

# Research

## ● Medical Course—Basic Medicine

Departments of Medicine		Fields of Interest
Anatomy	Functional Anatomy and Neuroscience	Neuroanatomy, Neuropathology
	Microscopic Anatomy and Cell Biology	Cell Biology, Experimental Endocrinology, Molecular and Cellular Mechanisms of Secretory Granule Formation
Physiology	Autonomous Function	Autonomic Cellular Signal Transduction Mechanisms
	Sensory Physiology	Sensory Physiology, Neuroscience, Molecular Mechanism on Olfaction
Biochemistry	Cellular Signal Transduction	Regulation of Cellular Function and Vascular Contraction by Protein Phosphorylation
	Functional Molecular Science	Active Ion Transport, Bioenergetics, Calcium Homeostasis
Pharmacology		Inflammation and Immunity, Cardiovascular Pharmacology, Gastrointestinal Pharmacology
Pathology	Tumor Pathology	Hepatology, Molecular Pathology, Tumor Pathology
	Immunopathology	Immunopathology, Molecular Pathology, Allergology, Tumor Immunology, Neuroimmunology
Microbiology and Immunochemistry		Host Defense Mechanisms, Immunochemistry, Molecular Microbiology
Health Science		Preventive Medicine, Epidemiology and Clinical Epidemiology, Environmental Health, Public Health, Occupational Health, Medical Science
Parasitology		Immunobiology, Molecular Biology, and Epidemiology of Echinococcosis and Cysticercosis and Their Immunological and Molecular Diagnosis
Legal Medicine		Forensic Toxicology, Forensic DNA typing and DNA Polymorphism

## ● Medical Course—Clinical Medicine

Departments of Medicine		Fields of Interest
Internal Medicine	Division of Cardiology, Nephrology, Pulmonology and Neurology	Internal Medicine, Cardiology, Pulmonology, Hypertension, Nephrology, Neurology, Geriatrics and Gerontology
	Division of Metabolism and Biosystemic Science	Internal Medicine, Diabetes and Metabolism, Endocrinology, Rheumatology, Hepatology, Biliary and Pancreatic Disease
	Division of Gastroenterology and Hematology/Oncology	Internal Medicine, Gastroenterology, Gastrointestinal Endoscopy, Hematology, Medical Oncology
Psychiatry		Biological Psychiatry, Sleep Medicine, Epileptology, Geriatric Psychiatry, Clinical Electroencephalography, Neuropsychopharmacology
Pediatrics		Pediatric Infectious Diseases and Immunology, Pediatric Endocrinology and Metabolism, Pediatric Neurology, Pediatric Hematology and Oncology, Pediatric Cardiology, Perinatology, Human Genetics, Pediatric Nephrology
Surgery	Division of Vascular, Respiratory and Surgical Oncology	Vascular Surgery, Endovascular Surgery, General Thoracic Surgery, Breast Surgery, Pediatric Surgery
	Division of Cardiovascular Surgery	Cardiac Surgery
	Division of Gastroenterologic and General Surgery	Gastroenterologic Surgery, Hepato-Biliary-Pancreatic Surgery, Endoscopic Surgery, Transplant Surgery

# Research

Departments of Medicine	Fields of Interest
Orthopaedic Surgery	Joint Surgery, Prosthetic Replacement, Musculoskeletal Tumors, Spinal Surgery, Sports Orthopaedics, Rheumatoid Arthritis, Hand Surgery
Dermatology	Dermatology, Psoriasis, Abnormal Keratinization, Atopic Dermatitis, Medical Mycology, Dermatological Oncology, Allergology, Dermatological Collagen Diseases, Cosmetic Dermatology, Blistering Disorder
Renal and Urologic Surgery	Urological Oncology, Cancer Chemotherapy, Pediatric Urology, Female Urology, Benign Prostatic Hyperplasia, Neurogenic Bladder, Urolithiasis, Adrenal Surgery, Endoscopic Surgery, Robotic Surgery
Ophthalmology	Ophthalmology, Vitreoretinal Disorders, Corneal Transplantation, Ocular Surface Disorders, Keratorefractive Surgery, Neuroprotection in Retina, Ocular Micro-circulation, Glaucoma, Fundus Imaging Analysis, Low Vision, Strabismus
Otorhinolaryngology–Head and Neck Surgery	Otorhinolaryngology, Head and Neck Surgery, Allergology, Bronchoesophagology, Neuro-Otology, Thyroid Surgery, Temporal Bone Surgery, Phono Surgery
Obstetrics and Gynecology	Perinatal Medicine, General Gynecology, Gynecologic Oncology, Reproductive Endocrinology and Infertility
Radiology	Diagnostic Radiology, Radiation Oncology, Nuclear Medicine, Interventional Radiology
Anesthesiology and Critical Care Medicine	Pharmacokinetics of Intravenous Anesthetics, Pain Control in the Spinal Cord, Mechanisms of the Actions of Anesthetics, Palliative Care, Cardiovascular Anesthesia, Airway Management, Peripheral Nerve Block
Neurosurgery	Neurosurgery, Neurooncology, Skull Base Surgery, Neurovascular Surgery, Functional Neurosurgery, Neuroendovascular Surgery
Laboratory Medicine	Clinical Chemistry, Laboratory Blood Test, Molecular Diagnostics, Genetic Testing, Medical Ultrasonics
Oral and Maxillo-Facial Surgery	Oral Oncology, Disease of Oral Mucosa, Dental Implant, Jaw Deformity, Cleft lip and Palate, Oral Infectious Diseases, Ozostomia(Bad Breath), Temporomandibular Joint Diseases, Oral care, Oral Traumatology, Pediatric Oral and Maxillofacial Surgery, Masticatory Dysfunction, Orofacial Pain
Emergency Medicine	Traumatology, Toxicology, Cardio-pulmonary Support, Cardio-pulmonary Resuscitation, Pediatric Emergency Care, Acute Aortic Dissection, Sepsis
Regional Medicine and Education	Regional Medicine, Specialist and Primary Care
Clinical Oncology for Local Community Cooperation	Clinical Oncology, Regional Cancer Care, Cancer Care Network

## ● Nursing Course

Department of Nursing	Fields of Interest
Nursing Science	Immunology, Anatomy, Physiology, Pathology, Public Health
	Fundamental Nursing, Adult Nursing, Gerontological Nursing, Pediatric Nursing, Maternal Nursing, Home Health Care Nursing, Oncology Nursing
	Psychiatric and Mental Health Nursing, Public Health Nursing, Midwifery

## ● General Education

Departments of General Education	Fields of Interest
History and Philosophy	Medical History, Bioethics, Medicine in Literature
Psychology	Experimental Psychology, Cognitive Neuroscience, Clinical Psychology
Sociology	Sociology of Medicine
Mathematics	Applied Mathematics, Dynamical Systems Theory, Computational Science
Mathematical Information Science	Biomedical Engineering, Exercise Physiology, Fractal Physiology, Circulation Physiology, Microcirculation
Physics	Solid State Physics, High Temperature Superconductivity, Low Dimensional Conductors, Quantum Measurement Theory
Chemistry	Physical Chemistry and Nonlinear Dynamics in Nonequilibrium Open System, Soft Matter Science
Biology	Reproductive Biology, Chromosome Sciences (Gametes and Embryos), Environmental Mutagen Research
Life Science	Molecular and Cellular Biology of Cell Adhesion and Neuronal Degeneration, Study on Alzheimer's Disease Model Mice
English	Theoretical Linguistics, Applied Linguistics, Teaching English as a Foreign Language

Facility	Fields of Interest	
Admission Center	Selection Methods, Education of Medical Science	
Education Center	Education for Medical Science and Nursing	
Research Center for Brain Function and Medical Engineering	Integrative Research Field of Neuroscience and Medical Engineering (Including Neuroscience, Sports Medicine and Medical Engineering)	
Center for Advanced Research and Education	Regenerative Medicine, Neuroscience, Biochemistry and Molecular Biology	
Translational Research Center	Translational Research, Education for Clinical and Translational Research, Innovative Research in Life Science	
Intellectual Property Center	Intellectual Property Right	
Research Center	Animal Laboratory for Medical Research	Experiment, Breeding and Reproduction of Animals, Reproduction Technology
	Central Laboratory for Research and Education	Instrumental Analysis, Biochemistry, Molecular Biology, Bio-Medical Engineering
	Laboratory for Radioactive Isotope Research	Instrumental Analysis, Biochemistry, Research Using Radioisotopes
Health Administration Center	Health Care, Adolescent Life Style Disease Prevention, Prevention of Infection	
Joint-Use Facilities	Information and Communication Technology Center	Information Network, Computer Science
	Family Support Center	Work-Life Balance

# Research

## ● Hospital

Facility	Fields of Interest
Physical Medicine and Rehabilitation	Rehabilitation Medicine, Kinesiology, Computational Neuroscience, Electrophysiology, Physical Medicine, Orthotics
Medical Center of Acute Medicine	Emergency Medicine, Cardio-pulmonary Resuscitation, Toxicology, Trauma, Systemic Infection
Intensive Care Unit Department	Intensive Care Medicine, Circulation and Respiration Control, Blood Purification
General Medicine Department	General Medicine
Center for Maternity and Infant Care	Perinatology, Neonatology, Perinatal Infectious Diseases, Pediatric Surgery
Department of Endoscopy	Digestive Endoscopy, Respiratory Endoscopy, Therapeutic Endoscopy
Oncology Center	Cancer Chemotherapy, Patient Support, Cancer Information, Training for Medical Professionals
Respiratory Center	Respiratory Diseases, Clinical Oncology, Respiratory Surgery, Allergic Diseases, Molecular Biology, Respiratory Physiology, Pulmonary Circulation, Infectious Diseases
Department of Palliative Care	Department of Palliative Care, Palliative Medicine, Decision Support, Bereavement Care, Community Care
Breast Diseases Center	Breast Diseases, Clinical Oncology
Medical Laboratory and Blood Center	Clinical Laboratory Medicine, Transfusion Medicine, Infection Control Support, Biological Information Processing, Physiological Tests, Patient Blood Management, Autologous Transfusion
Surgical Operation Department	Surgical Management, Safety Management
Clinical Radiology Department	Diagnostic Radiology, Radiation Oncology, Radiation Protection, Medical Physics
Appliance Management and Supply Center	Washing, Disinfection and Supply of Medical Devices, Quality Control of Medical Material
Surgical Pathology Department	Surgical Pathology, Tumor Pathology, Tumor Immunology, Molecular Pathology
Management Planning Department	Analysis of Hospital Management, Hospital Information System, Telemedicine, Medical Information Network
Telemedicine Center	Telemedicine, Home Telecare, Transmission System for 3D-HDTV Medical Movies, Health Education by Medical Museum Network System, PHR(Personal Health Record) System, Medical Information Network, Information Security
Physical Medicine and Rehabilitation Department	Physical Therapy, Occupational Therapy, Speech Language Hearing Therapy, Rehabilitation Medicine, Kinesiology, Biomechanics
Clinical Engineering Office	Clinical Engineering, Medical Engineering
Outpatient Infusion Center	Outpatient Chemotherapy, Blood Transfusion and Drip Infusion Therapy
Nutrition Management Department	Nutrition Management
Hospital Admission Center	Hospital Admission Management, Patient Support, Bed Control
Dialysis Center	Hemodialysis, Plasma Exchange, Plasma Adsorption
Medical Security and Safety Management Department	Medical Security and Safety, including Incident Report Analysis
Infection Control Department	Infection Control
Pharmacy Department	Clinical Pharmacology, Neurochemistry

## ● Publications

		2013	2014	2015	
Book	Book	9	2	6	
	Book in Japanese	106	100	124	
	Grand Total	115	102	130	
Article	Original Article	160	209	200	
	Review	8	12	17	
	Others	45	22	35	
	Total	213	243	252	
Article in Japanese	Japan Medical Abstracts Society	Original Article	78	76	63
		Review	219	221	170
		Others	733	672	626
	Total	1,030	969	859	
	DB-Spiral	Original Article	60	29	31
		Review	25	11	35
		Others			
Total	85	40	66		
Grand Total	1,328	1,252	1,177		

※Articles in press included.

## ● Conference Presentation

		2013	2014	2015
International Conference	Oral Presentation (Invited/Special)	9	12	15
	Poster, etc.	230	194	139
	Total	239	206	154
Domestic Conference	Oral Presentation (Invited/Special)	137	125	107
	Poster, etc.	982	775	774
	Total	1,119	900	881
Grand Total	1,358	1,106	1,035	



Medical practicing



Nursing practicing



Christmas illuminations in front of Asahikawa Medical University Hospital

