

Admission Guide for International Students, 2027 (Doctoral Course)

The first examination : 2th-Nov(Mon),2026 The second examination : 25th-Jan(Mon),2027
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Depending on the situations of the first applications for 2027 graduate admissions, the second applications might be canceled.

Graduate School of Medicine, Nara Medical University
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The Details of admission requirements for Graduate School of Medicine (Doctoral Course), Nara Medical University

1.Description for specialized subjects.

Specialized Subjects

Major Field	Field	Specialized Subjects
Medical Science	Social and Community Health Science	Epidemiology Public Health Legal Medicine Medicine Based Town Medical Informatics and Hospital Management
	Basic science for biological function and disease	Biomacromolecules Molecular and Cellular Dynamics Phasing Biology Cellular and Molecular Anatomy Functional Morphology Brain and Neurophysiology Control Mechanics for Biological Function Biology of Aging Bioprotection and Regeneration Medicine Microbiology Immunology (*NM course) Signal Transduction in Pharmacology Embryology Advanced Medical Science of Thrombosis and Hemostasis Applied Medical Science and Clinical Research Cardiovascular System Research
	Clinical medicine for organ and disease control	Cardiovascular Medicine Clinical and Pathological Nephrology Respiratory Medicine Hematology Gastroenterology, Endocrinology and Metabolism Diabetes and Endocrinology Clinical Neurology and Myology Gastroenterological Surgery Neurological Disorder Control Circulatory and Respiratory Control Medicine Musculoskeletal Reconstructive Surgery (*NM course) Sports Medicine Bioregulatory Medicine of female genital organ

Major Field	Field	Specialized Subjects
Medical Science	Clinical medicine for organ and disease control	Ophthalmology and Vision Science (*NM course) Newborn Health and Development Child Health and Development Psychiatry and Behavioral Neuroscience Dermatology Medical Science for Pathologic and Functional Control of Urogenital Organs Prostate Brachytherapy Otolaryngology-Head and Neck Surgery Image-based Diagnosis and Minimal Invasive Therapy Radiation Oncology Anesthesiology and Pain Medicine Clinical neuromonitoring General Medicine and Clinical Pathophysiology Oral and Maxillofacial Surgery Emergency Medical Science Diagnostic Pathology Medical Oncology Rehabilitation Medicine Clinical Laboratory Medicine Bloodstream Reconstructive Medicine Infectious Diseases Clinical and Translational Science Laboratory of Advanced Technology for Interventional Radiology Proton Beam Radiation Oncology Medical Sensing Technology

Note:

Applicants should directly ask inquiries, the details of research area or the number to be accepted, to the supervisors related with the subject you are interested in.

*NM course

Subjects related to research and lectures in University of Michigan including to study at University of Michigan in the doctoral course of our university based on Memorandum of Understanding for Academic and Scientific Cooperation Between the Regents of the University of Michigan on Behalf of its Medical School and Nara Medical University (December 13, 2018)

2.Requirements for admission

Those who meet any of the following requirements (1) to (5). However, depending on the decision of the prospective academic supervisor of the major field, applicants may be required to undertake a period of

research as a Research Student (Medical Science) at Nara Medical University before admission to the Graduate School.

- (1) Those who have completed 18 years of school education abroad (the final course must be in medicine or dentistry), or those who are expected to complete such education by March 2027.

However, those who have completed less than 18 years of school education abroad may also be eligible if they have engaged in research for a considerable period (approximately one year or more by the time of admission to the Graduate School) as a research student, researcher, or equivalent at a university, an inter-university research institute, or a comparable research institution in Japan or abroad after completing university education, and will be at least 24 years of age at the time of admission to the Graduate School.

- (2) Those who have graduated, or are expected to graduate by March 2027, from a Japanese university as an international student in a six-year program in medicine, dentistry, veterinary medicine, or pharmacy.

- (3) Those who have completed, or are eligible to receive, a master's degree in a graduate school in Japan (excluding medicine, dentistry, veterinary medicine, and pharmacy) as an international student, or those who are recognized by the Graduate School of Medicine, Nara Medical University as possessing academic ability equivalent to or higher than that of graduates from Japanese universities in medicine, dentistry, veterinary medicine, or pharmacy.

- (4) Those who have completed a course other than medicine or dentistry abroad, and who have completed, or are eligible to receive, a master's degree or have completed an equivalent course in a graduate school other than medicine or dentistry, and are recognized by the Graduate School of Medicine, Nara Medical University as possessing academic ability equivalent to or higher than that of graduates from Japanese universities in medicine, dentistry, veterinary medicine, or pharmacy.

- (5) Those who have graduated from a university (excluding programs in medicine, dentistry, veterinary medicine, and pharmacy), or who have completed 16 years of school education abroad, and who have engaged in research at a university, research institute, or similar institution for at least two years by the time of admission to the Graduate School, and are recognized by the Graduate School of Medicine, Nara Medical University as possessing academic ability equivalent to or higher than that of graduates from Japanese universities in medicine or dentistry based on the results of such research.

Note:

The graduate school committee may give the permission to those who meet in any of the above to undergo the entrance examination.

3. Procedure for applying

Applicants need to submit documents described in (1) and (2) and pay examination fee described in (2)-(C) to Student Division.

Documents in (1) and (2) are provided in Japanese or English

In addition, the results of the examination for admission shall be valid for the relevant academic year.

(1) Documents for Judgment of eligibility for examination permission

- (a) Form for permission (use the form provided)
- (b) Resume (use the form provided)
- (c) Certificate of graduation or completion
- (d) School transcript of the most recent academic course studied
- (e) The Letter of recommendation: enclosed and signed by the university president or a professor of the most recent academic course studied
- (f) The letter of recommendation: issued by the Japanese governmental organizations or overseas agencies of Foreign Affairs if the international student is supported by the Japanese government or those of foreign countries
- (h) Certificate of identity (use the form provided)
- (i) Passport or a Copy of Residence card
- (j) Address card (for the notice of your pass and fail)

Note:

If the certificate differs from the current family name, provide official documentation to prove that the family name has been changed. (Extract of family register issued within three(3) months or similar documents)

(2) Application for admission

- (a) Form for application (use the form provided)
- (b) Examination card and Photograph card (use the form provided)
- (c) Examination fee: 30,000 yen Bank transfer(including by using a Japanese ATM) only.

Transfer the entrance examination fee (30,000 yen) to the following bank account via ATM or Internet banking.

【For Electronic Payment】

Beneficiary Name: Nara Medical University

Bank Name: Nanto Bank

Branch Name: Kashihara

Account Number: 0266177

Note 1: Enter the 'GMS' followed by the 'Applicant's Name' in the Applicant's Name field of the transfer information. (e.g.) GMSTaroIdai

Note 2: Applicants will need to pay a fee when you transfer money.

Note 3: The transfer must be made within the following duration.

The first examination Tuesday, October 6 - Friday, October 9, 2026

The second examination Tuesday, January 5 - Friday, January 8, 2027

Note 4: The certificate of bank transfer or other payment proof of the entrance examination fee

will be attached to the Application Fee payment form. Please submit it with other documents.

4. Deadline for applying

The first examination

For the documents related to 3-(1) described above need to submit to Student Division

9:00 am on 31st-August (Mon) ~ 5:00 pm on 4th-September (Fri), 2026

***Office hours: From 9:00 to 17:00, Mon-Fri (except Japanese holiday)**

If sent by mail, must arrive no later than 5:00 pm on Friday, September 4, 2026

For the documents related to 3-(2) described above need to submit to Student Division

9:00 am on 6th-October (Tue) ~ 5:00 pm on 9th-October (Fri), 2026

***Office hours: From 9:00 to 17:00, Tue-Fri (except Japanese holiday)**

If sent by mail, must arrive no later than 5:00 pm on Friday, October 9, 2026

The second examination

For the documents related to 3-(1) described above need submit to Student Division

9:00 am on 30th -November (Mon) ~ 5:00 pm on 4th -December (Fri), 2026

***Office hours: From 9:00 to 17:00, Mon-Fri (except Japanese holiday)**

If sent by mail, must arrive no later than 5:00 pm on Friday, December 4, 2026

For the documents related to 3-(2) described above need to submit to Student Division

9:00 am on 5th - January (Tue) ~ 5:00 pm on 8th -January (Fri), 2027

***Office hours: From 9:00 to 17:00 Tue-Fri (except Japanese holiday)**

If sent by mail, must arrive no later than 5:00 pm on Friday, January 8, 2027

5. Any other inquiries

Student Division

Graduate School of Medicine, Nara Medical University

840, Shijo-cho, Kashihara, Nara 634-8521 Japan

igakukenkyuka@naramed-u.ac.jp

6. Selection method

Admission will be determined based on the results of written examinations in foreign language and in specialized subjects. Health certificate and transcript will be also required for consideration.

Examination

English and specialized subjects described below

The first examination

Examination date		Subjects		Location
2 nd -Nov (Mon), 2026	10:00 - 11:30	English	Written test or oral answer test	To be notified on the day
Examination date		Subjects		Location
2 nd -Nov (Mon), 2026	13:00 - 14:30	Specialized subjects First choice	Oral answer test	To be notified on the day
	14:40 - 16:10	Specialized subjects Second choice		

The second examination

Examination date		Subjects		Location
25 th -Jan (Mon), 2027	10:00 - 11:30	English	Written test or oral answer test	To be notified on the day
	13:00 - 14:30	Specialized subjects First choice	Oral answer test	To be notified on the day
	14:40 - 16:10	Specialized subjects Second choice		

Note :

- (a) Dictionaries including medical term dictionary can be used; however, electronic dictionaries and medical dictionary are not allowed to use
- (b) In case of oral examination in English is requested, schedule will be announced
- (c) International students will be able to take examination either Japanese or English
- (d) Examination for specialized subject will be performed by research instructors corresponding to the area specified

7. Result

For the result of the first examination: **8th-December (Tue), 2026**

For the result of the second examination: **9th-March (Tue), 2027**

The Result will be shown on the bulletin board in our school and on our website.

The letter notice also will be delivered to successful applicants by mail later.

8. Procedure for admission

More details will be announced around on Mar, 2027.

Applicants who are granted admission will be required payment enrollment fee through any financial institutions using our statement which will be mailed later, then need to submit related documents described in (1) and (2) to Student Division.

(1) Documents

- (a) Pledge : signed by a guarantor (use the prescribed form)
- (b) Photograph: 4cm long x 3cm width, front view from the chest up with no hat and no background taken within the current three months (show your name and the date of taken it on the reverse side)
- (c) Certificate of Graduation: examinees who are expected graduation
- (d) Bank account transfer Request Form:: use the prescribed form

(2) Enrollment fee: ¥ 282,000, required the receipt

9. Tuition

¥ 535,800 per a year: required payment in two semesters

(April, October)

Note:

Graduate School of Medicine, Nara Medical University would possibly revise tuition fee without any notification.

10. Others

- (1) In case of to dispatch application documents by mail, please do so by registered express and show “Admission application for the graduate school” with red ink on its envelope.
- (2) After completed entrance formalities, specialized subjects can not be changed, and documents and fee will not be returned for any reason.
- (3) The examination card for the first examination given at Student Division ,
9:00 to 9:30am on 2nd -Nov (Mon), 2026
The examination card for the second examination given at Student Division,
9:00 to 9:30am on 25th-Jan (Mon), 2027
- (4) Inquiries will be accepted by e-mail only. (igakukenkyuka@naramed-u.ac.jp)

Field	Specialized Subject	Professor	Research Field
Social and Community Health Science	Epidemiology	Sacki Keigo Obayashi Kenji	Our chrono-epidemiologic studies are derived from data at real-life situation of community-based cohort. At baseline, we simultaneously measure environment factors (temperature, light, and noise), behavioral factors (food intake, exercise, and bathing), biological rhythm (ambulatory blood pressure, physical activity, body temperature, melatonin secretion, and sleep/awake status), and we longitudinally follow the change of physical and cognitive function and incidence of cardiovascular disease and cancer. We are interested in the time of the exposure, and the time of outcome in the association between exposure and outcomes as follows: 1) Environment/behavior and biological rhythm • Temperature vs. blood pressure • Light vs. objective sleep, and nocturia • Light vs. melatonin secretion • Bathing and blood pressure • Breakfast skipping vs. obesity 2) Environment/behavior and disease • Light vs. obesity, dyslipidemia, diabetes, depression, carotid intima media thickness • Light/temperature vs. incidence of cardiovascular disease and cancer 3) Biological rhythm and disease • Melatonin secretion vs. depression, cognitive function, muscle strength, and chronic inflammation.
	Public Health, Health Management and Policy	Imamura Tomoaki Tsugihashi Yukio	1. Evidence-Based Public Health Studies on: • Epidemiology and establishing analytical systems using big data: National Database (NDB), National Insurance/Kokuho Database (KDB), and Diagnostic Procedure Combination (DPC) • Consolidation of databases (DB) for medicine, healthcare, nursing care, intractable diseases, and disorders • Food defense and cohort study on the Kanemi Yusho incident (food poisoning with PCB) • Risk communication in medicine, healthcare and food • Medical care and nursing care for the aged using DBs of medicine and nursing care • Healthcare communication between healthcare providers and patients And their family members 2. Health Management and Policy Studies on: • Investigation and policy recommendations for developing both national and community-based health plans as well as nursing care business plans • Cost effectiveness in medicine and health, and economically efficient allocation and use of diagnostic imaging equipment • Improvement in hospital management • Reimbursement of medical service fees, and break-even point in healthcare services • Cooperation between medical services and nursing care the time of patient discharge • Transferring and sharing workloads (task shifting and sharing) from medical doctors to other healthcare providers

Field	Specialized Subject	Professor	Research Field
Social and Community Health Science	Legal Medicine	Kasuda Shogo	1. Study on effect of ethanol on vascular function 2. Study on relationship between vascular function and sudden death 3. Study on effect of ethanol on sepsis 4. Study on effect of ethanol on thrombosis
	Medicine Based Town	Umeda Tomohiro	1. Designing a concept for social hospital associated with medical knowledge and technology 2. Evaluation systems of IoT-oriented environmental data and vital signs 3. An administration model and policy toward making society where people live independently 4. Healthcare management systems and its platforms 5. Evaluation methods and analysis of BIC data from medical health data 6. Healthcare index, and the prediction of illness risk 7. Tools for rehabilitation and care management 8. Locomotive syndrome and the extension of healthy life expectancy 9. MBT creating innovation What is MBT? It stands for medicine based town. You can see a lot of system and architectures using medical knowledge/ wisdoms in this type of town. Medical knowledge/wisdoms come from many kinds of clinical doctors or scientists in medical university, and therefore it is huge. Using medical knowledge adds extra values on the towns. This concept would be novel for creating new types of town, creating new industry and stimulating local community. IoT: Internet of Things About IoT IoT stands for Internet of Things, indicating that any types of things are connected to IT-related apparatuses such as a mainly PC, a server and the printer
	Medical Informatics and Hospital Management	Tamamoto Tetsuro Tsuru Satoko Inoue Takahiro	1. Strategic promotion of medical information cooperation 2. Telemedicine support using mobile devices 3. Implementation of standards in the hospital information system 4. Effective utilization of the patient condition adaptive path system 5. Improvement and improvement of the quality of medical care based on medical information data 6. Medical safety based on medical information data 7. Medical management based on medical information data 8. Human resource development and career support to promote the utilization of medical information 9. Human resource development and career support for the practice of hospital management

Field	Specialized Subject	Professor	Research Field
Basic science for biological function and disease	Biomacromolecules	Sakai Hiromi Yamamoto Keizo Matsuhira Takashi	1. Design and synthesis of artificial red cells and transfusion alternatives 2. In vivo efficacy evaluation of artificial red cells 3. New clinical application of artificial red cells 4. Study on new micro-and nano-encapsulation 5. Purification and chemical modification of biomacromolecules 6. X-ray crystallography and functional evaluation of proteins 7. Study on new materials for biomedical application
	Molecular and Cellular Dynamics	Nagafuchi Akira Kobayashi Chiyoko	1. Cytoplasmic regulation of cadherin-mediated cell adhesion 2. Contact regulation of cell growth 3. Contact regulation of cell rearrangement 4. The roles of cadherin-based cell adhesion on epithelial morphogenesis 5. Abberant cell-cell adhesion system and cancers
	Phasing Biology	Mori Eiichiro	1. Biological roles of LC-domains in phase separation 2. Pathological mechanisms of uncontrolled phase separation 3. Atomic resolution molecular structure of phase separation 4. Genomic stability maintenance 5. Controlling organogenesis in a dish
	Cellular and Molecular Anatomy	Inoue Koichi	1. Vascular endothelial function in health and diseases 2. Optogenetic approach to the non-neural systems 3. Molecular mechanism of stroke and neuropsychiatric disorders 4. Dynamics and importance of zinc in the nervous system 5. Basic research on skeletal muscle
	Functional Morphology	Hattori Tsuyoshi Ishikawa Tatsuya	1. Molecular mechanisms regulating the development and differentiation of neural cells 2. Molecular mechanisms of neural cell responses to injury 3. Functional analysis of glial cells in neural circuit formation 4. Analysis of glial cells in the pathogenesis of neurodegenerative diseases 5. Development of methods to promote regeneration of injured nerves
	Brain and Neurophysiology	Saito Yasuhiko	1. Neural mechanisms of velocity-position signal transformation in eye movement system 2. Electrophysiological properties of brainstem neurons that participate in eye movement

Field	Specialized Subject	Professor	Research Field
Basic science for biological function and disease	Control Mechanics for Biological Function	Horie Kyoji Banno Kimihiko	1. Identification of novel regulators of ES cell pluripotency 2. Epigenetic regulation of ES cell pluripotency 3. Mechanism of iPS cell generation 4. Development of genetic method for high-throughput analysis of gene function
	Biology of Aging	Nakamura Shuhei	1. Elucidation of molecular and cellular mechanism of aging using model organisms (yeast, nematode, mouse, etc.) 2. Elucidation of role and regulation of autophagy in aging and age-related diseases 3. Elucidation of molecular and cellular mechanism to maintain lysosomal homeostasis and its role in aging 4. Elucidation of common molecular mechanisms linking animal dormancy and lifespan regulation
	Microbiology	Yano Hisakazu Nakano Ryuichi	1. Research on mechanisms of β-lactam-resistant bacteria 2. Molecular epidemiology of β-lactamase-producing Gram-negative bacilli 3. Analysis for spread of drug-resistant bacteria in a clinical setting 4. Pathogenicity and drug resistance of bacteria causing respiratory tract infection 5. Infection control for drug-resistant bacteria in a hospital
	Bioprotection and Regeneration Medicine	Ouji Yukiteru	1. Reserch on ES/iPS cell differentiation – Induction of hepatocytes , insulin-producing cells, dopamine producing cells, inner ear hair cells, alveolar epithelial cells, etc.– 2. Cell transplantation therapies for spinal cord injury, Parkinson’s disease, liver diseases, diabetes mellitus, and deafness 3. Regenerative medicine using mesenchymal stem cells and follicle stem cells 4. Analysis of signal transduction in trichogenesis 5. Host responses against intestinal helminth and protozoa 6. Rerearch on infection control using trematodes 7. Research on tick-borne infections

Field	Specialized Subject	Professor	Research Field
Basic science for biological function and disease	Immunology (NM course)	Ito Toshihiro Kitabatake Masahiro	1. Immunological analysis of pathogenesis using various kinds of mouse model -Respiratory infectious model, Bronchial asthma model, Lung fibrosis model, Sepsis model, Autoimmune disease model, Cancer model, Inflammatory bowel disease model (NM course) 2. Analysis of immune regulation mechanism by epigenetics -Influenza virus, Allergy(NM course) 3. Analysis of the linkage between innate and acquired immunity by Notch signaling 4. Analysis of host immune mechanism and development of vaccines against multi-drug resistant bacteria 5. Immunological analysis of multiple functions for non classical HLA
	Signal Transduction in Pharmacology	Nakahira Kiichi	1. Explore the role of oxidative stress in the progression of atherosclerosis 2. Development of new drugs for atherosclerosis from natural food nutrients 3. Mechanisms of vasoactive substance-induced vascular remodeling in hypertension and atherosclerosis 4. Investigation into the molecular mechanisms and pharmacological intervention for angiogenesis 5. Analysis of intracellular signal transduction of insulin resistance in vascular smooth muscle cells 6. Explore the role of oxidative stress in the progression of neurodegenerative diseases 7. Protein S-nitrosylation and diseases 8. Investigation into the mechanisms of intracellular signal transduction in neural type nicotinic acetylcholine receptor
	Embryology	Kurimoto Kazuki	1. Development of single-cell omics methods combined with histology 2. Research for mechanisms of germ cell development 3. Research for mechanisms of quality control of germ cells 4. Research for mechanisms of epigenome reprogramming of primordial germ cells 5. Research for mechanisms of potential pluripotency in primordial germ cells

Field	Specialized Subject	Professor	Research Field
Basic science for biological function and disease	Advanced Medical Science of Thrombosis and Hemostasis	Tatsumi Kohei	1. Research of coagulation and fibrinolytic factors in inflammatory diseases 2. Research of coagulation and fibrinolytic factors in metabolic diseases 3. Research of coagulation and fibrinolytic factors in diseases of premature infants 4. Study on the relationship between aging and coagulation / fibrinolytic factors 5. Research on the treatment of blood coagulation disorders using mesenchymal stem cells, ES cells, and iPS cells 6. Research on the molecular pathogenesis of cancer-associated thrombosis 7. Research of coagulation and fibrinolysis system in organ linkage
	Applied Medical Science and Clinical Research	Kashino Genro Kaneko Ryosuke Yoneda Akihiro	1. Research for biological effects of ionizing radiation 2. Basic research for clinical application using radioisotope 3. Developmental and Evolutionary Studies of the Brain 4. Decoding Brain Functionalization for Brain Disorder Therapies 5. Nucleic acid therapeutics for intractable diseases 6. Application of disease model animals for medical research
	Cardiovascular System Research	Kokame Koichi Nakagawa Osamu	1. Functional Regulation of the Cardiovascular and Coagulation System 2. Signal Transduction and Transcriptional Regulation in Cardiovascular and Coagulation Systems 3. Etiologies of Human Congenital/Hereditary Diseases Related to Cardiovascular Development and Blood Coagulation
Clinical medicine for organ and disease control	Cardiovascular Medicine	Hikoso Shungo	1. Study for molecular mechanism of heart failure 2. Study for molecular mechanism of multi-organ interaction in heart failure 3. Genetic analysis of cardiomyopathy and its clinical application for diagnosis 4. Clinical study using biopsied samples in left ventricle 5. Study for pathophysiology of coronary artery diseases using optical coherence tomography 6. Registry study of heart failure and acute myocardial infarction 7. Development of new quality indicators for healthy life expectancy 8. Study for new cardiovascular imaging technique using MRI 9. Development of new technology for Imaging Analysis using Artificial Intelligence 10. Epidemiological study for cardiovascular managing using current big data 11. Research for the utility of arrhythmia detection with implantable loop recorder on management in patients with heart failure

Field	Specialized Subject	Professor	Research Field
Clinical medicine for organ and disease control	Clinical and Pathological Nephrology	Tsuruya Kazuhiko Samejima Kenichi Eriguchi Masahiro	1. Involvement of kidney interstitial fibrosis in the progression of chronic kidney disease 2. Involvement of kidney tubular damage in nephrotic syndrome 3. Involvement of dyslipidemia in the development and progression of chronic kidney disease 4. Investigation of factors affecting postoperative acute kidney injury 5. Elucidation of the mechanism of vascular calcification associated with chronic kidney disease 6. Investigation of factors associated with mortality and kidney prognosis in patients with chronic kidney disease using specified health check-up mega-data 7. Association between kidney biopsy pathologically findings and kidney prognosis in diabetic nephropathy 8. Association between urinary FSP-1 and kidney prognosis in chronic kidney disease 9. Association between steroid treatment during relapse phase and kidney prognosis in IgA nephropathy 10. Efficacy of low-dose steroid therapy in minimal change disease 11. Involvement of sympathetic nervous system in cardiorenal syndrome 12. Relationship between dialysis modality and progression of coronary artery calcification and brain atrophy
	Respiratory Medicine	Muro Shigeo Yamauchi Motoo Kai Yoshiro Yamamoto Yoshifumi Fujita Yukio Tanimura Kazuya	1. Research on bronchial asthma, chronic obstructive pulmonary disease (COPD), and sleep-disordered breathing, focusing on their etiological factors, disease heterogeneity, systemic comorbidities, nutritional and metabolic disorders associated with these respiratory diseases, and pathophysiological mechanisms. 2. Research on pulmonary function assessment, assessment of respiratory mechanics by oscillometry, and biomarker development in respiratory diseases 3. Research on comprehensive assessment and pathophysiological analysis of the lungs, pulmonary circulation, intrathoracic vessels including the aorta, heart, mediastinum, and trunk muscles using chest CT imaging 4. Research based on the concept of the “Komorebi COMORE-By2032” project to promote early detection of COPD, timely medical consultation, improved diagnosis rates, appropriate therapeutic intervention, regional collaboration, and improved prognosis The role of chemokines and dendritic cells in the autoimmune and allergic diseases 5. Research on pathophysiological assessment, disease progression, acute exacerbation, and lung cancer development in interstitial lung disease and CPFE 6. Research on pathophysiological assessment, prediction of treatment response, and development of novel therapies in lung cancer 7. Research on the development of novel therapies for chronic lung diseases using adipose tissue-derived stem cells

Field	Specialized Subject	Professor	Research Field
Clinical medicine for organ and disease control	Hematology	Matsumoto Masanori Kubo Masayuki	1. Pathophysiological analysis of thrombosis and bleeding events associated with myeloproliferative neoplasms (MPNs) ▪ Pathophysiology of acquired von Willebrand syndrome (AVWS) associated with MPN ▪ Development of a novel method to assess thrombotic and bleeding risk in MPN ▪ Analysis of platelet function in MPN 2. Pathophysiological analysis of complications in hematopoietic stem cell transplantation ▪ Pathophysiological analysis and investigation of early diagnostic markers for transplantation-associated thrombotic microangiopathy (TA-TMA) and sinusoidal obstruction syndrome (SOS) ▪ Pathophysiological analysis of complement involvement in transplantation-associated complications 3. Pathophysiological analysis and investigation of treatment for thrombotic and hemorrhagic complications associated with hematologic malignancies and their therapeutic agents 4. Development of a new rapid diagnostic assay for ADAMTS13 in thrombotic thrombocytopenic purpura (TTP)
	Gastroenterology and Metabolism	Mitoto Akira Namisaki Tadashi Kaji Kosuke	1. Pathophysiology and treatment of liver cirrhosis (Ascites, Esoph agogastric varices, Hepatorenal syndrome) 2. Endotoxins, blood coagulation, and organ injury 3. Diagnosis and treatment of chronic hepatitis 4. Pathophysiology and treatment of hepatocellular carcinoma (An giogenesis and Drug resistance) 5. Pathophysiology of liver fibrosis 6. Metabolic factors, gastrointestinal function, and liver injury 7. Liver regeneration
	Diabetes and Endocrinology	Takahashi Yutaka Okada Sadanori	1. Big data analysis of diabetes, endocrine and metabolic diseases using claimed data base including National Database 2. Elucidation of pathophysiology of diabetes, endocrine and metabolic diseases, especially pituitary and adrenal diseases 3. Pathophysiological study of endocrine immune related adverse event in immune checkpoint inhibitor 4. Epidemiological study on the risk of diabetes and obesity 5. Pathophysiological study on diabetes and obesity 6. Pathophysiological study of paraneoplastic autoimmune hypophysitis including Anti-PIT-1 hypophysitis, isolated ACTH deficiency, and immune checkpoint inhibitor-related hypophysitis

Field	Specialized Subject	Professor	Research Field
Clinical medicine for organ and disease control	Clinical Neurology and Myology	Sugie Kazuma Kataoka Hiroshi Saito Kozue Kiriyama Takao Eura Nobuyuki	1. Neurogenetic and pathological mechanism of neuromuscular disorders 2. Molecular mechanism of autophagy in neurological and mycological disorders 3. Pathomechanism of Parkinson's disease 4. Pathomechanism and therapeutic study of central nervous system infections 5. Neuroradiological study of stroke 6. Pathomechanism of demyelinating disorders in central nervous system 7. Neurophysiological study of neuromuscular disorders
	Gastroenterological Surgery	Sho Masayuki Koyama Fumikazu Akahori Takahiro Yasuda Satoshi	1. Molecular biological study for development, progression and metastasis of gastrointestinal and hepato-biliary-pancreatic cancer 2. Less-invasive surgery and functional surgery for resection of gastrointestinal and hepato-biliary-pancreatic cancer 3. Development of new strategy of chemotherapy, immunotherapy and gene therapy for digestive for gastrointestinal and hepato-biliary-pancreatic cancer 4. Research for pathogenesis and treatment for inflammatory bowel disease 5. Clinical and experimental research for liver, pancreas, and small bowel transplantation 6. Study for gastrointestinal motility in digestive surgery 7. Development of new techniques in abdominal and transplantation surgery
	Neurological Disorder Control	Nakagawa Ichiro Boku Eishu Nishimura Fumihiko Yamada Shuichi Takeshima Yasuhiro	1. Basic study on pathophysiology of brain ischemia 2. Basic study on pathophysiology of cerebral venous circulation disorders 3. Basic study on hypoxic brain injury (neuron damage) 4. Basic and clinical study of the acquisition of epileptogenesis 5. Study of the mechanism of electroencephalographic activity 6. Study on the mechanism and surgical management of spinal cord injury 7. Analysis for the regulatory mechanism of brain tumor 8. Experimental study of the mechanisms responsible for the development and growth of dural arteriovenous fistula 9. Clinical and basic study of the treatment for involuntary movement

Field	Specialized Subject	Professor	Research Field
Clinical medicine for organ and disease control	Circulatory and Respiratory Control Medicine	Hosono Mitsuharu Hamaji Masatsugu	1. Research on surgical treatment for valvular disease 2. Research on ischemic heart disease 3. Research on circulatory assist device 4. Research on regenerative medicine of the heart 5. Research on less(minimally) invasive cardiovascular surgery 6. Research on ischemic reperfusion injury of the heart 7. Basic and clinical research on the occurrence,metastasis,and recurrenceof pulmonary and mediastinal malignancies 8. Research on minimally invasive surgery for pulmonary and mediastinal malignsncies 9. Basic and clinical research on small circulation function in thoracic surgery 10.Basic and clinical research on degenerative lung deseases (emphysema,pulmonary fibrosis,etc.)in thoracic surgery
	Musculoskeletal Reconstructive Surgery (NM course)	Kawamura Kenji Honoki Kanya Kido Akira Ogawa Munehiro Shigematsu Hideki Inagaki Yuusuke Fujii Hiromasa Ishida Yukako	1. Explication for pathogenesis of musculoskeletal diseases 2. Elucidation for biomechanical genesis of degenerative diseases 3. Experimental study for bone regeneration using mesenchymal stem cells 4. Clinical research of bone regeneration using bone marrow 5. Basic and clinical research of regenerative cartilage using MSC 6. Development and clinical application of orthopaedic artificial material 7. Development of new surgical treatment for rheumatoid arthritis (NM course) 8. Explication for a fracture healing process and development of fracture treatments 9. Explication for pathogenesis of enthesopathy and clinical application of its treatments 10. New developments for total ankle prostheses 11. Development of stem cell biology to elucidation and treatment of sarcoma 12. Development of new donor-site for extremity reconstruction with microsurgical technique 13. Bone and joint reconstruction with the use of tissue engineering and microsurgery 14. Development of ultrasonography assisted procedure for orthopedic surgery 15. Clinical research on microsurgery(NM course) 16. Development of new rehabilitation approach
	Sports Medicine	Kawamura Kenji Ogawa Munehiro	1. Elucidation of the mechanism for musculoskeletal overuse syndrome 2. Ultrasonographycal analysis for the pathomechanism of sports related injuries 3. Clinical utility of acceleration training for the functional recovery of sports related injuries 4. Basic research of the cycling(pedaling) exercise for locomotive syndrome 5. Utility of medical fitness for community medicine

Field	Specialized Subject	Professor	Research Field
Clinical medicine for organ and disease control	Bioregulatory Medicine of female genital organ	Kimura Fuminori Kawaguchi Ryuji Maekawa Ryo	- Investigator-initiated clinical trial for patients with gynecological cancers through the treatment of anti-metastatic compounds - Development of anti-metastatic gene therapy for patients with ovarian cancer - Development of a drug discovery system for anti-metastatic compounds based on quantum chemical calculations - Elucidation of the invasion mechanism of gynecological cancers - Elucidation of genes that regulate drug sensitivity to anticancer agents - Elucidation of genes involved in malignant transformation of endometriosis - Genetic analysis of familial uterine cancer and elucidation of causative genes - Development of diagnostic criteria for adenoma malignum and related diseases - Research on mass screening for early detection of ovarian cancer - Association between vaginal microbiota and pregnancy outcomes, and mechanism analysis - Mechanism analysis of intrauterine microbiota formation - Impact of intrauterine inflammation and dysbiosis on pregnancy establishment and outcomes, and mechanism analysis - Research on the prevention of endometriosis and development of the method for its symptom relief - Research on the efficacy of ovarian tissue cryopreservation for cancer patients - Research on the development of a procedure for ovarian tissue cryopreservation and autologous transplantation for cancer patients
	Ophthalmology and Vision Science (NM course)	Kase Satoru Nishi Tomo Tsujinaka Hiroki	- Research on Retinal pigment epithelium and cytokine - Studies of development in pediatric visual function - Mechanism of age-related macular degeneration - Studies of clinical treatment on age-related macular degeneration and macular hole - Mechanism of diabetic retinopathy - Studies of clinical treatment on diabetic retinopathy - Studies of neuroprotection - Studies of ocular blood flow - Cohort studies of visual acuity on aged people - The effect of the ocular diseases to the circadian rhythm - Clinico-pathological study of ocular tumors

Field	Specialized Subject	Professor	Research Field
Clinical medicine for organ and disease control	Newborn Health and Development	Nogami Keiji Ogiwara Kenichi	1. Biochemical and molecular studies on pathogenesis and pathophysiology of congenital hemorrhagic disorders (hemophilia, von Willebrand disease, etc.) 2. Biochemical and molecular studies on pathogenesis and pathophysiology of congenital thrombotic disorders (antithrombin, protein C, protein S, ADAMTS 13 deficiency, etc.) 3. Pathogenesis and pathophysiology of acquired hemorrhagic and thrombotic disorders 4. Physiological and pathological analysis of thrombus formation 5. Liver transplantation (APOLT) and gene/cell therapy for hemophilia 6. Studies on hemorrhagic and thrombotic disorders in premature and neonatal infants 7. Genetic counselling for congenital and hereditary diseases
	Child Health and Development	Uchida Yumiko	1. Pathological analysis of neonatal intraventricular hemorrhage from blood coagulation mechanism 2. Pathophysiological analysis of bilirubin encephalopathy in preterm infants 3. The Relationship Between Nutrition and the Development of Preterm Infants
	Psychiatry and Behavioral Neuroscience	Okada Takashi Yamauchi Takahira Yamamuro Kazuhiro Takada Ryohei	1. Research on early interventions for neuropsychiatric disorders 2. Neurophysiological studies of neuropsychiatric disorders in children and adolescents 3. Neuromodulation research for neuropsychiatric disorders 4. Cognitive rehabilitation of neuropsychiatric disorders 5. Brain imaging and neurophysiological research on neuropsychiatric disorders 6. Research on interventions for individuals with challenging behavior 7. Research on animal models of neuropsychiatric disorders using behavior science and cell histology 8. Research using animal models by manipulating gene expression and environmental factors 9. Pathophysiological and cognitive neuroscience research on neurodevelopmental disorders 10. Mental health literacy and stigma research 11. Artificial intelligence (AI) analysis of large-scale clinical information

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Clinical medicine for organ and disease control	Dermatology	Shinkuma Satoru Kuwahara Masamitsu	1. Studies on innate immunity in atopic dermatitis and development of new treatments 2. Studies on pathogenic role for microorganisms in allergic skin diseases 3. Studies on pathogenic mechanism of severe drug eruption and development of new diagnostic methods 4. Development of a novel herpes zoster vaccine 5. Studies on the orientation of cutaneous collagen fibers 6. Immunohistochemical studies on cutaneous adnexal tumors 7. Studies on the usefulness of ultrasonography in dermatology 8. Development of a new treatment for porokeratosis 9. Elucidation of the pathological mechanism of hereditary skin diseases 10. Development of regenerative medicine and gene therapy for epidermolysis bullosa
	Medical Science for Pathologic and Functional Control of Urogenital Organs	Tanaka Nobumichi Yoneda Tatsuo Miyake Makito	1. Urodynamics ○ Development of novel urodynamic evaluation using telemetry system ○ Mechanism of nocturnal polyuria: the effect of body water distribution 2. Chronic renal failure and renal transplantation ○ Influence of microflora on Chronic renal transplantation patients ○ Body composition analysis for optimal hemodialysis 3. Renal cell carcinoma ○ Evaluation of split renal function following renal surgery; 3D-image analysis ○ Immunological mechanism of combination with cytokine and molecular targeting therapy 4. Urothelial carcinoma ○ Photodynamic diagnosis of superficial bladder cancer ○ Methylation analysis in urothelial carcinoma 5. Prostate carcinoma ○ Radiosensitization ○ Chemoprevention for prostate cancer 6. Sleep disorder and voiding dysfunction

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Clinical medicine for organ and disease control	Prostate brachytherapy	Tanaka Nobumichi Nakai Yasushi	Clinical and basic research for low-dose-rate brachytherapy and high-dose-rate brachytherapy concerning improvement of oncologic outcomes, preservation of quality of life (QOL) and control of adverse events Focal therapy of brachytherapy Development of radiation modifiers
	Otolaryngology-Head and Neck Surgery	Kitahara Tadashi Uemura Hirokazu Nishimura Tadashi	1. Molecular Mechanisms of tinnitus generation in thauditory pathway 2. Stress and Meniere's disease 3. Equilibrium disturbance and vertigo 4. Sensory medicine in sports 5. Molecular Mechanisms of cholesteatoma generation 6. Ultrasound hearing 7. Development of ultrasound hearing aids 8. Evaluation of the speech perception ability and hearing aids 9. Molecular biology for head and neck cancer 10. Thyroid gland and salivary glands
	Image-based Diagnosis and Minimal Invasive Therapy	Tanaka Toshihiro Nishiofuku Hideyuki Ichihashi Shigeo	1. Diagnostic imaging and IVR in neuroradiology 2. Thoracic imaging and IVR 3. Endovascular therapy for aortic disease 4. MRI study for abdomen and pelvis 5. IVR for malignant tumor 6. IVR for chronic pain 7. IVR in palliative treatment 8. IVR for emergency disease 9. Radiation dose reduction during IVR procedure 10. Percutaneous biopsy and gene diagnosis 11. Inovation of new contrast agents 12. Tumor immune microenvironment in IVR
	Radiation Oncology	Isohashi Fumiaki Tamamoto Tetsuro	1. LQ model and fractionation schedules in radiation therapy 2. Radiation biology and physics of high-precision radiotherapy 3. Radiation biology of heavy ion therapy and proton therapy 4. Optimization in radiotherapy for lung cancer 5. Optimization in brachytherapy for prostate cancer 6. Optimization in radiotherapy for brain tumor

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Clinical medicine for organ and disease control	Anesthesiology and Pain Medicine	Kawaguchi Masahiko Hayashi Hironobu Egawa Jinji Naito Yusuke Tanaka Nobuhiro	1. Study on cerebral and spinal cord protection 2. Study on cerebral and spinal cord monitoring 3. Study on postoperative complications 4. Study on safety and quality of perioperative managements 5. Study on airway managements 6. Study on pain management for cancer patients 7. Study on chronic pain management
	Clinical neuromonitoring	Kawaguchi Masahiko Nakagawa Ichiro Hayashi Hironobu Shigematsu Hideki	1. Study on EEG in perioperative period 2. Clinical research on neuromonitoring 3. Basic research on neuromonitoring 4. Study on monitoring of blood flow and metabolism in brain and spinal cord 5. Research on new instruments in neuromonitoring
	General Medicine and Clinical Pathophysiology	Yoshimoto Kiyomi Yada Noritaka Ono Shiro Morita Takayoshi	1. Theoretical analysis of the practice of general medicine 2. Study for evaluating clinical significance of the physical examination 3. Pathophysiological analysis for various diseases based on hemostatic perspective 4. Pathophysiological analysis for various diseases using experimental mouse model 5. Study for the pathophysiology of collagen disease 6. Study for the practice of disaster medicine 7. Research on the Effectiveness of Primary Care in Health Care 8. Clinical research on epidemiology, diagnosis, and treatment in primary care settings 9. Research on health care delivery systems regarding team building, information sharing, and service delivery systems 10. Educational research on medical education and lifelong learning

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Clinical medicine for organ and disease control	Oral and Maxillofacial Surgery	Nogami Shinnosuke Yamakawa Nobuhiro Yagyuu Takahiro	1. Minimally invasive surgery and functional preservation for oral cancer patients 2. Preoperative adjuvant therapy for advanced oral cancer 3. Clinical and basic study on prevention of ARONJ 4. Malignant transformation of oral precancerous lesions 5. Reconstruction of oral and maxillofacial region 6. Diagnosis and treatment for temporomandibular joint disorders 7. Oral management in patients with dry mouth 8. Oral management in patients with systemic disease 9. Sedative control during oral surgery 10. Clinical study on speech, swallowing and masticatory disorders 11. Fixation of maxillary and mandibular bone fragments based on biomechanics 12. Development of maxillofacial structure 13. Regenerative medicine of maxillofacial bone using tissue engineering
	Emergency Medical Science	Fukushima Hidetada	1. Study of prehospital care for out-of-hospital arrest 2. Development of rapid identification for blood stream infection 3. Study of coagulation abnormalities in emergency and critical care 4. Geospatial analysis of prehospital emergency care 5. Immediate implementation of hemodialysis for acute kidney injury
	Diagnostic Pathology	Yoshizawa Akihiro Uchiyama Tomoko	1. Clinicopathological studies using surgical, cytological and autopsy specimens * Histologic and morphologic study * Immunohistochemical study * Molecular study 2. Pathological image analysis using deep learning model * Development of morphological recognition algorithm using weakly supervised data * Investigation of tumor grading using multiscale network 3. Study of disease mechanisms by molecular biological analysis using human tumor cells * Molecular biological studies on tumor development and progression * Study for Epigenetic tumor-related genes

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Clinical medicine for organ and disease control	Medical Oncology	Takeda Masayuki	- Investigation of molecular mechanisms related to the cancer development, progression and prognosis. - Functional analysis of novel genetic mutations identified in precision medicine. - Investigation of resistance mechanisms in driver-positive tumors. - Development of new drugs across organs - Genomic pharmacological research - Research contributing to standardization of supportive and palliative fields
	Rehabilitation Medicine	Kido Akira Inagaki Yusuke Ishida Yukako	- Pedagogy for rehabilitation medicine - Impairments-driven cancer rehabilitation - Physical activity in the frail elderly - A novel multimodal prehabilitation program for perioperative patients - The fun in the acquisition process of the activity - Activity-included life style model for extension of healthy life expectancy
	Clinical Laboratory Medicine	Tanaka Yuji Mizuno Reiko	- Research on usability of clinical examination - Research on pathophysiology of heart failure using echocardiography
	Bloodstream Reconstructive Medicine	Matsumoto Masanori Sakai Kazuya	- Pathophysiological analysis of thrombotic microangiopathy (TMA) - Establishment and analysis of a nationwide TMA registry in Japan - Genetic analysis of ADAMTS13 in patients with congenital thrombotic thrombocytopenic purpura (TTP) - Analysis of the gut microbiota in patients with immune-mediated TTP - Development of novel therapeutic agents for TTP - Pathophysiological analysis of transplant-associated TMA following hematopoietic stem cell transplantation - Diagnosis and treatment of von Willebrand disease - Pathophysiological analysis of acquired von Willebrand syndrome (AVWS) - Pathophysiological analysis of AVWS associated with myeloproliferative neoplasms - Pathophysiological analysis of AVWS associated with cardiovascular diseases - Development of therapeutic agents for AVWS based on anti-ADAMTS13 antibodies - Evaluation of enhanced red blood cell clearance mediated by anti-erythrocyte antibodies - Morphological and functional analysis of blood cells using microfluidic devices - Generative AI-based feature analysis of transfusion testing images

Field	Specialized Subject	Professor	Research Field
Clinical medicine for organ and disease control	Infectious Diseases	Kasahara Kei Imakita Natsuko	1. COVID-19 infection 2. Interaction between host and microorganism in infectious diseases 3. Host defense and its control in respiratory tract infection 4. Biological activity of antimicrobial agents against resistant bacteria 5. Pathogenesis and treatment of HIV infection 6. Early diagnosis and multidisciplinary treatment of deep-seated fungal diseases 7. Molecular epidemiology of drug resistant bacteria 8. Appropriate use of antimicrobial agents 9. Prevention of healthcare-associated infections 10. Social implementation of infection prevention technologies
	Clinical and Translational Science	Asada Kiyoshi Kurakami Hiroyuki Takeuchi Jiro	1. A research regarding the implementation and support of the industry-initiated clinical trials and investigator-initiated clinical trials 2. A research regarding the implementation and support of the post-marketing clinical trials 3. A research regarding the implementation and support of the cohort study
	Laboratory of Advanced Technology for Interventional Radiology	Anai Hiroshi	The aim of our laboratory is to investigate advanced and novel technology for interventional radiology. 1. Fundamental research of percutaneous ablation 2. Fundamental and innovative research of devices for interventional radiology 3. Research and development of image guidance 4. Clinical application of new technology for interventional radiology
	Proton Beam Radiation Oncology	Yoshimura Hitoshi	1. Research on the range calculation with dual energy CT in proton radiotherapy 2. Research on the range measurement in patients with off-line PET 3. Research on the relative biological effectiveness of proton beams 4. Research on the effect of neutron in proton radiotherapy 5. Research on the inter-fractional variation measurement with in-room CT 6. Research on the variation of the bladder volume estimation between in-room CT and echography 7. Research on the robust treatment planning of proton radiotherapy 8. Research on the dose distribution comparison between proton radiotherapy and photon radiotherapy
	Medical Sensing Technology	Yamamoto Kouhei Kodama Hidekazu	1. Mechanism of bone, cartilage and air conduction hearing and optimum of cartilage conduction hearing aids. 2. Development of vital signal sensing methods utilizing electro-acoustic transducers combined with hearing aids.