake, exercise"

### Outline of Research

Studies for improvement of total medical check system and method of health support.

### Publications

#### Originals

- 0610B001 (The Emerging Risk Factors Collaboration), H.Nakagawa, Collaborators(273): C-reactive protein concentration and risk of coronary heart disease,stroke, and mortality:an individual participant meta-analysis, *Lancet*, 375:132-140, 2010.
- 0610B002 (K.Miura), N.Okuda, T.C.Turin, N.Takashima, H.Nakagawa, K.Nakamura, K.Yoshita, A.Okayama, H.Ueshima, NIPPON DATA80/90 Research Group: Dietary salt intake and blood pressure in a representative Japanese population: baseline analyses of NIPPON DATA80, *J Epidemiol*, 20(Suppl):S524-S530, 2010.
- 0610B003 (N.Okuda), K.Miura, K.Yoshita, Y.Matsumura, A.Okayama, Y.Nakamura, T.Okamura, S.Saitoh, K.Sakata, T.Ojima, TC.Turin, H.Ueshima, H.Nakagawa, NIPPON DATA80/90 Research Group: Integration of data from NIPPON DATA80/90 and National Nutrition Survey in Japan: for cohort studies of representative Japanese on nutrition, *J Epidemiol*, 20(Suppl):S506-S514, 2010.
- 0610B004 Q.LI, Y.Morikawa, M.Sakurai, K.Nakamura, K.Miura, M.Ishizaki, T.Kido, Y.Naruse, Y.Suwazono, H.Nakagawa: Occupational class and incidence rates of cardiovascular events in middle aged men in Japan, *Ind. Health*, 48:324-330, 2010.

- 0610B005 M.Nakashima, M.Sakurai, K.Nakamura, K.Miura, K.Yoshita, Y.Morikawa, M.Ishizaki, K.Murakami, T.Kido, Y.Naruse, S.Sasaki, H.Nakagawa: Dietary glyceic index, glyceic load and blood lipid levels in middle-aged Japanese men and women, *J. Atheroscler. Thromb.*, 17:1082-1095, 2010.
- 0610B006 (N.Takashima), K.Miura, A.Hozawa, A.Kadota, T.Okamura, Y.Nakamura, T.Hayakawa, N.Okuda, A.Fujiyoshi, SY.Nagasawa, T.Kadowaki, Y.Murakami, Y.Kita, A.Okayama, H.Ueshima, H.Nakagawa, NIPPON DATA 90 Research Group, Collaborator(19): Population attributable fraction of smoking and metabolic syndrome on cardiovascular disease mortality in Japan: a 15-year follow up of NIPPON DATA90, *BMC Public Health*, 10:306, 2010.
- 0610B007 (U.Tamura), T.Tanaka, T.Okamura, T.Kadowaki, H.Yamato, H.Tanaka, M.Nakamura, A.Okayama, H.Ueshima, Z.Yamagata, HIPOP-OHP research group, H.Nakagawa: Changes in weight, cardiovascular risk factors and estimated risk of coronary heart disease following smoking cessation in Japanese male workers:HIPOP-OHP study, *J. Atheroscler. Thromb.*, 17:12-20, 2010.
- 0610B008 W.Hirokawa, K.Nakamura, M.Sakurai, Y.Morikawa, K.Miura, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Mild metabolic abnormalities, abdominal obesity and the risk of cardiovascular diseases in middle-aged Japanese men, *J. Atheroscler. Thromb.*, 17:934-943, 2010.
- 0610B009 (Z.Guo), K.Miura, TC.Turin, A.Hozawa, N.Okuda, T.Okamura, S.Saitoh, K.Sakata, H.Nakagawa, A.Okayama, K.Yoshita, T.Kadowaki, S.R Choudhury, Y.Nakamura, B.L Rodriguez, JD.Curb, P.Elliott, J.Stamler, H.Ueshima: Relationship of the polyunsaturated to saturated fatty acid ratio to cardiovascular risk factors and metabolic syndrome in Japanese:the INTERLIPID study, *J. Atheroscler. Thromb.*, 17:777-784, 2010.
- 0610B010 (S.Katano), Y.Nakamura, A.Nakamura, Y.Murakami, T.Tanaka, H.Nakagawa, T.Takebayashi, H.Yamato, A.Okayama, K.Miura, T.Okamura, H.Ueshima, HIPOP-OHP Research Group: Relationship among physical activity,smoking,drinking and clustering of the metabolic syndrome diagnostic components, *J. Atheroscler. Thromb.*, 30:644-50, 2010.
- 0610B011 K.Nakamura, M.Sakurai, K.Miura, Y.Morikawa, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Homeostasis model assessment of insulin resistance and the risk of cardiovascular events in middle-aged non-diabetic Japanese men, *Diabetologia*, 53:1894-1902, 2010.
- 0610B012 R.Honda, W.Swaddiwudhipong, M.Nishijo, P.Mahasakpan, W.Teeyakasem, W.Ruangyuttikarn, S.Satarug, C.Padungtod, H.Nakagawa: Cadmium induced renal dysfunction among residents of rice farming area downstream from a zinc-mineralized belt in Thailand, *Toxicol. Lett.*, 198:26-32, 2010.
- 0610B013 (R.Oka), J.Kobayashi, A.Inazu, K.Yagi, S.Miyamoto, M.Sakurai, K.Nakamura, K.Miura, H.Nakagawa, M.Yamagishi: Contribution of visceral adiposity and insulin resistance to metabolic risk factors in Japanese men, *Metabolism*, 59:748-754, 2010.
- 0610B014 (H.Yatuya), H.Toyoshima, K.Yamagishi, K.Tamakoshi, M.Taguri, A.Harada, Y.Ohashi, Y.Kita, Y.Naito, M.Yamada, N.Tanabe, H.Iso, H.Ueshima, H.Nakagawa, Japan Arteriosclerosis Longitudinal Study (JALS) group: Body mass index and risk of stroke and myocardial infarction in a relatively lean population: meta-analysis of 16 Japanese cohorts using individual data, *Circ. Cardiovasc. Qual. Outcomes.*, 3:498-505, 2010.
- 0610B015 (D.D.Nhu), T.Kido, R.Naganuma, H.Suzuki, N.Kuroda, S.Honma, P.T.Tai, S.Maruzeni, M.Nishijo, H.Nakagawa, N.N.Hung, L.T.H.Thom, L.K.Son: Salivary cortisol and cortisone levels,and breast milk dioxin concentrations in Vietnamese primiparas, *Toxicol. Environ. Chem.*, 92:1939-1952, 2010.
- 0610B016 (R.Sato), T.Kido, R.Honda, M.Nishijo, H.Nakagawa, E.Kobayashi, Y.Suwazono: Seventeen-year observation on urinary cadmium and  $\beta_2$ -microglobulin in inhabitants after cessation of cadmium-exposure in Japan, *Bull. Environ. Contam. Toxicol.*, 84:363-367, 2010.
- 0610B017 (W.Swaddiwudhipong), P.Limphanachote, M.Nishijo, R.Honda, P.Mahasakpan, S.Krintratun: Cadmium-exposed population in Mae Sot district, Tak province:3. associations between urinary cadmium and renal dysfunction,hypertension,diabetes, and urinary stones, *J. Med. Assoc. Thai.*, 93:231-238, 2010.
- 0610B018 (P.Limphanachote), W.Swaddiwudhipong, M.Nishijo, R.Honda, P.Mahasakpan, K.Nambunmee, W.Ruangyuttikarn: Cadmium-exposed population in Mae Sot district, Tak province: 4 bone mineral density in persons with high cadmium exposure, *J. Med. Assoc. Thai.*, 93:1451-1457, 2010.

- 0610B019 (R.Oka), K.Miura, M.Sakurai, K.Nakamura, K.Yagi, S.Miyamoto, T.Moriuchi, H.Mabuchi, J.Koizumi, H.Nomura, Y.Takeda, A.Inazu, A.Nohara, MA.Kawashiri, S.Nagasawa, J.Kobayashi, M.Yamagishi: Impacts of visceral adipose tissue and subcutaneous adipose tissue on metabolic risk factors in middle-aged Japanese, , 18:153-60, 2010.
- 0610B020 K.Nakamura, T.Okamura, T.Hayakawa, H.Kanda, A.Okayama, H.Ueshima, Health Promotion Research Committee of the Shiga National Health Insurance Organizations: Medical expenditures of men with hypertension and/or a smoking habit: a 10-year follow-up study of national health insurance in Shiga, Japan, *Hypertens. Res.*, 33:802-807, 2010.
- 0610B021 Y.Kuginuki: Usefulness of hepatic ADC measured using 3T-MRI in evaluation of liver fibrosis, *J. Kanazawa. Med. Univ.*, 35:178-186, 2010 (in Japanese) .

#### Reviews

- 0610C001 (R.Huxley), K.Nakamura, M.Woodward: Modification of the effect of lipids on the risk of cardiovascular diseases by cigarette smoking, *Clin. Lipidol.*, 5:413-420, 2010.
- 0610C003 K.Nakamura, H.Nakagawa: Prevention of stroke, *Journal of Medical Technology*, 54:1487-1493, 2010 (in Japanese) .
- 0610C004 K.Nakamura: Impacts of cardiovascular risk factors on medical expenditures, *Hokuriku Japanese Journal of Public Health.*, 37:1-6, 2010 (in Japanese) .

### Presentations at Conference

#### International Conference (Presentations)

- 0610I001 K.Nakamura, W.Hirokawa, M.Sakurai, Y.Morikawa, K.Miura, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Mild metabolic abnormality and risk of cardiovascular diseases among middle-aged Japanese men, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to *Journal of Epidemiology*, 20(Suppl 1):191, 2010.
- 0610I002 M.Sakurai, M.Nakashima, K.Nakamura, K.Miura, K.Yoshita, Y.Morikawa, M.Ishizaki, K.Murakami, T.Kido, Y.Naruse, S.Sasaki, H.Nakagawa: Dietary glycemic index, glycemic load and blood lipid levels in middle-aged Japanese men and women, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to *Journal of Epidemiology*, 20(Suppl 1):216, 2010.
- 0610I003 M.Nakashima, Y.Morikawa, M.Sakurai, K.Nakamura, K.Miura, M.Ishizaki, T.Kido, Y.Naruse: Association between long working hours and sleep problems in white-collar workers, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01).

## 0680 Medical Genetic Center

### Faculty

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Title	Name	Field of Specialization
Director	NIIDA You	genetic diagnosis, genetic counseling.
Senior Assistant Professor(Additional Post)	ITO Masatsune	child endocrinology.
Assistant Professor(Additional Post)	SATO Hitoshi	clinical virology, child infectious disease.

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### Keywords of Research

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Medical genetics, Genetic services, Genetic counseling, Genetic testing, DNA diagnosis, Molecular diagnosis, Chromosomal study

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### Outline of Research

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Studies and practices of useful methods of genetic concerning  
Development of exhaustive and comprehensive genetic testing  
Total health care of patients with genetic diseases

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# Medical Research Institute

## 0740 Division of Human Genetics (Biochemistry)

### Faculty

Title	Name	Field of Specialization
Professor	KUHARA Tomiko	Human metabolome analysis for diagnosis of metabolic disorders and personalized medicine.
Senior Assistant Professor	INOUE Yoshito	Chemical diagnosis and follow up study for metabolic disorders (urea cycle disorders, prenatal diagnosis of organic acidemias, Canavan disease, optical isomer analysis)

### Keywords of Research

human genetics, metabolome, pharmacogenomics, nutrigenomics, metabolomics, mass spectrometry, inborn errors of metabolism, molecular diagnosis, organic acidemia, gas chromatography-mass spectrometry, chemical diagnosis, pilot study of neonatal screening, prenatal diagnosis, personalized medicine, stable isotope dilution, tandem mass spectrometry, electrospray ionization mass spectrometry, 5-fluorouracil toxicity, metabolic profiling, aminoacidemia/aminoaciduria, fatty acid  $\beta$ -oxidation, carnitine, acylcarnitine

### Presentations at Conference

#### International Conference (Presentations)

0740I001 T.Kuhara: GC/MS-based metabolomics for chemical diagnosis of IEM, The 1st Asian Congress for Inherited Metabolic Diseases, (Fukuoka, '10.03), Japanese Journal for Inherited Metabolic Diseases, 26(Suppl):86.



## 0750 Division of Human Genetics (Clinical Medicine)

### Faculty

Title	Name	Field of Specialization
Associate Professor	TAKABAYASHI Haruo	fetal medicine, DNA medicine.
Assistant Professor	OZAKI Mamoru	cytogenetics, Molecular cytogenetics.

### Keywords of Research

genetic counseling, genetic service, prenatal diagnosis, congenital abnormality

### Publications

#### Originals

0750B001 (N.Ba Trung), M.Saito, H.Takabayashi, P.Hung Viet, E.Tamiya, Y.Takamura: Multi-chamber PCR chip with simple liquid introduction utilizing the gas permeability of polydimethylsiloxane, *Sens Actuators B Chem.*, 149:284-290, 2010.

#### Case Reports

0750D001 K.Sato, K.Terai, M.Ozaki, Y.Ueda, S.Katsuda: Odontogenic myxofibroma with *HMGA2* overexpression and *HMGA2* rearrangement, *Pathol. Int.*, 60:760-764, 2010.

### Presentations at Conference

#### International Conference (Key Note Lecture)

0750G001 H.Takabayashi: FDD-MB 3.0 System, 6th World Congress of Perinatal Medicine, (Indonesia, '10.03).

## 0770 Division of Core Facility (Radioisotope Center)

### Faculty

Title	Name	Field of Specialization
Senior Assistant Professor	ISHIGAKI Yasuhito	Molecular and Cellular Biology.
Research Associate	YAMASHITA Masatoshi	Radiation Safety Management.

### Keywords of Research

RNA surveillance, nonsense mediated mRNA decay, mutation, DNA microarray, transcriptome, proteome, apoptosis, Energy-filtering electron microscopy, Element mapping, Ultra micro structure, mouse germ cells, DNA repair, fibroblast growth factor, centrosome, tumor growth angiogenesis, micro RNA

### Outline of Research

Quality control of genetic information

### Books

- 0770A001 Y.Ishigaki, A.Nagao, T.Matsunaga: Optimized gene silencing by co-expression of multiple shRNAs in a single vector., *Methods in Molecular Biology*, 109–121, Humana Press, Milton Keynes UK, 2010.

### Publications

#### Originals

- 0770B001 L.Zhang, K.Higashi, Y.Ishigaki, Y.Ueda, T.Sakuma, T.Takegami, M.Oguchi, K.Xu, Y.Ohta, H.Nishida, H.Tonami: Assessment of VEGF-D expression measured by immunohistochemical staining and F-18 FDG uptake on PET as biological prognostic factors for recurrence in patients with surgically resected lung adenocarcinoma, *Ann. Nucl. Med.*, 24:533–540, 2010.
- 0770B002 (T.Kiba), Y.Kintaka, Y.Suzuki, N.Ishizuka, Y.Ishigaki, S.Inoue: VMH lesions downregulate the expression of Per2 gene in the pancreas in the rat, *Neurosci. Lett.*, 471:148–151, 2010.
- 0770B003 (T.Kiba), Y.Kintaka, Y.Suzuki, N.Ishizuka, Y.Ishigaki, S.Inoue: Gene expression profiling in rat pancreas after ventromedial hypothalamic lesioning, *Pancreas*, 39:627–632, 2010.
- 0770B004 (M.Yamaguchi), I.Hasegawa, N.Yahagi, Y.Ishigaki, F.Takano, T.Ohta: Carotenoids modulate cytokine production in Peyer's patch cells ex vivo, *J. Agric. Food Chem.*, 58:8566–8572, 2010.
- 0770B005 Y.Ishigaki, T.Kurihara, Y.Nakamura, X.Zhao, T.Takata, S.Izumi, T.Takegami, N.Tomosugi, H.Nakagawa: Ultrastructural localization of Upf2 and its binding to mRNA molecules in human cells, *Journal of Electron Microscopy Technology for Medicine and Biology*, 24:8–13, 2010.
- 0770B006 H.Nakajima, Y.Ishigaki, QI-S.Xia, T.Ikeda, Y.Yoshitake, H.Yonekura, T.Nojima, T.Tanaka, H.Umehara, N.Tomosugi, T.Takata, T.Shimasaki, N.Nakaya, I.Sato, K.Kawakami, K.Koizumi, T.Minamoto, Y.Motoo: Induction of HITS, a newly identified family with sequence similarity 107 protein (FAM107B), in cancer cells by heat shock stimulation, *Int. J. Oncol.*, 37:583–593, 2010.

## Reviews

- 0770C001 T.Shimasaki, Y.Ishigaki, T.Minamoto, Y.Motoo: Application of molecular medicine to pancreatic cancer, The Journal of Japan Pancreas Society, 25:35-45, 2010 (in Japanese) .
- 0770C002 Y.Ueda, M.Shimasaki, Y.Machida, Y.Takahara, Y.Himi, Y.Ishigaki, K.Sato, T.Sakuma, H.Toga, S.Kawakami, S.Katsuda: Aquaporin as a novel player in cancer cell the invasion of cancer cells, J. Kanazawa. Med. Univ., 35:55-60, 2010 (in Japanese) .

## Others

- 0770F001 (Q.Bian), Y.Motoo, H.Nakajima, T.Shimasaki, Y.Ishigaki: Molecular analysis on responses of TP53INP1-knockout mouse embryonic fibroblasts to anti-cancer agents, Study report 2009 Japan China Sasakawa Medical Fellowship, 125-128, 2010.

## Presentations at Conference

### International Conference (Symposium)

- 0770H001 T.Shimasaki, Y.Ishigaki, T.Takata, Y.Nakamura, A.Kitano, K.Kawakami, N.Tomosugi, T.Minamoto, Y.Motoo: Effect of GSK3 $\beta$  inhibition against Gemcitabine-induced epithelial-mesenchymal transition and invasive ability of pancreatic cancer cells: its therapeutic implication, Joint Meeting of the International Association of Pancreatology and the Japan Pancreas Society 2010, (Fukuoka, '10.07), Pancreas, 25:291, 2010.

### International Conference (Presentations)

- 0770I001 T.Takegami, M.Murakami, Y.Ishigaki: Pathogenicity of Japanese encephalitis virus (JEV) and biological activity of JEV protein NS4a, 44th US-Japan Cooperative Medical Science Program, (Sapporo, '10.07).
- 0770I002 T.Takegami, M.Murakami, Y.Ishigaki: Pathogenicity of Japanese encephalitis virus (JEV) and physiological role of JEV protein NS4a, 1st Asia Pacific Workshop on Neurovirology, (Seoul, '10.07).
- 0770I003 (T.Takahashi), T.Murayama, Y.Ishigaki, K.Ubutaka: Inhibitory Effects of Various Statins on Cytomegalovirus Replication in Human Cells, 50th Interscience Conference on Antimicrobial Agents and Chemotherapy, (Boston, '10.09).
- 0770I004 T.Hatta, H.Shimada, E.Simamura, Y.Ishigaki, N.Higashi, T.Tatsuno, F.Takano: Alteratio of gene expression profiles in the fetal cerebrum after injection of leukemia inhibitory factor into dams, Society for NEUROSCIENCE 2010, (San Diego, '10.11).

## 0780 Division of Core Facility (Experimental Animal Center)

### Faculty

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Title	Name	Field of Specialization
Professor(Additional Post)	MATSUI Shinobu	

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### Keywords of Research

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cardiac function, echocardiography, myocardial metabolism, cell cycle control and immunopathology

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### Outline of Research

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1. cardiac function, echocardiography, myocardial metabolism.
  2. cell cycle control and immunopathology.
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## 0800 Division of Core Facility (High-Tech Research Center)

### Faculty

Title	Name	Field of Specialization
Associate Professor(Additional Post)	NISHIJO Muneko	Environmental epidemiology, epidemiology of cadmium pollution.
Researcher	SUN Peng	Analysis of mood disorder model mice in search for new therapeutic approaches
Researcher	TAKATA Takanobu	Development of the method for diagnosis and therapy of the intractable disease by 'Proteome Analysis'.
Researcher	WANG Furong	Analysis of Alzheimer disease model mice in search for new therapeutic approaches
Researcher	ZHANG Qing	Physiological analysis of anti-NMDA receptor antibody accompanying autoimmune encephalitis

### Keywords of Research

Epidemiology of health effects of environmental cadmium exposure, dioxins, Toxicology of environmental pollutants, neurovirology, Cancer chemoprevention by natural products

### Outline of Research

1. Epidemiology of health effects of environmental cadmium exposure, and dioxins., Toxicology of environmental pollutants.
2. neurovirology.
3. Cancer chemoprevention by natural products.

### Publications

#### Originals

- 0800B001 (K.Nambunmee), R.Honda, M.Nishijo, W.Swaddiwudhipong, H.Nakagawa, W.Ruangyuttikarn: Bone resorption acceleration and calcium reabsorption impairment in a Thai population with high cadmium exposure, *Toxicol. Mech. Methods.*, 20:7-13, 2010.
- 0800B002 (The Emerging Risk Factors Collaboration), H.Nakagawa, Collaborators(273): C-reactive protein concentration and risk of coronary heart disease,stroke, and mortality:an individual participant meta-analysis, *Lancet*, 375:132-140, 2010.
- 0800B003 (K.Miura), N.Okuda, T.C.Turin, N.Takashima, H.Nakagawa, K.Nakamura, K.Yoshita, A.Okayama, H.Ueshima, NIPPON DATA80/90 Research Group: Dietary salt intake and blood pressure in a representative Japanese population: baseline analyses of NIPPON DATA80, *J Epidemiol*, 20(Suppl):S524-S530, 2010.
- 0800B004 (N.Okuda), K.Miura, K.Yoshita, Y.Matsumura, A.Okayama, Y.Nakamura, T.Okamura, S.Saitoh, K.Sakata, T.Ojima, T.C.Turin, H.Ueshima, H.Nakagawa, NIPPON DATA80/90 Research Group: Integration of data from NIPPON DATA80/90 and National Nutrition Survey in Japan: for cohort studies of representative Japanese on nutrition, *J Epidemiol*, 20(Suppl):S506-S514, 2010.
- 0800B005 Q.LI, Y.Morikawa, M.Sakurai, K.Nakamura, K.Miura, M.Ishizaki, T.Kido, Y.Naruse, Y.Suwazono, H.Nakagawa: Occupational class and incidence rates of cardiovascular events in middle aged men in Japan, *Ind. Health*, 48:324-330, 2010.
- 0800B006 M.Nakashima, M.Sakurai, K.Nakamura, K.Miura, K.Yoshita, Y.Morikawa, M.Ishizaki, K.Murakami, T.Kido, Y.Naruse, S.Sasaki, H.Nakagawa: Dietary glycemic index, glycemic load and blood lipid levels in middle-aged Japanese men and women, *J. Atheroscler. Thromb.*, 17:1082-1095, 2010.

- 0800B007 (N.Takashima), K.Miura, A.Hozawa, A.Kadota, T.Okamura, Y.Nakamura, T.Hayakawa, N.Okuda, A.Fujiyoshi, SY.Nagasawa, T.Kadowaki, Y.Murakami, Y.Kita, A.Okayama, H.Ueshima, H.Nakagawa, NIPPON DATA 90 Research Group, Collaborator(19): Population attributable fraction of smoking and metabolic syndrome on cardiovascular disease mortality in Japan: a 15-year follow up of NIPPON DATA90, *BMC Public Health*, 10:306, 2010.
- 0800B008 (U.Tamura), T.Tanaka, T.Okamura, T.Kadowaki, H.Yamato, H.Tanaka, M.Nakamura, A.Okayama, H.Ueshima, Z.Yamagata, HIPOP-OHP research group, H.Nakagawa: Changes in weight, cardiovascular risk factors and estimated risk of coronary heart disease following smoking cessation in Japanese male workers:HIPOP-OHP study, *J. Atheroscler. Thromb.*, 17:12-20, 2010.
- 0800B009 W.Hirokawa, K.Nakamura, M.Sakurai, Y.Morikawa, K.Miura, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Mild metabolic abnormalities, abdominal obesity and the risk of cardiovascular diseases in middle-aged Japanese men, *J. Atheroscler. Thromb.*, 17:934-943, 2010.
- 0800B010 (Z.Guo), K.Miura, TC.Turin, A.Hozawa, N.Okuda, T.Okamura, S.Saitoh, K.Sakata, H.Nakagawa, A.Okayama, K.Yoshita, T.Kadowaki, S.R Choudhury, Y.Nakamura, B.L Rodriguez, JD.Curb, P.Elliott, J.Stamler, H.Ueshima: Relationship of the polyunsaturated to saturated fatty acid ratio to cardiovascular risk factors and metabolic syndrome in Japanese:the INTERLIPID study, *J. Atheroscler. Thromb.*, 17:777-784, 2010.
- 0800B011 (S.Katano), Y.Nakamura, A.Nakamura, Y.Murakami, T.Tanaka, H.Nakagawa, T.Takebayashi, H.Yamato, A.Okayama, K.Miura, T.Okamura, H.Ueshima, HIPOP-OHP Research Group: Relationship among physical activity,smoking,drinking and clustering of the metabolic syndrome diagnostic components, *J. Atheroscler. Thromb.*, 30:644-50, 2010.
- 0800B012 K.Nakamura, M.Sakurai, K.Miura, Y.Morikawa, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Homeostasis model assessment of insulin resistance and the risk of cardiovascular events in middle-aged non-diabetic Japanese men, *Diabetologia*, 53:1894-1902, 2010.
- 0800B013 R.Honda, W.Swaddiwudhipong, M.Nishijo, P.Mahasakpan, W.Teeyakasem, W.Ruangyuttikarn, S.Satarug, C.Padungtod, H.Nakagawa: Cadmium induced renal dysfunction among residents of rice farming area downstream from a zinc-mineralized belt in Thailand, *Toxicol. Lett.*, 198:26-32, 2010.
- 0800B014 (R.Oka), J.Kobayashi, A.Inazu, K.Yagi, S.Miyamoto, M.Sakurai, K.Nakamura, K.Miura, H.Nakagawa, M.Yamagishi: Contribution of visceral adiposity and insulin resistance to metabolic risk factors in Japanese men, *Metabolism*, 59:748-754, 2010.
- 0800B015 (H.Yatuya), H.Toyoshima, K.Yamagishi, K.Tamakoshi, M.Taguri, A.Harada, Y.Ohashi, Y.Kita, Y.Naito, M.Yamada, N.Tanabe, H.Iso, H.Ueshima, H.Nakagawa, Japan Arteriosclerosis Longitudinal Study (JALS) group: Body mass index and risk of stroke and myocardial infarction in a relatively lean population: meta-analysis of 16 Japanese cohorts using individual data, *Circ. Cardiovasc. Qual. Outcomes.*, 3:498-505, 2010.
- 0800B016 (D.D.Nhu), T.Kido, R.Naganuma, H.Suzuki, N.Kuroda, S.Honma, P.T.Tai, S.Maruzeni, M.Nishijo, H.Nakagawa, N.N.Hung, L.T.H.Thom, L.K.Son: Salivary cortisol and cortisone levels,and breast milk dioxin concentrations in Vietnamese primiparas, *Toxicol. Environ. Chem.*, 92:1939-1952, 2010.
- 0800B017 Y.Ishigaki, T.Kurihara, Y.Nakamura, X.Zhao, T.Takata, S.Izumi, T.Takegami, N.Tomosugi, H.Nakagawa: Ultrastructural localization of Upf2 and its binding to mRNA molecules in human cells, *Journal of Electron Microscopy Technology for Medicine and Biology.*, 24:8-13, 2010.
- 0800B018 H.Nakajima, Y.Ishigaki, QI-S.Xia, T.Ikeda, Y.Yoshitake, H.Yonekura, T.Nojima, T.Tanaka, H.Umehara, N.Tomosugi, T.Takata, T.Shimasaki, N.Nakaya, I.Sato, K.Kawakami, K.Koizumi, T.Minamoto, Y.Motoo: Induction of HITS, a newly identified family with sequence similarity 107 protein (FAM107B), in cancer cells by heat shock stimulation, *Int. J. Oncol.*, 37:583-593, 2010.
- 0800B019 (R.Sato), T.Kido, R.Honda, M.Nishijo, H.Nakagawa, E.Kobayashi, Y.Suwazono: Seventeen-year observation on urinary cadmium and  $\beta_2$ -microglobulin in inhabitants after cessation of cadmium-exposure in Japan, *Bull. Environ. Contam. Toxicol.*, 84:363-367, 2010.
- 0800B020 (W.Swaddiwudhipong), P.Limphanachote, M.Nishijo, R.Honda, P.Mahasakpan, S.Krintratun: Cadmium-exposed population in Mae Sot district, Tak province:3. associations between urinary cadmium and renal dysfunction,hypertension,diabetes, and urinary stones, *J. Med. Assoc. Thai.*, 93:231-238, 2010.

- 0800B021 (P.Limpitanachote), W.Swaddiwudhipong, M.Nishijo, R.Honda, P.Mahasakpan, K.Nambunmee, W.Ruangyuttikarn: Cadmium-exposed population in Mae Sot district, Tak province: 4 bone mineral density in persons with high cadmium exposure, *J. Med. Assoc. Thai.*, 93:1451-1457, 2010.

## Presentations at Conference

### International Conference (Symposium)

- 0800H001 T.Shimasaki, Y.Ishigaki, T.Takata, Y.Nakamura, A.Kitano, K.Kawakami, N.Tomosugi, T.Minamoto, Y.Motoo: Effect of GSK3  $\beta$  inhibition against Gemcitabine-induced epithelial-mesenchymal transition and invasive ability of pancreatic cancer cells: its therapeutic implication, Joint Meeting of the International Association of Pancreatology and the Japan Pancreas Society 2010, (Fukuoka, '10.07), *Pancreas*, 25:291, 2010.

### International Conference (Presentations)

- 0800I001 M.Ishizaki, H.Nakagawa, N.Kawakami, A.Inoue, Y.Morikawa, T.Kido, Y.Yamada: Relationship between job stress and job performance in a factory, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to *Journal of Epidemiology*, 20(Suppl 1):295, 2010.
- 0800I002 K.Nakamura, W.Hirokawa, M.Sakurai, Y.Morikawa, K.Miura, M.Ishizaki, K.Yoshita, T.Kido, Y.Naruse, H.Nakagawa: Mild metabolic abnormality and risk of cardiovascular diseases among middle-aged Japanese men, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to *Journal of Epidemiology*, 20(Suppl 1):191, 2010.
- 0800I003 M.Sakurai, M.Nakashima, K.Nakamura, K.Miura, K.Yoshita, Y.Morikawa, M.Ishizaki, K.Murakami, T.Kido, Y.Naruse, S.Sasaki, H.Nakagawa: Dietary glycemic index, glycemic load and blood lipid levels in middle-aged Japanese men and women, The Joint Scientific Meeting of International Epidemiological Association Western Pacific Region and 20th Japan Epidemiological Association, (Koshigaya, '10.01), Supplement to *Journal of Epidemiology*, 20(Suppl 1):216, 2010.
- 0800I004 N.Kato, P.Sun, Y.Zhang, F-R.Wang, L.Wang, R.Yamamoto, T.Sugai, Z-D.Wang, R.Chen: Increased excitability of cingulate cortex neurons in a mouse model of depression, Cold Spring Harbor Asia Conference 1st Francis Crick Neuroscience Symposium, (Suzhou, '10.04).
- 0800I005 K.Kitaoka, M.Nagai, H.Nakagawa, S.Masuda, K.Ogino: Burnout level of the Japanese working population, ICOHN & ACOHN Joint Conference 2010, (Yokohama, '10.08).
- 0800I006 M.Nishijo, W.Swaddiwudhipong, K.Nambunmee, W.Ruangyuttikarn, R.Honda, Y.Morikawa, H.Nakagawa: Effect of cadmium on health risk of arteriosclerosis; a study of Thai population environmentally exposed to cadmium, 6th conference on molecular mechanisms of metal toxicity and carcinogenesis, (Kentucky, '10.11).
- 0800I007 N.Kato, F.Wang, Y.Zhang, L.Wang, P.Sun, R.Yamamoto, T.Sugai, Z.Wang: Improved learning parallels normalization of electrophysiological properties after transcranial magnetic stimulation in a mouse Alzheimer's disease model, *Neuroscience 2010*, (San Diego, '10.11).

## 0900 Division of Cell Medicine

### Faculty

Title	Name	Field of Specialization
Professor	FUJIKAWA Kohzaburo	polyploid cells, cell cycle, transformation.
Senior Assistant Professor	MIYAGOSHI Minoru	Cell biology.

### Keywords of Research

polyploid cells, polyploidization, Meth-A cells, V79 cells, triploid cells, tetraploid cells, octaploid cells, H-1(ES)cells

### Outline of Research

Study of polyploid cells

### Publications

#### Originals

- 0900B001 K.Fujikawa-Yamamoto, X.Luo, M.Miyagoshi, H.Yamagishi: DNA stable pentaploid H1(ES) cells obtained from an octaploid cell induced from tetraploid cells polyploidized using demecolcine, *J.Cell.Physiol.*, 223:369-375, 2010.
- 0900B002 X.Luo, K.Fujikawa-Yamamoto, M.Miyagoshi, H.Yamagishi: Different responses between diploid and tetraploid H1 embryonic stem cells appeared during long-term culturing in L15F10 medium without leukemia inhibitory factor, *Hum. Cell.*, 23:134-140, 2010.

#### Reviews

- 0900C001 K.Fujikawa-Yamamoto: Log channel DNA histograms, *Cytometry Res.*, 20:57-63, 2010 (in Japanese) .

### Presentations at Conference

#### International Conference (Presentations)

- 0900I001 K.Fujikawa-Yamamoto, M.Miyagoshi, H.Yamagishi, L.Xianwen: DNA stability of decaploid H1(ES) cells induced from DNA-stable pentaploid cells originated from an octaploid cell, ISAC XXV International Congress, (Seattle, '10.05).



## 0910 Division of Advanced Medicine

### Faculty

Title	Name	Field of Specialization
Professor	MATSUI Shinobu	Clinical cardiology.
Professor	TOMOSUGI Naohisa	Clinical Proteomics.
Professor(Additional Post)	DATE Takayasu	Function of protein Kinase, PKU- $\beta$ /TLK1 and PKU- $\alpha$ /TLK2
Associate Professor	NAGAO Yosinobu	spermatogenesis, epigenetics, endocrine disruptors.
Assistant Professor	UEDA Tadashi	cardiac muscle, lung, cell biology, cytochemistry.

### Keywords of Research

heart failure, cardiomyopathy, neurohumoral factor, immunity, autoantibody, spermatogenesis, cell cycle, epigenetics, endocrine disruptors, meiosis

### Outline of Research

1. Myocardial injury due to autoimmunity against G-protein-coupled receptor. Growing evidence suggested that G-protein-coupled receptor-directed autoimmune mechanism may play an important role in the pathogenesis of idiopathic dilated cardiomyopathy. Our study showed that specific removal of anti-G-protein coupled receptor autoantibodies improved cardiac structure and function in experimental autoimmune cardiomyopathy.

2. Heparin, a key regulator of iron metabolism, is expressed in the liver, distributed in blood, and excreted in urine. However, to date, no reliable and practical method for measuring the bioactive form of heparin in serum has been developed. Here, we employed surface-enhanced laser desorption ionization time of flight mass spectrometry (SELDI-TOF MS) to analyze the expression of serum heparin in hemodialysis patients. Heparin-25 was found to accumulate in the serum of hemodialysis patients; this could contribute to the pathogenesis of renal anemia by decreasing the available iron for hematopoiesis.

3. Histone modifications in meiotic prophase of spermatogenesis.

### Publications

#### Originals

- 0910B001 (M.Matsumoto), T.Tsujino, Masaaki Lee-Kawabata, Y.Naito, H.Akahori, T.Sakoda, M.Ohyanagi, N.Tomosugi, T.Masuyama: Iron regulatory hormone hepcidin decreases in chronic heart failure patients with anemia, *Circ. J.*, 74:301-306, 2010.
- 0910B002 (K.Kusama-Eguchi), Y.Yamazaki, T.Ueda, A.Suda, Y.Hirayama, F.Ikegami, K.Watanabe, M.May, F.Lambein, T.Kusama: Hind-limb paraparesis in a rat model for neuroleptyrism associated with apoptosis and an impaired vascular endothelial growth factor system in the spinal cord, *J. Comp. Neurol.*, 518:928-942, 2010.
- 0910B003 (M.Hashizume), Y.Uchiyama, N.Horai, N.Tomosugi, M.Mihara: Tocilizumab, a humanized anti-interleukin-6 receptor antibody, improved anemia in monkey arthritis by suppressing IL-6-induced hepcidin production, *Rheumatol. Int.*, 30:917-923, 2010.
- 0910B004 (Y.Kaneko), H.Miyajima, A.Piperno, N.Tomosugi, H.Hayashi, N.Morotomi, K.Tsuchida, T.Ikeda, A.Ishikawa, Y.Ota, S.Wakusawa, K.Yoshioka, S.Kono, S.Pelucchi, A.Hattori, Y.Tatsumi, T.Okada, M.Yamagishi: Measurement of serum hepcidin-25 levels as a potential test for diagnosing hemochromatosis and related disorders, *J. Gastroenterol.*, 45:1163-1171, 2010.
- 0910B005 (S.Kono), K.Yoshida, N.Tomosugi, T.Terada, Y.Hamaya, S.Kanaoka, H.Mitajima: Biological effects of mutant ceruloplasmin on hepcidin-mediated internalization of ferroportin, *Biochim. Biophys. Acta*, 1802:968-975, 2010.

- 0910B006 (S.Nakazawa J.Song), N.Tomosugi, H.Kawabata, T.Ishikawa, T.Nishikawa, K.Yoshizaki: Down-regulation of hepcidin resulting from long-term treatment with an anti-IL-6 receptor antibody (tocilizumab) improves anemia of inflammation in multicentric Castleman disease, *Blood*, 116:3627-3634, 2010.
- 0910B007 (H.Hayashi), A.Piperno, N.Tomosugi, K.Hayashi, F.Kimura, S.Wakusawa, M.Yano, Y.Tatsumi, A.Hattori, S.Pelucchi, Y.Katano, H.Goto: Patients with chronic hepatitis C may be more sensitive to iron hepatotoxicity than patients with HFE-hemochromatosis, *Intern. Med.*, 49:2371-2377, 2010.
- 0910B008 (T.Kosuge), T.Sawada, M.Shimoda, J.Kita, N.Tomosugi, K.Kubota: Increased hepcidin production impairs iron metabolism after pancreatoduodenectomy, *World J Surg.*, 34:2452-2456, 2010.
- 0910B009 Y.Ishigaki, T.Kurihara, Y.Nakamura, X.Zhao, T.Takata, S.Izumi, T.Takegami, N.Tomosugi, H.Nakagawa: Ultrastructural localization of Upf2 and its binding to mRNA molecules in human cells, *Journal of Electron Microscopy Technology for Medicine and Biology*, 24:8-13, 2010.
- 0910B010 H.Nakajima, Y.Ishigaki, Qi-S.Xia, T.Ikeda, Y.Yoshitake, H.Yonekura, T.Nojima, T.Tanaka, H.Umehara, N.Tomosugi, T.Takata, T.Shimasaki, N.Nakaya, I.Sato, K.Kawakami, K.Koizumi, T.Minamoto, Y.Motoo: Induction of HITS, a newly identified family with sequence similarity 107 protein (FAM107B), in cancer cells by heat shock stimulation, *Int. J. Oncol.*, 37:583-593, 2010.

## Presentations at Conference

### International Conference (Symposium)

- 0910H001 T.Shimasaki, Y.Ishigaki, T.Takata, Y.Nakamura, A.Kitano, K.Kawakami, N.Tomosugi, T.Minamoto, Y.Motoo: Effect of GSK3  $\beta$  inhibition against Gemcitabine-induced epithelial-mesenchymal transition and invasive ability of pancreatic cancer cells: its therapeutic implication, Joint Meeting of the International Association of Pancreatology and the Japan Pancreas Society 2010, (Fukuoka, '10.07), *Pancreas*, 25:291, 2010.

## 0920 Division of Molecular Oncology and Virology

### Faculty

Title	Name	Field of Specialization
Professor	TAKEGAMI Tsutomu	Molecular mechanism of flavivirus replication, interaction with host cells and viral carcinogenesis.
Professor(Additional Post)	MOTOO Yoshiharu	Clinical Oncology, Gastroenterology, Cancer Cell Biology.
Associate Professor	OTA Takahide	Molecular analysis of the mechanism of cancer metastasis.
Assistant Professor	MURAKAMI Manabu	Pathogenicity of flavivirus isolated from the field-collected mosquitoes.

### Keywords of Research

cancer, carcinogenesis, metastasis, cell transformation, gene expression, hepatitis C virus, flavivirus, Japanese encephalitis virus, virus replication, RhoGDI, Rho family, Eomes, epithelial/mesenchymal, nonstructural protein NS3, RNA synthesis, transfection, persistent infection, RNAi

### Outline of Research

Molecular analyses of virus replication, carcinogenesis and metastasis

### Publications

#### Originals

- 0920B001 J.Yamakawa, J.Moriya, T.Takahashi, A.Ishige, Y.Motoo, F.Yoshizaki, T.Kanda: A Kampo medicine, boiogito, inhibits obesity in ovariectomized rats, *Evid Based Complement Alternat Med*, 7:87-95, 2010.
- 0920B002 L.Zhang, K.Higashi, Y.Ishigaki, Y.Ueda, T.Sakuma, T.Takegami, M.Oguchi, K.Xu, Y.Ohta, H.Nishida, H.Tonami: Assessment of VEGF-D expression measured by immunohistochemical staining and F-18 FDG uptake on PET as biological prognostic factors for recurrence in patients with surgically resected lung adenocarcinoma, *Ann. Nucl. Med.*, 24:533-540, 2010.
- 0920B003 Y.Ishigaki, T.Kurihara, Y.Nakamura, X.Zhao, T.Takata, S.Izumi, T.Takegami, N.Tomosugi, H.Nakagawa: Ultrastructural localization of Upf2 and its binding to mRNA molecules in human cells, *Journal of Electron Microscopy Technology for Medicine and Biology*, 24:8-13, 2010.
- 0920B004 Y.Jiang, Z.Jin, H.Umehara, T.Ota: Cholesterol-dependent induction of dendrite formation by ginsenoside Rh2 in cultured melanoma cells, *Int. J. Mol. Med.*, 26: 787-793, 2010.
- 0920B005 (T.Shiroiwa), Y.Motoo, K.Tsutani: Cost-effectiveness analysis of *KRAS* testing and cetuximab as last-line therapy for colorectal cancer, *Mol Diagn Ther.*, 14:375-384, 2010.
- 0920B006 H.Nakajima, Y.Ishigaki, QI-S.Xia, T.Ikeda, Y.Yoshitake, H.Yonekura, T.Nojima, T.Tanaka, H.Umehara, N.Tomosugi, T.Takata, T.Shimasaki, N.Nakaya, I.Sato, K.Kawakami, K.Koizumi, T.Minamoto, Y.Motoo: Induction of HITS, a newly identified family with sequence similarity 107 protein (FAM107B), in cancer cells by heat shock stimulation, *Int. J. Oncol.*, 37:583-593, 2010.
- 0920B007 (S.Nukuzuma), K.Nakamichi, M.Kameoka, S.Sugiura, C.Nukuzuma, I.Miyoshi, T.Takegami: Efficient propagation of progressive multifocal leukoencephalopathy-type JC virus in COS-7-derived cell lines stably expressing Tat protein of human immunodeficiency virus type 1, *Microbiol. Immunol.*, 54:758-762, 2010.

## Reviews

- 0920C001 (C.Cano), Y.Motoo, J.L.Lovanna: Epithelial- to- mesenchymal transition in pancreatic adenocarcinoma, *Scientific World Journal.*, 10:1947-1957, 2010.
- 0920C002 T.Shimasaki, Y.Ishigaki, T.Minamoto, Y.Motoo: Application of molecular medicine to pancreatic cancer, *The Journal of Japan Pancreas Society*, 25:35-45, 2010 (in Japanese) .

## Case Reports

- 0920D001 (M.Tachibana), Y.Hashimoto, T.Sone, N.Ooishi, T.Ueno, Y.Motoo: Two cases of atypical adenoma of the thyroid—is atypical adenoma of the thyroid a true benign lesion?—, *J. Jpn. Soc. Clin. Cytol.*, 49:190-195, 2010 (in Japanese) .
- 0920D002 I.Sato, N.Ueda, E.Kinoshita, H.Mnato, K.Ohno, N.Nakata, T.Shimasaki, H.Nakajima, T.Kosaka, Y.Motoo: Curatively resected case of non-functioning pancreatic neuroendocrine carcinoma with multiple liver metastases after dpwmstaging with S-1 monotherapy, *Cancer & chemotherapy*, 37:1341-1344, 2010 (in Japanese) .

## Others

- 0920F001 (Q.Bian), Y.Motoo, H.Nakajima, T.Shimasaki, Y.Ishigaki: Molecular analysis on responses of TP53INP1-knockout mouse embryonic fibroblasts to anti-cancer agents, *Study report 2009 Japan China Sasakawa Medical Fellowship*, 125-128, 2010.

## Presentations at Conference

### International Conference (Key Note Lecture)

- 0920G001 Y.Motoo, K.Tsutani: “Tsutaeru ” Project on evidence of Kampo medicine: activities of the special committee for EBM, *Japan Society for Oriental Medicine, The 15th International Congress of Oriental Medicine*, (Makuhari, '10.02).
- 0920G002 Y.Motoo: Traditional Japanese medicine in clinical practice guidelines and in multidisciplinary cancer treatment, *The 14th International Conference on Oriental Medicine of Daegu Haany & Dong-Eui University 2010*, (Daegu, '10.11).

### International Conference (Symposium)

- 0920H001 T.Shimasaki, Y.Ishigaki, T.Takata, Y.Nakamura, A.Kitano, K.Kawakami, N.Tomosugi, T.Minamoto, Y.Motoo: Effect of GSK3  $\beta$  inhibition against Gemcitabine-induced epithelial-mesenchymal transition and invasive ability of pancreatic cancer cells: its therapeutic implication, *Joint Meeting of the International Association of Pancreatology and the Japan Pancreas Society 2010*, (Fukuoka, '10.07), *Pancreas*, 25:291, 2010.
- 0920H002 Y.Motoo: Stress responses of pancreatic cancer cells and their significance in invasion and metastasis, *International Symposium on Primo-Vascular System 2010*, (Jecheon, '10.09).
- 0920H003 Y.Motoo: Current status of cancer treatment in Japan, *Academic lecture series on cancer: basic and clinical aspects*, (Shanghai, '10.09).
- 0920H004 Y.Motoo: East Meets West: Japanese experience with special reference to cancer treatment, *The First Beijing International Symposium on Integrative Medicine*, (Beijing, '10.10).
- 0920H005 Y.Motoo: Clinical practice guidelines containing Kampo products in Japan, *First Korea-Japan Workshop on EBM in Traditional East Asian Medicine*, (Seoul, '10.10).
- 0920H006 Y.Motoo: New Work Item Proposal (NWIP) No.2 from Japan, *Joint ISO/TC215 and CEN/TC251 Working Groups meeting*, (Rotterdam, '10.10).

### International Conference (Presentations)

- 0920I001 J.Yamakawa, J.Moriya, Y.Motoo: Three kampo medicines have different activities to regulate gene expressions in differentiated rat white adipocytes, The 15th International Congress of Oriental Medicine, (Makuhari, '10.02).
- 0920I002 J.Moriya, J.Yamakawa, Y.Motoo: Resveratrol improves hippocampal atrophy in mice with chronic fatigue by enhancing neurogenesis, The 15th International Congress of Oriental Medicine, (Makuhari, '10.02).
- 0920I003 Y.Motoo, T.Togo, H.Toyotama, T.Seki: New work item proposal of traditional medicine, ISO/TC215 WG3 TM-TF, (Rio de Janeiro, '10.05).
- 0920I004 T.Takegami, M.Murakami, Y.Ishigaki: Pathogenicity of Japanese encephalitis virus (JEV) and biological activity of JEV protein NS4a, 44th US-Japan Cooperative Medical Science Program, (Sapporo, '10.07).
- 0920I005 T.Takegami, M.Murakami, Y.Ishigaki: Pathogenicity of Japanese encephalitis virus (JEV) and physiological role of JEV protein NS4a, 1st Asia Pacific Workshop on Neurovirology, (Seoul, '10.07).
- 0920I006 J.Moriya, J.Yamakawa, Y.Motoo: Resveratrol improves hippocampal atrophy in mice with chronic fatigue by enhancing neurogenesis and inhibiting apoptosis of granular cells, The 9th Meeting of the Consortium for Globalization of Chinese Medicine 2010, (Hong Kong, '10.08).
- 0920I007 (T.Shiroiwa), Y.Motoo, K.Tsutani: Cost-effectiveness analysis of K-ras testing and cetuximab for metastatic colorectal cancer in Japan, ISPOR 4th Asia-Pacific Conference, (Phuket, '10.09).

## 0930 Division of Dermatmycology (Novartis Pharma)

### Faculty

Title	Name	Field of Specialization
Professor(Additional Post) Assistant	MOCHIZUKI Takashi	Medical mycology, Dermatmycosis.
Professor(Additional Post) Assistant	KAWASAKI Masako	Medical mycology
Professor(Additional Post)	ANZAWA Kazushi	Medical mycology.

### Keywords of Research

fungi, dermatophytes, *Candida* species, *Sporothrix* species, dematiaceous fungi, mitochondrial DNA, restriction fragment length polymorphism, ribosomal DNA, ITS region, sequencing, phylogeny, taxonomy, molecular epidemiology, molecular typing

### Outline of Research

Research activities in the Division of Dermatmycology are as follows:

1. Improvement and application of genetic typing of *Candida albicans* to investigate the fungal flora in oral cavities of patients.
2. Improvement and application of DNA extraction from nail and PCR-RFLP methods for identification of fungal elements in nail for the diagnosis of onychomycosis.
3. Identification of isolates and isolation and identification of fungi from samples sent from nation-wide hospitals to support clinics without molecular biological facilities.
4. Conservation of a fungal collection held in the Department of Dermatology.
5. An epidemiological survey of *Trichophyton tonsurans*

### Books

- 0930A002 T.Mochizuki: Fungal Infections, Therapy of Skin Diseases (In Krieg T, Bickers D, Miyachi Y (Eds), 149-156, Springer-Verlag, Berlin Heidelberg Germany, 2010.

### Publications

#### Originals

- 0930B001 (S.Watanabe), T.Harada, M.Hiruma, K.Iozumi, T.Katoh, T.Mochizuki, W.Naka: Epidemiological survey of foot diseases in Japan: Results of 30 000 foot checks by dermatologists, *J. Dermatol.*, 37:397-406, 2010.
- 0930B002 K.Anzawa, M.Kawasaki, T.Mochizuki, H.Ishizaki: Successful mating of *Trichophyton rubrum* with *Arthroderma simii*, *Med. Mycol.*, 48:629-634, 2010.
- 0930B003 A.Wakasa, K.Anzawa, M.Kawasaki, T.Mochizuki: Molecular typing of *Trichophyton mentagrophytes* var. *interdigitale* isolated in a university hospital in Japan based on the non-transcribed spacer region of the ribosomal RNA gene, *J. Dermatol.*, 37:431-440, 2010.
- 0930B004 (M.Yanagihara), M.Kawasaki, H.Ishizaki, K.Anzawa, S.Udagawa, T.Mochizuki, Y.Sato, N.Tachikawa, H.Hanakawa: Tiny keratotic brown lesions on the interdigital web between the toes of a healthy man caused by *Curvularia* species infection and a review of cutaneous *Curvularia* infections, *Mycoscience.*, 51:224-233, 2010.

- 0930B005 M.Kawasaki, K.Anzawa, A.Wakasa, K.Takeda, T.Mochizuki, H.Ishizaki, B.Hemashettar: Matings among three teleomorphs of *Trichophyton mentagrophytes*, Jpn. J. Med. Mycol., 51:143–152, 2010.

### Case Reports

- 0930D001 K.Takeda, J.Fujita, T.Fujii, H.Tanabe, T.Mochizuki, M.Yanagihara: Case of remitting seronegative symmetrical synovitis with pitting edema (RS3PE syndrome) showing dermatomyositis-like eruption, J. Dermatol., 37:102–106, 2010.
- 0930D003 M.Nanbu, T.Fujii, S.Abe, M.Kawasaki, T.Mochizuki: Cutaneous phaeohyphomycosis Caused by *Exophiala jeanselmei*, Skin research, 9:173–179, 2010 (in Japanese) .
- 0930D004 T.Sakamoto, T.Ushigami, K.Anzawa, T.Fujii, S.Abe, T.Mochizuki, Y.Hayashi: A Case of Sporotrichosis Promptly Diagnosed by Direct PCR, Skin research, 9:254–259, 2010 (in Japanese) .

### Presentations at Conference

#### International Conference (Presentations)

- 0930I001 M.Kawasaki, K.Anzawa, A.Nishibu, H.Tanabe, H.Ishizaki, T.Mochizuki: Mating behavior and phylogenetic incongruity among *Trichophyton* and *Arthroderma* species, 9th International Mycological Congress, IMC9: The biology of fungi, (Edinburgh, '10.08).
- 0930I002 K.Takeda, A.Nishibu, H.Tanabe, K.Anzawa, M.Kawasaki, T.Mochizuki, H.Ishizaki: Twenty three cases of tinea capitis at the Kanazawa Medical University Hospital, The First Eastern Asia Dermatology Congress, (Fukuoka, '10.09).

## 0970 Division of Vision Research for Environmental Health

### Faculty

Title	Name	Field of Specialization
Professor(Additional Post)	SASAKI Hiroshi	cataract, epidemiology, uveitis.
Visiting Professor	SASAKI Kazuyuki	cataract, ophthalmological optics, electromagnetic ocular injury, epidemiology
Associate Professor(Additional Post)	KOJIMA Masami	cataract, ophthalmological optics, electromagnetic ocular injury, epidemiology.
Senior Assistant Professor(Additional Post)	KAWAKAMI Yutaka	cataract, thyroid ocular.
Researcher	YAMASHIRO Yoko	cataract, electromagnetic wave induced ocular tissue changes, epidemiology

### Keywords of Research

electromagnetic waves, micro waves, millimeter waves, ultraviolet rays, infrared rays, non ionizing-radiation, mobile phone, environmental health, cataract epidemiology, prevention of blindness, cataract, pterygium, glaucoma, age related macular degeneration, JICA, WHO, outdoor temperature, risk factors search, Reykjavik eye study, Monzen eye study, Liaoning eye study, racial differences

### Outline of Research

Main research themes are (1) Population based survey of ocular diseases in the farmers with low income living in the small village of Shanxi Province. China and (2) Radio frequency (RF) effects on health ; Acute ocular tissue damages by 60 GHz RF exposure. Study No.1 : The survey was carried as a part of JICA project on July 2006. Total number of participants was 710, response ratio was 93.9%. Cataract was a top ranked blindness cause. Although, number of patients was small, cases with diabetic retinopathy and age related macular degeneration were noticed. No.2 : The study on acute ocular tissues injuries induced in rabbit eyes by exposure of 60 GHz millimeter RF has been carried out. No ocular injuries were noticed without high dose of the above RF exposure. Among corneal superficial damages which were pointed out by previous investigators, no RF exposure specific damages were seen. No one has pointed out the above up to now.

### Publications

#### Originals

- 0970B001 J.Qu, H.Sasaki, Y.Sakamoto, Y.Kawakami, K.Sasaki, F.Jonasson: Higher-order ocular aberrations caused by crystalline lens waterclefs, *J. Cataract Refract. Surg.*, 36:799-805, 2010.
- 0970B002 (A.Hirata), M.Kojima, H.Kawai, Y.Yamashiro, S.Watanabe, H.Sasaki, O.Fujiwara: Acute dosimetry and estimation of threshold-inducing behavioral signs of thermal stress in rabbits at 2.45-GHz microwave exposure, *IEEE Trans. Microw. Theory Tech.*, 57:1234-1242, 2010.
- 0970B003 (A.Arnarsson), F.Jonasson, KF.Damji, MS.Gottfredsdottir, T.Sverrisson, H.Sasaki: Exfoliation syndrome in the Reykjavik eye study : risk factors for baseline prevalence and 5-year incidence, *Br. J. Ophthalmol.*, 94:831-835, 2010.



## Presentations at Conference

### International Conference (Presentations)

- 0970I001 M.Kojima, Y.Yamashiro, T.Sasaki, Y.Suzuki, K.Sasaki, H.Sasaki: Analysis of heat transportation to crystalline lens surface by aqueous humor convection, The Association for Research in Vision and Ophthalmology, (Florida, '10.05).
- 0970I002 (T.Tarura), K.Sasaki, Y.Sakamoto, N.Hatsusaka, D.Lom, HM.Cheng, F.Jonasson, H.Sasaki: A comparison of ocular structure and optical systems in eyes of middle-aged Taiwanese and Icelanders, The Association for Research in Vision and Ophthalmology, (Florida, '10.05).
- 0970I003 H.Sasaki, N.Mita, Y.Sakamoto, E.Shibuya, N.Hatsusaka, F.Jonasson, K.Sasaki: Verification of predictive accuracy of index of lens transparency using a Scheimpflug camera and 12-year follow-up, The Association for Research in vision and Ophthalmology, (Florida, '10.05).
- 0970I004 N.Hatsusaka, Y.Sakamoto, N.Mita, E.Shibuya, J.Qu, H.Sasaki: Relationship of axial length to myopic influence on nuclear cataract, The Association for Research in vision and Ophthalmology, (Florida, '10.05).
- 0970I005 N.Shibata, K.Kitagawa, Y.Sakamoto, Y.Yamashiro, N.Fujita, N.Hatsusaka, H.Sasaki: Changes in corneal higher order aberration after pterygium excision, The Association for Research in Vision and Ophthalmology, (Florida, '10.05).
- 0970I006 Y.Yamashiro, K.Sato, A.Hirata, M.Kojima, T.Sakai, S.Watanabe, M.Taki, Y.Suzuki, K.Sasaki, H.Sasaki: Normalized temperature elevation velocity in ocular tissues by 18–40 GHz radio-frequency exposure, The Association for Research in Vision and Ophthalmology, (Florida, '10.05).
- 0970I007 Y.Sakamoto, N.Hatsusaka, E.Shibuya, N.Mita, J.Qu, H.Sasaki, H.Nakaizumi, K.Sasaki: Deterioration of quality of vision by non-opaque watercleft lens defects, The 8th Asian Cataract Research Conference, (Hangzhou, '10.06).
- 0970I008 H.Osada, Y.Yamashiro, R.Honda, M.Kojima, Y.Sakamoto, N.Hatsusaka, M.Tarura, Y.Kawakami, J.Qu, HM.Cheng, K.Sasaki, H.Sasaki: Prevalence of cataract in an urban region of Taiwan comparison with three different areas in China and an area in Japan, The 8th Asian Cataract Research Conference, (Hangzhou, '10.06).
- 0970I009 M.Kojima, Y.Yamashiro, K.Sasaki, H.Sasaki: Examination of threshold 60 GHz millimeter wave ocular exposure in rabbit, The 8th Asian Cataract Research Conference, (Hangzhou, '10.06).
- 0970I010 N.Hatsusaka, Y.Sakamoto, E.Shibuya, N.Mita, Y.Kawakami, N.Fujita, H.Osada, S.Inagaki, N.Shibata, H.Sasaki: Refractive power of nuclear cataract eyes and influence on myopia, The 8th Asian Cataract Research Conference, (Hangzhou, '10.06).
- 0970I011 N.Mita, N.Hatsusaka, E.Shibuya, Y.Sakamoto, F.Jonasson, K.Sasaki, H.Sasaki: Prediction of aging change in lens of normal Icelanders Reykjavik eye Study, The 8th Asian Cataract Research Conference, (Hangzhou, '10.06).
- 0970I012 E.Shibuya, J.Qu, Y.Sakamoto, N.Hatsusaka, N.Mita, M.Kojima, F.Jonasson, K.Sasaki, H.Sasaki: Natural course of cortical opacity over 12 years Reykjavik Eye study, The 8th Asian Cataract Research Conference, (Hangzhou, '10.06).
- 0970I013 (Y.Suzuki), M.Kojima, T.Sakai, Y.Yamashiro, T.Taguchi, A.Koike, M.Taki, K.Sasaki, H.Sasaki: Experimental analysis on the thermal convection of aqueous humor in anterior chamber driven by the millimeter-wave exposure at 77GHz, The Bioelectromagnetics Society 32nd annual Meeting, (Seoul, '10.06).
- 0970I014 M.Kojima, S.Taiji, Y.Yamashiro, Y.Suzuki, S.Watanabe, M.Taki, K.Sasaki, H.Sasaki: Mechanism of ocular temperature difference between 18 and 40 GHz exposure, The Bioelectromagnetics Society 32nd annual Meeting, (Seoul, '10.06).
- 0970I015 Y.Yamashiro, A.Hirata, K.Sato, M.Kojima, T.Sakai, S.Watanabe, K.Wake, M.Taki, Y.Suzuki, Y.Kamimura, Y.Sakamoto, Y.Kawakami, K.Sasaki, H.Sasaki: Comparison of temperature in ocular tissues by 18–40 GHz radio-frequency exposure, The Bioelectromagnetics Society 32nd annual Meeting, (Seoul, '10.06).
- 0970I016 (A.Koike), Y.Suzuki, T.Taguchi, M.Kojima, Y.Yamashiro, T.Sakai, S.Watanabe, M.Taki, K.Sasaki, H.Sasaki: Velocimetry on thermal convection flow of aqueous humor in anterior chamber caused by millimeter-wave exposure, 2010 Asia-Pacific Radio Science Conference, (Toyama, '10.09).

0970I017 M.Kojima, Y.Yamashiro, H.Sasaki, K.Sasaki, T.Sakai, K.Wake, S.Watanabe, Y.Kamimura, A.Hirata, Y.Suzuki, M.Taki: Verification of safety guidelines for 60 GHz millimeter wave ocular exposure, 2010 Asia-Pacific Radio Science Conference, (Toyama, '10.09).



**Affiliated Institution**

## 9050 Center for FDD-MB

### Faculty

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Title	Name	Field of Specialization
Director	TAKABAYASHI Haruo	fetal medicine, DNA medicine.
Researcher	YUDITIYA Purwosunu	fetal medicine, DNA medicine.

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### Keywords of Research

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FDD-MB, single cell technology, NRBC, noninvasive fetal diagnosis, DNA diagnosis, fetal cell, woman's health, DNA array, Lab on a Chip

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### Outline of Research

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Mission of Center for FDD-MB

1. elucidation of the relationship between fetal cells and mother's health
  2. development of fetal DNA diagnosis from maternal blood (FDD-MB)
  3. development of single cell technology
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### Publications

#### Originals

- 9050B001 (N.Ba Trung), M.Saito, H.Takabayashi, P.Hung Viet, E.Tamiya, Y.Takamura: Multi-chamber PCR chip with simple liquid introduction utilizing the gas permeability of polydimethylsiloxane, *Sens. Actuators. B. Chem.*, 149:284-290, 2010.

### Presentations at Conference

#### International Conference (Key Note Lecture)

- 9050G001 H.Takabayashi: FDD-MB 3.0 System, 6th World Congress of Perinatal Medicine, (Indonesia, '10.03).

## 9030 North Noto Institute of Community Medicine

### Faculty

Title	Name	Field of Specialization
Professor	NAKASHI Takeshi	Geriatrics, Circulation, Hypertension, Atherosclerosis, Cardiology
Senior Assistant Professor	NOMURA Koji	Geriatrics, Circulation
Assistant Professor(Additional Post)	KITAMURA Kenji	Hip surgery

### Keywords of Research

The Elderly, Rural Medicine, Medical Needs

### Outline of Research

The aim of the research is to clarify the changes of diseases in the aging area and to consider the future medical needs.

### Publications

#### Originals

- 9030B001 Z.Shijie, J.Moriya, J.Yamakawa, R.Chen, T.Takahashi, H.Sumino, T.Nakahashi, K.Iwai, S.Morimoto, N.Yamaguchi, T.Kanda: Mao-to prolongs the survival of and reduces TNF- $\alpha$  expression in mice with viral myocarditis, Evid Based Complement Alternat Med, 7:341-349, 2010.

### Presentations at Conference

#### International Conference (Presentations)

- 9030I001 H.Murai, T.Nakahashi, H.Nakamura, W.Arakawa, T.Higashikawa, M.Atsumi, K.Iwai, S.Morimoto: The advantage of high-salt tube nutrition for the elderly patients with acute disease, 32nd ESPEN Congress, (Nice-France, '10.09), Abstracts of the 32nd ESPEN Congress, 5:ABS-296(Suppl.), 2010.

# Himi Municipal Hospital

## 9100 Himi Municipal Hospital

### Faculty

Title	Name	Field of Specialization
Director	TAKASHIMA Shigeki	Surgery of Digestive Diseases, Coloproctological Surgery.
Professor	IZUMI Youichi	Hypertension, Endocrinology.
Professor	SAKAMOTO Shigeru	Cardiovascular Surgery.
Professor	KIGOSHI Toshikazu	intracellular signaling of hormones, aldosterone secretion.
Professor	SAITO Hitoshi	Surgical treatment of hepatobiliary and pancreatic disease.
Associate Professor	KUZAWA Yutaka	Cardio Vascular Surgery.
Associate Professor	KURAUCHI Manabu	Cerebro vascular disease.
Associate Professor	MATSUI Toshiaki	Oral & Maxillofacial Surgery.
Associate Professor	URATA Kazuhiko	Obstetrics and gynecology.
Associate Professor	MIURA Motohiro	Circulatory organs internal medicine.
Associate Professor	ITO Tomohiko	adrenal diseases, diabetes, thyroid diseases.
Senior Assistant Professor	SAITO Atsushi	Nephrology.
Senior Assistant Professor	TAKATA Hideo	Orthopaedic Surgery.
Senior Assistant Professor	WATANABE Kimimasa	Orthopaedic Surgery.
Senior Assistant Professor	YAMASHITA Naohiro	Circulatory organs internal medicine.
Senior Assistant Professor	TANAKA Yumiko	Surgery of colorectal cancer.
Senior Assistant Professor	HASEGAWA Taisuke	Surgery of hepatobiliary diseases.
Senior Assistant Professor	TSUCHIDA Maki	Ophthalmology.
Assistant Professor	MUKAI Hirokado	Oncology Surgery.
Assistant Professor	HASEGAWA Masayuki	regional medicine.
Assistant Professor	NAKANAMI Aki	Orthopaedic Surgery.
Assistant Professor	KUSABA Eizo	neurosurgery.
Assistant Professor	MIZUNO Takuro	regional medicine.
Assistant Professor	SAKAI Junta	Geriatrics, Gastroenterology.
Assistant Professor	MUKAIYAMA Hirohata	Pediatrics.

### Publications

#### Originals

- 9100B001 Z.Shijie, J.Moriya, J.Yamakawa, R.Chen, T.Takahashi, H.Sumino, T.Nakahashi, K.Iwai, S.Morimoto, N.Yamaguchi, T.Kanda: Mao-to prolongs the survival of and reduces TNF- $\alpha$  expression in mice with viral myocarditis, Evid Based Complement Alternat Med, 7:341-349, 2010.



## Case Reports

- 9100D001 K.Konishi, A.Saito, K.Ishigami, M.Fukura, M.Hasegawa, N.Yamashita, T.Kanda, T.Ito, T.Kigoshi, Y.Izumi, N.Takekoshi: Hypoglycemia in elderly diabetes mellitus-free patients :Case reports and a review of literature, J. Kanazawa. Med. Univ., 35:13-15, 2010.
- 9100D002 K.Ishigami, N.Yamashita, K.Konishi, A.Saito, M.Fukura, M.Hasegawa, T.Kanda, T.Ito, T.Kigoshi, Y.Izumi, N.Takekoshi: Hyponatremia, rhabdomyolysis and acute renal failure, J. Kanazawa. Med. Univ., 35:68-69, 2010.
- 9100D005 S.Yoshitani, T.Ohnishi, Y.Tomita, Y.Ohno, K.Hosokawa, M.Yokoi, H.Funaki, S.Kinami, K.Omote, N.Ueda, Y.Nakano, T.Kosaka: A case report of pathologically complete response with chemo-radiation for rectal cancer, Cancer & chemotherapy, 37:2632-2634, 2010 (in Japanese) .
- 9100D006 H.Funaki, T.Ohnishi, Y.Ohno, Y.Tomita, K.Hosokawa, M.Yokoi, S.Yoshitani, S.Kinami, K.Omote, N.Ueda, Y.Nakano, T.Kosaka: A case of AGC with pCR after preoperative chemotherapy including S-1 plus cisplatin, Cancer & chemotherapy, 37:2430-2432, 2010 (in Japanese) .

## Others

- 9100F001 R.Chen, F.Liang, K.Ishigami, T.Kanda, L.Zeng, A.Saito, M.Hasegawa, N.Yamashita, T.Itoh, T.Kigoshi, Y.Izumi, N.Takekoshi, S.Morimoto: Clinical risk factors in regional brain ischemia using single photon emission computed tomography, J. Am. Geriatr. Soc., 58:1411-1412, 2010.

## Presentations at Conference

### International Conference (Presentations)

- 9100I001 S.Yoshitani, K.Hosokawa, T.Kosaka: Identification of risk factors for stage II colorectal cancer in patients with recurrence, XXIV ISUCRS Biennial Congress, (Seoul, '10.03), XXIV ISUCRS Biennial Congress Abstract Book, 233-234, 2010.
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