大学院医歯学総合研究科修士課程医歯理工保健学専攻分野構成

詳細は「研究テーマ検索システム」をご覧ください。https://reins.tmd.ac.jp/theme?m=home&l=ja

M：School of Medicine
D：School of Dentistry
MH:Medical Hospital
DH:Dental Hospital
BM:Institute of Biomaterials and Bioengineering
MR:Medical Research Institute
RC:Research Core

CE:Center for Education Research in Medicine and Dentistry
ME:Life Science and Bioethics Research Center
EA:Center for Experimental Animals
SR:Center for Stem Cell and Regenerative Medicine
PH:Center for Personalized Medicine for Healthy Aging
DS:M&D Data Science Center
IR:Institute of Research

※1：National Center of Neurology and Psychiatry
※3：Tokyo Metropolitan Institute of Medical Science

※2：National Center for Child Health and Development
※4：Japanese Foundation for Cancer Research

*1 Applicants applying to “Psychiatry and Behavioral Sciences (Forensic Mental Health)”, “Psychiatry and Behavioral Sciences (Liaison Psychiatry and Psycho-oncology)”, “Periodontology (Photoperiodontics)”, “Anesthesiology (Perinatal and Pediatric Anesthesiology)”, “Specialized Surgeries(Pediatric Surgery)”, “Cardiovascular Surgery(Vascular Surgery)”, “Gastroenterology and Hepatology(Hepatic Medical Science)”, “Clinical Oncology(Precision Cancer Medicine)” need to obtain permission for your application from both prospective supervisor and Department head・Chair professor.

*2 Applicants applying to “Hematology and Biophysical Systems Analysis”, “Clinical Bioanalysis and Molecular Biology”, “Joint Graduate School department(NCNP Brain Physiology and Pathology, NCCHD Child Health and Development, Igakuken Disease-oriented Molecular Biology, JFCR Cancer Biology, RIKEN Molecular and Chemical Somatology, NCC Cancer Science, NIID Integrative Microbiology)” and “Interdisciplinary Sciences” need to obtain permission for your application from both prospective supervisor and Department head・Chair professor.

No.	Code	Department	Supervisor	Contact Person	Phone number	e-mail	Number of Students to be Admitted	Research Subject	HP (URL)	Classification
1	3010	Oral Pathology	ISHIMARU Naozumi	ISHIMARU Naozumi	5803-5451	ishimaru.naozumi@tmd.ac.jp	8	1. Pathogenesis of oral immune disoreders 2. Mechanism of bone destruction by oral cancer 3. Tumor progression and microenvironment in oral cancer 4. Development of new diagnostic technique for oral tumor 5. Development of histopathological diagnostic system by AI	https://www.tmd.ac.jp/opa/	D
2	3020	Bacterial Pathogenesis, Infection and Host Response	SUZUKI Toshihiko	SUZUKI Toshihiko	5803-4165	suzuki.bact@tmd.ac.jp	8	1. Molecular mechanisms of infection by pathogenic bacteria 2. Mechanisms of activation and regulation of inflammasomes 3. Study of virulent genes based on comparative genomics 4. Relationship between persistent bacterial infection and chronic inflammatory diseases		D
3	3030	Oral Biology	KATAGIRI Sayaka	KATAGIRI Sayaka	5803-5935	katagiri.peri@tmd.ac.jp	8	1. Crosstalk between the oral and systemic diseases. 2. Connection between oral cavity and whole-body based on the microbiota.		D
4	3040	Advanced Biomaterials	UO Motohiro	UO Motohiro	5803-5467	uo.abm@tmd.ac.jp	8	1. Development of glass/ceramics for dentisty 2. Distribution and chemical state analysis of trace elements in the biological tissues 3. Development of dental composite resins 4. Non-destructive analysis methods for dental materials and tissues 5. Evaluations for various properties of dental materials and tooth		D
5	3080	Dental Radiology and Radiation Oncology	MIURA Masahiko	MIURA Masahiko	5803-5897	masa.mdth@tmd.ac.jp	8	1. Differential diagnosis for oral and maxillofacial lesions using MRI 2. Clinical study on the prediction of prognosis after oral cancer treatment using CT 3. Clinical study on radiotherapy for oral cancer and development of novel therapeutic modalities 4. Radiobiological study on radiosensitization of oral cancerr		D
6	3090	Oral and Maxillofacial Surgical Oncology	HARADA Hiroyuki	HARADA Hiroyuki	5803-5506	hiro-harada.osur@tmd.ac.jp	8	1. Molecular biological research on the invasion and metastasis of oral cancer 2. Studies on the dysfunction and QOL of oral cancer after surgery 3. Clinical and basic research of oral cancer 4. Studies on the jaw reconstruction using by tissue engineering		D
7	3110	Dental Anesthesiology	MAEDA Shigeru	MAEDA Shigeru	5803-5549	maedas.daop@tmd.ac.jp	8	1. Anti-inflammatory and protective effects of anesthetics on the central nervous system 2. Basic and clinical research on the mechanism and treatment of neuropathic pain 3. Studies on functional modification of local anesthetics 4. Analysis of biological reactions readable from patient monitors 5. Research on improvement of the quality of intravenous sedation 6. Research on quality improvement of perioperative management of osteotomy of maxilla and/or mandible		D
8	3130	Pediatric Dentistry/ Special Needs Dentistry	IWAMOTO Tsutomu	SUGIMOTO Asuna	5803-4149	sugimoto.dohs@tmd.ac.jp	8	1. Mechanisms of tooth development and dental diseases 2. Development of dental pulp examination and diagnostics in children 3. Study on abnormal oral morphology and function in children and its treatment 4. Study on oral biofilm formation and its inhibition 5. Oral management and oral health status of the persons with special needs 6. Development of self-help tools that combine with the retention device in the mouth for people with physical disabilitie		D
9	3140	Orthodontic Science *Not recruiting this year	ONO Takashi	MATSUMOTO Yoshiro	5803-5527	y.matsumoto.orts@tmd.ac.jp	Not recruiting this year	1. Comprehensive research related to respiratory function, cranio-maxillofacial morphology and function and central nervous system 2. Neurophysiological research related to stomatologic function and neuronal plasticity in the central and peripheral nervous system 3. Morphological and molecular cytobiological research related to maxillofacial cranium and temporomandibular joint 4. Molecular cytobiological research related to biological reaction and tissue regeneration in response to functional change or mechanical stress 5. Biomaterial, bioengineering and biomechanical research related to morphological and functional change of occlusion in orthodontic treatment	https://www.tmd.ac.jp/english/dept/dentistry/orts/	D
10	3150	Cariology and Operative Dentistry	SHIMADA Yasushi	INOUE Go	5803-5483	inoue.ope@tmd.ac.jp	8	1.Study on caries prevention strategies 2. Development of novel diagnositc methods for dental caries 3. Study on remineralization thrapy for dental caries 4. Improvement and evaluation of adhesive materials 5. Development of esthetic restorative treatment for minumal invasive denstistry 6. Development of tooth bleachng material and method		D
11	3160	Masticatory Function and Health Science	FUEKI Kenji	FUEKI Kenji	5803-5514	kunfu.rpro@tmd.ac.jp	8	1.Clinical study (randomised controlled trials) on efficacy of prosthetic treatments 2.Study on association between masticatory function, brain function and cognitive function in denture wearers 3.Data sciences and epidemiologic study on association between prosthetic treatments and health 4.Diagnosis of dental disease and design of prosthesis design using AI 5.Study on material property and design of aesthetic restoration 6. Study on orofacial function, oral conditions, and devices on sports activities 7. Study on temporomandibular disorders (TMD), and sleep / awake bruxism		D
12	3170	Pulp Biology and Endodontics	OKIJI Takashi Scheduled to retire in March 2025	OKIJI Takashi	5803-5492	t.okiji.endo@tmd.ac.jp	8	1. Dental pulp tissue regeneration 2. Immunohistochemical and molecular biological analysis of pulpal and apical periodontal diseases 3. Evaluation and improvement of nickel-titanium endodontic rotary instruments 4. Application of lasers, cone-beam CT and optical coherence tomography to endodontics		D
13	3180	Advanced Prosthodontics	WAKABAYASHI Noriyuki	WAKABAYASHI Noriyuki	5803-4935	wakabayashi.rpro@tmd.ac.jp	8	1. Evaluation of Diagnosis, Procedures, and Outcomes in Prosthodontic Treatment 2. Design Optimization of Prosthodontic Biomaterials 3. Biological concerning Prosthese and Oral Tissues in Patients 4. Educational Development in Prosthodontics	https://www.tmd.ac.jp/pro/international/	D
14	3190	Regenerative and Reconstructive Dental Medicine	MARUKAWA Eriko	MARUKAWA Eriko	5803-5934	eriko.m.osur@tmd.ac.jp	8	1.Development of next-generation dental implant 2. Analysis and development of treatment methods for peri-implantitis 3.Optimization of the implant superstructure 4.Regeneration of bone and soft tissue	https://www.tmduimplant.jp	D
15	4720	Oral Devices and Materials	INOKOSHI Masanao	INOKOSHI Masanao	5803-5935	m.inokoshi.gerd@tmd.ac.jp	8	1. Development of Oral Function Evaluation Devices 2. Development and Evaluation of Biosensors, Wearable Sensors, and Remote Sensors 3. Development of Dental Treatment Materials and Devices Utilizing Digital Technology 4. Development and Evaluation of Next-Generation Ceramic Materials 5. Development and Evaluation of Bioactive Materials 6. Application of Simulation Analysis Related to Biomaterials 7. Clinical Research on Dental Materials and Devices		D
16	3200	Plastic and Reconstructive Surgery	MORI Hiroki	MORI Hiroki	5803-5923	moriplas@tmd.ac.jp	8	1.Pre and post operative breast or facial contour evaluation usning 3D camera 2.Sensory recovery in the nipple-sparing or skin-sparing mastectomy 3.Development of classification and algorithm in blepharoptosis and blepharospasm surgery 4.Adipogenesis in a external negative pressure lymphedema model - A new possibility of scaffold transplantation 5. Blood circulation study of the surgical flap using indocyanine green angioraphy and multi slice CT	https://www.tmd.ac.jp/med/plas/english/	M

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17	3210	Head and Neck Surgery	ASAKAGE Takahiro	ARIIZUMI Yousuke	5803-5912	ariizumi.hns@tmd.ac.jp	8	1. Anatomy of skull base 2. Relationship between HPV and head and neck cancer 3. Standardization of neck dissection 4. Development of skull base surgery 5. Endoscopic diagnosis and transoral surgery for superficial pharyngeal carcinoma		M
18	3220	Radiation Therapeutics and Oncology	YOSHIMURA Ryoichi	YOSHIMURA Ryoichi	5803-5311	ysmrmrad@tmd.ac.jp	8	1. Development of brachytherapy for oral cancer, prostate cancer, and uterine cancer 2. Clinical research and development of IMRT and SRT 3. Development of radiotherapy in multimodality treatment for cancer		M
19	3230	Oral and Maxillofacial Anatomy	ISEKI Sachiko (currently assigned)	FUKINO Keiko	5803-5435	fukifana@tmd.ac.jp	8	Gross anatomy and clinical anatomy research in dental, oral, and maxillofacial region		D
20	3240	Cognitive Neurobiology	UESAKA Naofumi	UESAKA Naofumi	5803-5445	uesaka.cnb@tmd.ac.jp	1	1. Elucidation of mechanisms of brain development 2. Elucidation of roles of Glia in development, function, and disease of brain 3. Elucidation of Oral-Brain crosstalk 4. Elucidation of the singularity phenomenon in brain tumor progression and its significance 5. Development and application of genetic tools that enable cell type-specific genetic manipulation 6. Elucidation of mechanisms by which like and disgust emotions are generated by taste		D
21	3250	Molecular Craniofacial Embryology and Oral Histology	ISEKI Sachiko	ISEKI Sachiko	5803-5578	s.iseki.emb@tmd.ac.jp	8	1. Molecular mechanisms of craniofacial morphegenesis 2. Application of developmental mechanisms of craniofacial tissues to regenerative medicine 3. Molecular mechanisms of congenital anomalies and their clinical application		D
22	3260	Cellular Physiological Chemistry	WATABE Tetsuro (currently assigned)	NAKAHAMA Ken-ichi	5803-5574	nakacell@tmd.ac.jp	8	1.Studies of cell-cell communication via gap junction. 2.Studies of the mechanism in bone remodeling		D
23	3290	Maxillofacial Surgery	YODA Tetsuya Scheduled to retire in March 2025		5803-5498		8	1. Clinical study of cleft lip and palate, and orthognathic surgery. 2. Cell biology and bone regeneration for reconstruction of facial bone and alveolar bone. 3. Basic and clinical research of temporomandibular joint and masticatory muscle disorders. 4. Basic and clinical research of diseases in oral and maxillofacial region.		D
24	3300	Maxillofacial Orthognathics	MORIYAMA Keiji	OGAWA Takuya	5803-5533	t-ogawa.mort@tmd.ac.jp	8	1. Research on etiology, diagnosis, and treatment for developmental and congenital anomalies in thecraniofacial region 2.Biomaterials research for the development of new orthodontic appliances 3.Epidemiological research related to dentofacial growth and malocclusion 4.Research on mechanical stress and bone metabolism 5.Research on stomatognathic function and central nervous system	https://tmdu-mort.com/en/index.html	D
25	4580	Reconstructive Plastic Surgery	TANAKA Kentaro	TANAKA Kentaro	5803-5923	kenta.plas@tmd.ac.jp	8	1. Development of functional and aesthetic reconstruction following cancer ablation in head and neck 2. Does the improvement of capillary patency rate contribute to the preservation of transferred fatty tisssue volume ? 3. Evaluation of "quality" of autologous transplanted tissue focusing on postoperative functional recovery of sweat glands 4. Evaluation of blood supply to various flaps using ICG fluorescence angiography 5. Development of functional and aesthetic reconstruction for facial paralysis		M
26	3320	Cell Biology	NAKATA Takao	NAKAMURA Satoko	5803-5143	info.cbio@tmd.ac.jp	8	1. Optogenetic control of intracellular signaling 2. Cell biological approach using optogenetics to understand the mechanism of calcium signaling 3. Applications of optogenetics to regenerative medicine 4. A simple model system of uneven emergence of polarity protein by light and optogenetic proteins 5. The study of cell differentiation to muscles, neurons, and osteocytes using optogenetic tools	https://www.tmd.ac.jp/english/cbio/	M
27	3330	Medical Biochemistry	OISHI Yumiko	OISHI Yumiko	5803-5166	oishi.yumiko@tmd.ac.jp	8	1. The role of tissue-selective macrophages in tissue homeostasis and pathology and its therapeutic application 2. Molecular mechanisms of age-related muscle regeneration defects and develop methods for the treatment and prevention of sarcopenia 3. Organoids (miniature organs made from tissue stem cells in vitro) and their application to tissue regeneration therapy	https://www.tmd.ac.jp/mbc/	M
28	3340	Joint Surgery and Sports Medicine	KOGA Hideyuki	NAKAMURA Tomomasa	5803-4675	nakamura.orj@tmd.ac.jp	8	1. Regeneration and reconstruction of bone and joint tissues using mesenchymal stem cells 2.Mechanism analysis and development of treatment methods of bone- and joint-related inflammation andfibrosis 3.Analysis of mechanism for bone- and joint-related pain and deveopment of its treatment 4.Analysis of sports injury mechanism and development of its treatment 5. Development of new joint prosthesis		M
29	3380	Biochemistry	WATABE Tetsuro	WATABE Tetsuro	5803-5447	t-watabe.bch@tmd.ac.jp	8	1. Understanding the multiple aspects of cancer microenvironment 2. Formation of cancer associate fibroblasts (CAFs) through endothelial-to-mesenchymal transition (EndMT) 3. Structural and functional analysis of lysosomal membranes 4. Heparan sulfate proteoglycan-mediated intracellular transport 5. Roles of VASH1 in the regulation of microtubles		
30	3390	Cell Signaling	YODA Tetsuya (currenty assigned)				8	1. Signal transduction mechanisms of bone cells such as osteoclast, osteoblast and osteocyts. 2. Development of clinical applications for diseases of the skeletal and locomotiv system. 3. Exploitation of osteonetwork (systemic network between bone and other systems).		D
31	3410	Periodontology (Periodontology)	IWATA Takanori	IWATA Takanori	5803-5486	iwata.peri@tmd.ac.jp	8	1. Research on periodontal regeneration and stem cell therapy 2. Research on the mechanisms of periodontal pathogenicity 3. Research on the association between periodontitis and systemic diseases 4. Analysis of bacterial flora related to periodontal diseases and peri-implantitis		D
32	3411	Periodontology (Photoperiodontics)	IWATA Takanori AOKI Akira	AOKI Akira	5803-4392,5488	aoperi@tmd.ac.jp	8	1.Research on the application of lasers/LEDs in periodontal and peri-implant therapy 2.Research on photobiomodulation (PBM) effetcs of lasers/LEDs on cells/tissues 3.Research on the application of antimicrobial photodynamic therapy (a-PDT) in periodontal and peri-implant therapy 4.Research on the application of optical coherence tomography (OCT) in periodontal therapy		D 【注 1】
33	4650	Biosignals and Inheritance	KUSUYAMA Joji	KUSUYAMA Joji	022-795-5755	joji.kusuyama.bsin@tmd.ac.jp	8	1. Transmission Mechanism for parental lifestyle effects on offspring health 2. Functional analysis of placenta-derived bioactive compounds 3. Elucidation of information processing in placenta 4. Implementation of placenta-regulated inheritance in medicine and industry		D
34	5100	Inorganic Biomaterials	KAWASHITA Masakazu	KAWASHITA Masakazu	5280-8016	kawashita.bcr@tmd.ac.jp	8	1. Development of ceramic micro/nano-particles for cancer treatment 2. Formation of antibacterial and bioactive titanium oxide surface layer on titanium by surface chemical modification 3. Elucidation of bone-bonding mechanism of hydroxyapatite –From a view point of protein adsorption– 4. Study on organically modified octacalcium phosphate 5. Development of antibacterial biomaterials for bone regeneration and infection prevention	https://www.tmd.ac.jp/bcr/index-e.html	D（BM）
35	3420	Public Health	FUJIWARA Takeo	FUJIWARA Takeo	5803-5190	fujiwara.hlth@tmd.ac.jp	8	1. Social epidemiology (impact of social inequality, social capital, social network, and social support on health) 2. Life-course epidemiology (impact of child poverty and adverse childhood experiences on health) 3. Prevention on child abuse and neglect 4. Disaster and child and their family's mental health 5. Climate change and health 6. Epideimological studies related to COVID-19	https://tmduglobalhealthpromotion.com/	M

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36	3430	Parasitology and Tropical Medicine	ISHINO Tomoko	ISHINO Tomoko	5803-5193	tishino.vip@tmd.ac.jp	4	1. Elucidation of molecular mechanisms of Plasmodium infection of host cells. 2. Research on the cellular and molecular basis for malaria parasite life cycle 3. Rresearch for development of novel malaria vaccines 4. Rresearch in the malaria endemic region (Ghana)	https://sites.google.com/view/tmdu-parasitology	M
37	3440	Forensic Medicine *Not recruiting this year	UNUMA Kana (currenty assigned)				Not recruiting this year	1. Studies on the mechanisms of cell death induced by drugs 2. Forensic toxicology / Alcohol medicine 3. Forensic pathology 4. Drug analysis		M
38	3460	Health Care Management and Planning	OKADA Shusho	OKADA Shusho	5803-4030	sokd.hcm@tmd.ac.jp	8	1. Administrative Measures to Promote Medical DX 2. Development of services that contribute to disease prevention and measures to ensure quality 3. Measures to promote data health 4. Measures to promote the international expansion of medical care 5. Differentiation and collaboration of medical functions, measures to realize medical concepts		M
39	3470	Molecular Epidemiology	KOCHI Yuta (currently assigned)	KOCHI Yuta	5803-4817	y-kochi.gfd@mri.tmd.ac.jp	8	1. Study on gene-environment interaction in the development of common chronic diseases. 2. Study on Developmental Origins of Health and Diseases (DOHaD). 3. Bioinformatics on disease mechanism. 4. Environment and epigenetic changes. 5. Application of personal genome information to human helth care.		M（MR）
40	3490	Health Policy and Informatics	FUSHIMI Kiyohide	FUSHIMI Kiyohide	5803-4025	kfushimi.hci@tmd.ac.jp	8	1. Health information management for the development of DPC case mix system and PDPS payment system 2. Quantitative analytica method for plannning and assessment of health care providing system 3. Methodology for hospital profiling and assessment of hospital functions 4. Utilization of electric health data of health system 5. Health cost analysis and hospital management		M
41	3500	Life Sciences and Bioethics	YOSHIDA Masayuki	YOSHIDA Masayuki	5803-4724	masabec@tmd.ac.jp	8	1. Bioethical issues surrounding medical research 2. Development of efficient IRB management 3. Clinical and basic research in Medical Genetics 4. Genetic Counselor course (Master course only) https://www.tmd.ac.jp/bec/45_5b0631b6d7471/general/ 5. Clinical and basic research in vascular biology and atherosclerosis		M（ME）
42	3510	Forensic Dentistry	SAKURADA Koichi	SAKURADA Koichi	5803-4387	sakurada.fde@tmd.ac.jp	8	1. Personal identification based on dental findings 2. Personal identification using hard tissues such as teeth and bones, soft tissues, and body fluids 3. Personal identification based on facial reconstruction and image analysis 4. Development of new identification methods with biochemical or molecular biological techniques		D
43	3530	Dental Education Development	SEKI Naoko	SEKI Naoko	5803-4537	nseki.edev@tmd.ac.jp	8	1. Research on curriculum for professional education to deliver health care 2. Comparative study of domestic and international dental education 3. Research and development of educational methods in professional education for health care 4. Research and development of English education programs in professional education for health care		D
44	3540	Dental Public Health	AIDA Jun	AIDA Jun	5803-5476	aida.ohp@tmd.ac.jp	8	1. Research on epidemiology for oral health, relationshios between oral and general health, and prevention of oral diseases 2. Research on social determinants of health inequalities and oral health promotion 3. Research on community dentistry and international oral health 4. Research on oral health care system 5. Research on teledental system		D
45	3560	Educational System in Dentistry	TSURUTA Jun	TSURUTA Jun	03-5803-5458	turucie@tmd.ac.jp	8	1. Development of programs and evaluation systems (curriculum) for undergraduate and postgraduate dental education which meet international standards 2. Development of teaching and lerning methods for dental clinical education using simulators and VR simulators 3. Development of QA system for unedergraduate and postgraduate dental education programs 4. Development of evaluation methods of validity and reliability of a QA system for dental education programs		D（CE）
46	3570	Educational Media Development	KINOSHITA Atsuhiro	KINOSHITA Atsuhiro	5803-4643	kinoshita.emdv@tmd.ac.jp	8	1. Development of computer-assisted clinical simulation system for medical and dental practice training. 2. Development of new education system using information and communication technologies for medical and dental students. 3. Development and study of computerized dental simulator for training of dental cavity preparation andprosthodontic tooth preparation practices. 4. Development and study of dental model and kit for practical training. 5. Development of composing and screening system for original 3D movies from operator's viewpoint.		D
47	4480	Insured Medical Care Management	AI Masumi	AI Masumi	5803-4772	ai.vasc@tmd.ac.jp	8	1.Development of methodology and materials for education on medical insurance system and rules for insuredmedical treatment 2.Studies on management and supports for billing for medical service fees at insurance medical institutions 3. Studies on affairs of medical insurance system and provision of medical services		M
48	4500	Global Health Entrepreneurship	NAKAMURA Keiko Scheduled to retire in March 2025	NAKAMURA Keiko	5803-4048	nakamura.ith@tmd.ac.jp	8	1. International development of trade and workforce for health services 2. Development of social business models for equitable delivery of healthcare 3. Lessons for healthcare entrepreneurs from the Healthy Cities Program 4. Evaluation of health impact of climate change 5. Community mHealth Integrated Care (ComHIC) to manage hypertension/diabetes in diverse economy settings		M
49	4600	Clinical Biostatistics	HIRAKAWA Akihiro	HIRAKAWA Akihiro	5803-5150	a-hirakawa.crc@tmd.ac.jp	8	1. Methodology for trial designs and statistical methods in clinical studies 2. Theoretical and practical research on data science in medical and health fields 3. Bayesian approach for clinical science 4. Regulatory science in pharmaceutical and medical device development	https://tmdu-clinicalbiostatistics-lab.com/	M
50	4610	Infectious Disease Emergency Preparedness	YAZAWA Tomoko	YAZAWA Tomoko	5803-5213	t-yazawa.idep@tmd.ac.jp	8	1 . Preparedness and response to infectious disease pandemics 2 . Structure of healthcare system for Infectious diseases 3 . Risk communication with clear policies and strategies		M
51	4680	Healthcare Quality and Safety	KUDO Atsushi	KUDO Atsushi	5803-5928	bunshigeka.msrg@tmd.ac.jp	8	1. Development of indicators to measure the quality of treatment 2. Development of information sharing and recording systems for bed side 3. Development of image diagnostic methods using hybrid eye movement analysis 4. Development of quality indicators for hospital management		M
52	3590	Rehabilitation Medicine	YOSHII Toshitaka (currently assigned)	YOSHII Toshitaka	5803-5271	yoshii.orth@tmd.ac.jp	8	1. Rehabilitation for total joint arthroplasty 2. Motion and gait analysis of healthy and disabled subjects 3 .Biomechanical research for prevention of sports injury 4. Patient safety in rehabilitation medicine 5. Osteoporosis of children (individuals) with severe motor and intellectual disabilities		M（MH）
53	3600	Gerodontology and Oral Rehabilitation	KANAZAWA Manabu				8	1. Research on the whole body control at the time of older people's dental treatment 2. Development of the new denture materials which was adapted for the aged society 3. Implant over denture for the old patient 4. Complete denture using CAD/CAM technique 5. Oral hypofunction and Oral frailty		D 【注 3】

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54	4570	Dysphagia Rehabilitation	TOHARA Haruka	FUKUYAMA Rie	5803-5559	fukuyama.rie.tmd@gmail.com	8	1. The effects of aging and frailty on swallowing function 2. The effect of dysphagia rehabilitation 3. Development of non-invasive device detects aspiration 4. Development of devices for evaluating oral and swallowing function 5. Basic research on nutritional status and intestinal bacteria using gastrostomy rats	https://www.tmd.ac.jp/english/dept/dentistry/drh/	D
55	3610	Laboratory Medicine *Not recruiting this year	TOHDA Shuji Scheduled to retire in March 2025	TOHDA Shuji	5803-5334	tohda.mlab@tmd.ac.jp	Not recruiting this year	1. Molecular diagnostic tests for cancer and infectious diseases 2. Molecular pathogenesis of leukemia/lymphoma cells and its application for drug sensitivity tests 3. Search for signalling molecules to regulate leukemia stem cells for developing novel molecular-targeted drugs 4. Analysis of pathophysiology of cases showing abnormal data in clinical laboratory tests		M
56	3620	Intensive Care Medicine	WAKABAYASHI Kenji	NOSAKA Nobuyuki	03-5803-5959	nnosaka.ccm@tmd.ac.jp	8	1. Analysis of the effect of rapid response system and associated risk factors for patient safety in Japanese hospitals 2. Investigation of the roles and mechanisms of extracellular vesicles in critical illness 3. Development of new medical device in the ICU 4. ICU mortality preditcion using a machine learning approach		M
57	3650	Medical Education Research and Development	YAMAWAKI Masanaga	Medical Education Research and Development	5803-4508	mkoizumi.merd@tmd.ac.jp	8	1. Research on Medical Education & Professional Development 2. Research on Interprofessional Education 3. Research on cognitive development in medical competence 4. Social Implementation of Innovation in Medical Educational 5. Research on Education in Health Promotion		M
58	3660	Acute Critical Care and Disaster Medicine	MORISHITA Koji	MORISHITA Koji	5803-5102	morishita.accm@tmd.ac.jp	8	1. Research on mechanisms of biological responses to severe stress and development of new therapeuticstrategy 2. Clinical and basic research in related to serious torso/multiple trauma and epidemiology of trauma 3. Research on coagulopathy following traumatic injury/sepsis 4. Research on disaster medicine for largely scaled disasters such as earthquake and terrorism 5. Basic research on lipid mediators involved in multiple organ dysfunction after hemorrhagic shock		M
59	3670	Clinical Oncology(Medical Oncology and Palliative Medicine)	HAMAMOTO Yasuo	HAMAMOTO Yasuo	–	hamamoto.yasuo@tmd.ac.jp	8	1. Investiational New Drug for Gastrointestinal Cancer 2. Prediction of Efficacy and Side Effect for Gastrointestinal Cancer 3. Usefulness of Exercise for Fatigue in Cancer Survivors 4. Patient Safety of Outpatient Cancer Chemotherapy 5. Palliative Care Medicine	https://tmduclinicaloncology.com/ https://www.tmd.ac.jp/medhospital/medical/department/kanwa.html	M
60	3671	Clinical Oncology(Precision Cancer Medicine)	HAMAMOTO Yasuo IKEDA Sadakatsu	FURUYA Reiko	5803-4873	furuya.canc@tmd.ac.jp	8	1. Exploring Next-Generation Cancer Genomic Testing 2. Developing Innovative Cancer Therapeutics 3. Tackling Solid Tumors: Advancing CAR-T Cell Therapy 4. Cancer Research Utilizing Real-World Data 5. Analyzing Large-Scale Data with AI	https://www.tmd.ac.jp/med/canc/genome/	M 【注1】
61	3690	General Dentistry	NITTA Hiroshi	TONAMI Ken-ichi	5803-5565	ken1.gend@tmd.ac.jp	8	1. Research on the diversity of diagnosis and treatment plans for patients with multiple symptoms. 2. Research on the analysis of various factors required to make an accurate diagnosis 3. Research on the development of training methods for improving the abilities of students and residents 4. Behavioral science research in dentistry 5. Research on curriculum development and evaluation of dental education		D
62	3700	Psychosomatic Dentistry	TOYOFUKU Akira	TOYOFUKU Akira	5803-5909	toyoompm@tmd.ac.jp	8	1. Study on pathophysiological mechanisms of oral psychosomatic disorders 2. Psychosomatic study on oro-facial medically and psychiatrically unexplained symptoms 3. Psychopharmacological study on oral psychosomatic disorders 4. Brain imaging study of oral psychosomatic disorders with phantom pain or bite 5. Study on guidelines for the management of oral psychosomatic disorders		D
63	3580	Family Medicine	HASHIMOTO Masayoshi	secretary, Departmend of Genaral Medicine	5803-5229	secretary.fmed@tmd.ac.jp	8	1.Research on the relationship between the characteristic of physicians and patients' medical seekingbehavior or their health status 2.Research on non-verbal communication using artificial intelligence (AI) 3.Other researches of family medicine/general practice		M
64	4620	Infectious Diseases	GU Yoshiaki	GU Yoshiaki	5803-4138	yogu.cid@tmd.ac.jp	8	1. Antimicrobial stewardship in hospitals and clinics 2.Public awareness of infectious diseases and antimicrobial resistance 3.Prevention and treatment of healthcare-associated infection 4.Preparedness and response to health crisis due to infectious diseases	https://tmd-cid.jp/	M
65	3730	Neuroanatomy and Cellular Neurobiology	TERADA Sumio	TERADA Sumio	5803-5149	terada.nana@tmd.ac.jp	8	1. Molecular mechanism of cytoskeletal dynamics 2. Spectroscopy development for a biomolecular localization and network analysis 3. Development of novel biosensors for cell biological applications 4. Microscopy development to visualize the dynamics of small chemical molecules	https://www.tmd.ac.jp/grad/nana/	M
66	3740	Pharmacology	Under Selection							
67	3760	Cellular Dynamics	MOROISHI Toshiro	MOROISHI Toshiro		moroishi.toshiro@tmd.ac.jp	8	1. Cellular dynamics and cell-cell communication in cancer 2. Cellular dynamics and cell-cell communication in organ development 3. Regulation of cellular functions by iron and its relevance to pathophysiology	https://www.moroishi-lab.com	M（MR）
68	3770	Neuropathology *Not recruiting this year	OKAZAWA Hitoshi Scheduled to retire in March 2025	OKAZAWA Hitoshi	5803-5847	okazawa.npat@mri.tmd.ac.jp	Not recruiting this year	1. Elucidation of molecular mechanisms of polyglutamine diseases 2. Elucidation of molecular mechanisms of Alzheimer's diseases 3. Development of novel therapeutics against neurodegenerative diseases 4. Elucidation and therapeutic application of molecular mechnanisms of neural stem cell differntiation		M（MR）
69	3780	Ophthalmology and Visual Science	OHNO Kyoko	TAKASE Hiroshi	5803-5302	h.takase.oph@tmd.ac.jp	8	1. Study on the mechanism of high myopia 2. Study on the mechanism of macular diseases 3. Study on the mechanism of uveitis 4. Development of new diagnostic tools in uveitis		M
70	3790	Otorhinolaryngology	TSUTSUMI Takeshi	TSUTSUMI Takeshi	5803-5303	tsutsumi.oto@tmd.ac.jp	8	1. Molecular biology in hearing and dysequillibrim disorder 2. Evaluation of gravity perception (basic and clinical researches) 3. Function of the inner ear hair cell (basic research) 4. Investigation of images and image-guided surgery in Otorhinolaryngology 5. Development of the management procedure for carcinoma in external auditory canal		M
71	3800	Neurology and Neurological Science	YOKOTA Takanori Scheduled to retire in March 2025	HATTORI Takaaki	5803-5234	hattorit.nuro@tmd.ac.jp	8	1. Gene therapy for neurodegenerative diseases with new oligonucleotide drugs 2. Research of pathophysiology and development of miRNA biomarkers for neurological andneuroimmunological diseases 3. Research on pathogenic mechanisms and a strategy for an early treatment of Alzheimer's disease 4. Research for pathophysiology and new therapy of stroke 5. Development of propagation and development primate model of neurodegenerative diseases		M
72	3810	Psychiatry and Behavioral Sciences (Psychiatry and Behavioral Sciences)	TAKAHASHI Hidehiko	TAKAHASHI Hidehiko	5803-5238	hidepsyc@tmd.ac.jp	8	1. Brain imaging studies on mental disorders 2. Studies on molecular and genetic pathophysiology of mental disorders and development of noveltherapeutics 3. Develepment of biomarker and novel treatment using artificial intelligence 4. Neuroscientific studies on higher brain functions and mental activities		M
73	3811	Psychiatry and Behavioral Sciences (Forensic Mental Health)	TAKAHASHI Hidehiko OKADA Takayuki	OKADA Takayuki	5803-5239	takayukiok.psyc@tmd.ac.jp	8	1. National and international epidemiology study of forensic mental health system 2. Research on bio-psycho-social factors of various social problematic behavior 3. Framework formulation for enhancement in the qulity of forensic psychiatric examination 4. Study on legal issues in mental health and psychiatric issues in law 5. Mental health care ethics		M 【注 1】
74	3812	Psychiatry and Behavioral Sciences (Liaison Psychiatry and Psycho-oncology)	TAKAHASHI Hidehiko TAKEUCHI Takashi	TAKEUCHI Takashi	5803-5858	okaspsyc@tmd.ac.jp	8	1. Clinical and psychophysiological studies on delirium 2. Studies on prognosis of attempted suicide by means of low lethality 3. Studies on cardiac autonomic function in psychiatric diseases and epilepsy 4. Studies on psycho-social aspects of cancer patients and their family 5. Studies on the influence of textbooks on children's views of illness and death		M 【注 1】

No.	Code	Department	Supervisor	Contact Person	Phone number	e-mail	Number of Students to be Admitted	Research Subject	HP (URL)	Classification
75	3820	Neurosurgery	MAEHARA Taketoshi	SHIMIZU Kazuhide	5803-5266	shimizu.nsrg@tmd.ac.jp	8	1. Development of novel treatment for brain tumors with biomarker assay and molecular imaging. 2. Establishment of surgical intervention for cerebrovascular diseases based on clinical and pathophysiological analysis. 3. Analysis of the pathophysiological mechanism of intractable epilepsy and the effectiveness of its surgical treatment. 4. Investigation on the mechanism and prevention of secondary neuronal damage and cognitive impairment due to traumatic brain injury. 5. Analysis of the correlation between genetic background and clinical characteristics of patients with moyamoya disease.		M
76	3830	Endovascular Surgery	SUMITA Kazutaka	SUMITA Kazutaka	5803-4088	ikyoku.evs@tmd.ac.jp	8	1.Investigation of microvascular anatomy and vasculogenesis in central nerveous system and head and neckregion. 2.Integration of the fluid engineering technology into the endovascular field in an effort to explore newsurgical treatment. 3.Analysis of platelet aggregation function during perioperative period in endovascular surgery. 4.Invention and assessment of endovascular devices applied bioactive material technology. 5.Research for less invasive surgical approach for vascular disease.		M
77	4430	NCNP Brain Physiology and Pathology	HOSHINO Mikio ICHINOHE Noritaka HASHIMOTO Tadafumi AOKI Yoshitsugu YAMASHITA Yuichi UEDA Akiko	HOSHINO Mikio	042-346-1796	hoshino@ncnp.go.jp	8	1. Clarification of molecular machinery underlying brain development (Mikio Hoshino) 2. Social brain and its diorder (Noritaka Ichinohe) 3. Pathomechanism of neurodegenerative diseases (Tadafumi Hashimoto) 4. Molecular pathogenesis and therapies for neuromuscular diseases (Yoshitsugu Aoki) 5. Computational approach for psychiatric disorders (Yuichi Yamashita) 6. Molecular Pharmacology for central nervous system diseases （Akiko Ueda）	https://www.ncnp.go.jp/en/neuroscience/index.html	※1 【注2：連携大学院分野】
78	4690	Material-based Neuroscience	AJIOKA Itsuki	AJIOKA Itsuki	5803-4972	iajioka.cbir@tmd.ac.jp	8	1. Mechanisms of Injured Brain Regeneration using Artificial Materials 2. Development of Artificial Materials for Injured Brain Regeneration 3. Mechanisms of Brain Formation using Artificial Materials 4. Development of Artificial Materials for Brain Formation in vitro 5. Development of Optogenetic Tools using Artificial Materials		IR
79	3840	Immunology	Satoh Takashi	Satoh Takashi	5803-5159	satoh.mbch@tmd.ac.jp	8	1. Basic and applied research for innate immunity 2. Diversity of various immune cells such as myeloid cells 3. Screening for druggble target involved in disease onset and protression. 4. Elucidation of crosstalk between immune cells and non-immune cells		M
80	3850	Molecular Virology	SHIROGANE Yuta	SHIROGANE Yuta	5803-5181	shirogane.yuta@tmd.ac.jp	8	1. Regulatory mechanisms of virulence of human pathogenic enveloped viruses (especially regulatory mechanisms of membrane fusion) 2. Development of new modalities of antiviral agents (especially those using defective viral genomes) 3. Elucidation of the evolutionary potential of viruses (especially envelope viruses) 4. Research contributing to the control of emerging and reemerging infectious diseases	https://molv.org/	M
81	3870	Cellular and Environmental Biology	Under Selection				Not recruiting this year	1. Chromatin higher-order structure and machinery 2. Proteomics-based analysis of nuclei 3. Cellular defence against oxidative stress 4. Cellular responses against its external environment, such as drug, substance, and radiation		M（RC）
82	3880	Biodefense Research	OHTEKI Toshiaki	OHTEKI Toshiaki	5803-4746	ohteki.bre@mri.tmd.ac.jp	8	1. Pathophysiology induced by monocytes and macrophages and its therapeutic application 2. Maintenance and failure of brain function by transcriptional regulation in microglia 3. Mechanism of stress-induced emergency myelopoiesis 4. Elucidation of pathogenesis based on crosstalk between immune cells and tissue stem cells 5. Establishment of human squamous epithelial cancer organoid biobank and its therapeutic application	https://tmdu.ohteki-lab.com/	M（MR）
83	4700	Immune Regulation	KOMATSU Noriko	KOMATSU Noriko	5803-5817	komatsu.ire@tmd.ac.jp	8	1. Elucidation of the mechanism how pathogenic T cells or mesenchymal cells are generated in the microenvironments 2. Identification of novel immune and mesenchymal cell subsets in intractable diseases 3. Development of novel therapies against intractable disease including autoimmune diseases		M（MR）
84	3900	Lipid Biology	SASAKI Takehiko	SASAKI Takehiko	5803-5822	tsasaki.pip@mri.tmd.ac.jp	8	1. Exploring bioactive lipids that cause disease conditions 2. Exploring bioactive lipids that reflect disease conditions 3. Elucidation of the true nature of cancer, inflammatory diseases, and neurodegenerative diseases by lipid 4. Development of lipid analysis technology based on mass spectrometry 5. Pathological analysis of mice lacking lipid metabolizing enzymes (PI3K, PTEN, etc.)		M（MR）
85	3920	Pediatrics and Developmental Biology	TAKAGI Masatoshi	ISODA Takeshi	03-5803-5249	tisoda.ped@tmd.ac.jp	8	1. Research into molecular underpinnings of inborn errors of immunity and childhood autoimmune diseases, and development of novel gene and cell therapies. 2. Elucidation of the genetic background of pediatric malignancies and development of novel therapies. 3. Investigation of genomic abnormalities and nuclear structures in pediatric malignancies. 4. Investigation of nuclear structures during T-cell differentiation 5. Pathophysiological analysis of pulmonary hypertension and development of new therapeutic interventions. 6. Investigation of molecular mechanisms of sex differentiation and endocrine disorders associated with sex differentiation and congenital adrenal hyperplasia. 7. Molecular biological and biochemical analysis of the pathogenesis of intractable pediatric diseases such as neurological, renal, neonatal and other genetic diseases.	https://www.tmd.ac.jp/med/ped/index.html	M
86	3930	Rheumatology	YASUDA Shinsuke	SASAKI Hirokazu	5803-4818	sasaki.rheu@tmd.ac.jp	8	1. Translational research on rheumatoid arthritis 2. Translational research on polymyositis and dermatomyositis 3. Translational research on systemic lupus erythematosus/antiphospholipid syndrome 4. Clinical research on the rheumatic diseases in transitional period		M
87	3940	Dermatology	OKIYAMA Naoko	OKIYAMA Naoko MIYAKE Kensuke (contact Dr. Miyake for research subject #9 and 10)	5803-5282 （OKIYAMA） 5803-4609 （MIYAKE）	okiy.derm@tmd.ac.jp miyake.mbch@tmd.ac.jp	8	1. Establishment of novel therapeutic strategies depending on immune systems in dermatomyositis 2. Development of novel therapies for mucocutaneous graft-versus-host disease 3. Investigation of mechanisms in immne checkpoint inhibitor-induced immune-related adverse events 4. Elucidation of melanomagenesis and development of novel therapies against melanomas 5. Analysis of melanocyte stem cell and elucidation of mechanisms of vitiligo 6. Analysis of the mechanism and treatment for atopic dermatis and contact hypersensitivity 7. Analysis of the role of eosinophils and basophils in allergic skin diseases 8. Analysis of mechanisms of sweat dysfunction and development of novel therapies 9. Analysis of the in vivo role of basophils in mice and humans 10. Analysis of the differentiation trajectory of basophils in mice and humans		M
88	4450	NCCHD Child Health and Development	AKUTSU Hidenori ONODERA Masafumi FUKAMI Maki NAKABAYASHI Kazuhiko MATSUMOTO Kenji TAKADA Shuji	AKUTSU Hidenori	5494-7047	akutsu-h@ncchd.go.jp	8	1. Exploring molecular mechanism for acquisition of zygote totipotency, epigenetic reprogramming andpluripotency in stem cells 2. Application studies for reproductive medicine and regenerative medicine 3. Identification of target molecules in severe diseases and establishment of disease model mice by studyingmolecular mechanisms of genomic imprinting, gametogenesis and sexual differentiation 4. Elucidation of genetic abnormality in congenital severe metabolic diseases using advanced geneticanalysis Studying for cellular model in human severe disease by advancing flow cytometry 5. Elucidation for allergic disease mechanism and target molecules using molecular biology and ‘omics’ technology 6. Elucidating for molecular mechanism of perinatal abnormality using system biology		※2 【注2：連携大学院分野】
89	4670	High-risk Infectious Disease Control	TAKEUCHI Hiroaki	TAKEUCHI Hiroaki	5803-5939	htake.molv@tmd.ac.jp	8	1. Molecular characterization of pandemic viral pathogens 2. Genetic control of lentivirus susceptibility in human cells 3. Discovery and Development of antiviral agents targeting host factors required for infection 4. Development of susceptible mouse models for emerging virus infection		M
90	3950	Human Pathology	OHASHI Kenichi	YAMAMOTO Kohei	5803-5177	yamamoto.pth2@tmd.ac.jp	8	1. Histogenesis and progression mechanism of early gastrointestinal cancers 2. Histogenesis of H.pylori-related gastric cancer 3. Pathology of malignant lymphoma 4. Prognostic prediction of renal diseases based on renal biopsy diagnosis 5. Pathogenesis of amyloidosis and evaluation of therapeutic effects		M

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91	3960	Physiology and Cell Biology	ISOMURA Yoshikazu	ISOMURA Yoshikazu	5803-5156	isomura.phy2@tmd.ac.jp	8	1. Functional signaling in neuronal circuits of rodent cerebral cortex 2. Functional signaling in neuronal circuits of rodent basal ganglia 3. Behavioral evaluation of brain functions in rodents (for master's course) 4. A novel physiological technique to explore functional signaling among brain areas		M
92	3970	Molecular and Cellular Cardiology *Not recruiting this year	Under Selection				Not recruiting this year	1. Personalized medicine of cardiac arrhythmias, sudden death 2. Basic research for nucleic acid medicine of cardiovascular diseases 3. Cardiovascular research using regenerative cardiomyocytes (mainly iPS cells) 4. Cardiovascular research using disease model mouse 5. Basic research of gender-specific medicine in cardiovascular system		M（MR）
93	3990	Stem Cell Regulation *Not recruiting this year	TAGA Tetsuya Scheduled to retire in March 2025				Not recruiting this year	1. Molecular basis of neural stem cell self-renewal and fate determination in functional brain development 2. Hematopoietic stem cell development and growth/ differentiation regulation during fetal stage 3. Molecular characterization and regulation of cancer stem cells and their niche 4. Signaling pathways and epigenetic mechanisms governing stem cell regulation		M（MR）
94	4050	Resipiratory Medicine	MIYAZAKI Yasunari	MIYAZAKI Yasunari	5803-5950	miyazaki.pilm@tmd.ac.jp	8	1. Pulmonary fibrosis in interstitial pneumonia 2. Causative antigen and susceptability gene of hypersensitivity pneumonitis 3. Pathophysiology of hypersensitivity pneumonitis 4. Airway remodeling in bronchial asthma 5. Pathology of sarcoidosis 6. Pathophysiology of sleep apnea		M
95	4060	Gastroenterology and Hepatology (Gastroenterology and Hepatology)	OKAMOTO Ryuichi	OKAMOTO Ryuichi	5803-5877	dept.gast@tmd.ac.jp	8	1.Therapeutic development of immunoregulatory and regenerative medicine for inflammatory bowel disease 2. Functional and pathophysiological analysis of the gut and liver using ex-vivo culture. 3. Analysis of stem cell function and tissue regeneration in the gut and liver. 4.Development of novel disease models and molecular targets using human iPS cells to elucidate pathophysiology of intestinal and hepatobiliary diseases 5. Analysis of gastrointestinal and hepato-biliary-pancreatic carcinogenesis and pathophysiology.	https://www.tmd.ac.jp/grad/gast/	M
96	4061	Gastroenterology and Hepatology(Hepatic Medical Science)	OKAMOTO Ryuichi ASAHINA Yasuhiro	ASAHINA Yasuhiro	5803-5877	dept.gast@tmd.ac.jp	8	1. Analysis of molecular mechanisms for liver fibrosis and hepatocarcinogenesis, and therapeutic development 2. Development of analytical models for liver disease 3. Clinical research on the pathogenesis of hepatitis, cirrhosis, and hepatocarcinogenesis	https://www.tmd.ac.jp/grad/gast/	M 【注1】
97	4070	Specialized Surgeries(Specialized Surgeries)	ARUGA Tomoyuki	KUMAKI Yuichi	5803-5261	kumaki.srg2@tmd.ac.jp	8	1. Development of minimally invasive treatment for breast cancer 2. Development of clinical genetics for breast cancer 3. Development of new technology and treatment in pediatric surgery	https://www.tmd.ac.jp/medhospital/medical/department/nyusen.html	M
98	4071	Specialized Surgeries(Pediatric Surgeries)	ARUGA Tomoyuki OKAMOTO Kentaro				8			M 【注 1】
99	4080	Cardiovascular Medicine	SASANO Tetsuo	SASANO Tetsuo	5803-5205	sasano.cvm@tmd.ac.jp	8	1. Novel gene therapy for cardiovascular diseases 2. Pathophysiological mechanism of atrial fibrillation due to genetic and acquired cause 3. Intecellular and interorgan communications in arrhythmic disease 4. Prediction and early detection of cardiovascular disease using artificial intelligence 5. Remote monitoring and diagnostic system using wearable devices 6. Mechanisms linking autophagy/mitophagy and heart failure		M
100	4091	Anesthesiology (Anesthesiology)	UCHIDA Tokujiro	UCHIDA Tokujiro	5803-5325	uchida.mane@tmd.ac.jp	8	1. Pathophysiology of perioperative organ dysfunction 2. Biomarker analyses for perioperative organ dysfunction 3. Perioperative monitoring of hemostasis and coagulation 4. Impact of anesthetic technique on postoperative outcome 5. Perioperative database analyses for clinical factors predicting postoperative organ dysfunctions		M
101	4092	Anesthesiology (Obstetric and Pediatric Anesthesiology)	UCHIDA Tokujiro TOYAMA Satoshi	TOYAMA Satoshi	5803-5325	toyama.mane@tmd.ac.jp	8	1. Anesthetic dose using electroenephalographic analysis during general anesthesia in pediatric patients 2. Investigation of cerebral inflammatory response during general anesthesia in pediatric patients 3. Cerebral hemodynamics during cesaren/vaginal delivery a in parturients with Moyamoya disease 4. Stuyd of the effects of labor analgesia on the development of infnts 5. Study of clinical factors including genetic mutations affecting pain intensity furing delivery		M 【注1】
102	4100	Cardiovascular Surgery (Cardiovascular Surgery)	FUJITA Tomoyuki	FUJITA Tomoyuki	5803-5270	tfujita.cvsg@tmd.ac.jp	8	1. Development of a new artificial heart 2. Reserch on robotic cardiac surgery and development of related devices 3. Development of coronary artery bypass surgery aiming for improved long-term outcomes 4. Research on Heart and lung transplantation 5. Research on regenerative therapy for improving cardiac functions in patients with severe heart failure		M
103	4101	Cardiovascular Surgery (Vascular Surgery)	FUJITA Tomoyuki KUDO Toshifumi	TOMOTSUNE Keiko	5803-5270	t-kudo.srg1@tmd.ac.jp	8	1. Endoleak following Endovascular Aneurysm repair 2. Chronic limb-threatening ischemia 3. Microcirculation of the foot		M 【注1】
104	4110	Nephrology	UCHIDA Shinichi	SOHARA Eisei MANDAI Shintaro(Contact person for research subject #6, 7)	5803-5214	esohara.kid@tmd.ac.jp	8	1. Water and electrolyte transport in the kidney 2. Development of novel therapies for kidney diseases and channelopathies 3. Clarification of the pathogenesis of chronic kidney disease and development of novel therapies 4. Comprehensive genetic analysis of hereditary kidney disease 5. Elucidation of pathophysiology using iPS cells derived from kidney disease patients 6. Elucidation of the mechanism of chronic kidney disease targeting extracellular vesicles 7. Development of alternative therapeutic strategies that replace dialysis		M
105	4120	Comprehensive Reproductive Medicine	MIYASAKA Naoyuki	MIYASAKA Naoyuki	5803-5322	n.miyasaka.gyne@tmd.ac.jp	8	1. Research of physiology, endocrinology and metabolism in reproductive medicine 2. Mechanism of age-dependent female physical and mental changes 3. Clinical and basic research in perinatal medicine		M
106	4130	Urology	FUJII Yasuhisa	Tanaka Hajime	5803-5295	hjtauro@tmd.ac.jp	8	1.Novel minimally invasive surgery for kidney, bladder, and prostate cancer (Robot-assisted surgery and minimum-incision surgery) 2.Development of bladder preservative therapy for musicle invasive bladder cancer 3.Development of clampless and sutureless partial nephrectomy for kidney cancer 4.Development of focal therapy for prostate cancer 5.New generation imagings for urologic diseases	https://tmdu.tokyo/	M
107	4140	Gastrointestinal Surgery	KINUGASA Yusuke	TANIOKA Toshiro	5803-5254	tanioka.srg1@tmd.ac.jp	8	1. Development of novel surgical techniques for gastrointestinal cancer which are appropriate from both the perspective of tumor curability and function preservation. 2. Clinical studies on minimally invasive treatments for esophageal, gastric and colorectal diseases. 3. Development of new medical instruments on gastrointestinal surgery.	https://www.tmdsurgery.com/	M
108	4150	Thoracic Surgery	OKUBO Kenichi	OKUBO Kenichi	5803-4071	okubo.thsr@tmd.ac.jp	8	1. Minimally invasive surgery for lung cancer 2. Induction therapy for locally invading lung cancer 3. Surgical treatment for metastatic lung tumor 4. Adjuvant chemotherapy for lung cancer surgery 5. Multimodality treatment fo malignant pleural mesothelioma	https://tmd-thsr.jp	M

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109	4440	Igakuken Disease-oriented Molecular Biology	HARA Takahiko ARAI Makoto HASEGAWA Masato MIYAOKA Yuichiro TANNO Hidetaka	HARA Takahiko	5316-3310	hara-tk@igakuken.or.jp	8	1. Blood regeneration by using ES/iPS cells and development of CXCL14 etc-based anti-cancer/leukemia drugs 2. Research on etiology of mental illnesses and therapeutics using molecular biology including cellular and animal models 3. Molecular mechanisms of neurodegenerative diseases and the development of new therapeutic approaches 4. Development of novel therapies for genetic disorders by genome editing in iPS cells 5. Comprehensive analysis of immune reactions in cancer patients using high-throughput single-cell technology	https://www.igakuken.or.jp/english/index.html	※3 【注2：連携大学院分野】
110	4160	Clinical Anatomy	AKITA Keiichi	AKITA Keiichi	5803-5390	akita.fana@tmd.ac.jp	8	1. Anatomic bases of functional preservation in surgical procedures 2. Developmental biological analyses for further understanding of anatomical issues 3. Comparative anatomic and developmental biological analyses of the spatial arrangement of the organs		M
111	4170	Systems BioMedicine	ASAHARA Hiroshi	ASAHARA Hiroshi	5803-5015	asahara.syst@tmd.ac.jp	8	1. Four dimensional gene expression database construction and its application to regenerative medicine 2. The function of non-coding RNA in development and inflammatory diseases 3. Systems approaches for developmental biology and medicine 4. Genome dynamics during embryogenesis examined by new technique 5. In silico medical science integrating bioinformatics and imaging technique	https://www.tmdusystemsbiomedicine.com/	M
112	4180	Comprehensive Pathology	ISHIKAWA Fumihiko	Morito Kurata	5803-5177	kurata.pth2@tmd.ac.jp	8	1. Precision medicine for malignancies 2. Connecting pathology, genes and function for development of new therapeutics 3. Clarification of the mechanism of leukemia relapse 4. Immune regulation in hematopoietic stem cell transplantation 5. Immune memory in tumor immunity		M
113	4190	Molecular Oncology	TANAKA Shinji	TANAKA Shinji	5803-5184	tanaka.monc@tmd.ac.jp	8	1. Molecular analysis of refractory malignancies including liver, pancreatic and scirrhous gastric cancers 2. Development of molecularly targeted therapy for refractory malignancies 3. Cancer epigenetics/epigenomics and clinical application in refractory malignancies 4. Research of cancer stem cells and targted therapy 5. Development of regenerative medicine using stem cell research		M
114	4200	Surgical Pathology	AKASHI Takumi	AKASHI Takumi	5803-5660	akashi.path@tmd.ac.jp	8	1. Development of histological markers of human disease 2. Development of experimental model of hematopoietic disease 3. Clinical and basic pathology of malignant mesothelioma 4. Clinical and basic pathology of neurodegenerative disease 5. Clinical and basic pathology of soft tissue tumors		M（MH）
115	4210	Experimental Animal Model for Human Disease	KANAI Masami	KANAI Masami	5803-5784	mkanai.arc@tmd.ac.jp	8	1. Molecular biological analysis of organ formation using knockout mice and knockout ES cells. 2. Application of Sox17 mutant mice as the animal model for human disease. 3. Analysis of molecular mechanisms using mice with implantaion defects.		M（EA）
116	4220	Signal Gene Regulation *Not recruiting this year	Under Selection				Not recruiting this year			M（RC）
117	4290	Biofunction Research	ITAKA Keiji	ITAKA Keiji	5280-8088	itaka.bif@tmd.ac.jp	8	1. Molecular design of nucleic acids for mRNA therapeutics 2. DDS for mRNA and nucleic acid delivery 3. Application for treating intractable diseases and regeneration medeicine 4. Development of a new diagnistic imaging system		M（BM）
118	4320	Applied Gene Medicine	SASAKI Takehiko (currently assigned)				8	1.Analysis of the molecule mechanism of human oncogenesis 2.Development of the new strategies for diagnosis and treatments of breast cancer by integrative cancerbiology and genomics 3.Analysis of carcinogenesis and the DNA damage and repair 4.New molecular genetics of hereditary breast and ovarian cancer 5.Cancer genome informatics		M（MR）
119	4360	Hematology	MORI Takehiko	MORI Takehiko	5803-5211	mori.hema@tmd.ac.jp	8	1.Exploration of tumorigenesis and treatment-refractoriness of hematological malignancies 2.Development of novel diagnostic methods and treaments for complications, including infections, of hematological disorders 3.Development of novel cellular therapy for hematological malignancies		M
120	4370	Molecular Endocrinology and Metabolism	YAMADA Tetsuya	IKEDA Kenji	5803-5216	kikeda.mem@tmd.ac.jp	8	1. Molecular mechanisms of diabetes mellitus and metabolic syndrome and their Therapeutic Strategies 2. Mechanisms of thermogenesis in systemic energy metabolism 3. Molecular Mechanisms of thermogenic fat induction 4. Epigenetic regulation of metabolic syndrome and its clinical implications 5. Molecular mechanisms of hormone-producing tumors and their pathophysiologies		M
121	4380	Hepatobiliary and Pancreatic Surgery	BAN Daisuke	UEDA Hiroki	5803-5928	uedamsrg@tmd.ac.jp	8	1. Establishment of multidisciplinary treatment for HPB malignancies based on surgery 2. Identification of new strategies for the minimum invasive surgery in HPB dieseases 3. Development of therapeutic agents and markers related to drug-susceptilility for HPB malignancies 4. Clinical and basic research for liver transplantation 5. Pathophysiological research for liver microcirculation	https://www.tmd.ac.jp/grad/msrg/index.html	M
122	4390	Orthopaedic and Spinal Surgery	YOSHII Toshitaka	HIRAI Takashi	5803-5279	hirai.orth@tmd.ac.jp	8	1. Bone and cartilage metabolism 2. Development and evaluation of biomaterials for clinical application 3. Mechanism of spinal ligament ossification 4. Development of measuring device for spinal cord magnetic signals 5. Research of bone an d spinal metastatic tumors	https://tmdu-orth.jp/	M
123	4400	Diagnostic Radiology and Nuclear Medicine	TATEISHI Ukihide	FUJIOKA Tomoyuki	5803-5311	radiology.mrad@tmd.ac.jp	8	1. Development of new imaging device 2.Development of imaging application using AI 3.Development of methodology for clinical trials using radioisotope 4. Development of new imaging drugs		M（MH）
124	4410	Genomic Function and Diversity	KOCHI Yuta	KOCHI Yuta	5803-4817	y-kochi.gfd@mri.tmd.ac.jp	8	1. Functional analysis of risk loci for complex diseases 2. Transomics analysis of complex diseases 3. Functional genomics using long-read sequencing 4. Predicion of disease states based on genomic data	https://www.tmd.ac.jp/english/gfd/	M（MR）
125	4420	Human Genetics and Disease Diversity	TANAKA Toshihiro	TANAKA Toshihiro	5803-5230	ttana.brc@tmd.ac.jp	8	1. Elucidation of genetic architecture of human diseases using genetic information 2. Biomaker identification for genome-based personalized medicine 3. Functional Genomics 4. Statistical Genetics, Bioinformatics		M
126	4470	Applied Regenerative Medicine	SEKIYA Ichiro	SEKIYA Ichiro	5803-4017	sekiya.arm@tmd.ac.jp	8	1.Development of regenerative medicine with stem cells 2.Realization and industrialization of cell and regenerative therapy 3.Establishment of safety test for regenerative medicine 4.Translational research		M（SR）
127	4460	JFCR Cancer Biology	HIROTA Toru TAKEUCHI Kengo TOMIDA Akihiro SAITO Noriko TAKAHASHI Akiko MARUYAMA Reo		03-3570-0446	thirota@jfcr.or.jp	8	1. Molecular mechanisms of carcinogenesis and identification of cell-of-origin of cancer 2. Understanding mitotic chromosome dynamics in cancer, to exploit mitotic control to cancer intervention 3. Application of nanobiotechnology in cancer diagnostics 4. Pathological and genetic analysis of human cancer such as malignant lymphoma and lung cancer 5. Strategy for innovative drug therapy based on cancer biology 6. Regulation of gene expression in the nucleus and higher-order chromatin structure in cancer		※4 【注2：連携大学院分野】
128	4520	Computational and Systems Biology	SHIMAMURA Teppei				8	1. Exploration of disease etiologies driven by integrative analysis of clinical and omic data. 2. Molecular classification of and systems approach to understanding disease based on omic profiling. 3. Prediction for personalized/precision/preventive medicine. 4. Development of methodologies for the above.		M（MR）

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129	4530	Personalized Genomic Medicine for Health	ISHIKAWA Kinya	ISHIKAWA Kinya	5803-4390	pico.nuro@tmd.ac.jp	8	1. Developing a new personalized genomic medicine for preventing common health problems, such as cancer, cardiovascular disease, and aging. 2. Studying monogenic disease toward gene identification, discovering pathogenesis and fundamental therapy.		M（PH）
130	4540	Organogenesis and Neogenesis	TAKEBE Takanori	TAKEBE Takanori	5803-4157	ttakebe.ior@tmd.ac.jp	1	1. Developing self-organizing complex organoids by modeling organogensis 2. Applying human organoid technology for drug development and (re)generative medicine 3. Studying novel inter-cellular communications mediated by physical cell-to-cell contact 4. Devising "Organo-Machines" based on the integral-disciplinary approach		M
131	4550	Integrated Analytics	MIYANO Satoru	SATORU Miyano	5280-8620	mddsc.dsc@tmd.ac.jp	8	1. Knowledge acquisition from big data by supercomputer and AI technologies 2. Unravelling the origin and heterogeneity of cancer by large-scale data analysis and mathematical modeling 3. Study on large-scalde multi-omics data analysis 4 .Study on system modeling and simulation for diseases		DS
132	4560	Biostatistics	TAKAHASHI Kunihiko	TAKAHASHI Kunihiko	5280-8625	kunihikot.dsc@tmd.ac.jp	8	1. Biostatistical methodologies for medical and dental data analysis 2. Statistical assessments of spatio-temporal data 3. Statistical analysis for effective use of real-world database 4. Statistical methods and their applications for meta-analysis		DS
133	4630	AI Systems Medicine	SHIMIZU Hideyuki	SHIMIZU Hideyuki	5280-8630	h_shimizu.dsc@tmd.ac.jp	8	1. Analysis of biomedical data 2. AI drug discovery 3. Systems Biology approach for cancer therapeutics 4. AI-driven bioengineering	https://shimizuhideyuki-lab.org/	DS
134	4660	Neuroimmunology	SHICHITA Takashi	SHICHITA Takashi	5803-5838	shichita-tk@cmn.tmd.ac.jp	8	1. Elucidation of the molecular and cellular mechanisms of inflammation (brain damage) associated with brain injury 2. Elucidation of the molecular and cellular mechanisms of neural circuit repair (brain healing) after brain injury 3. Understanding the link between inflammation and repair after brain injury, leading to drug discovery that restores brain function	http://www.strk-renaissance.sakura.ne.jp	M（MR）
135	4710	NIID Integrative Microbiology	RYO Akihide SUZUKI Motoi MIYAZAKI Yoshitsugu YAMAGISHI Takuya MORIYAMA Saya	RYO Akihide	042-848-7060	aryo@niid.go.jp	1	1. Elucidation of pathogen structure & function, pathogen-immune interaction, and pathogenicity in infectious diseases 2. Phylogenomic exploration of microbial origins and evolution 3. Multi-omics analysis of pathogen-host interaction 4. Development of vaccines and therapeutics against refractory infectious diseases 5. Strengthening of laboratory diagnostic techniques and intelligence for the control of infectious diseases		M 【注2：連携大学院分野】
136	5020	Biomedical Devices and Instrumentation *Not recruiting this year	MITSUBAYASHI Kohji	MITSUBAYASHI Kohji	5280-8091	m.bdi@tmd.ac.jp	Not recruiting this year	1. Basic and applied research on "BioMedical Sensing" (integration with various engineering technologies) 2. Wearable devices and artificial organs with MEMS-tech and biocompatible polymers 3. Bio-fluorometric sensing of disease-based breath chemicals 4. Real-time imaging of transcutaneous volatiles for metabolic evaluation 5. Novel wearable biosensors (i.e. Head-set type gas-sensing system for transcutaneous blood volatiles)		BM
137	5030	Biomedical Informatics	NAKAJIMA Yoshikazu	NAKAJIMA Yoshikazu	5280-8173	nakajima.bmi@tmd.ac.jp	8	1. Medical artificial intelligence (AI) for diagnosis, treatment planning, and bioinformation analysis using 2. Biomedial imaging 3. Bimedical informatics, which includes information systems, numerical modeling and simulation for biomedicine 4. Research on computer navigation, devices and robots to support surgeries 5. Research on digital transformation (DX) and artificial intelligence (AI) for hospitals		BM
138	3280	Precision Biomedical Engineering	IKEUCHI Masashi	IKEUCHI Masashi	5280-8040	ikeuchi.mech@tmd.ac.jp	8	1. Polymer 3-D Micro/Nano Fabrication Technology 2. Micro-scale Soft Robotics 3. Integrated Microdevice for Mechanobiology Study 4. Medical Microsystem for Assisted Reproductive Technology 5. Automatic Micro-fluidic Tissue Culture System 6. DNA-Origami Technology 7. Molecular Robotics	https://sites.google.com/view/ikeuchi-lab	BM
139	5050	Material-based Medical Engineering *Not recruiting this year	KISHIDA Akio *Scheduled to retire in March 2025	KISHIDA Akio	5280-8028	kishida.mbme@tmd.ac.jp	Not recruiting this year	1. Research on the materials and the engineering for tissue engineering and regenerative medicine 2. Research on the processing and high functionality of biological materials 3. Research on the novel method for evaluating inflammatory responses on medical materials in vitro 4. Research on the control technology of cellular functions by extracellular matrix-bounded nanovesicles 5. Research on the high selective cell capture devices for immunomodulation		BM
140	5060	Organic and Medicinal Chemistry *Not recruiting this year	KAGECHIKA Hiroyuki	KAGECHIKA Hiroyuki			Not recruiting this year			BM
141	5070	Chemical Bioscience	HOSOYA Takamitsu	HOSOYA Takamitsu	5280-8117	thosoya.cb@tmd.ac.jp	8	1. Drug seed development based on new synthetic methodologies 2. Development of new methods to connect molecules based on strained molecules 3. Probe synthesis for target protein identification of bioactive compounds 4. Probe design and synthesis for in vivo molecular imaging		BM
142	5080	Medicinal Chemistry	TAMAMURA Hirokazu	TAMAMURA Hirokazu	5280-8036	tamamura.mr@tmd.ac.jp	8	1. Development of bifunctional molecules using organic synthesis. 2. Development of peptidomimetics and drug discovery templates. 3. Development of antiviral agents and anti-cancer agents. 4. Development of bioprobes and chemical biology.	http://www.tmd.ac.jp/i-mde/www/en/biomolecular/index1.html	BM
143	5090	Soft Matter and Biomedical Engineering	NARUTAKI Ayae	NARUTAKI Ayae	5280-8006	narutaki.ayae@tmd.ac.jp	8	1. Development of artificial proteins and their application to biomaterials 2. One-, two-, and three-dimensional self-assembly of inorganic nanoparticles in liquid phase 3. Bio-inspired inorganic synthesis 4. Understanding and controlling the relationship between nonlinear mechanical properties of extracellular matrices and biological phenomena		BM
144	5110	Organic Biomaterials	MATSUMOTO Akira	MATSUMOTO Akira	5280-8020	matsumoto.bsr@tmd.ac.jp	8	1. “On-skin-pancreas” technology for precision medicine in diabetes 2. Boronic acids-based molecular-recognition chemistry as a platform for diagnostic and therapeutic applications 3. Stimulus-cleavable chemistry and its application to biomaterials science and engineering 4. Bioactive nanomaterials using self-assembly to support biological structure and function	http://www.tmd.ac.jp/bsr/index.html	BM
145	5120	Diagnostic and Therapeutic Systems Engineering	KAJI Hirokazu	KAJI Hirokazu	5280-8163	kaji.bmc@tmd.ac.jp	8	1. Biofabrication technology 2. Implantable drug delivery devices 3. Minimally invasive cell delivery system 4. Micropysiological systems	https://www.tmd.ac.jp/bmc/	BM
146	5130	Molecular Cell Biology *Not recruiting this year	SHIBUYA Hiroshi	SHIBUYA Hiroshi	5803-4901	shibuya.mcb@mri.tmd.ac.jp	Not recruiting this year	1. Molecular mechanism in cellular signaling of growth and differential factors 2. Molecular mechanism in the onset and progress of diseases 3. Molecular mechanism in the early deveopment	https://www.tmd.ac.jp/mcb/	MR
147	5140	Developmental and Regenerative Biology *Not recruiting this year	NISHINA Hiroshi	NISHINA Hiroshi	5803-4659	nishina.dbio@mri.tmd.ac.jp	Not recruiting this year	1. Study on signaling pathways that regulate cell survial and death 2. Study on signaling pathways that regulate embryonic stem cell proliferation and diffferentiation 3. Study on liver formation and regeneration using mice and fish 4. Study on molecular mechanisms regulating circadain clock		MR
148	5160	Advanced Nanomedical Engineering	UCHIDA Satoshi	UCHIDA Satoshi	5803-4954	uchida.anme@tmd.ac.jp	8	1.Development of nano DDS for mRNA, nucleic acids, and gene therapeutics 2.Molecular designing and engineering of mRNA for the delivery and therapeutic use 3.Development of mRNA vaccines for infectious disease prevention and cancer therapy 4.Disease treatment using mRNA therapeutics		MR
149	5170	Structural Biology	ITO Nobutoshi	ITO Nobutoshi	5803-4594	ito.str@tmd.ac.jp	8	1. Structural biology by X-ray crystallography and cryo-electron microscopy 2. Structural and kinetic analyses of protein-protein interactions 3. Molecular recognition of small-molecule ligands (drugs) by proteins 4. Computational biology of biological macromolecules using structural information		MR

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150	5180	Biomolecular Pathogenesis	MATSUDA Noriyuki	MATSUDA Noriyuki	5803-5294	nr-matsuda.biom@tmd.ac.jp	8	1. Elucidation of molecular function of causative genes for hereditary Parkinson's disease, i.e., PINK1, Parkin, and DJ-1. 1-A. Study on the function of DJ-1 focusing on a novel post-translational modification. 1-B. Study on the function of PINK1 and Parkin during mitophagy (process for selective mitochondrial degradation). 2. Elucidation of the intracellular role of ubiquitin-mediated selective autophagy and mitophagy. 3. Identification of novel factors involved in membrane traffic during selective organelle degradation, and elucidation of their functions.	https://www.tmd.ac.jp/mri/biom/	MR
151	5380	Functional Genome Informatics	NIKAIDO Itoshi	NIKAIDO Itoshi	5803-4057	itoshi.nikaido.fgin@tmd.ac.jp	8	1. Development of data science technologies for large-scale genome analysis using machine learning and computer science 2. Development of new experimental techniques for large-scale genome science 3. Study of the development of regenerative medicine and drug discovery using large-scale genome analysis		MR
152	5500	Medical Chemistry	SEGAWA Katsumori	SEGAWA Katsumori	5803-4905	segawa.mche@tmd.ac.jp	8	1.Identification of factors responsible for cellular membrane dynamics. 2.Aberrant membrane dynamics and associated diseases. 3.Identification of factors responsible for cellular homeostasis.		MR
153	5220	RIKEN Molecular and Chemical Somatology	TANIUCHI Ichiro TANAKA Motomasa WATANABE Rikiya HAGIHARA Shinya IMAMI Koshi	TANIUCHI Ichiro	045-503-7044	ichiro.taniuchi@riken.jp	8	1. Regulatory mechanisms for the lymphocyte development (TANIUCHI Ichiro) 2. Molecular basis of psychiatric diseases and neurodegenerative disorders (TANAKA Motomasa) 3. Development of digital detection technology for disease-biomarkers based on single molecule biophysics (WATANABE Rikiya) 4. Regulation of physiological function of plants with synthetic molecules (HAGIHARA Shinya) 5. Proteomics in gene expression control and diseases (IMAMI Koshi)		※1 【注1：連携大学院分野】
154	5230	NCC Cancer Science	SUZUKI Hiromichi YOSHIMI Akihide YOSHIDA Kenichi TAKEDA Haruna OBATA Yuuki YOSHIOKA Ken-ichi	SUZUKI Hiromichi	3542-2511 (ext. 3838)	hiromics@ncc.go.jp	8	1. Carcinogenesis and molecular mechanism 2. Functions of cancer-associated genes and their alterations 3. Genomic, epigenomic and proteomic analysis of cancer and personalized medicine 4. Tumor microenvironment/cancer stem cells/non-coding RNA/signaling pathway 5. Molecular target/drug delivery/diagnosis and therapy		※2 【注1：連携大学院分野】
155	5390	Interdisciplinary Sciences	NAKABAYASHI Jun YAGISHITA Kazuyoshi NARA Masayuki TOKUNAGA Shin-ichi	NAKABAYASHI Jun	047-300-7120	nakab.las@tmd.ac.jp	8	1. Histopathological image analysis of hepatocellular carcinoma by artificial intelligence 2. The effects of hyperbaric oxygen environment on healing acceleration in soft tissue injuries 3. Spectroscopic analysis for molecules of life 4. Problems of graph theory as the basis of network structure in life science		
156	5400	Data Science Algorithm Design and Analysis	BANNAI Hideo	BANNAI Hideo	5280-8623	hdbn.dsc@tmd.ac.jp	8	1. Algorithms and data structures for matching, searching, and discovering patterns 2. Algorithms and data structures for compression and compressed data processing 3. Combinatorics on strings		DS
157	5410	AI Technology Development	ZHU Xin	ZHU Xin	5280-8627	zhu.xin@tmd.ac.jp	8	1. Research and development of AI technologies for the analysis of medical images, signals, and information 2. Research and development of AIoT medical devices 3. Theory, methodology, and application of statistical modeling 4. Explanable AI technologies and medical informatics for systematic understanding, diagnosis, therapy, and education of diseases 5. Analysis of omics data for healthcare		DS
158	5150	Homeostatic Medicine	TOYOSHIMA Fumiko	TOYOSHIMA Fumiko	5803-4950	toyoshima.hm@tmd.ac.jp	8	1. Study on physiological organ remodeling and plasticity on life stages 2. Maternal organ remodling during pregnancy and maternal-fetal crosstalk 3. Development of regenerative medicine based on physiological organ remodeling		MR
159	5430	Computational Drug Discovery and Design	ISHITANI Ryuichiro	ISHITANI Ryuichiro	5803-4175	r.ishitani@tmd.ac.jp	8	1. Elucidation of the dynamics of biological macromolecules by molecular dynamics simulation 2. Quantum chemical simulations to elucidate the reaction mechanism of enzymes 3. Application of deep learning to structural biology 4. Application of deep learning to structure-based small- and medium-molecule drug discovery		MR
160	5420	Molecular and Mechanistic Immunology	KATO Kazuki	KATO Kazuki	080-7218-6743	kato.kazuki@tmd.ac.jp	8	Our current research focus on 1. mechanism of anti-viral immune response 2. mechanism of autoimmune disease caused by self-attacking immune response 3. development of drugs targeting autoimmune and cancer disease 4. development of novel cell manipulation technology by using the CRISPR-Cas system, adaptive immune systems in prokaryotes	https://kato-lab.org	IR
161	5270	Anatomical and Pathological Sciences	HOSHI Osamu	HOSHI Osamu	5803-5361	o-hoshi.aps@tmd.ac.jp	8	1. Application of atomic force microscopy to biological fields. 2. Analysis of high-order structure of human chromosomes. 3. Analysis of dynamics of growth cones of neuron. 4. Molecular pathological study of biliary tract cancer and development of a novel therapy 5. Creation of digital content using cytological images, AI imaging diagnosis 6. Development of pathological diagnosis and pathological technology in developing coutries		MT
162	5300	Hematology and Biophysical Systems Analysis	ITO Minami *Scheduled to retire in March 2025 Associate Professor: NISHIO Miwako *Prof Ito: Not recruiting this year	NISHIO Miwako	5803-5882	mnishio.lmg@tmd.ac.jp	8	1. Laboratory molecular and genetic analyses on hematologic neoplasms 2. Epstein-Barr virus positive T- or NK-cell neoplasms: Clarification of the onset mechanisms and development of the new treatment strategies 3. Development of brown adipocytes detection method using human ES/iPS cells 4. Elucidation of the activation mechanism in brown adipocytes		MT 【注2】
163	5280	Clinical Information Applied Sciences *Not recruiting this year	SUMI Yuki	AKAZA Miho	5803-5377	m-akaza.nuro@tmd.ac.jp	Not recruiting this year	1. Pathogenic mechanisms of bronchial asthma, COPD, interstitial pneumonia 2. Gene therapy and immunotherapy for lung diseases 3. Pathogenesis of neuropsychiatric disease using non-invasive brain function tests and image analyses 4. Investigation of epilepsy using EEG 5. Evaluation of brain function using the event-related potential analysys		MT
164	5290	Clinical and Diagnostic Laboratory Science	KAKINUMA Sei	KAKINUMA Sei	5803-5365	skakinuma.gast@tmd.ac.jp	8	1. Development of novel disease models using human iPS cell-derived organoids to elucidate the pathophysiology of hepatobiliary diseases 2. Molecular mechanisms regulating cell-to-cell interaction regulating inflammation, fibrosis, and regeneration in liver and intestine. 3. Molecular mechanisms regulating homeostasis of stem/progenitor cells in hepatobiliary and intestinal diseases 4. Elucidation of molecular mechanisms regulating the pathogenesis of inflammatory bowel disease and search for biomarkers in the IBDs. 5. Analysis on cell communication and signaling of heart failure	https://www.tmd.ac.jp/english/dept/life_science_and_technology/cp/	MT
165	5310	Clinical Bioanalysis and Molecular Biology	OHKAWA Ryunosuke Associate Professor: SUZUKI Nobuharu	OHKAWA Ryunosuke	5803-5374	ohkawa.alc@tmd.ac.jp	8	1. Development of a new biomarker to estimate residual risk for cardiovascular disease 2. Mechanism of HDL diversification and its effect on the character and function 3. Molecular mechanism of red blood cell-related lipids metabolism 4. Development of new models of neurological and mental disorders using genetically engineered mice 5. Study on molecular mechanisms of myelination in the central nervous system 6. Functional and structural analysis of cell adhesion molecules and extracellular matrix molecules		MT 【注2】
166	5330	Molecular Microbiology and Immunology	SAITO Ryoichi	SAITO Ryoichi	5803-5368	r-saito.mi@tmd.ac.jp	8	1. Evolutionary dynamics of multidrug-resistant bacteria 2. Environmental microbiome dynamics and interactions for antimicrobial resistance transmission 3. Bacterial adaptations in different environments 4. Long-term immunity of virus-specific memory T cells and immunotherapy 5. Hematopoietic stem cell mobilization and transplantation 6. Multidimensional analysis of viral pathogen infection mechanisms		MT

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167	1130	Lifetime Oral Health Care Science	TAKEUCHI Yasuo	TAKEUCHI Yasuo	5803-4970	takeuchi.peri@tmd.ac.jp	8	1.Basic and clinical studies o f the effects of ozone Ultrafine bubble water：Wound healing, Tratment for oral mucositis in patients, Periodontal therapy, Prevention of bacteremia and aspiration pneumonia, Preventing DUWL (Dental Unit Water Lines) contamination. 2.Clinical evaluation regarding Slight Acidic Electrolytic Water（SAEW）：Prevention of bacteremia and aspiration pneumonia, Preventing DUWL (Dental Unit Water Lines) contamination. 3.Development and evaluation of the education system for denta hygienists in perioperative oral care		OH
168	1140	Oral Care for Systemic Health Support	KABASAWA Yuji	KABASAWA Yuji	5803-4647	kabasawa.ocsh@tmd.ac.jp	8	1. Research on oral management and multidisciplinary collaboration during cancer treatment and perioperative period. 2. Research on the relationship between systemic disease and oral health. 3. Development of the new methods for oral care, oral mucositis prevention and oral mucosal disease treatment. 4. Reserch on social inequalities in oral health.		OH
169	1150	Preventive Oral Health Care Science	KINO Shiho	KINO Shiho	5803-4096	shiho.kino.ohp@tmd.ac.jp	8	1. Epidemiological research on oral disease prevention and oral health promotion 2. Research on health inequalities and social determinants of health 3. Research on oral health and health care systems 4. Research on dental hygiene education		OH
170	1160	Oral Health Sciences for Community Welfare	MATSUO Koichiro	MATSUO Koichiro	5803-4545	matsuo.ohcw@tmd.ac.jp	8	1. Invention of oral frail preventive program for community dwelling older adults 2. Invention of monitoring system for eating behavior in dependent older adults 3. Innovative food technology systems for independent senior living 4. Establishment of oral management system during stroke recovery 5. Invention of perioperative oral management system for cancer patients		OH
171	1170	Oral Health Care Education *Not recruiting this year	YOSHIDA Naomi	YOSHIDA Naomi	5803-4646	yoshida.ohce@tmd.ac.jp	Not recruiting this year	1. Research and development of oral health education methods 2. Research and development of assessment tool for oral health 3. Development and evaluation of dental hygiene education system 4. Role of dental hygienists in team approaches to care of patients		OH
172	1620	Basic Oral Health Engineering *Not recruiting this year	AOKI Kazuhiro	AOKI Kazuhiro	5803-4641	kazuhiro_aoki.bhoe@tmd.ac.jp	8	1. Development of novel bone anabolic reagents with suitable scaffold by interdisciplinary research among medical, dental, and engineering toward clinical applications. 2. Relationship between oral bacteria and systemic diseases - Interdisciplinary research toward improvement of lifestyle-related diseases - 3. Study on the quality of life related to functional restoration by dental prostheses 4. Research on the oral and maxillofacial prosthetic rehabilitation 5. Research on the role of dental technicians in team approaches		
173	1630	Digital Dentistry	TAKAICHI Atsushi	TSUCHIDA Yumi	5803-5455	yumi.bmoe@tmd.ac.jp	8	1.The applications of the digital densitry for the dental practice 2.The development of methods for fully digital removable dentures 3. Development of medical device software applying machine learning 4.The methods for the digitalized dental educations	https://www.tmd.ac.jp/ddd/english/	OE
174	1640	Oral Biomedical Engineering	IKEDA Masaomi	IKEDA Masaomi	5803-5382	ikeda.csoe@tmd.ac.jp	8	1. Study on evaluation, improvement and development of CAD/CAM dental technology 2. Revaluation of conventional analog techniques in dental laboratory 3. Application of dental technology by dental technician to various medical fields 4. Improvement of work environment and expansion of job categories for dental technicians 5. Study on international standardization of the dental technology in dental laboratory	https://www.tmd.ac.jp/english/ohe/OPE_55129a0981d7e/	