

TMDU

OVERVIEW 2007

Tokyo
Medical and Dental
University

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Medical and Dental
University

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Established in 1946, Tokyo Medical and Dental University is dedicated and committed to the education of medical, dental and health science professionals as well as to research in these fields. Our school is regarded as one of the top universities in the medical and dental fields and has thus accepted top class students not only from within Japan but from foreign countries as well.

Fortunately our university is located in a part of Tokyo with easy transportation access. Not only is the location very convenient but it is considered to be one of the cultural centers of Tokyo, in which many universities are located.

One of our missions, in the present global society, as an academic institution funded by the Japanese government is to encourage international collaboration and exchange through education and research. Our aim is to educate academics and professionals who display the highest devotion to the maintenance and further advancement of the health of human beings. We seek students who demonstrate both the motivation and ability to pursue their vocations with spirit. We believe that many of our students will contribute to the society after obtaining academic knowledge, the highest professional skills, and valuable insights.

Since establishment Tokyo Medical and Dental University has accommodated many international students and has thus continuously encouraged international collaboration. Presently there are 206 students from more than 41 different countries enrolled in the University.

Leading our international program is the International Exchange Committee. Along with this committee, in order to support and encourage foreign students, Tokyo Medical and Dental University established an International Exchange Fund. In addition, with several sister universities outside of Japan, the University has consistently encouraged international research collaboration and exchanges.

I hope that this guidebook will be of use to you as you take on the intellectual challenge of our academic program. I hope you manage to take full advantage of the opportunities we have to offer en route to fulfilling your desire to contribute to your nation and the entire world. I believe that you will find the education you receive at the Tokyo Medical and Dental University both rewarding and stimulating. The education that you will receive will with no doubt serve you well in the future as you begin to serve others. Finally, I hope your experience at our university will be a prelude to a successful career.

Akio SUZUKI, M.D., Ph.D.

President

A handwritten signature in black ink, likely of Akio Suzuki, written in a cursive style.



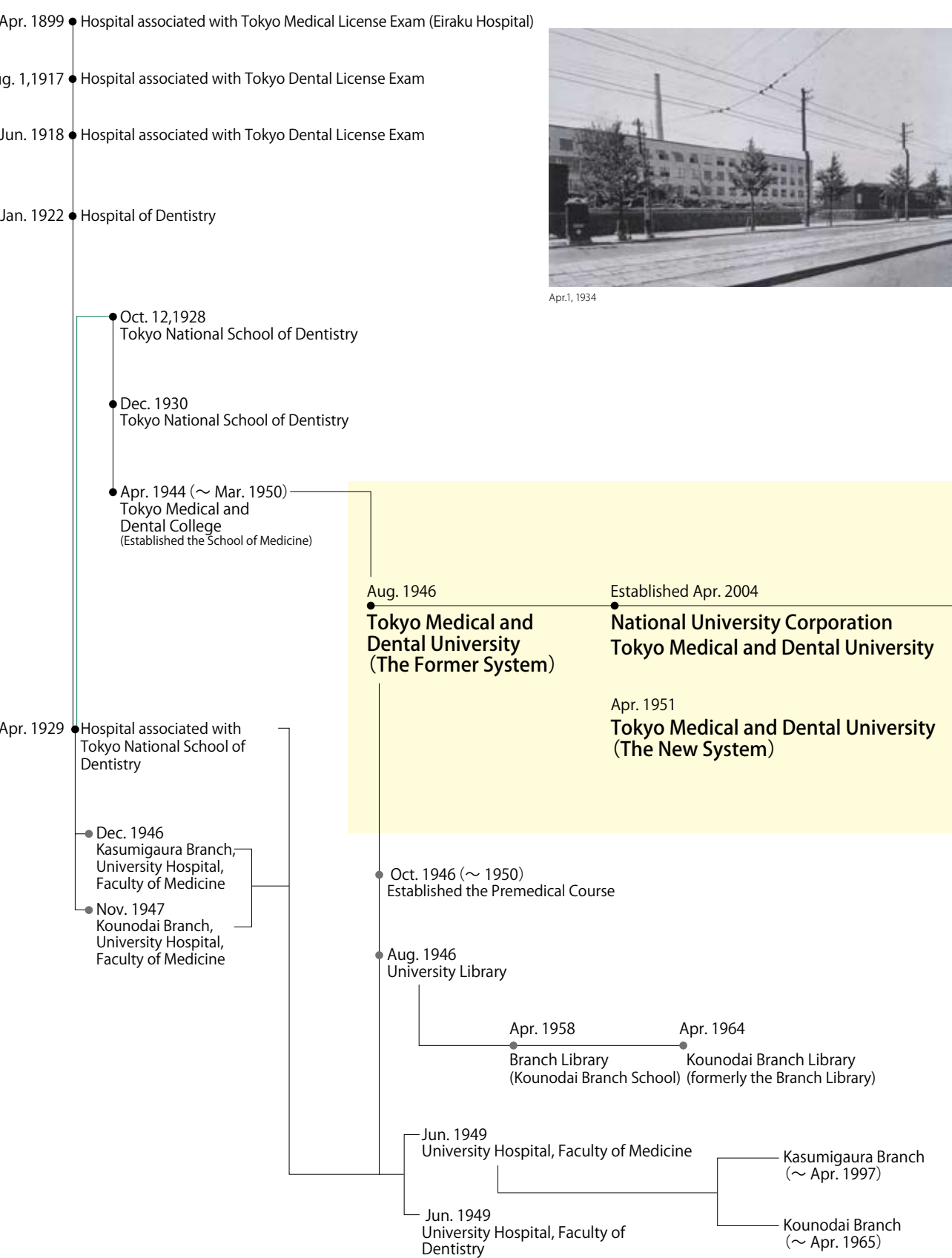
Overview 2007

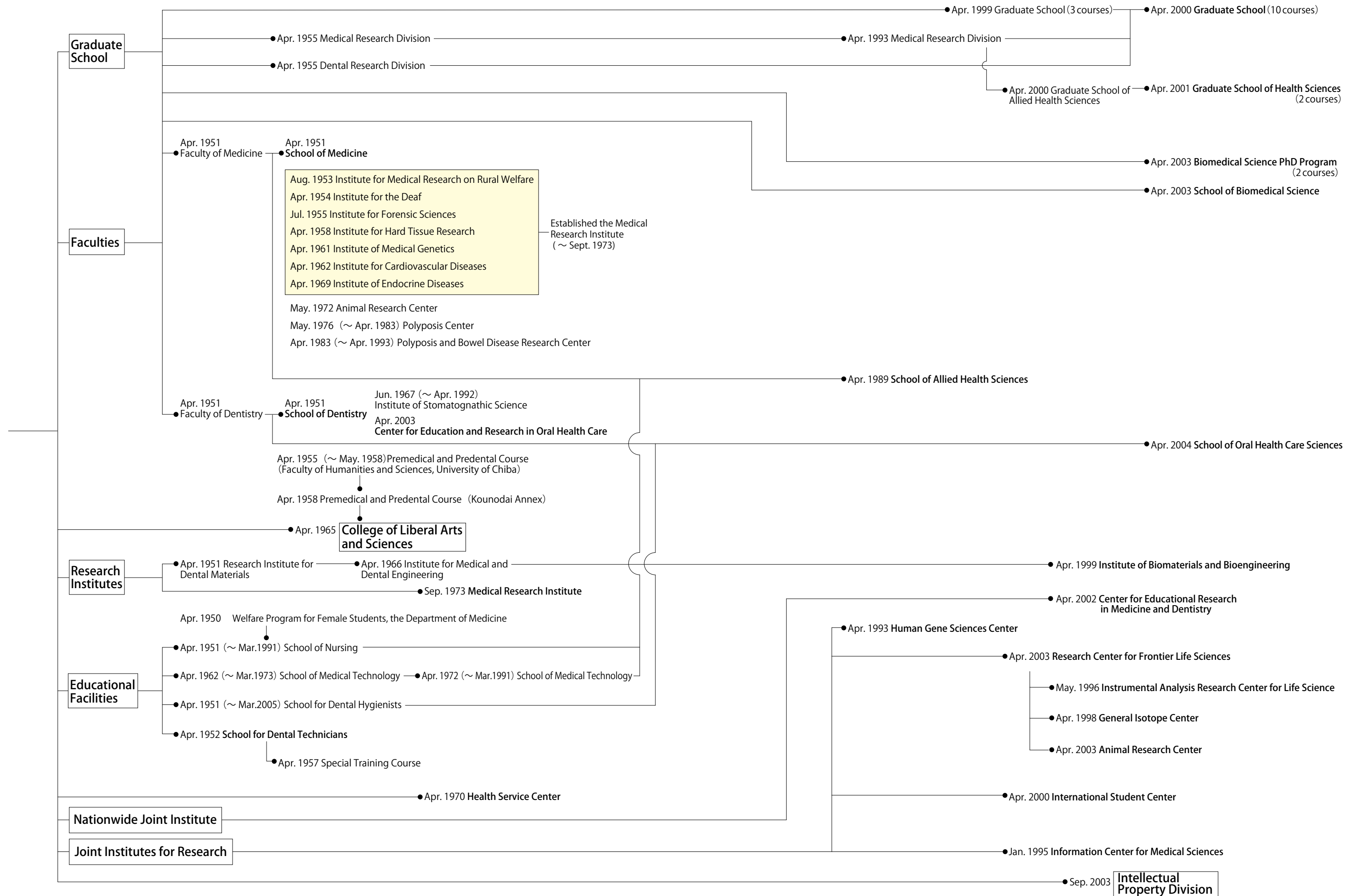
- Principals and Presidents
- Historical Sketch
- Management Structure
- Organizational Chart
- Administration Officers

Principals and Presidents

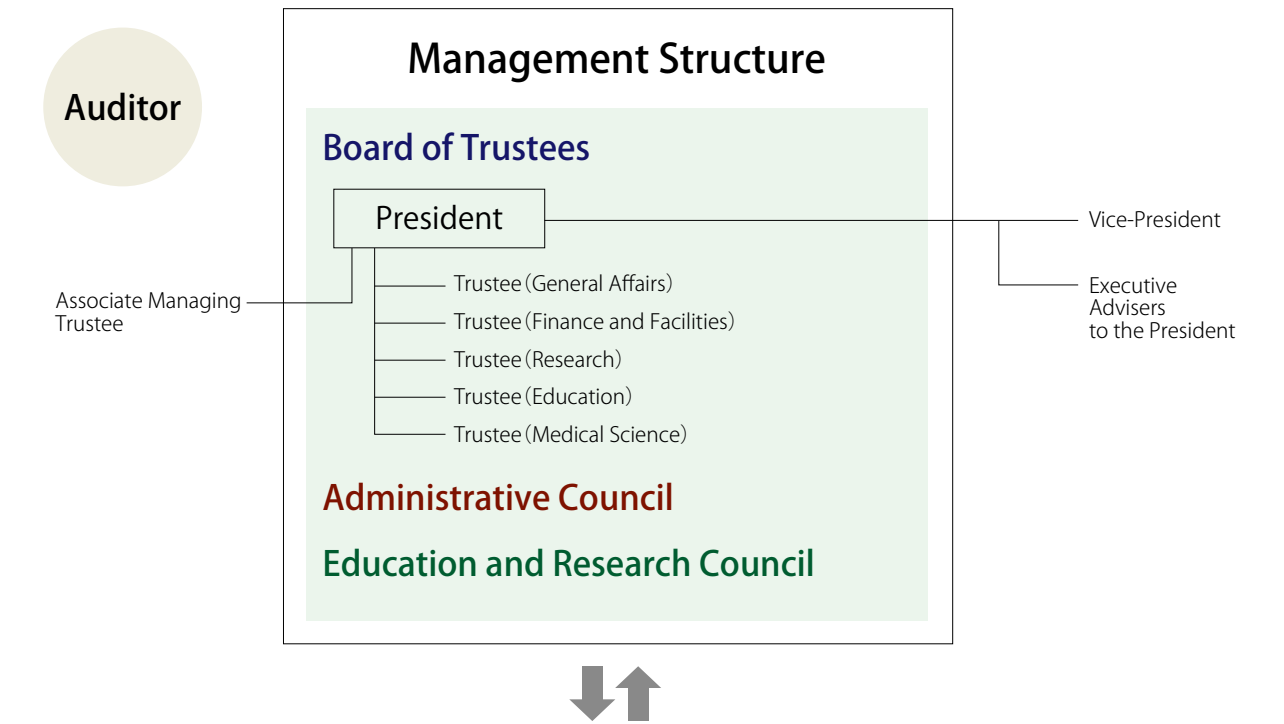
Tokyo National School of Dentistry	Oct.13,1928 ~ Mar.31,1944	Toru SHIMAMINE
Tokyo Medical and Dental College	Apr.1,1944 ~ Feb.9,1945	Toru SHIMAMINE
Tokyo Medical and Dental College	Feb.10,1945 ~ Feb.19,1945	Masaru NAGAO
Tokyo Medical and Dental College	Feb.20,1945 ~ Mar.31,1950	Masaru NAGAO
Tokyo Medical and Dental University	Aug.27,1946 ~ Oct.4,1946	Masaru NAGAO
Tokyo Medical and Dental University (The Former System)	Oct.5,1946 ~ Mar.31,1951	Masaru NAGAO
Tokyo Medical and Dental University (The New System)	Apr.1,1951 ~ Jun.30,1961	Masaru NAGAO
	Jul.1,1961 ~ Feb.29,1968	Masahiro OKADA
Tokyo Medical and Dental University	Mar.1,1968 ~ Mar.15,1968	Keizo OTA
Tokyo Medical and Dental University	Mar.16,1968 ~ Oct.8,1969	Keizo OTA
Tokyo Medical and Dental University	Oct.9,1969 ~ Sep.17,1970	Fumihiko SHIMIZU
Tokyo Medical and Dental University	Sep.18,1970 ~ Sep.17,1974	Fumihiko SHIMIZU
	Sep.18,1974 ~ Jul.31,1977	Yasuji KATSUKI
	Aug.1,1977 ~ Jul.31,1985	Hisashi YOSHIDA
	Aug.1,1985 ~ Jul.31,1991	Rokuro KANO
	Aug.1,1991 ~ Jul.31,1995	Hajime YAMAMOTO
	Aug.1,1995 ~ Mar.31,2004	Akio SUZUKI
National University Corporation Tokyo Medical and Dental University	Apr.1,2004 ~	Akio SUZUKI

Historical Sketch

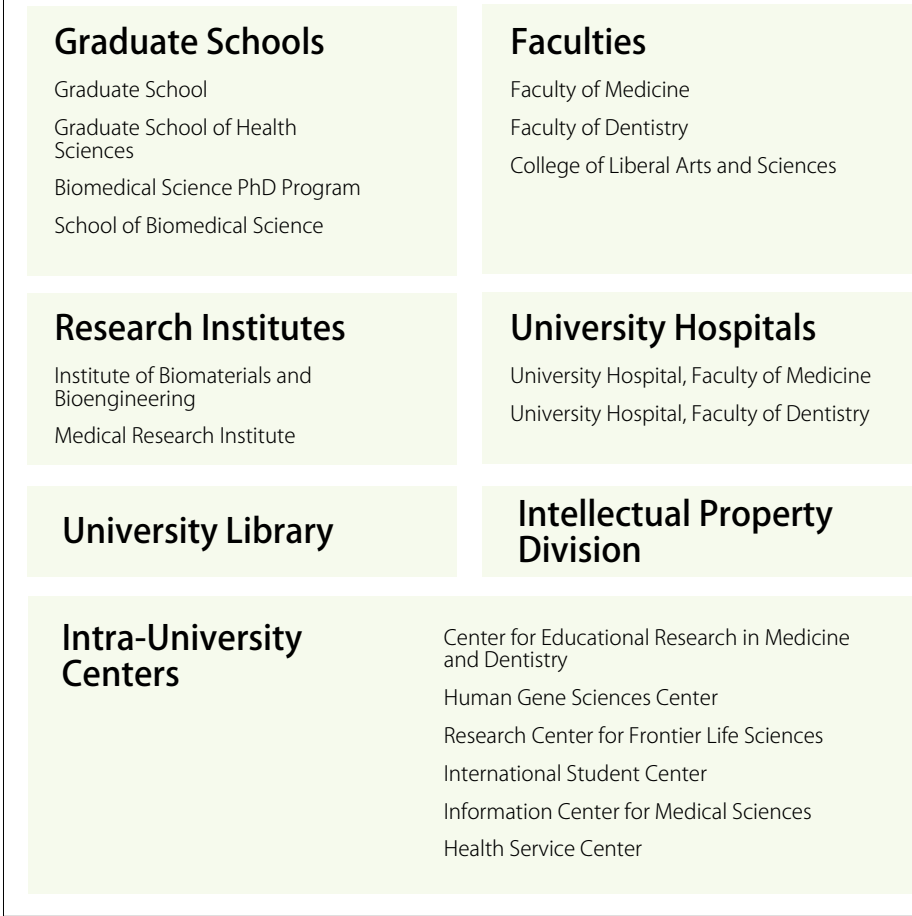




Management Structure



Education and Research Organization



Board of Trustees

Vote on important items

President	Akio SUZUKI	
Trustee (General Affairs) , Director General	Takanobu IRIE	
Trustee (Finance and Facilities)	Shozo ISHIBASHI	President of Ishibashi Tanzan Memorial Foundation
Trustee (Research)	Morio KOIKE	Dean of the Faculty of Health Science Technology, Bunkyo Gakuin University
Trustee (Education)	Takashi OHYAMA	
Trustee (Medical Science)	Takaaki KAMEDA	Vice-Chairman of the Board, Kameda Medical Center

Administrative Council

Deliberate on management issues

【 Internal Committee 】

President	Akio SUZUKI
Trustee (General Affairs) , Director General	Takanobu IRIE
Trustee (Finance and Facilities)	Shozo ISHIBASHI
President of Ishibashi Tanzan Memorial Foundation	
Trustee (Medical Science)	Takaaki KAMEDA
Vice-Chairman of the Board, Kameda Medical Center	

【 External Committee 】

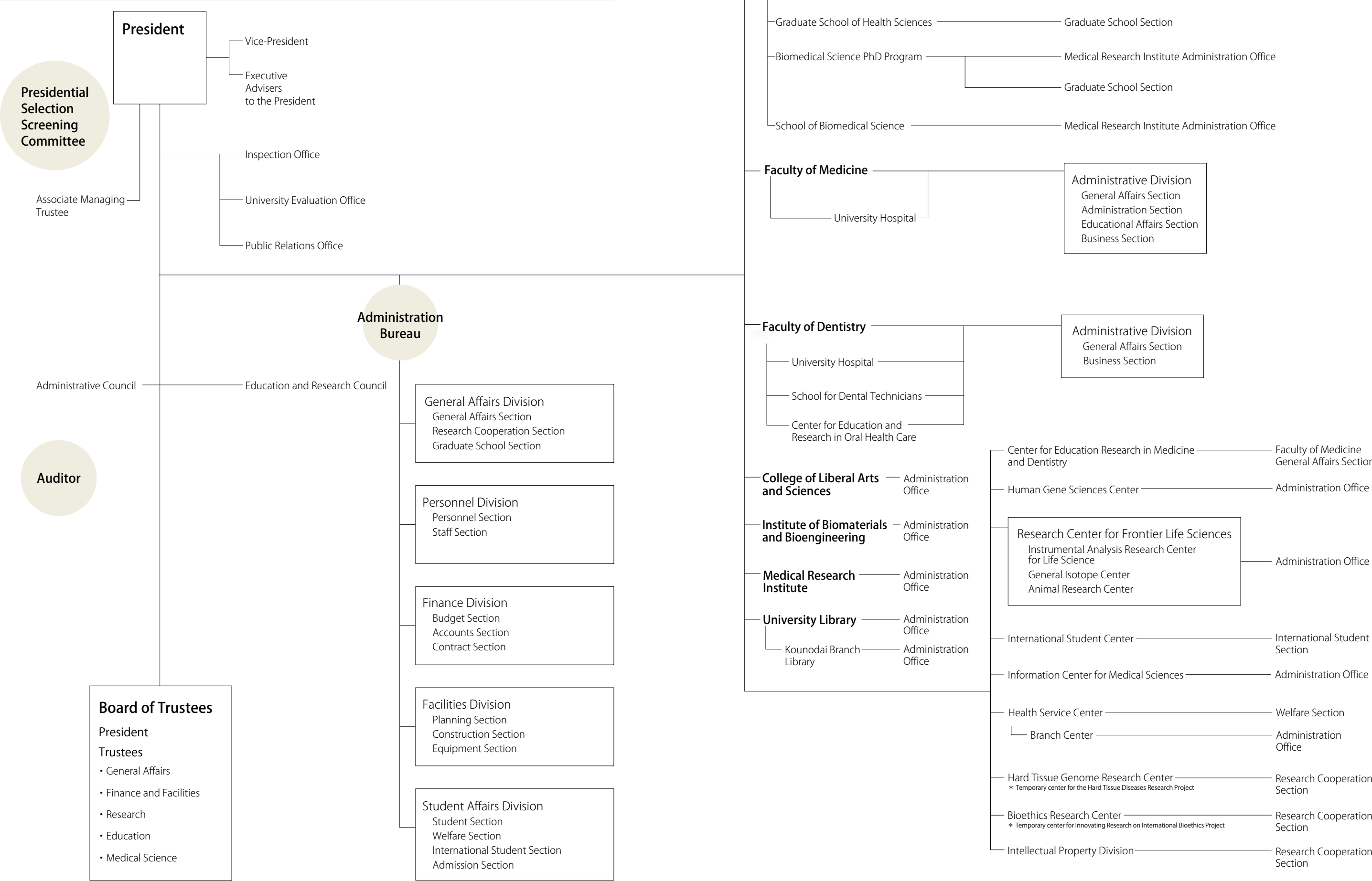
Chief Executive Officer, Quantum Leaps Corporation	Nobuyuki IDEI
Chairperson of The Society for the Promotion of the University of the Air	Takayoshi INOUE
Director of Takahashi Orthodontic Office	Fujio MIURA
Chairman of the Board, Editor-in-Chief, The Yomiuri Shimbun Holdings	Tsuneco WATANABE

Education and Research Council

Deliberate on educational and research issues

President	Akio SUZUKI	Director, Institute of Biomaterials and Bioengineering	Kimihiro YAMASHITA
Trustee (General Affairs) , Director General	Takanobu IRIE	Director, Medical Research Institute	Masaki NODA
Trustee (Research)	Morio KOIKE	Director, University Library	Yasuhito YUASA
Trustee (Education) , Vice-President	Takashi OHYAMA	Director, University Hospital, Faculty of Medicine	Tohru SAKAMOTO
Dean, Graduate School	Kikuo OHNO	Director, University Hospital, Faculty of Dentistry	Norimasa KUROSAKI
Dean, Faculty of Medicine	Kikuo OHNO		
Dean, Graduate School of Health Sciences	Yoshihiro MANO	Professor of the Graduate School(Medicine)	Yoshikazu SHINODA
Dean of Biomedical Science PhD Program	Hiroshi TANAKA	Professor of the Graduate School(Dentistry)	Ikuo MORITA
Dean of the School of Biomedical Science	Takeshi TSUBATA	Professor of the Graduate School of Health Sciences	Tomoko INOUE
Dean, Faculty of Dentistry	Junji TAGAMI	Professor of the College of Liberal Arts and Sciences	Tadashi SUZUKI
Dean, College of Liberal Arts and Sciences	Masaru WADA	Professor of the Institute of Biomaterials and Bioengineering	Hiroshi AZUMA
		Professor of the Medical Research Institute	Akinori KIMURA

Organizational Chart



Administration Officers

President		Akio SUZUKI
Trustee	General Affairs	Takanobu IRIE
	Research	Morio KOIKE
	Education	Takashi OHYAMA
	Finance and Facilities	Shozo ISHIBASHI
	Medical Science	Takaaki KAMEDA
Associate Managing Trustee		Manabu MATSUDA
		Akira NAKANISHI
		Shigeru ERA
Auditor		Tohru IGARASHI
		Shigeki TAKAHASHI
Vice-President		Takashi OHYAMA
Senior Executive Adviser to the President		Yoshihiro MANO
Executive Advisers to the President		Ken KITAMURA
		Hisashi TANIGUCHI
		Akinori KIMURA
		Masayuki YOSHIDA
		Tadashi SUZUKI
		Manabu MATSUDA
		Akira NAKANISHI
		Shigeru ERA

Inspection Office

Head, Inspection Office	Shigeru ERA
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Public Relations Office

Head, Public Relations Office	Tadashi SUZUKI
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Administration Bureau

Director General	Takanobu IRIE
Director, General Affairs Division	Shigeru ERA
Head, General Affairs Section	Koichi DOI
Head, Research Cooperation Section	Kenichi TANO
Head, Graduate School Section	Hiroshi TANIDA

Director, Personnel Division	Shigeru ERA
Head, Personnel Section	Shinichi YAMAMOTO
Head, Staff Section	Katsumi TOKIWA
Director, Finance Division	Kousuke ABE
Head, Budget Section	Tsuyoshi SHIMAI
Head, Accounts Section	Makoto NISHIKIORI
Head, Contract Section	Hideaki ISHIBASHI
Director, Facilities Division	Hiroaki NAMIKAWA
Head, Planning Section	Yoshimi SAITOU
Head, Construction Section	Kazuhiro KUSA
Head, Equipment Section	Michitaka SAITOU
Director, Student Affairs Division	Tomio SHIMAMURA
Head, Student Section	Suguru YAMATO
Head, Welfare Section	Suguru YAMATO
Head, International Student Section	Atsushi NAGAOKA
Head, Admission Section	Tomohiro HAYAKAWA

Graduate School

Dean, Graduate School	Kikuo OHNO
Vice Dean, Graduate School	Junji TAGAMI
Dean, Graduate School of Health Sciences	Yoshihiro MANO
Dean of Biomedical Science PhD Program	Hiroshi TANAKA
Dean of the School of Biomedical Science	Takeshi TSUBATA

Faculty of Medicine

Dean, Faculty of Medicine	Kikuo OHNO
Director, School of Medicine	Hidehiro MIZUSAWA
Director, School of Health Sciences	Kenji SATO
Director, University Hospital	Tohru SAKAMOTO
Director, Administrative Division	Masashi KOHATA
Head, General Affairs Section	Yuichi TOMITA
Head, Administration Section	Ichiro HIROSE
Head, Educational Affairs Section	Shigeru NISHIYAMA
Head, Business Section	Kazuhisa MARUYAMA

Faculty of Dentistry

Dean, Faculty of Dentistry	Junji TAGAMI
Director, School of Dentistry	Keiichi OHYA
Director, School of Oral Health Care Sciences	Hidemi YOSHIMASU
Director, University Hospital	Norimasa KUROSAKI
Principal, School for Dental Technicians	Hiroyuki MIURA
Director, Center for Education and Research in Oral Health Care	Yuzo TAKAGI
Director, Administrative Division	Toshifumi NAKAGAWA
Head, General Affairs Section	Katsumi UMEZAWA
Head, Business Section	Katsumi ISHIKAWA

College of Liberal Arts and Sciences

Dean, College of Liberal Arts and Sciences	Masaru WADA
Office Head	Yasushi ANBE

Institute of Biomaterials and Bioengineering

Director	Kimihiro YAMASHITA
Office Head	Tsutomu TAKEUCHI

Medical Research Institute

Director	Masaki NODA
Office Head	Narumi KAWAYANAGI

University Library

Director	Yasuhito YUASA
Director, Kounodai Branch Library	Tsuneyo TERASHIMA
Office Head	Tadashi NAKANO

Center for Education Research in Medicine and Dentistry

Director	Nobuo NARA
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Medical Research Institute

Director	Masataka NAKAMURA
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Research Center for Frontier Life Science

Director	Yoshikazu SHINODA
Instrumental Analysis Research Center for Life Science Director	Miyuki AZUMA
General Isotope Center Director	Mari KANNAGI
Animal Research Center Director	Yoshikazu SHINODA

International Student Center

Director	Masaru WADA
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Joint Institutes for Education and Research Administration Office

Office Head	Kazumasa FURUICHI
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Information Center for Medical Sciences

Director	Hiroshi TANAKA
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Health Service Center

Director	Shuji MIYAKE
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Hard Tissue Genome Research Center

* Temporary center for the Hard Tissue Diseases Research Project

Director	Masaki NODA
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Bioethics Research Center

* Temporary center for Innovating Research on International Bioethics Project

Director	Shuki MIZUTANI
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Intellectual Property Division

Director, Intellectual Property Division	Takanobu IRIE
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Graduate Schools Faculties

Graduate School
Faculty of Medicine
Faculty of Dentistry
College of Liberal Arts and Sciences
Institute of Biomaterials and Bioengineering
Medical Research Institute
University Library
Nationwide Joint Institute
Joint Institutes for Education and Research
Health Service Center
University Hospitals

Graduate School

Graduate School

Master’s Program

Medico-Dental Sciences
Medico-Dental Sciences Master of Medical Administration Course

Doctor’s Program

Oral Health Sciences

Departments	Sections	Head of Section
Oral Restitution	Oral Pathology Molecular Cellulo Oncology and Microbiology Molecular Immunology Oral Radiation Oncology Oral and Maxillofacial Surgery Oral and Maxillofacial Radiology Anesthesiology and Clinical Physiology Orofacial Pain Management Diagnostic Oral Pathology	Akira YAMAGUCHI Nobuo TSUCHIDA Miyuki AZUMA Ken OMURA Toru KURABAYASHI Masahiro UMINO Masahiko SHIMADA
Orofacial Development and Function	Developmental Oral Health Science Orthodontic Science	Yuzo TAKAGI Kunimichi SOMA
Restorative Sciences	Cariology and Operative Dentistry Fixed Prosthodontics Pulp Biology and Endodontics Advanced Biomaterials Organic Biomaterials Functional Biomaterials	Junji TAGAMI Hiroyuki MIURA Hideaki SUDA
Masticatory Function Rehabilitation	Removable Partial Denture Prosthodontics Oral Implantology and Regenerative Dental Medicine Complete Denture Prosthodontics	Yoshimasa IGARASHI Shohei KASUGAI

Maxillofacial/Neck Reconstruction

Departments	Sections	Head of Section
Maxillofacial Biology	Maxillofacial Anatomy Cognitive Neurobiology Molecular Craniofacial Embryology Cellular Physiological Chemistry Molecular Neurobiology	Yasuo YAMASHITA Ikuo MORITA Shuichi NOZAKI
Head and Neck Reconstruction	Clinical Anatomy Plastic, Reconstructive and Cosmetic Surgery Head and Neck Surgery Diagnostic Radiology and Oncology	Yuiro HATA Seiji KISHIMOTO Hitoshi SHIBUYA
Maxillofacial Reconstruction and Function	Maxillofacial Surgery Maxillofacial Orthognathics Maxillofacial Prosthetics Dentistry for Persons with Disabilities Metallic Biomaterials Biomechanics	Teruo AMAGASA Keiji MORIYAMA Hisashi TANIGUCHI

Bio-Matrix

Departments	Sections	Head of Section
Hard Tissue Engineering	Biostructural Science Pharmacology Tissue Regeneration Biochemistry Cell Signaling Periodontology Bioceramics	Yoshiro TAKANO Keiichi OHYA Masaki YANAGISHITA Hiroshi TAKAYANAGI Yuichi IZUMI
Molecular Regulation of Supportive Tissue	Cell Biology Medical Biochemistry Orthopedic Surgery	Yutaka HATA Takeshi MUNETA

Public Health

Departments	Sections	Head of Section
International Health Development	Health Promotion Environmental Parasitology Forensic Medicine International Health Oral Health Promotion Sports Medicine/Dentistry Forensic Dentistry Social Psychiatry Molecular Epidemiology	Takehito TAKANO Nobuo OHTA Koichi UEMURA Yoko KAWAGUCHI
Health Science Policies	Health Care Management and Planning Health Care Economics Dental Education Development Research Development Health Care Informatics Health Policy and Management in Dentistry Educational System Dentistry	Kazuo KAWAHARA Koichi KAWABUCHI Ikuko MORIO Kozo TAKASE

Gerontology and Gerodontology

Departments	Sections	Head of Section
Gerodontology	Gerodontology	Hiroshi UEMATSU
Aging Control Medicine	Comprehensive Pathology Integrated Pulmonology Geriatrics and Vascular Medicine Vascular and Applied Surgery Rehabilitation Medicine	Masanobu KITAGAWA Yasuyuki YOSHIZAWA Kentaro SHIMOKADO

Comprehensive Patient Care

Departments	Sections	Head of Section
Comprehensive Oral Health Care	General Dentistry Head and Neck Psychosomatic Medicine Behavioral Dentistry Temporomandibular Joint and Occlusion	Norimasa KUROSAKI Akira TOYOFUKU Shiro MATAKI
Comprehensive Diagnosis and Therapeutics	Laboratory Medicine Critical Care Medicine Liaison Psychiatry and Palliative Medicine Pharmacokinetics and Pharmacodynamics General Medicine Medical Education Research and Development Acute Critical Care and Disaster Medicine	Takasuke IMAI Yujiro TANAKA Yasuhiro OTOMO

Cognitive and Behavioral Medicine

Departments	Sections	Head of Section
Systems Neuroscience	Neuroanatomy and Cellular Neurobiology Systems Neurophysiology Ophthalmology and Visual Science Otolaryngology Molecular and Cognitive Neuroscience Biosystem Regulation	Sumio TERADA Yoshikazu SHINODA Manabu MOCHIZUKI Ken KITAMURA
Brain Medical Science	Neurobiology and Cell Pharmacology Neurology and Neurological Science Psychiatry and Behavioral Sciences Neurosurgery Neuropathology	Tsutomu TANABE Hidehiro MIZUSAWA Toru NISHIKAWA Kikuo OHNO

Bio-Environmental Response

Departments	Sections	Head of Section
Infection and Bioresponse	Immunology Allergology Molecular Virology Immunotherapeutics Cell Regulation Pathological Cell Biology	Hajime KARASUYAMA Shoji YAMAOKA Mari KANNAGI
Bioregulation	Pediatrics and Developmental Biology Rheumatology Dermatology Pathological Biochemistry Immunology Cellular and Environmental Biology	Shuki MIZUTANI Nobuyuki MIYASAKA Hiroo YOKOZEKI

Systemic Organ Regulation

Departments	Sections	Head of Section
Digestive and Metabolic Diseases	Human Pathology Gastroenterology and Hepatology Surgical Oncology	Yoshinobu EISHI Mamoru WATANABE Kenichi SUGIHARA
Cardio-Pulmonary Diseases	Physiology and Cell Biology Cardiovascular Medicine Anesthesiology Thoracic-Cardiovascular Surgery Cardiovascular Physiology and Pathophysiology Bio-informational Pharmacology Molecular Medicine and Metabolism	Noboru MIZUSHIMA Mitsuaki ISOBE Koshi MAKITA
Regulation of Internal Environment and Reproduction	Nephrology Comprehensive Reproductive Medicine Urology Autonomic Physiology Molecular Pharmacology Molecular Cell Biology Functional Genomics Epigenetics Developmental and Regenerative Biology	Sei SASAKI Toshiro KUBOTA Kazunori KIHARA

Advanced Therapeutic Sciences

Departments	Sections	Head of Section
Gene and Molecular Medicine	Molecular Oncology Hematology and Oncology Clinical and Molecular Endocrinology Signal Gene Regulation Drug Design Chemistry Medicinal-Chemical Biology Genetic Regulation Bio-informatics Applied Genetics Molecular Cytogenetics Biochemical Genetics	Yasuhito YUASA Osamu MIURA Yukio HIRATA
Advanced Surgical Therapeutics	Hepato-Biliary-Pancreatic Surgery Thoracic Organ Replacement Orthopaedic and Spinal Surger Investigative Radiology and Endoscopy Surgical Pathology Medical Technology Medical Instruments Artificial Organ Engineering	Shigeki ARII Toru SAKAMOTO Kenichi SHINOMIYA

Endowed Departments

Department of Clinical Informatics	Department of Translational Oncology	Department for Hepatitis Control
Department of Pharmacovigilance	Department of Sleep-Related Respiratory Disorders	Department of Cartilage Regeneration
Department of Nanomedicine	Development of Natural Bioproducts	Department of Advanced Therapeutics for GI Diseases
Department of Regenerative Therapeutics for Spine and Spinal Cord	Department of Advanced Regulatory Vascular Surgery	

Graduate School of Health Sciences

Doctor’s Program (Master’s Course • Doctor’s Course)

Comprehensive Health Nursing Sciences

Departments	Sections	Head of Section
Community Health and Home Care Nursing	Community Health Nursing Home Care Nursing Reproductive Health Nursing Mental Health and Psychiatric Nursing	Akiko SASAKI Akiko HONDA Megumi MATSUOKA Masami MIYAMOTO
Nursing Function and Care Management	Fundamental Nursing and Life Support Child and Family Nursing Critical and Invasive-palliated Care Nursing Gerontological Nursing and Health Care System Nursing System Management	Yayoi SAITOU Taiko HIROSE Tomoko INOUE Noriko YAMAMOTO
Health Education	Analytical Health Science Occupational Health Education	Chifumi SATO Yoshihiro MANO

Biomedical Laboratory Sciences

Departments	Sections	Head of Section
Life Sciences and Bio-informatics	Biochemistry and Biophysics Anatomy and physiological Science Biofunctional Informatics Biophysical System Engineering Laboratory Animal Science	Yukichi HARA Kenji SATO Masato MATSUURA Hidetoshi WAKAMATSU
Moleculo-genetic Sciences	Analytical Laboratory Chemistry Microbiology and Immunology Molecular Pathophysiology Laboratory Molecular Genetics Advanced Analytical Chemistry	Minoru TOZUKA Noboru OKAMURA Toichiro TAKIZAWA

Biomedical Science PhD Program

Doctor’s Program (Master’s Course • Doctor’s Course)

Bioinformatics

Functional Biology

School of Biomedical Science

Research Divisions	Sections	Head of Section
Medical Bioinformatics	Genome Diversity Computational Biology Proteome Informatics Disease Information Management Genome Informatics	Hiroshi TANAKA
Functional Biology	Gene Expression Molecular Neuroscience Immunology Biosystem Modeling Immune Recognition Development and Regenerative Medicine	Masatoshi HAGIWARA Koichi TANAKA Takeshi TSUBATA Tadashi MASUDA
Applied Structural Biology	Structural Biology Medicinal Chemistry	Nobutoshi ITO Masato SHIMIZU Hiroyuki KAGECHIKA

Faculty of Medicine

School of Medicine

Subjects	Functional Morphology Physiology and Pharmacology Molecular Genetics Infectious Immunology Pathology	Environmental Social Medicine Comprehensive Diagnostics Internal Medicine Pediatric Medicine Neurology and Psychiatry	Surgery Sensory Organ Sciences Dermatology and Plastic Surgery Female Medicine Urology and Reproductive Medicine
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School of Allied Health Sciences

Course	Subjects	
Nursing Science	Fundamental and Clinical Nursing	Community Health Nursing
Medical Technology	Laboratory Science	Laboratory Technology

Faculty of Dentistry

School of Dentistry

Subjects	Oral and Maxillofacial Structure Oral and Maxillofacial Function Oral Pathology and Pathophysiology Oral and Maxillofacial Bioengineering Oral Public Health and Ethics in Dentistry	Comprehensive Oral Health Care Restorative Dentistry/Cariology Periodontology Oral and Maxillofacial Surgery Prosthodontics	Gerodontology Orofacial Development and Function Dentistry for the Disabled/ Clinical Physiology
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School of Oral Health Care Sciences

Departments	Subjects	Head of Section
Fundamental Oral Health Care Sciences	Oral and Maxillofacial Biology Fundamental Oral Health Care Science	Kumiko SUGIMOTO
Oral Health Care Promotion	Oral Health Care Education Preventive Oral Health Care Science	Kayo TERAOKA Atsuhiro KINOSHITA
Lifetime Oral Health Care Sciences	Pediatric Oral Health Care Science Adult Oral Health Care Science Geriatric Oral Health Care Science	Masaaki ISHIKAWA Kazuhiro SHIMOYAMA
Community Oral Health Care Science	Community Oral Health Care Science	Hidemi YOSHIMASU

Research Facilities

	Purpose
Center for Education and Research in Oral Health Care	Investigation of supply and demand of oral health care in communities

College of Liberal Arts and Sciences

Subjects	Head of Section
Philosophy	
History	Manabu MATSUDA
Literature	Tsuneyo TERASHIMA
History of Social Thought	
Sociology	Sakumi ITABASHI
Mathematics	Masao KIYOTA
Physics	Tsukasa CHIBA
Chemistry	Mitsuyo OKAZAKI
Biology	Masaru WADA , Atsuhiko HATTORI
English	
German	Tadashi SUZUKI
French	Hikaru NAKASHIMA
Health Science and Physical Education	



Hippocrates Hall



Champ de Causerie

Institute of Biomaterials and Bioengineering

Purpose
To study biofunctional molecules, biomaterials and biosystems

Research Divisions		Head of Section
Division of Biofunctional Molecules	Molecular Recognition	Hirokazu TAMAMURA
	Molecular Design	
	Applied Functional Molecules	Akio KISHIDA
	Biosensors	
Division of Biomaterials	Metals	Takao HANAWA
	Inorganic Materials	Kimihiro YAMASHITA
	Organic Materials	Kazunari AKIYOSHI
	Biomaterials Mechanics	
Division of Biosystems	Biodesign	Kazuo TAKAKUDA
	Biomedical Information	Kenji YASUDA
	Biomedical Devices and Instrumentation	Koji MITSUBAYASHI
	Biosystem Regulation	Hiroshi AZUMA
	Artificial Organs	Setsuo TAKATANI



Institute of Biomaterials and Bioengineering

Medical Research Institute

Purpose
To study the pathogenesis, treatment and prevention of refractory diseases including collagen diseases

Research Divisions		Head of Section
Advanced Molecular Medicine	Molecular Medicine and Metabolism	Yoshihiro OGAWA
	Molecular Pharmacology	Masaki NODA
	Molecular Cell Biology	Koji SHIBUYA
	Molecular Neuroscience	
	Cell Regulation	Yuji YAMANASHI
	Bio-informational Pharmacology	Tetsushi FURUKAWA
Pathophysiology	Project Research Unit	
	Neuropathology	Hitoshi OKAZAWA
	Pathological Biochemistry	Hirobumi TERAOKA
	Pathological Cell Biology	Shigeomi SHIMIZU
	Developmental and Regenerative Biology	Hiroshi NISHINA
	Immunology	
	Molecular Pathogenesis	Akinori KIMURA
	Frontier Research Unit	
	Virus Research Unit	
	Project Research Unit	
Medical Genomics	Molecular Cytogenetics	Johji INAZAWA
	Molecular Genetics	Yoshio MIKI
	Molecular Epidemiology	Masaaki MURAMATSU
	Biochemical Genetics	Shigetaka KITAJIMA
	Functional Genomics	
	Epigenetics	Fumitoshi ISHINO
	Bioinformatics	
	Frontier Research Unit	
	Redox Response Cell Biology	
	Project Research Unit	
Division of Integrative Research	Division of Pathogenetic Regulation	
	Division of Biosystem Generation	
Endowed Department	Department of Neurotraumatology	
Project Research Unit	Impact of Science and Science Policy	Akira NAKANISHI



Medical Research Institute

University Library

Library Holdings

Classification	Japanese Books (including periodicals)	Foreign Books (including periodicals)	Total
The Main Library	105,404	148,427	253,831
Kounodai Branch Library	69,910	16,559	86,469
Total	175,314	164,986	340,300

Facilities

Classification	Reading Room		Stack Room	Office and Other	Total
	Floor Space	Seats			
The Main Library	551 m ²	142	880 m ²	1,192 m ²	2,623 m ²
Kounodai Branch Library	280 m ²	125	468 m ²	285 m ²	1,033 m ²

Utilization

Classification	Total Days Open	Visitors	Hours Open		Books and Journals Checked Out	
			Weekdays	Holiday	Student	Teaching Staff
The Main Library	359	182,915	9:00 ~ 22:00	9:00 ~ 17:00	7,314	1,975
Kounodai Branch Library	233	40,725	9:00 ~ 20:00	—	1,406	323



Reading Room

Nationwide Joint Institute

Center for Education Research in Medicine and Dentistry

● Overall assessment of student goal attainment for attitude, technique and knowledge	Director
● Research of medical and dental education and curriculum development	Nobuo NARA Koji ARAKI

Joint Institutes for Education and Research

Research Facilities	Purpose	Director
Human Gene Sciences Center	Research and education of disease related genes	Masataka NAKAMURA
Research Center for Frontier Life Science		
• Instrumental Analysis Research Center for Life Science	Research and education of instrumental analysis	
• General Isotope Center	Research and education on radioisotopes	
• Animal Research Center	Analyses of diseases and studies of animal care for medical use	
Information Center for Medical Sciences	Research and education on information sciences and computers in medicine	
International Student Center	To provide academic support for foreign students and students going abroad, and to carry out related research	Sayoko YAMASHITA



International Student Center



Human Gene Sciences Center

Health Service Center

Health Service Center

● Improving health management	Director
● Maintaining and promoting the health of TMDU student and staff	Shuji MIYAKE

University Hospitals

University Hospital, Faculty of Medicine

Beds 800

Hospital Departments

Department of Internal Medicine	Hematology Rheumatology Endocrine, Metabolic, Diabetes	Nephrology Geriatrics Gastroenterology and Hepatology	Cardiovascular Medicine Pulmonary Medicine
Department of Surgery	Esophageal and Gastric Surgery Colorectal Surgery Hepato-Biliary-Pancreatic Surgery	Breast Surgery Vascular Surgery Thoracic-Cardiovascular Surgery	Thoracic Organ Replacement Urology Head and Neck Surgery
Department of Sensory, Motor System Medicine and Dermatology	Ophthalmology Oto-Rhino-Laryngology	Dermatology Plastic and Aesthetic Surgery	Orthopedic Surgery
Department of Pediatrics, Maternal and Woman's Clinic	Pediatrics and Pediatric Surgery	Maternal and Woman's Clinic	
Department of Neurology, Neurosurgery and Neuropsychiatry	Neurosurgery Neurology	Neuropsychiatry Anesthesiology and Pain Clinic	Psychosomatic and Palliative Medicine
Department of Radiology	Diagnostic Radiology and Oncology		
Trauma and Acute Crtical Care Medical Center			

Central Clinical Facilities

Clinical Laboratory	Supply Unit	Department of General Medicine	Hyper Baric Medical Center
Operating Center	Maternity Ward	Outpatient Chemotherapy Center	ME Center
Radiological Center	Department of Pathology	Positron Emission Tomography Center	Center for Cell Therapy
Hospital Blood Transfusion Center	Department of Endoscopic Diagnosis and Therapy	Center for Medical Welfare and Support	Department of Medical Records
Physical Medicine Center	Department of Medical Informatics	Clinical Research Center	Quality Management Section
Intensive Care Unit	Department of Blood Purification	Center for Postgraduate Medical Education	Infection Control Center

Department of Pharmacy

Department of Pharmacy Director
Masato YASUHARA

Department of Nursing

Department of Nursing Director
Makie OCHIUMI



Building No.3 and New Faculty Building of Medicine

University Hospital, Faculty of Dentistry

Beds 60 Chair Units 317



Hospital Departments

Clinics for Dent-facial Growth and Development	Orthodontics	Pediatric Dentistry	
Clinics for Conservation of Oral and Maxillofacial Function	Operative Dentistry and Endodontics Periodontics	Orofacial Pain Clinic Head and Neck Psychosomatic Medicine	Temporomandibular Joint Clinic
Clinics for Oral and Maxillofacial Rehabilitation	Oral Surgery Maxillofacial Surgery Prosthodontics	Maxillofacial Prosthetics Sports Dentistry Speech Clinic	Dental Implant Clinic
Clinics for General Dentistry	Oral Diagnosis and General Dentistry Dental Sleep Clinic General Dentistry I General Dentistry II General Dentistry III	Ambulatory Anesthesia Service Oral and Maxillofacial Radiology Fresh Breath Clinic Cleanroom Oral Health Care	Dental Allergy Special Care Clinic Dysphagia Rehabilitation

Central Clinical Facilities

Clinical Laboratory	Center for Advanced Clinical Education	Center for Development of Instruments and Drugs	Section of Central Supplies
Dental Laboratory	Center for Clinical Cooperation	Division of Surgical Operation	Section of Dental Hygiene
Unit for Infection Control	Center for Dental Information	Dental Ward	

Department of Pharmacy

Department of Pharmacy Director
Fumito TSUCHIYA

Department of Nursing

Department of Nursing Director
Aiko KOJIMA



Faculty of Dentistry

Number of Patients

(Fiscal Year 2006)

Classification	Inpatients			Outpatients	
	Total	Per Day	Bed Occupancy	Total	Per Day
University Hospital, Faculty of Medicine	252,829	692.7	86.6%	489,229	1,996.9
University Hospital, Faculty of Dentistry	17,951	49.2	82.0%	426,558	1,741.1
Total	270,780	741.9	86.3%	915,787	3,738.0



Current Projects

- New Projects
 - 21st Century COE Program
 - Support Program for Medical Training to Address Community Needs
 - Human Resource Development Plan for Cancer
 - Support Program for Contemporary Educational Needs
 - Support Program for the Internationalization of University Education
 - Remedial Training Programs
 - Support Program for Distinctive University Education
 - Support Program for Improving Graduate School Education
 - Initiatives for Attractive Education in Graduate Schools
 - Special Coordination Funds for Promoting Science and Technology
 - Program to Create an Infectious Diseases Research Center
(Proposal for Preliminary Investigation Examining the Feasibility of Creating a Small-Scale Research Center Abroad)
 - Molecular Imaging Research Program
 - The Integrated Database Project
 - JSPS Core to Core Program
 - Special Funds for Education and Research
 - Medico-Dental Sciences Master of Medical Administration Course
- Intellectual Property Division · Technology Licensing Organization

New Projects

The following proposals by TMDU were awarded grants in 2007.

Special Funds for Education and Research

Research Promotion of Chemical Biology

Project Leader : Takeshi TSUBATA, M.D., Ph.D.

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Human Resource Development Plan for Cancer

Training Program for Specialists in Cancer

Project Leader : Kikuo OHNO, M.D., Ph.D.

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The Integrated Database Project

Development of an Integrated Database in Biomedical Sciences

Project Leader : Hiroshi TANAKA, D.M., Ph.D.

→ Page 54

Molecular Imaging Research Program

Imaging Research for New Drug Development to Treat Refractory Infectious Diseases

Project Leader : Masatoshi HAGIWARA, M.D., Ph.D.

→ Page 53

Support Program for Contemporary Educational Needs

Integration of Information and Communication Technology into Clinical Training

Project Leader : Junji TAGAMI, D.D.S., Ph.D.

→ Page 38

Support Program for Improving Graduate School Education

Global Linkage Program between University and Industry

Project Leader : Hiroshi TANAKA, D.M., Ph.D.

→ Page 43

Support Program for Improving Graduate School Education

Educational Program for Specialists Interfacing between Advanced Engineering and Medical/Dental Practice

Project Leader : Junji TAGAMI, D.D.S., Ph.D.

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Remedial Training Program

Reeducation Program for Responding to Social Needs for Dental Hygienists and Dental Technicians

Project Leader : Yuzo TAKAGI, D.D.S., Ph.D.

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Remedial Training Program

Remedial Training Program for Mid-Career Nurses Making Career Transitions

Project Leader : Akiko HONDA, R.N., Ph.D.

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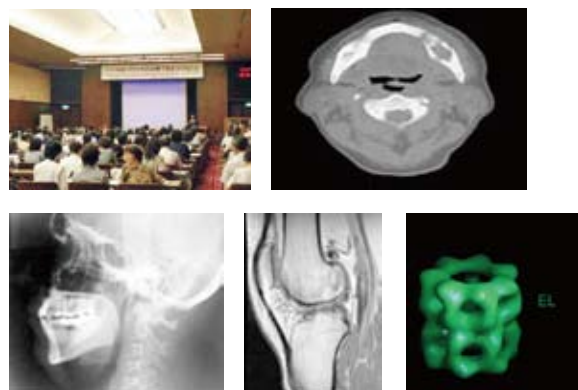
New Projects

Frontier Research on Molecular Destruction and Reconstruction of Tooth and Bone

Project Leader : Masaki NODA, M.D., Ph.D. (Department of Molecular Pharmacology, Medical Research Institute)

This program aims to cover the urgent issues on hard tissue diseases in our rapidly aging society. There is a growing number of the aged population who suffer from loss of tooth, bone mass and musculoskeletal system-related diseases. These include caries, periodontal diseases, osteoporosis, carcinoma of the oral cavity, and rheumatoid arthritis. It is a critical economic issue due to enormous medical costs as well as quality of life, which is one of the biggest national health problems as these diseases can cause critical impairment in the life of aged population.

TMDU has pioneered the most advanced treatments and leading-edge research in the tooth and bone field. World-class investigators have worked collaboratively and established state-of-the-art research programs. As a part of this program, we have also introduced an innovative educational system. In this system, talented young scientists are recruited and given opportunities to pursue their research while they commit themselves to be Chaperon research professors, supervising competitively-selected excellent students whom we call "Super Students". Thus we have founded a center of excellence for scientific study where we are exploring the molecular mechanism of the destruction of tooth, bone, and joints, with a special emphasis on genome medicine and nano-science, and are making every effort to develop new treatments for tooth- and bone-related diseases.



Brain Integration and its Disorders

Project Leader : Hidehiro MIZUSAWA, M.D., Ph.D.
(Department of Neurology and Neurological Science, Graduate School of Medicine)

The brain consists of different levels of structure; molecules, cells, networks and systems. When components of one level are all integrated, they produce higher functions completely different from those of their original level. Dysfunction in each level preventing the integration causes various psychiatric or neurological diseases such as schizophrenia, Alzheimer's disease, stroke, ataxia, and muscular atrophy. With the rapidly aging society of Japan, overcoming these diseases is a crucial task.

Based on the long history of brain research, many world-class neuroscientists have contributed to the advancement of the study of this area at TMDU. Now, basic scientists and clinicians work together for further exploration of this scientific frontier. This 21st Century COE Program, Brain Integration and its Disorders, is divided into three core research units; Cell Growth and Degeneration, Membrane Function Elements and its Disorders, Brain Functional Circuits and its Disorders. As a part of the program to produce leading researchers, the "incubation laboratory" was established to encourage young talented researchers to take multidisciplinary approaches. The "technical interface" is another feature of the program. Highly-trained lab technicians act as a technical interface to support researchers in collaboration across research units and laboratories. This center of excellence aims to contribute to the development of new treatment and prevention methods of many neurological and psychiatric diseases by unraveling both integration and dysintegration mechanisms of brain functions.



Development of an Assessment System of Basic Clinical Skills

Project Leader : Nobuo NARA, M.D., Ph.D.
(Director, Center for Education Research in Medicine and Dentistry)

Facing a rapidly aging society with a low birthrate, one of the critical tasks of educational institutions is to produce well-trained medical personnel who can efficiently administer holistic medicine. TMDU has introduced many reforms into its educational methods so that the students can effectively acquire the basic clinical skills necessary for holistic medicine.

The central aim of this program is to develop a standardized assessment system to see if the students are competent enough to be able to start their clinical clerkships. The students need to have sufficient knowledge and skills, including communication skills, before they start a clinical clerkship. Otherwise, they can not maximize the educational benefits of their clerkship experiences. By collaborating with other educational institutions, we have developed and implemented a computer based testing (CBT) system to assess student knowledge. Regarding clinical skill performance, we have established an objective, structured clinical examination (OSCE) using simulators and simulated patients. The students are qualified to take part in clinical clerkships via this assessment system.

We have also promoted the active utilization of the clinical skills laboratory at TMDU and held public symposiums to share information about its educational effects.

HP <http://www.tmd.ac.jp/mdc/gp/>



Human Resource Development Plan for Cancer

Training Program for Specialists in Cancer

Project Leader : Kikuo OHNO, M.D., Ph.D. (Dean, Graduate School of Medicine and Dentistry)

Cancer has the highest mortality rate in Japan. It is imperative to build a new system where medical professionals work as a team to deal with cancer in a comprehensive manner; from diagnosis, to treatment, and to terminal care. We need to produce doctors who are specialized in highly sophisticated treatments as well as co-medical staff who are also experts in cancer treatment.

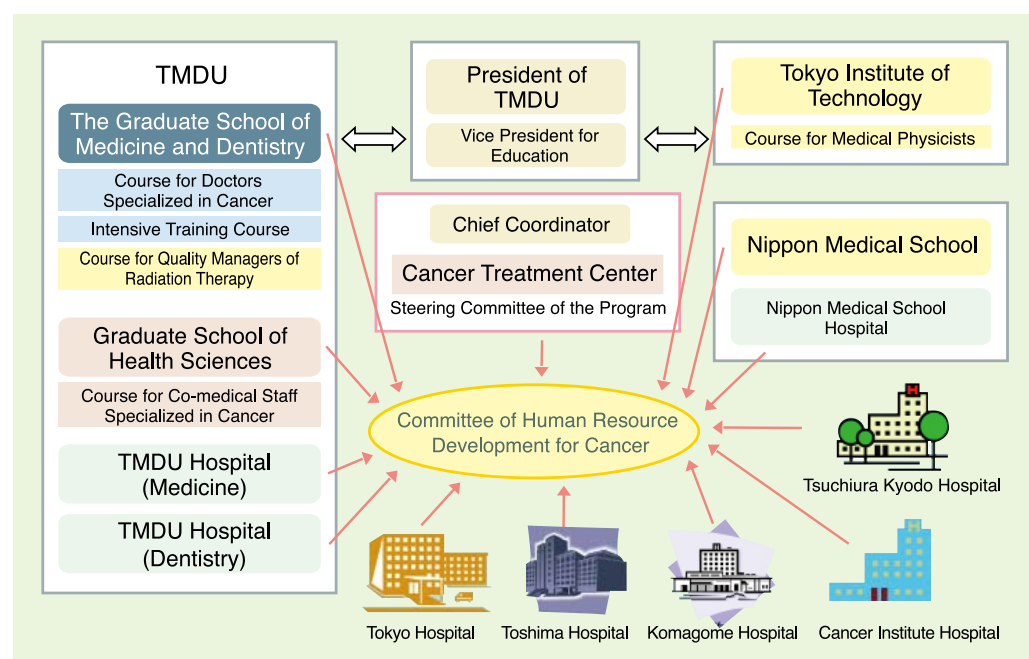
The unique aspect of this program is a network where various medical and educational institutions work together with the Cancer Treatment Center, which coordinates the whole program. The Graduate School of Medicine and Dentistry, Graduate School of Health Sciences, TMDU Hospitals, Nippon Medical School, Tokyo Institute of Technology, Tokyo Metropolitan Komagome Hospital, the Cancer Institute Hospital, Tokyo Metropolitan Toshima Hospital, Tokyo Hospital, and Tsuchiura Kyodo Hospital are taking part in this program.

This training program has three courses. The first one is a training course for doctors, which is divided into three

specializations: radiation therapy, chemotherapy, and palliative therapy. The second course is designed for co-medical staff. This course offers two educational programs: one is aimed at nurses who are specialized in nursing care for cancer patients, and the other is for medical physicists and quality managers of radiation therapy. The third is an intensive training course for specialists who are already engaged in cancer treatment.

It is time to introduce a new mode of cancer treatment. From now on we need to take a more holistic approach toward cancer treatment rather than treat specific aspects of the disease. A team of specialized physicians and co-medical staff needs to collaborate to design treatment and care plans for an individual patient instead of supplying a patterned combination of a surgical operation with postoperative supplementary chemo/radiation. We are making every effort to develop a new educational system to foster qualified human resources who will be able to provide coherent and comprehensive treatment for cancer.

Training Program for Specialists in Cancer



Support Program for Contemporary Educational Needs

Innovative Educational Program to Nurture Internationally-Minded Medical Leaders

Project Leader : Kikuo OHNO, M.D., Ph.D. (Dean, Faculty of Medicine)

The central aim of this program is to create a new model of medical education with a global perspective, by which we believe we can nurture high-quality doctors and researchers who will open up new frontiers in the arts of medicine and life sciences.

We have introduced some new approaches into our curricula in order to help the students to become open to the globalized world of medicine. The students are encouraged to acquire not only language competence but also an understanding of the philosophy of western medicine. The "English for Medicine" course runs continuously for four years, starting in the very first year of their medical education, and is designed so that the young students are exposed to the latest world health and medicine related issues and are motivated to form and express their own opinions about them in English. For senior students, especially those who plan

to take an externship abroad, a special training program is offered. The students are given intensive training and become well prepared for clinical experiences in English speaking environments so that they can maximize their learning when they participate in clinical clerkships abroad. A computer assisted English learning program is also available. The students can access the program online, to brush up their vocabulary and practice patient-doctor communication in English.

When the language barriers are removed, a wide vista of medicine will be opened up. The ultimate goal of our enterprise is to establish a new educational model by which the students can smoothly and immediately embark on their careers in the globalized world of medicine when they graduate from TMDU.



Support Program for Contemporary Educational Needs

Integration of Information and Communication Technology into Clinical Training

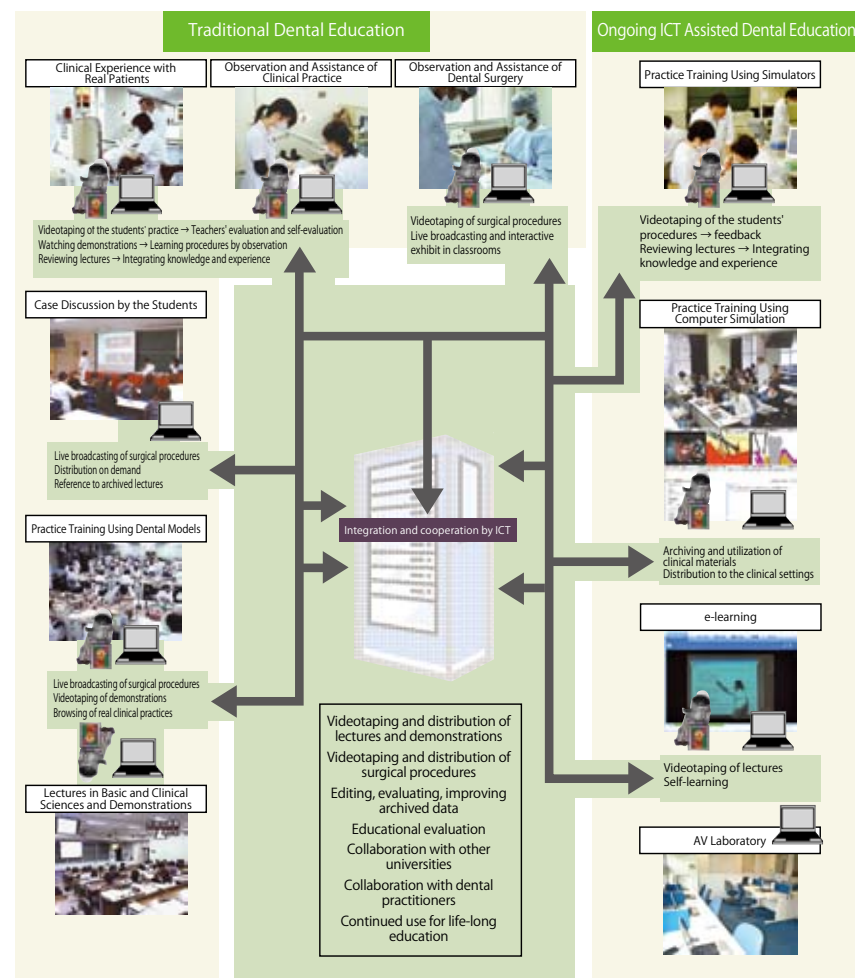
Project Leader : Junji TAGAMI, D.D.S., Ph.D. (Dean, Faculty of Dentistry)

Since the School of Dentistry, TMDU, was founded in 1928, clinical experience with real patients and practice training using dental models have been key elements of clinical education. In later years, information and communication technology has been actively utilized, enabling our students to utilize computer-assisted simulation system, lectures on-demand, online assignments, and online examination.

The aim of this program is to integrate traditional educational methods and advanced information and communication technology, by which clinical training, practice training, and lectures will be able to be effectively interlinked.

The key focus of this program is to expand digital content. Employing automatic visual recording system, we are planning to establish a digital archive of (1) treatments and surgeries, (2) demonstrations of dental practices, (3) lectures, and (4) student trainings. Then we will launch an on-demand distribution system in order to incorporate these contents into clinical education, which the students will be able to use for self-evaluation and learning.

In mobilizing these high-end technologies, our ultimate goal is to establish new, more practical educational methods, closely linked with real clinical settings, by which we can produce fully skilled personnel who have an inquiring mind enabling them to learn about problems themselves as well as their solutions.



Support Program for the Internationalization of University Education

Education Alliance in This Age of Globalization of Medicine

Project Leader : Takehito TAKANO, M.D., Ph.D.
(Professor, Division of Public Health, Graduate School of Medicine and Dentistry)

This program aims to promote international alliances in medical education by fostering eminent professionals who can commit to develop better health care systems around the world. The program is expected to be a model of international collaboration in education with overseas medical institutions and universities that will install strategic capacity-building programs through learning gained from public health and medical care systems in Japan and other countries. As an education program for the healthcare field, this program takes an advantage of collaboration with the World Health Organization (WHO) to effectively expand international cooperation in the field of medical education.

This program includes the following activities:

- Inviting young leaders of health and medical fields from countries around the world and offering them public health leadership courses to help them acquire skills and knowledge in developing better healthcare systems. Both Japanese and international students participate in these leadership courses conducted in English.
- Sending instructors to foreign countries to conduct educational activities, in collaboration with universities and institutions in other countries.
- Developing bilingual teaching materials in English and Japanese to enable healthcare leadership education across countries.
- Strengthening the collaboration with WHO in human resource development to nurture leaders who can enhance quality of healthcare throughout the world.
- Designing a new curriculum for an international leadership course in healthcare.



Remedial Training Program

Reeducation Program for Responding to Social Needs for Dental Hygienists and Dental Technicians

Project Leader : Yuzo TAKAGI, D.D.S., Ph.D. (Director, Center for Education and Research in Oral Health Care)

This reeducation program is aimed at supporting the dental hygienists and dental technicians who are currently at work or planning to return to work to acquire the latest knowledge and techniques so as to actively and productively pursue their career.

We offer two courses — the dental hygienist course and the dental technician course — both of which are designed to respond to the rapid changes in the healthcare environment. These programs introduce interdisciplinary approaches to the curriculum. Although two-year courses used to be prevalent in education for dental hygienists, three-year programs have been introduced in 2004, and since then they have been increasing. In order to fill the gap between these two educational systems, we offer a one-year supplementary program for those who already finished a two-year program. We also provide a program for dental technicians who have finished their job training programs two to ten years ago.

Our educational policy is to motivate the students to develop self-directed learning habits that would empower them to initiate independent learning of new concepts and skills, and integrate them with the knowledge and didactic skills provided in the program. Distance learning and e-learning programs are also available so that students can access them from their work sites or from home, thereby complementing and enhancing the knowledge and clinical techniques they acquired at the university.



Remedial Training Program

Remedial Training Program for Mid-Career Nurses Making Career Transitions

Project Leader : Akiko HONDA, R.N., Ph.D. (Professor, Home Care Nursing, Graduate School of Allied Health Sciences)

The central aims of this program are to support mid-career nurses intending to further their career by improving their practical skills and to assist those who are returning to work as a nurse after a long hiatus. We also help those who want to pursue their career in a specialized field of nursing. In this remedial education program for nurses, they are expected to acquire self-directed learning habits that, we believe, will lead them to achieve self-fulfillment in their professional career.

We offer one generalist course and four specialist courses, responding to the needs of nurses making career transitions. In specialist courses we have four divisions: home care nursing, midwifery, research, and education. Participants can take some courses for undergraduate and graduate students at TMDU as well as courses offered in this program.

We hope this program will provide mid-career nurses with opportunities for lifelong learning. We issue certificates to the participants of this training program, which will help them obtain other professional qualifications certified by other official bodies.

The educational goals of this program are:

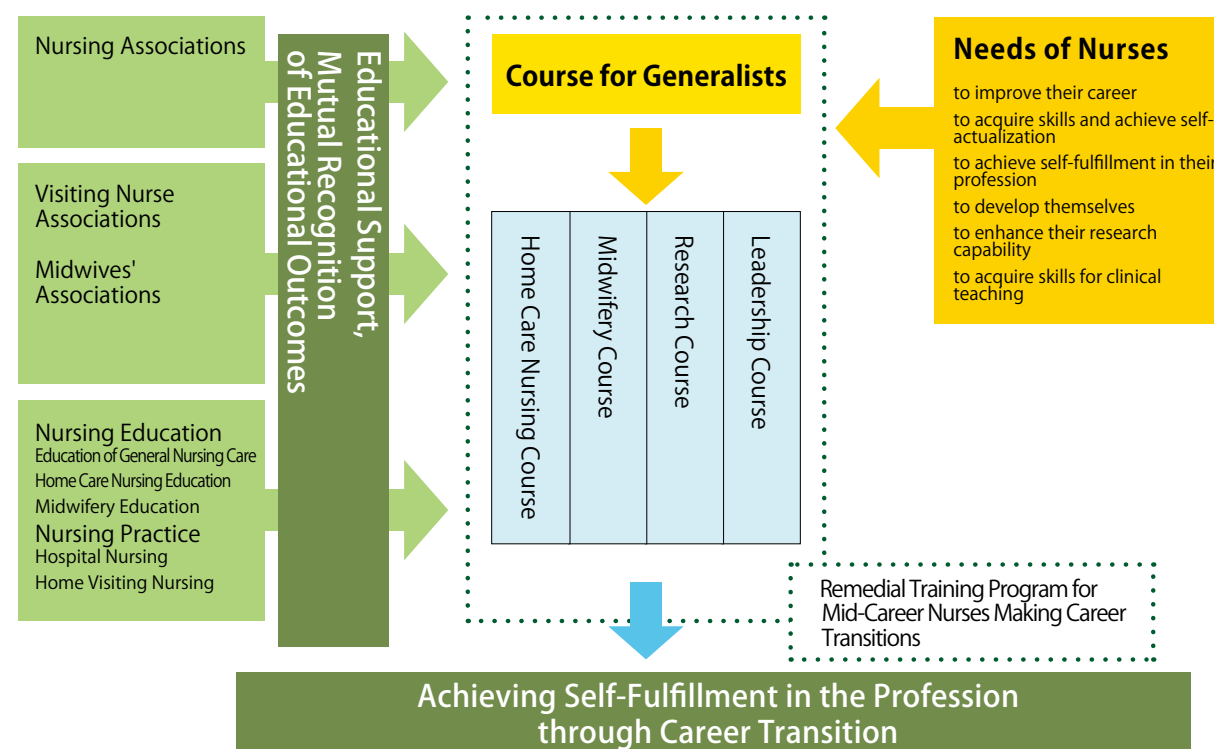
"To encourage mid-career nurses to pursue a more rewarding career in the medical profession"

"To help mid-career nurses acquire new skills and qualifications to develop their career".

At the end of this program, the participants will:

- ① Have their own initiative to develop themselves in their profession
- ② Have renewed practical skills and management ability in their specialized field of nursing
- ③ Have leadership skills and an inquiring mind for further development of nursing science.

Overview of the Program



Support Program for Distinctive University Education

Establishment of a Computer Assisted Education System on Clinical Simulation for Medical and Dental Practice Training

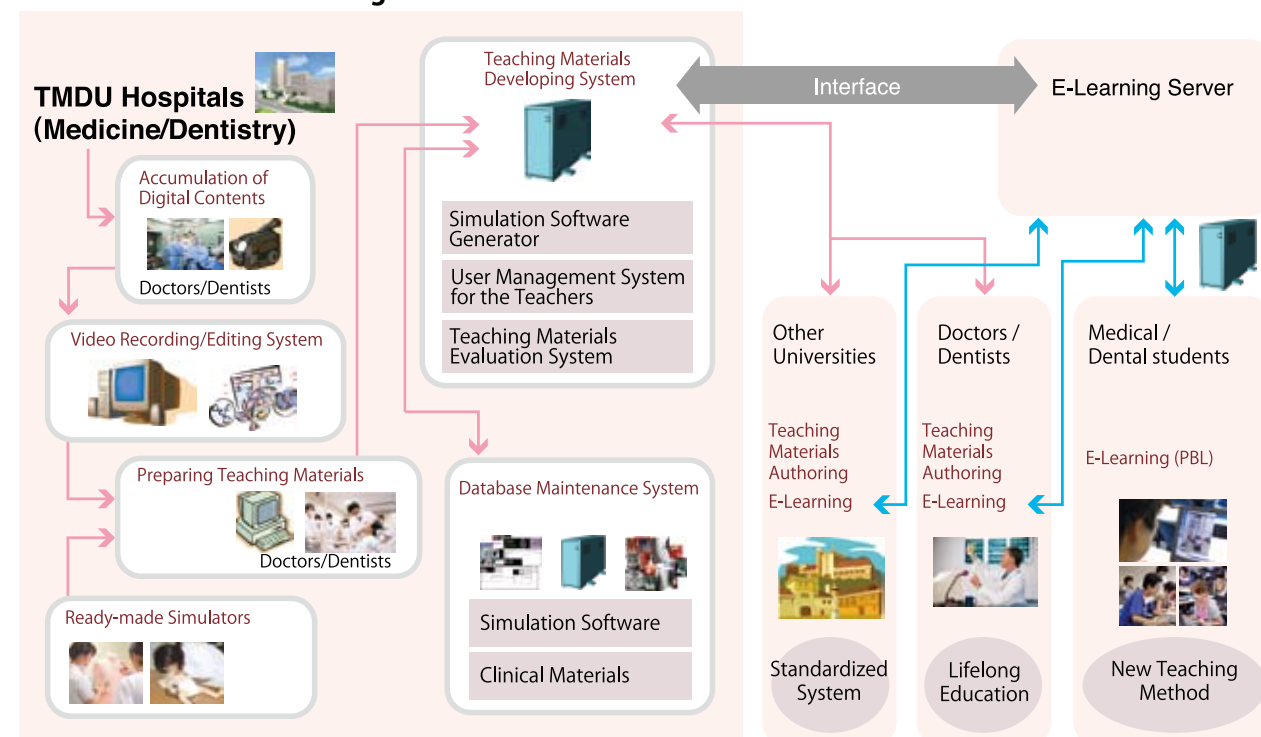
Project Leader : Atsuhiko KINOSHITA, D.D.S., Ph.D. (Professor, School of Oral Health Care Sciences)

In order to advance the clinical ability of medical and dental students, we will establish a computer assisted education system using clinical materials such as macro photographs, X-ray photographs, CT images, MRI images, operation movies, endoscopy movies, cardiac sounds, and breath sounds.

As a part of this program, we engage in the following:

- (1) Developing a simulation software generator which enables non-specialist computer users to create multimedia medical and dental simulation software. These multimedia training aids make it possible for the students to simulate clinical experiences such as a medical interview, examination, diagnosis, treatment planning, surgery, and other medical procedures.
- (2) Constructing databases of medical data, scenarios for case study, and medical / dental simulation software itself, to which both the teachers and the students can access on demand under secure access control.
- (3) Incorporating the medical / dental simulation software into an e-learning system and appraise its educational effects.
- (4) Utilizing ready-made simulators for medical and dental education.

Future image of Computer Assisted Education System on Clinical Simulation for Medical and Dental Practice Training



Support Program for Improving Graduate School Education

Global Linkage Program between University and Industry

Project Leader : Hiroshi TANAKA, D.M., Ph.D. (Dean, Biomedical Science PhD Program)

For our Biomedical Science PhD Program, we have designed and implemented an educational program which fosters human resources who can promote practical studies in fusing the interdisciplinary fields related to complex disease research with leading-edge life science. Soon after its launch, our program, "International Educational Program in Biosciences", was granted support from the Ministry of Education, Culture, Sports, Science and Technology as part of their Attractive Education in Graduate Schools program. By introducing an international viewpoint into our graduate school education, we have succeeded in producing a new type of researcher who can show initiative in discussions with overseas scientists in English.

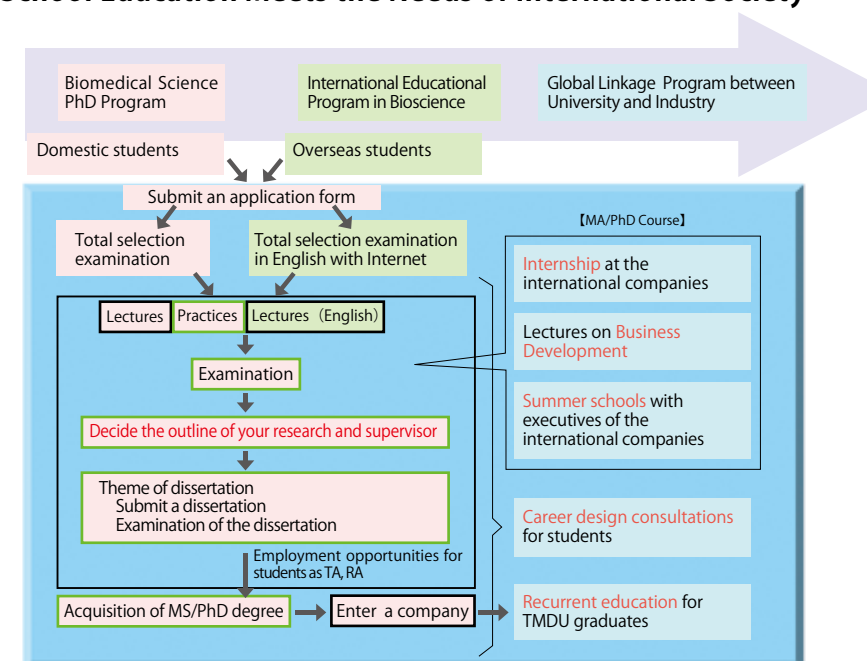
Now, our newly started program, "Global Linkage Program between University and Industry", takes the next step. The chief aim of the program is to help the students to develop their communication skills pursue their career paths in the international community. While strengthening the foundation of basic competence nurtured by the former

program, the students can develop their application skills in this program.

This program is more case and experience oriented than the former program which mainly consisted of classroom lectures and seminars. The students can have internship opportunities at international business firms or international research institutes to see real-world examples and global trends and envisage future needs. The students are also provided with specialist consultations which support them to define their career objectives, which can help maximize the educational effects of internships. We also collaborate with international companies and open a school where our students and faculty study business strategies and hone their communication skills.

Thus our program aims to enhance linkages between the graduate school and international business arena while supporting our students to contribute to the global community.

Graduate School Education Meets the Needs of International Society



Support Program for Improving Graduate School Education

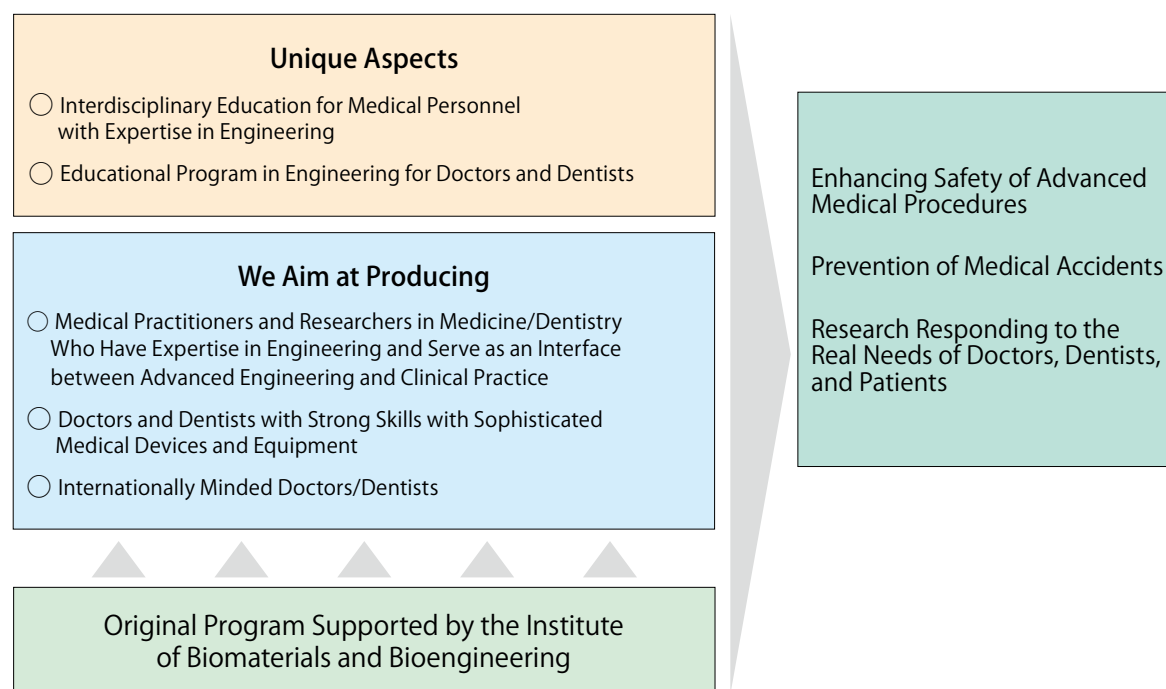
Educational Program for Specialists Interfacing between Advanced Engineering and Medical/Dental Practice

Project Leader : Junji TAGAMI, D.D.S., Ph.D. (Vice Dean, Graduate School of Medicine and Dentistry)

Life science and engineering in medicine/dentistry have been the two principal fields for research and education at graduate schools of medicine and dentistry. Recently, however, people in such schools tend to focus on research in life science because its advancement invariably leads to marked progress in clinical medicine. Developments in life science have also greatly contributed to the improvement of surgical therapeutics and dental treatments. Research in engineering is, however, essential for advancement of clinical practice in surgery and clinical dentistry because it heavily depends on sophisticated biomaterials and medical equipments.

The main aim of this project is to reform the educational program in the field of engineering in medicine/dentistry in order to produce specialists who can serve as an interface between advanced engineering and clinical practice. Interdisciplinary educational programs have been hitherto offered for the students majoring in science and technology to acquire the knowledge of medicine and dentistry, but no systematic educational program in engineering and technology has been available to doctors and dentists. The unique aspect of this program is that it is aimed at offering to medical doctors and dentists, and this original program can be offered by only TMDU with its affiliated research institution ; The Institute of Biomaterials and Bioengineering.

Educational Program for Specialists Interfacing between Advanced Engineering and Medical Practice



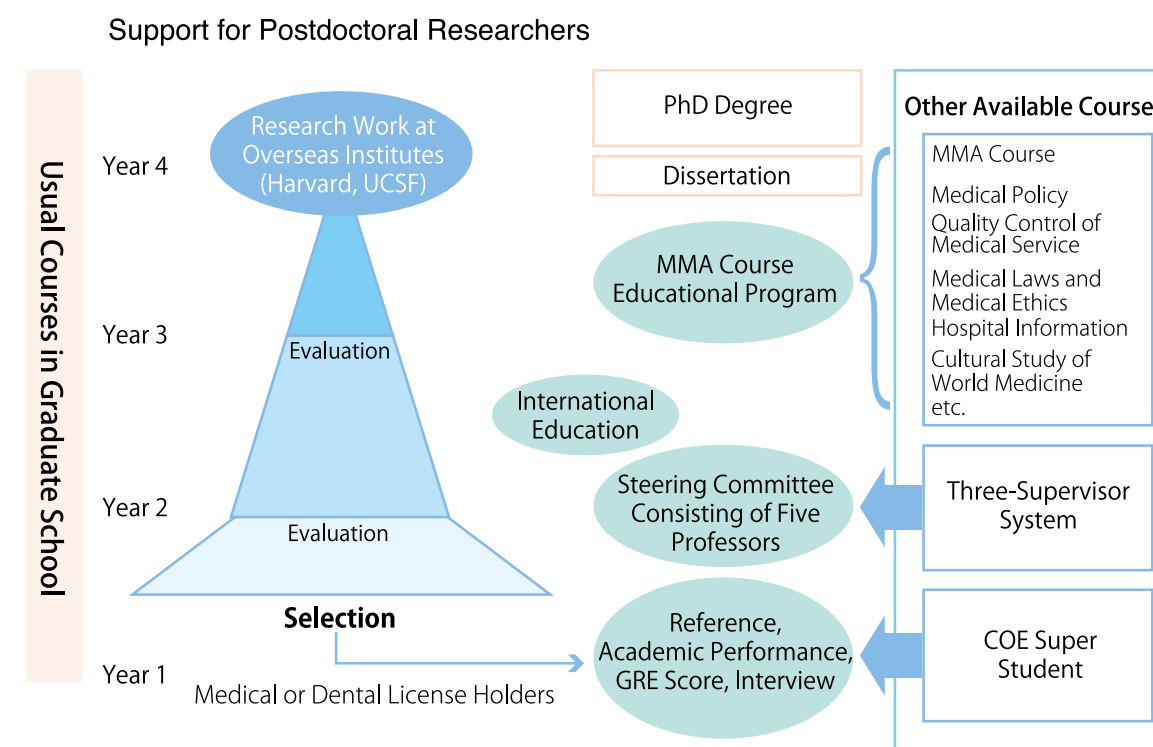
Initiatives for Attractive Education in Graduate Schools

Educational Program for Opinion Leaders in the Fields of Medicine and Dentistry

Project Leader : Junji TAGAMI, D.D.S., Ph.D. (Vice Dean, Graduate School of Medicine and Dentistry)

The Graduate School of TMDU was reorganized by integrating two separate graduate schools of medicine and dentistry, and has succeeded in producing researchers and educators who are leaders in the field of life science. However, the scientific advancement through specialization and subdivision has resulted in a shortage of opinion leaders who can take a comprehensive view of medicine and dentistry. The chief aim of this program is to nurture future opinion leaders in the fields of medicine and dentistry who can respond to changing social needs, rather than being confined to their specialization.

This program promotes the multiple instructor system and encourages the participation of teachers in management. In this program, a few selected students are individually supervised by five professors, and in the first three years, while they conduct research on their respective topics, they are required to take certain courses from the Master of Medical Administration Program, including "Medical Policy", "Quality of Medicine", "Law and Ethics", "Medical Information", "International Studies" and "Man-to-man English Conversation". In the fourth year, they go to overseas partner institutes, such as Harvard University, Imperial College, North Carolina University, and UCSF, where they continue their research while developing their social competence. The selected students are granted a scholarship as well as other financial support from the university and they are provided with advice in finding positions when they complete the program.

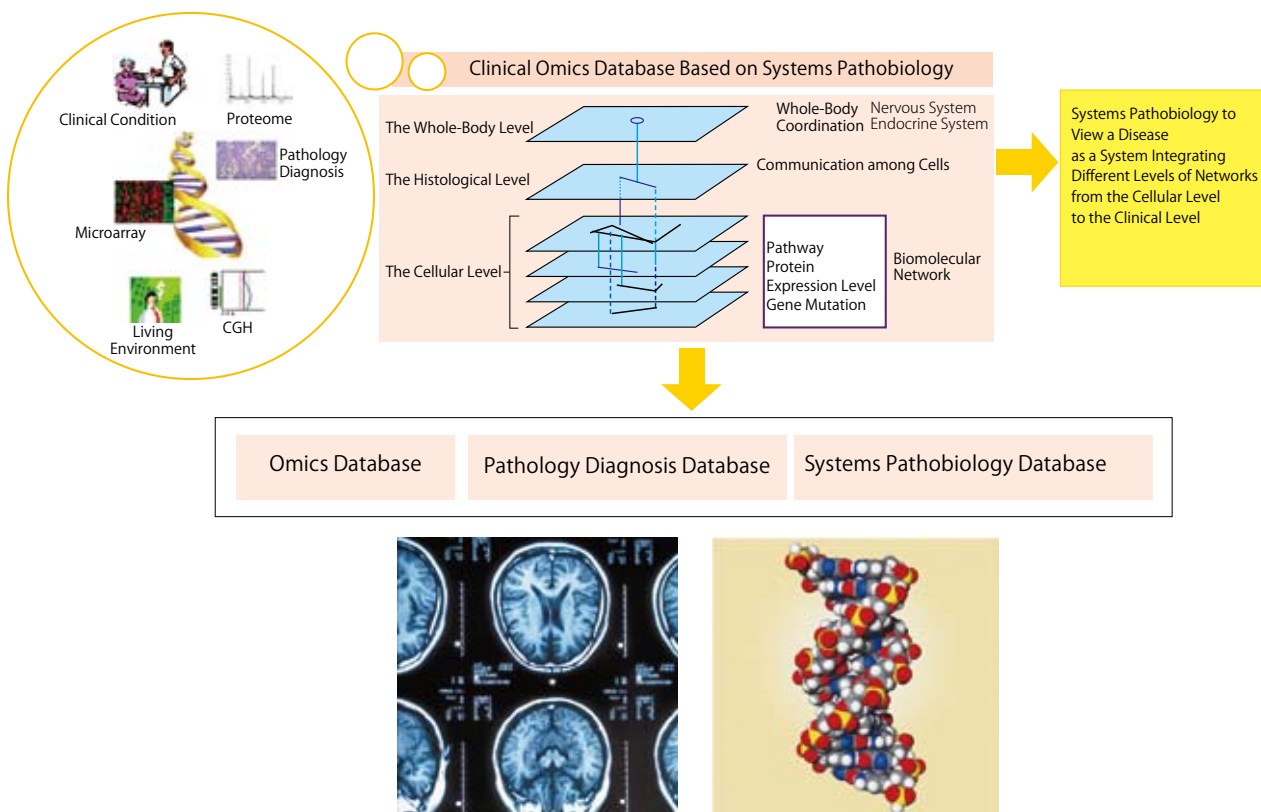


Clinical Omics Database based on Systems Pathobiology

Project Leader : Hiroshi TANAKA, D.M., Ph.D. (Director, Information Center of Medical Sciences)

A remarkable development has been achieved recently in the fields of biological information, aiming at holistic analysis of complete genomes and proteomes, collectively referred to as "omics". Though some of its achievements have already been applied to clinical medicine, relationships between new molecular information in omics and existing knowledge in clinical medicine have not been fully understood, and new systematic approaches are yet to be established to make omics information useful for clinical science, which will lead to better diagnosis, treatment, and prognosis.

Commissioned and granted financial support by the Ministry of Education, Culture, Sports, Science and Technology, Tokyo Medical and Dental University (TMDU) has launched a project to build a clinical omics database, by integrating genomic or proteomic data on the cellular level, pathological data on the histological level, and clinical data on the whole-body level into a unified view of a disease. National Cancer Center, Biological Information Research Center, and RIKEN Genomic Science Center are taking part in this project. Our original approach of "Systems Pathobiology" is viewing a disease as a system. We are establishing a comprehensive approach toward diseases by incorporating molecular data and clinical/pathological data with computational data mining techniques. We believe our exploration in omics and systems pathobiology will open up new understandings of diseases, leading to a better treatment customized for each patient.



Development of Molecular Level Scientific Appraisal Methods for Complementary and Alternative Medicine

Project Leader : Masaki NODA, M.D., Ph.D. (Department of Molecular Pharmacology, Medical Research Institute)

Alternative medicine has been widely accepted and its demand is developing. The National Institutes of Health in the United States established the National Center for Complementary and Alternative Medicine (NCCAM), which is dedicated to the exploration of scientific explanations and verification of the effectiveness of Complementary and Alternative Medicine (CAM). Manual therapy (sometimes referred to as manipulative treatment), a form of alternative medicine, is a hands-on technique used to adjust distortions or constrictions in joints and muscles in order to treat symptoms caused by physical imbalance or other lifestyle-related diseases. Various forms of manual therapy are administered to improve or maintain health in Japan.

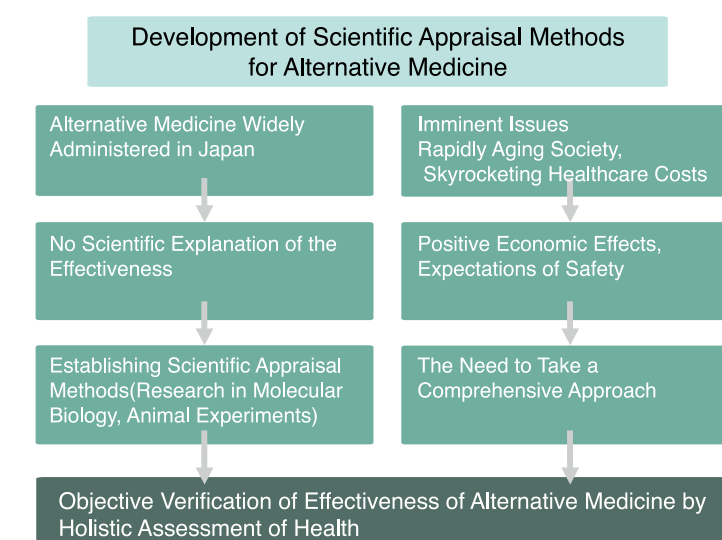
We need to consider the possibility of applying holistic healing methods, including manual therapy and other forms of alternative medicine, to treat or prevent disorders caused by multiple factors as well as lifestyle diseases. This is an especially pressing issue in Japan due to the rapidly aging population.

Effective alternative medicine can bring about positive economic effects. Inflating healthcare costs can lead to a financial crisis in Japan. This is not just a grim forecast of

the future; it is already extremely difficult to maintain the current healthcare service level because advancements in Western medicine have resulted in skyrocketing medical costs for drugs and sophisticated equipment. If alternative medicine that does not use any drugs or surgical procedures is effective in improving health, it could significantly cut medical costs.

At present the effectiveness of alternative medicine is in dispute, and there is presently no satisfactory scientific bases for the mechanism by which alternative medicine achieves effectiveness. It is imperative to explore possible mechanisms related to alternative medicine, and it is also necessary to establish and apply scientific methods to measure the effectiveness of alternative medicine in regulating or adjusting body function.

In this project, our main objective is to establish a basis for scientific appraisal of alternative medicine by developing monitoring methods of systemic balance and for holistically assessing health. By analyzing a molecule or molecular group that is related to the regulatory effects of alternative medicine, we will search for indices which can measure enhancement or deterioration of function.



Medical Top Track (MTT) Program

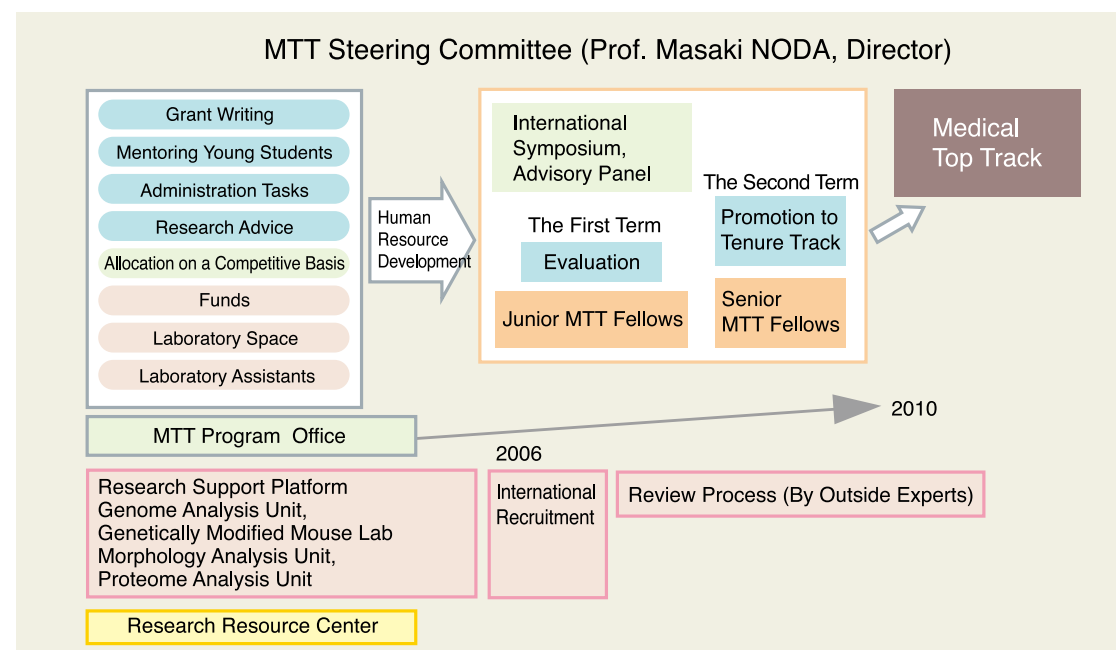
Project Leader : Masaki NODA, M.D., Ph.D. (Director, Medical Research Institute)

The Medical Top Track (MTT) program is designed to nurture young investigators in medical science. Within this program we will recruit MTT Fellows based on a competitive application process which examines their scientific accomplishments as well as their performance in English interviews regarding the scope of their future research. We have invited outside experts as well as experienced researchers from within to create a promotion committee for this program; this committee is also in charge of selection of MTT Fellows. The candidates should have up to ten years of postdoctoral research experience. Strong candidates should have the ability to raise funds to conduct pioneering research and possess a strong motivation to pursue a career in scientific research.

MTT Fellows will be provided (on a competitive basis) with (1) funds to start the fellowship, (2) laboratory space, and (3) postdoctoral laboratory assistants to help them. In the first three years of their fellowship they are referred to as Junior MTT Fellows and should be committed to their research activities, with necessary support offered from the Research Support Platform and the Research Resource Center affiliated with the Medical Research Institute.

When the junior fellowship term is complete, those who are highly evaluated can extend their fellowship as Senior MTT Fellows. While continuing to engage in their research they can have opportunities to participate in a wide range of experiences, which will be required of future leading scientists. Senior MTT Fellows also mentor their younger colleagues. A grant writing course is offered for them to hone their skill in writing grant applications. They will also experience management administration tasks in their laboratories. The Senior MTT Fellows who have produced outstanding achievements can be promoted to a tenure track faculty position at our institute.

Thus, MTT Fellowship is a preliminary step to be appointed as an assistant or associate professor. One of the objectives of this program is to enhance the mobility of research personnel and to establish a new tenure system in the medical science community in Japan. We are aiming to create a new, competitive model where young, talented researchers are encouraged to take on additional challenges.



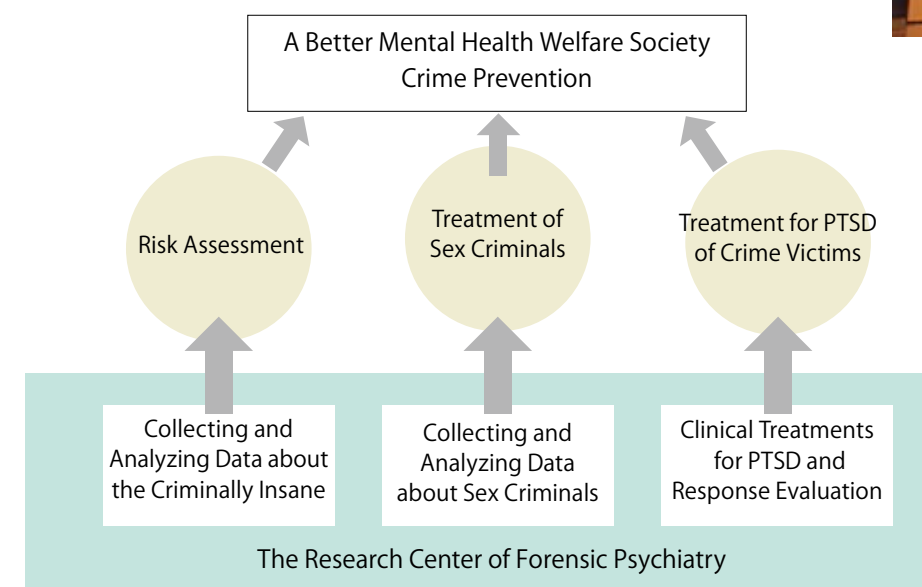
Etiology and Prevention of Offending and Behavioral Disorders, and Medical Support for Crime Victims

Project Leader : Masaki NODA, M.D., Ph.D. (Director, Medical Research Institute)

With frequent occurrence of heinous crime, there are numerous problems for the field of forensic psychiatry to address. We need to tackle the problems of treatment and social rehabilitation of criminals to prevent repeat offenses, and provide medical support for crime victims. In this program, we focus on particularly urgent issues : (1) risk assessment of violence of the criminally insane, (2) treatment of sex criminals, and (3) treatment for PTSD of crime victims. Our objective is to establish a research center focusing on forensic psychiatry. In Japan, because of delayed legislation, study in this field has not rapidly advanced. However, TMDU conducted a large-scale field survey that highlighted the urgent need for countermeasures, and also contributed to the enactment of a new law concerning the medical treatment and supervision of insane persons, a basic law for criminal victims, and the reform of the prison law.

In the last year or so, several new laws were put into force, and the underlying conditions for investigation and clinical treatment of the three aforementioned problems were much improved. Regarding the first problem of risk assessment, we statistically analyzed documented cases of medical observation in the archive of the Justice Ministry and investigated actual clinical cases at the assigned hospitals. As for the treatment of sex criminals, we did overseas research and implemented treatment programs as a trial in Japan. In respect of treatment of victims, we opened a PTSD care unit (PTCU) where we administer clinical treatment and assess effectiveness, and conduct surveys of victims' attitudes and recovery. All of these endeavors are innovative and expected to produce fruitful outcomes for society. We also held two international symposiums to present our research results.

Etiology and Prevention of Offending and Behavioral Disorders, and Medical Support for Crime Victims



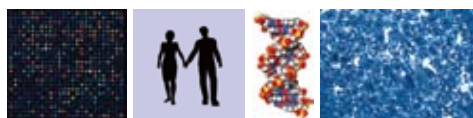
Educational Program for Biomedical Omics Information Scientists

Project Leader : Hiroshi TANAKA, D.M., Ph.D.
(Director, Information Center for Medical Sciences)

As the Human Genome Project showed, advancements in the information science and computational technology are vital for the development of life science. Bioinformatics is a new field of research that integrates life science and information science. At the moment, however, there are not enough researchers actively working for the development of this area. Now that the Human Genome Project has been completed, diverse pioneering investigations have been pursued, such as genome-wide profiling of gene expression processes with microarray techniques and comprehensive analysis of cell proteins with mass spectrometers. Life science is now expanding its field, encompassing holistic information to understand complex life systems—this broad discipline is termed *omics* and its application to clinical medicine is anticipated greatly.

In 2003 TMDU launched a five-year project to offer study opportunities to medical scientists for learning both life science and information science. This Educational Program for Biomedical Omics Information Scientists has been granted funding as a project to promote science and technology from the Ministry of Education, Culture, Sports, Science and Technology. The main goal of this program is to nurture doctors and medical personnel who can integrate life science and information science into practical applications in medicine and contribute to the further development of biomedical omics.

This educational program is also aimed at bioinformaticians who have been active in their field and are planning to diversify their activities into medical science. A special course is offered for them to acquire basic and practical knowledge in medicine and to learn methods of information management in omics. We believe that this program can qualify students to open up a new frontier in biomedical omics.



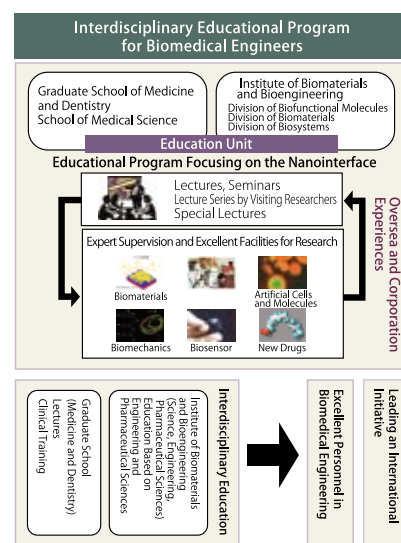
Interdisciplinary Educational Program for Biomedical Engineers

Project Leader : Kimihiro YAMASHITA, Ph.D.
(Director, Institute of Biomaterials and Bioengineering)

The objective of this program is to produce biomedical engineers who are sufficiently knowledgeable about basic science and highly skilled in applicable techniques, and able to contribute to the development of nanotechnology and multidisciplinary research related to nanotechnology. The program is aimed at students of the TMDU Graduate School of Medicine and Dentistry, the Biomedical Science PhD Program of TMDU, and students sent to our institute by business companies. Our ultimate goal is to supply excellent personnel to the academic and industrial arenas who can exercise initiative for technological progress.

The key technology of our research and education is focused on the nanointerface, that is, the technology to control the interface reaction at the nanometer scale. By building a close linkage between basic science and technology, we nurture researchers who can develop new and highly functional biomaterials, materials for drug delivery system, and medical devices/systems for diagnosis.

We offer courses in science, engineering, and pharmacy as well as medicine and dentistry. By inviting lecturers from abroad and sending our students to overseas institutions and business companies, we also encourage the students to expand their experience and deepen their understanding of the global science community.



Educational Program for Intellectual Property Evaluation in the Life Sciences

Project Leader : Yuko MAEDA, Ph.D. (Director, Intellectual Property Division, Technology Licensing Organization)

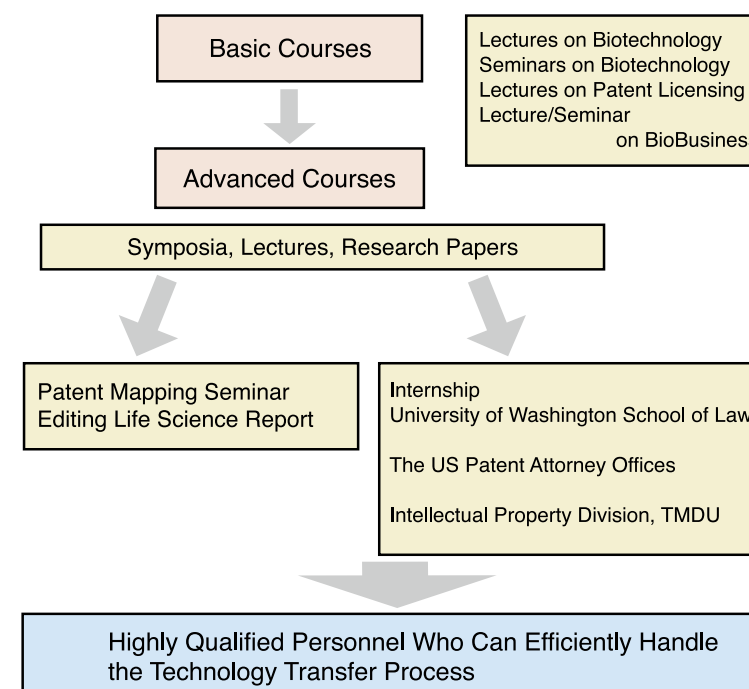
Life sciences and biotechnology will be a main industry of the 21st century, and it is an urgent national agenda for Japan to accumulate intellectual properties in this field. We must have sufficient knowledge not only in life sciences but also in patent systems and regulations, along with a strategic analysis of market needs, in order to accurately evaluate intellectual property in life sciences. English competency is also required as significant patents in medicine and biotechnology are applied mainly in the USA. Unfortunately there is a serious shortage of qualified personnel for this purpose in Japan, and as a result many technological inventions are yet to be properly evaluated. This problem is particularly urgent within intellectual property divisions and technological licensing organizations of universities, and in the financial industry including venture capital firms which invest in bio-venture companies. The chief aim of this program is to nurture qualified appraisers of intellectual property, by which we can efficiently promote technology

licensing and stimulate new industries. We are also aiming at producing patent attorneys who are knowledgeable in life sciences. We believe this will be of great help to accumulate intellectual properties in Japan.

The Intellectual Property Division, TMDU, employs graduate students who have expert knowledge in life sciences as intellectual property assistants and give them opportunities to take part in intensive educational courses offered by experienced patent attorneys and IP managers, and to experience on-the-job training investigating patents in medicine and biotechnology, filed both at home and abroad.

This educational program is not only aimed at graduate students of TMDU, but, with support from the Biomedical Science PhD Program and School of Biomedical Science, students of other universities and business people. We are making effort to produce experts in intellectual property evaluation in the life sciences.

Educational Program for Intellectual Property Evaluation in the Life Sciences



Program to Create an Infectious Diseases Research Center

(Proposal for Preliminary Investigation Examining the Feasibility of Creating a Small-Scale Research Center Abroad)

Extensive Research of Emerging and Re-Emerging Infectious Diseases at the Research Center in West Africa

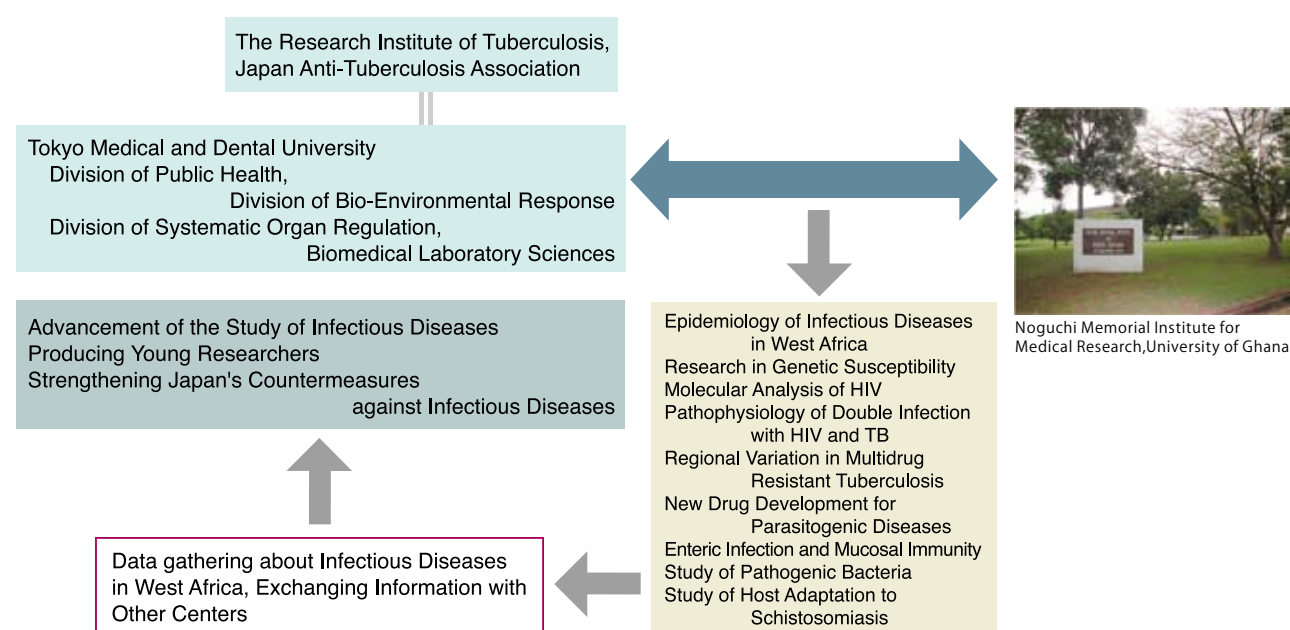
Project Leader : Nobuo OHTA, M.D., Ph.D. (Professor, Environmental Parasitology, Graduate School of Medicine and Dentistry)

In a globalized world, the control of infectious disease is on the international agenda; it is now widely recognized that multilateral cooperation is crucial in tackling the problems associated with infectious diseases. Especially with those diseases that spread across international borders, researchers must cooperate with each other in gathering and analyzing data, and exchanging information about pathogenicity and epidemiology. In 2005 the Ministry of Education, Culture, Sports, Science and Technology launched the Program to Create an Infectious Diseases Research Center, and it is planning to establish some more overseas research centers.

TMDU, the Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association, has proposed a plan to create an infectious diseases research center affiliated with the Noguchi Memorial Institute for Medical Research, University of Ghana, and has already started preliminary investigations. A twenty hour flight can bring us to West Africa, the remotest region in the world from Japan, where sufficient countermeasures have not yet been taken against prevalent infectious diseases, including malaria, AIDS,

tuberculosis, viral hemorrhagic fever, viral enteritis, African trypanosomiasis (sleeping sickness), schistosomiasis, and Buruli ulcers. We have recognized the potential risk that these infectious diseases pose, and proposed to create a research center on site which can strengthen the foundation of infectious disease study by Japanese researchers under the collaboration with African counterparts.

The Japanese government has supported the Noguchi Memorial Institute for Medical Research for more than 25 years—since its foundation. With P3 laboratories and an animal experimentation facility available, Noguchi Memorial Institute is the best equipped institution in West Africa, where Japanese researchers can study of infectious diseases unique to this region. We hope that TMDU will be able to contribute to the advancement of the study of infectious diseases and encourage many young researchers from the two countries through this program.



Molecular Imaging Research Program

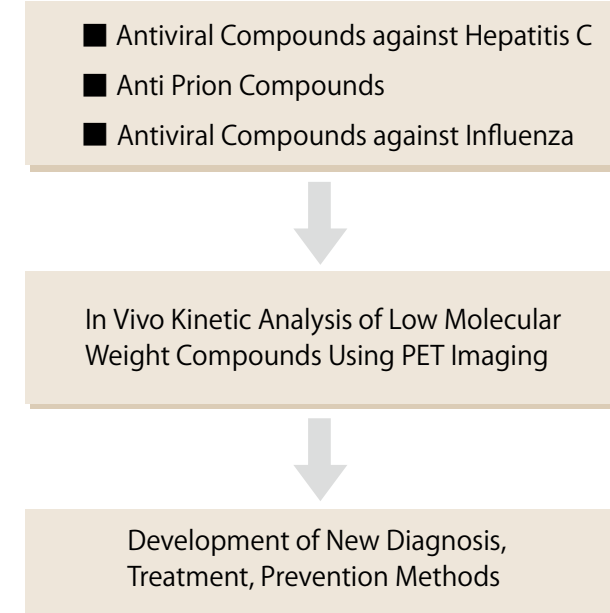
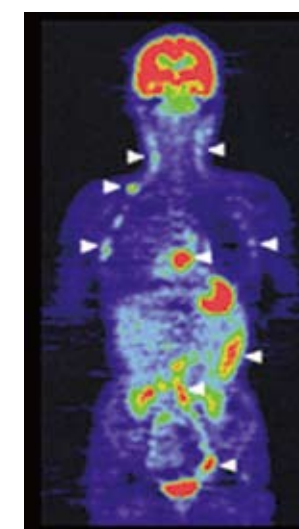
Imaging Research for New Drug Development to Treat Refractory Infectious Diseases

Project Leader : Masatoshi HAGIWARA, M.D., Ph.D. (Professor, Functional Genomics, School of Biomedical Science)

There are two million patients affected by hepatitis C, many of whom develop hepatic cirrhosis which eventually progresses to hepatoma. With no other treatment option available than interferon therapy, new drugs to eradicate the hepatitis C virus are keenly awaited. Prion diseases, including bovine spongiform encephalopathy, are also a cause of public anxiety because there is no effective treatment for them. Bird flu virus is another threat as it so frequently mutates that the vaccine is not always effective. The safety of Tamiflu, an oral drug for flu, has been called into question, and the development of a new drug which has a different site of action is much anticipated.

The public has high expectations for the development of new drugs to treat these refractory infectious diseases, diseases that have spurred great social anxiety. In order to fulfill those expectations, this program has set out to focus on hepatitis C, transmissible spongiform encephalopathy, and new forms of pandemic influenza. Our objective in this program is to develop lead compounds for new drugs.

As for hepatitis C, Dr. Hagiwara, the project leader, and his team are planning to synthesize new compounds that show remarkable effects in in-vitro evaluation as well as develop molecular imaging probes for them. As a part of this program, Dr. Kuwata and his team have already produced concrete achievements: they constructed a logical model of a new anti-prion compound based on the three-dimensional structure of the prion molecule—and it was proven effective in laboratory animals. We are also planning to design an agent against NP proteins which can lead to the development of a new drug effective against many types of influenza. Our ultimate goal is to accelerate drug discovery by the innovation such as synthesis of new molecular imaging probes with high speed c-methylation reaction and in vivo kinetic analysis with PET imaging, in cooperation with the Molecular Imaging Research Program, Kobe MI R&D Center, RIKEN.



The Integrated Database Project

Development of an Integrated Database in Biomedical Sciences

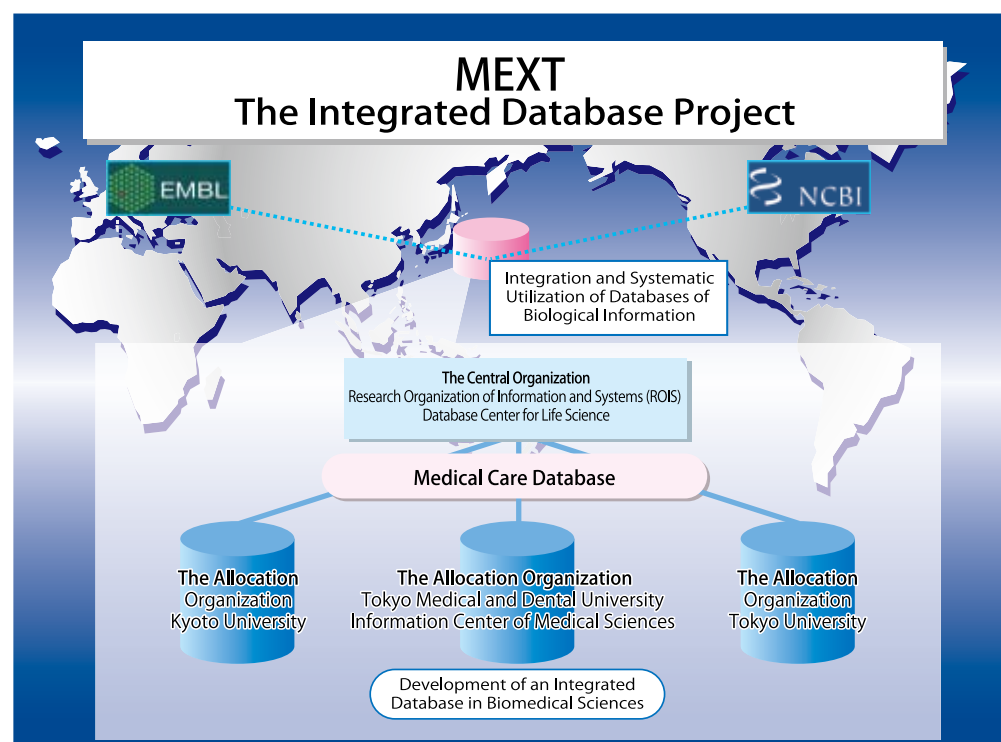
Project Leader : Hiroshi TANAKA, D.M., Ph.D. (Director, Information Center of Medical Sciences)

Since the Human Genome Project was completed in 2003, an enormous amount of information in the field of biological science has been made available. In Japan, many universities and research institutes have created databases of molecular information. However, these projects are separately planned and carried out, and there is no national organization in Japan to integrate them into one central database like the National Center for Biotechnology Information (NCBI) in the US and the European Bioinformatics Institute (EBI).

In 2006 the Ministry of Education, Culture, Sports, Science and Technology (MEXT) launched the Integrated Database Project in order to establish a national, central organization to manage databases of a wide range of biological data, from molecular information to disease information. It was announced in 2007 that allocation organizations would be appointed to promote the integration of databases in collaboration with the central organization,

and as a result of open application, the Information Center of Medical Sciences, TMDU, was selected as one of three allocation organizations, along with the University of Tokyo and the University of Kyoto.

It is widely known that our Information Center of Medical Sciences has already started a project to build the "Clinical Omics Database Based on Systems Pathobiology", commissioned and sponsored by MEXT, and in this project we are gathering clinical and omics data related to diseases. We are sure that we were appointed as an allocation organization to play an important role in the Integrated Database Project because of our achievements, especially our approach to viewing a disease as a system. Collaborating with the University of Osaka where data about intractable neurological diseases will be collected, we will make further efforts to establish the integrated database in biomedical sciences.



JSPS Core to Core Program

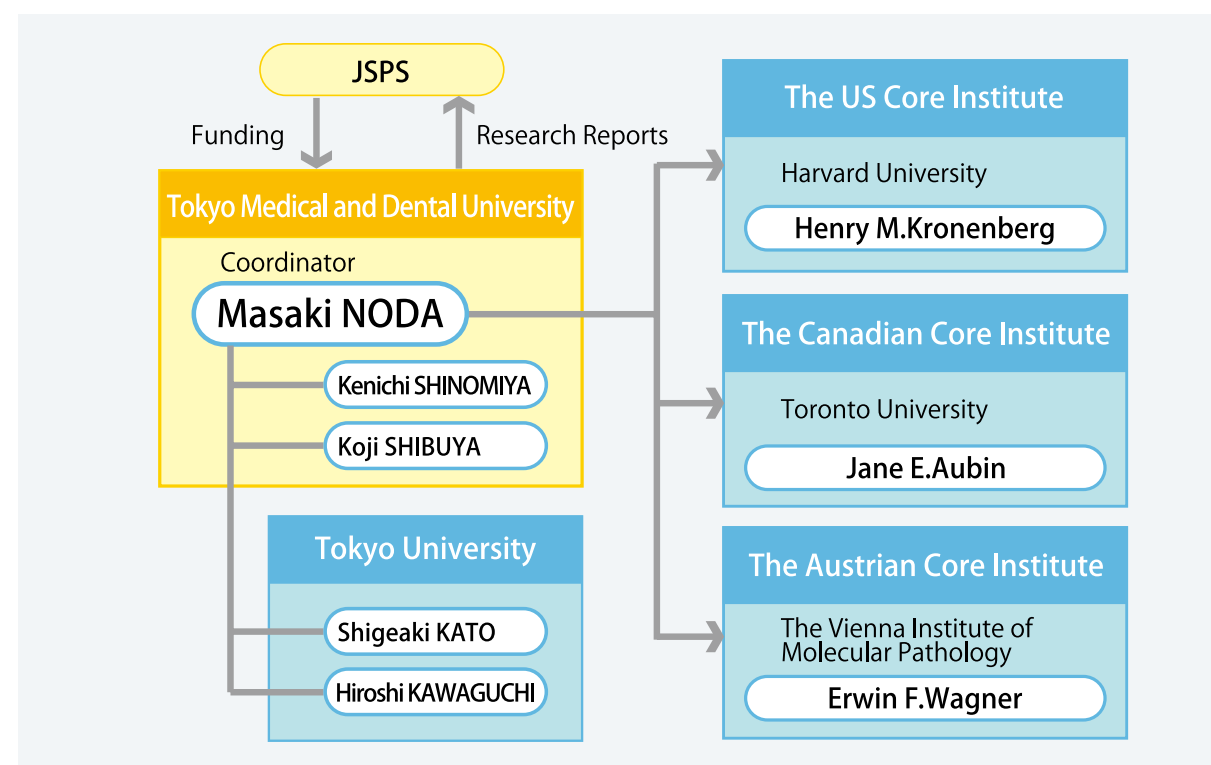
Advanced Bone and Joint Science (ABJS)

Project Leader : Masaki NODA, M.D., Ph.D. (Director, Medical Research Institute)

This project is funded by the Japan Society for the Promotion of Science which has initiated a new program for the purpose of building and expanding a cooperative international framework among universities and research institutions in Japan and 15 other technologically advanced countries. In 2004 and 2005, we carried out our project as one of the "Integrated Action Initiatives" and based on the results we achieved, our project was upgraded to a "Strategic Research Networks" project, aiming at managing a long-term network of researchers and institutions. According to the project plan, we are working to promote international collaboration in the field of advanced biomedical science and also to help young researchers build cooperative networks across borders. The main focus of our research is advanced bone and joint science (ABJS). The chief aim of

this project is to establish an international research hub to carry out pioneering research in the molecular pathology of bone and joint diseases. Along with TMDU, Harvard University in the US, Toronto University in Canada, the Vienna Institute of Molecular Pathology in Austria, and the Institute of Molecular and Cellular Biosciences and the Graduate School of Medicine of the University of Tokyo in Japan are taking part in this project. We have already hosted more than 10 ABJS Forums, more than 15 Young Investigator Net meetings, and an international symposium. Research collaboration, development of young researchers, and symposiums are main activities within this project, and through these activities, we believe, we can make a significant contribution to the advancement of bone and joint science.

Advanced Bone and Joint Science(ABJS)



Special Funds for Education and Research

Special Educational Program for International Medical Leaders of Tomorrow

Project Leader : Kikuo OHNO, M.D., Ph.D. (Dean, Faculty of Medicine)

Based on the preliminary training conducted within the "Innovative Educational Program to Nurture Internationally-Minded Medical Leaders", this special educational program aims at offering medical education that meets the highest global standards.

Within this program, we engage in the following:

- (1) Supporting the students to take part in clinical clerkships at Harvard Medical School.
- (2) Reforming the clinical clerkship program at TMDU and improving facilities so that the students can maximize their education.
- (3) Supporting the students to do research work at overseas affiliated universities and to deliver papers at international conferences.

This program makes it possible for the students in the sixth year who pass the selection process to take part in clinical clerkships at Harvard Medical School. This externship program is implemented as part of the curriculum. We offer to candidate students for the Harvard Medical School Externship three months of intensive training.

As part of the project semester in the fourth year, students have a chance to undertake a research project overseas for five months. TMDU has a student exchange with Imperial College, London. Thus, TMDU offers opportunities for students to study abroad which will help the students to extend their intellectual horizons and foster global understanding.

We also invite experts on education from Harvard to work with TMDU faculty to improve clinical clerkship programs. Through this partnership with Harvard, we believe we can develop new ideas and approaches to medical education which can meet various challenges in the new era.



Special Funds for Education and Research

Bioethics Research Center

Project Leader : Shuki MIZUTANI, M.D., Ph.D. (Director, Bioethics Research Center)

The Bioethics Research Center was established in 2005 to promote international collaboration to explore new ethical standards to meet changes and challenges in the post-genomic era.

In 2007, we engaged in the following:

1. Support for Ethical Review of Research Proposals

Yuka Ozasa, Instructor of the Center visited the Harvard School of Public Health and studied the effective and efficient management of the ethical review process for research proposals. Based on her report, we have introduced some new approaches as listed below.

- (1) The Bioethics Research Center prescreens research proposals before the ethical review board examines them.
- (2) The Bioethics Research Center monitors research various ethical committees in our university and give them advice for efficient and non-biased review.
- (3) The Bioethics Research Center functions as a hub of the ethical review boards of our university to share the knowledge and experience. Our objective is sharing information on common problems and collaborating to solve them.

2. Education Programs in Ethical Issues

We offer some courses in ethical issues, especially issues concerning clinical cases related to genetic counseling, for the Department of Medicine, Biomedical Science PhD Program, the Graduate School of Health Sciences, and for other universities. In collaboration with the Clinical Research Center affiliated with the TMDU Hospital, we organized a forum to give lectures on ethical issues concerning medical research for doctors certified to conduct clinical trials by medical associations. We are planning to continually enhance our educational activities.

3. Clinical Practice in Genetic Counseling

We also conduct genetic counseling to those patients who needs genetic advice and considers genetic testing based upon the referral from the other specialities at the department of Medical Genetics. Our department has been approved by the Japanese board of Clinical Genetics and thus after completion of 3-year program in our department, one can be eligible for the board examination. Currently, ten medical doctors have registered in our program and joined in our sessions and attend the clinical conferences and invited seminars and lectures. We also making a novel database for clinincal genetics to share our clinical experience. Our database is uniquely cateogolized by clients' relationship to the proband and their attitudes to the disease itself, rather than clinical diagnosis or mode of ingerirance.

4. Publications

We published a two-volume proceedings of seminars, symposia. The Japan Association of Medical School Ethical Committees will host an international symposium on ethical issues. Our Bioethical Research Center will co-host this symposium and invite a distinguished scholar of biomedical ethics, Dr. Thomas Murray who is the president of the Hasting Center in the US. Our chief aim through these endeavors is to be a central source for disseminating information about bioethics in Japan.



Hard Tissue Genome Center

Project Leader : Masaki NODA, M.D., Ph.D. (Director, Hard Tissue Genome Center)

TMDU established the Hard Tissue Genome Center with special funds granted by the Ministry of Education, Culture, Sports, Science, and Technology. The Hard Tissue Genome Center acts as the hub of a network of clinical and scientific researchers of hard tissue diseases belonging to different departments of TMDU. The chief aim of the center is to promote studies on hard tissue diseases by integrating clinical and pathology information about diseases with findings in molecular bioscience.

The Hard Tissue Genome Center consists of the following seven divisions:

1. Molecular bioscience of hard tissue diseases
2. Structural analysis of hard tissue disease-related genes
3. Functional analysis of hard tissue disease-related genes
4. Pathology of cartilaginous diseases
5. Pathology of oral tumors
6. Development of advanced diagnostic methods
7. Development of advanced treatment methods

Director Noda is in charge of general management of the center.

The Hard Tissue Genome Center is a trans-sectional organization across the departments of medicine and dentistry as well as the research institutes of TMDU. We recently invited two researchers to launch the center. We have held strategic meetings for research promotion and carried out research plans to integrate and analyze clinical and genomic data.

We requested an international panel of scientists to assess our organization; both our research policy and budget scheme were highly accredited. The panel also gave us useful advice on our research plans.

Our main objective is to develop tailor-made treatments for hard tissue diseases and to introduce the idea of "translational research" into our approach so that discoveries at "the bench" (i.e., basic research) can be translated into clinical applications at "the bedside". Our center will act as a rallying point of collective efforts from all sections of TMDU and contribute to the development of new treatments for hard tissue diseases.

Divisions and Objectives

1. Division of Molecular Bioscience of Hard Tissue Diseases (Professor Masaki NODA, Associate Professor Yoichi EZURA)

This division carries out basic research concerning hard tissue diseases in molecular biology, pathology, and molecular pathophysiology. Our focus will be on molecular functions in cell proliferation and cell adhesion, tumor infiltration into bones, and regulation of cell proliferation and cell adhesion.

2. Division of Structural Analysis of Hard Tissue Disease-Related Genes (Professor Johji INAZAWA, Associate Professor Issei IMOTO, Associate Professor Kenichi OZAKI)

This division aims to identify genes responsible for hard tissue diseases, develop biomarkers for malignancy testing, and develop screening methods for molecular targets, regarding cartilaginous and oral tumors. For these purposes we do analytical studies of polymorphic genes, structural abnormalities of chromosomes, and epigenetic control of gene expression.

3. Division of Functional Analysis of Hard Tissue Disease-Related Genes (Professor Yoshio MIKI)

This division conducts systematic analyses of gene expression and proteomic analyses regarding hard tissue diseases. We also use the functional genomics approach in order to identify genes responsible for disease, and molecular targets of treatment, leading to the development of testing methods of anticancer sensitivity.

4. Division of Pathology Analysis of Cartilaginous Diseases (Professor Tsuyoshi ISHIDA)

This division carries out research in pathology diagnosis of cartilaginous diseases. Using data collected from pathology diagnoses and morphological analyses of tumor cells, we do research on functional annotation of genes responsible for disease as well as susceptibility estimation.

5. Division of Pathology Analysis of Oral Tumors (Professor Hitoshi TSUDA)

This division carries out research in pathology diagnosis of oral tumors. Using data collected from pathology diagnoses and functional and morphological analyses of tumor cells and combining them with simulation analysis, we do research on functional annotation of genes responsible for disease as well as susceptibility estimation.

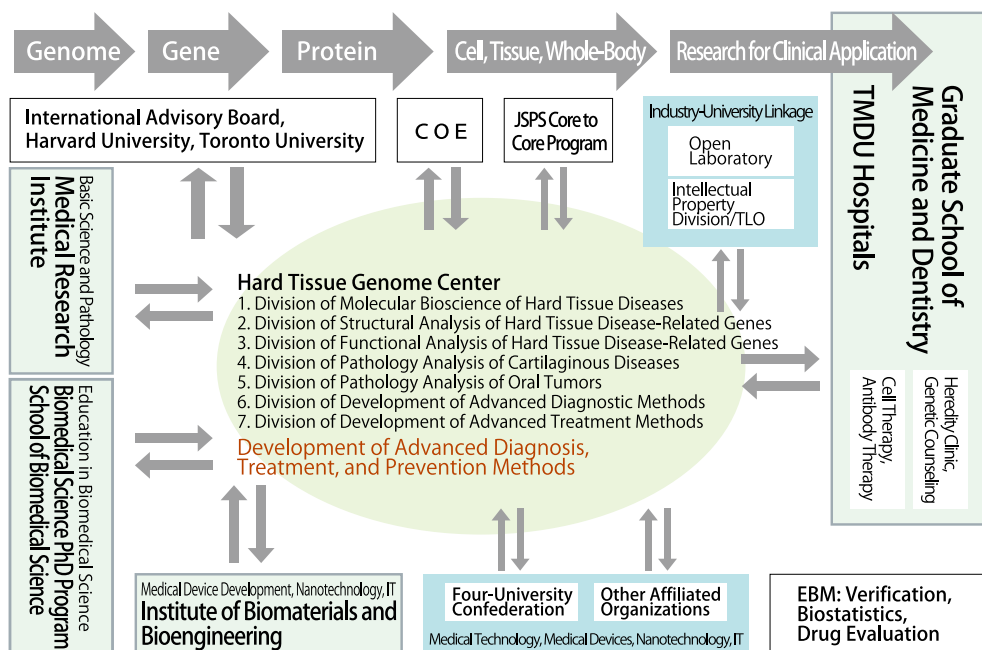
6. Division of Development of Advanced Diagnostic Methods (Professor Ken OMURA, Associate Professor Shogo HASEGAWA)

This division aims at developing advanced diagnostic methods for malignant hard tissue diseases, especially oral tumors.

7. Division of Development of Advanced Treatment Methods (Professor Kenichi SHINOMIYA, Associate Professor Keisuke ABE)

This division aims at developing advanced treatment methods for hard tissue diseases, especially cartilaginous tumors.

Hard Tissue Genome Center



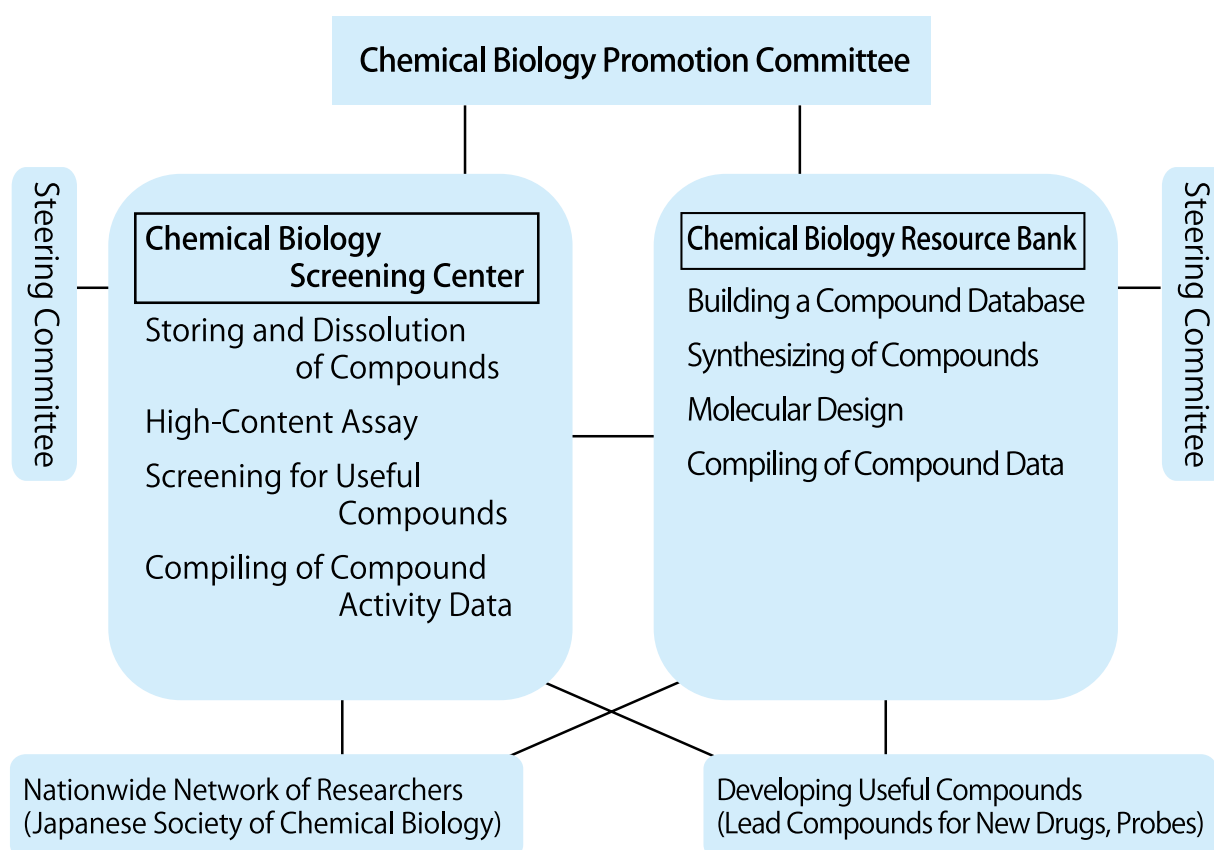
Research Promotion of Chemical Biology

Project Leader : Takeshi TSUBATA, M.D., Ph.D. (Dean, School of Biomedical Science)

Chemical biology is a new interdisciplinary field of science integrating chemistry and biology, applying ideas of chemistry and chemically synthesized compounds to the study and manipulation of biological phenomena. As new methodology is introduced in this newly emerging scientific discipline, significant discoveries will be made. It is also expected that new findings in chemical biology will directly lead to development of new drugs and new diagnostic agents, including visualization probes, as chemical compounds are used in many research projects. The US National Institutes of Health also emphasize the importance of the development of chemical biology in their roadmap for medical research. Chemical biology is expanding its field as are related disciplines such as bioinformatics and materials science. TMDU has produced many remarkable achievements in medical research and played a leading

role in education and research in chemical biology. Now, TMDU is launching a granted project for promotion of research in chemical biology and plans to make further contributions to its development.

Within this project we will improve and expand the facilities of the Chemical Biology Screening Center and the Chemical Biology Resource Bank and make them a solid platform for education and research in chemical biology at TMDU. We are also planning to establish a chemical compound library and build a database of structures, and activities of the compounds compiled in the library, and make the library and the database accessible to outside researchers as well. These efforts will help researchers to identify promising compounds for drug discovery, which is expected to lead to better diagnosis and treatment of diseases.



Medico-Dental Sciences Master of Medical Administration Course

In 2004, TMDU established a new master's degree course, the Medico-Dental Master of Medical Administration Course, to produce specialists in administrative management of medical service (1 year course) and healthcare policy (2 year course). This course is supported by the "Four-University Confederation" consisting of Hitotsubashi University, Tokyo Institute of Technology, Tokyo University of Foreign Studies, and TMDU.

The aim of this course is to produce professional personnel who can take the lead in managing medical service and executing medical policy, responding to changing social needs for medical service. With rapid changes in the healthcare system in Japan and the globalization of medicine, it is imperative to produce qualified experts who can design and manage a new system to provide better, patient-centered healthcare service.

In this course, the students are offered a comprehensive educational program in medicine related subjects, including organization management and safety management. Laws, economics, engineering, sociology, and ethics are also incorporated into the curriculum.

Main subjects are as follows:

- | | |
|---|---|
| 1. Medical Policy | 6. Medical Facility and Hygiene Control |
| 2. Quality Control of Medical Service and Risk Management | 7. Management Strategy and Organization Control |
| 3. Medical Law and Medical Ethics | 8. Human Resource Management and Human Resource Development |
| 4. Hospital Information and Information Security | 9. Information Supply in Medical Service |
| 5. Cultural Study of World Medicine | 10. Clinical Epidemiology |

Intellectual Property Division · Technology Licensing Organization (TLO)

Society has high expectations related to the creative power of universities to realize an affluent and wealthy society in the 21st century. In particular, life science (including medicine and dentistry) is predicted to be a key alternative area to information technology in the 21st century, and TMDU is expected to play an important role in building a country on intellectual property. To meet these social needs, we established the Intellectual Property Division specialized in medicine, biomaterials and biotechnology in September 2003, and established the Technology Licensing Organization (TLO) in August 2004. It is unprecedented for a national university cooperation to affiliate both an intellectual property division and a TLO. By close collaboration of the two, we promote efficient technology licensing, securing property rights and university-industry linkages, which lead to the development and wide application of new medical technologies.

We publish a journal, Life Science Report, to classify and disseminate patent information in life science. Human resource development is another mission of our organization. We offer educational programs for qualified personnel who can evaluate intellectual property in the field of life science.





International Exchange

Tokyo Medical and Dental University and Harvard Medical International, Inc. Alliance for Medical Education
Overseas Affiliated Universities
Inter-Faculty Agreements
Number of International Students
International House
International Student House

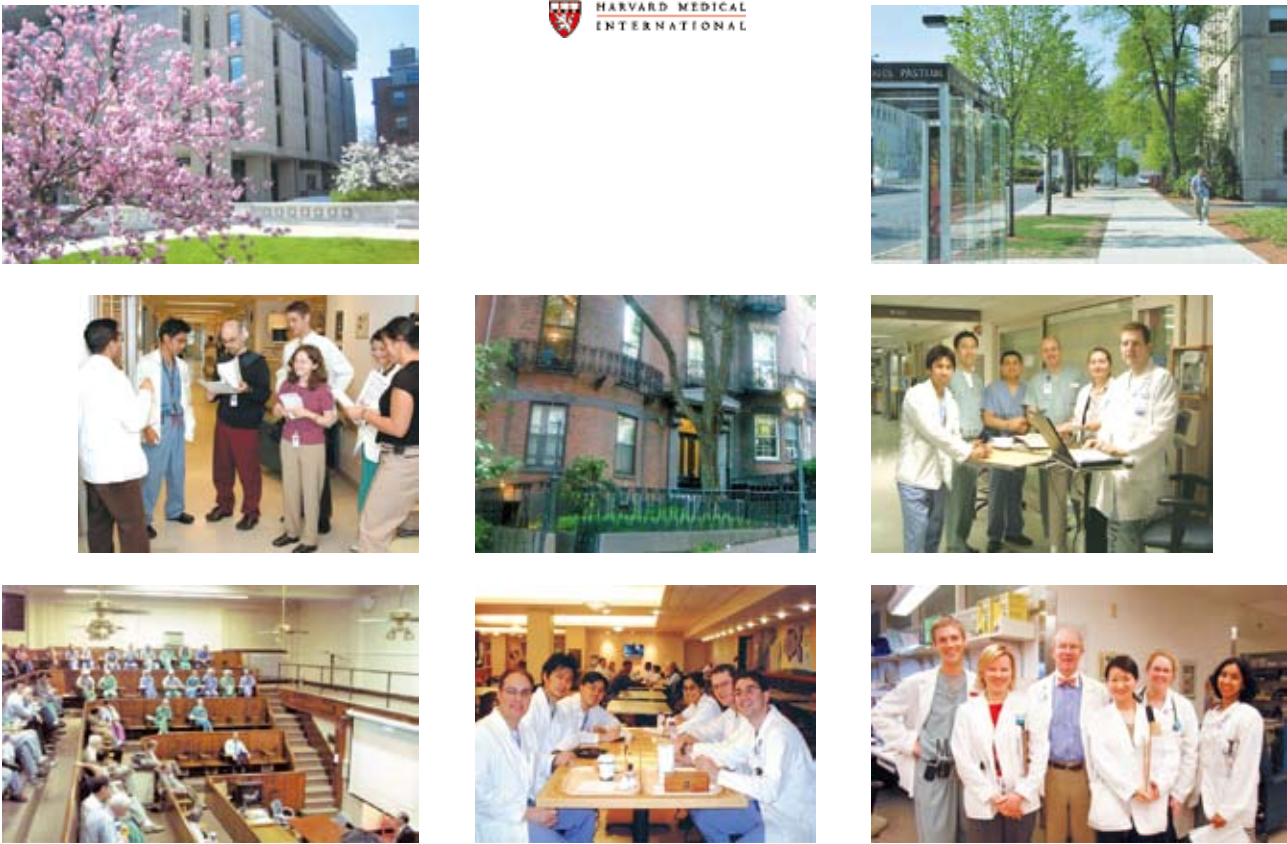
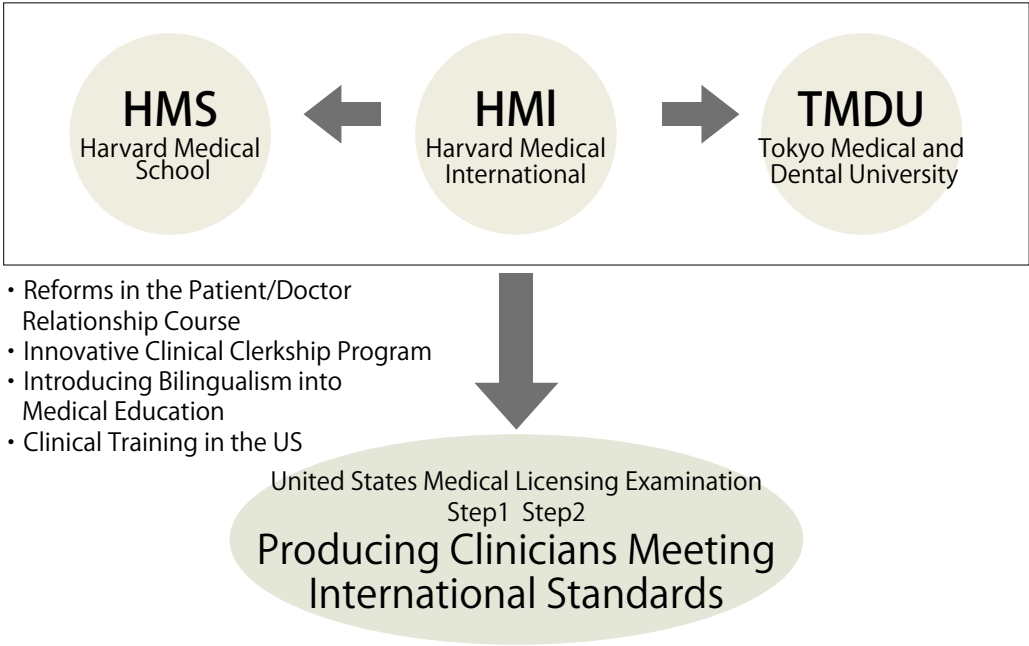
Tokyo Medical and Dental University and Harvard Medical International, Inc. Alliance for Medical Education

Since 2002, TMDU has cooperated with Harvard Medical International, Inc. and implemented wide-ranging reforms into our medical education. One of the chief aims of this alliance is to create a new model of medical education in Japan in order to meet various challenges we face in the 21st century. Partnering with HMI, closely related to Harvard Medical School, TMDU has introduced new ideas and approaches into its curriculum, including patient-doctor relationship courses, hybrid programs integrating basic science and clinical studies, and innovative clinical clerkship programs.

This alliance also provides TMDU students with a chance to take part in a clinical clerkship at Harvard Medical School. As a part of a recent curriculum reform, TMDU introduced the Harvard Medical School Externship program in 2004. The students who pass the selection go through nine months of preparatory training then take part in clinical clerkships at Harvard Medical School. They stay in Boston for three months and take three, four-week elective clerkship rotations. Harvard Medical School provides exchange students from all over the world with a chance to experience the same clinical training as Harvard students at HMS affiliated teaching hospitals. Working hard with talented and enthusiastic students of HMS and other medical schools all over the world, TMDU students can develop their clinical skills and get a better understanding of the American healthcare system as well as acquire an international way of thinking.



 Tokyo Medical and Dental University



Tokyo Medical and Dental University and
Harvard Medical International, Inc. Alliance for Medical Education

Nations /Area	Corporations	Dates of Agreements (Y/M/D)
United States of America	Harvard Medical International, Inc.	2002/07/01

Overseas Affiliated Universities
Inter-Faculty Agreements

Graduate School • Graduate School of Health Science • Faculty of Medicine

Nations /Area	Universities	Dates of Agreements
Republic of Finland	Seinajoki Polytechnic University, Graduate School Seinajoki Polytechnic University Tampere University	2000/07/07 2000/07/17 2000/07/17
Federal Republic of Germany	Justus-Liebig University Medical Faculty, Institute for Biochemistry	2000/07/18
United States of America	New York University, Graduate School of Education, Division of Nursing University of Colorado, Graduate School University of Illinois University of Washington School of Nursing	2000/11/07 2000/11/28 2001/04/27 2002/01/08
Canada	Department of Health Administration, Faculty of Medicine, University of Toronto Faculty of Nursing, University of Toronto	2001/03/15 2001/07/05
United Kingdom of Great Britain and Northern Ireland	University of Sheffield, Graduate School of Nursing and Midwifery Imperial College London Faculty of Medicine	2001/09/10 2003/04/30
People's Republic of China	Capital University of Medical Sciences, Faculty of Public Health	2002/03/18
Kingdom of Thailand	Faculty of Medicine, Chulalongkorn University	2002/03/25
French Republic	École Normale Supérieure de Lyon	2005/04/01

Graduate School • Faculty of Dentistry

Nations /Area	Universities	Dates of Agreements
Republic of Korea	College of Dentistry, Seoul National University School of Dentistry, Kyungpook National University School of Dentistry, Chonnam National University	1983/10/10 1995/09/04 2006/10/20
Kingdom of Thailand	Faculty of Dentistry, Chulalongkorn University Faculty of Dentistry, Mahidol University Faculty of Dentistry, Chiang Mai University Faculty of Dentistry, Prince of Songkla University	1991/01/16 2001/05/03 2001/12/07 2003/03/21
People's Republic of China	The School of Stomatology, Jilin University Dental Faculty, Dalian Medical University School of Stomatology, Peking University School of Stomatology, Capital Medical University	1993/07/27 2000/06/08 2003/09/21 2006/09/01
Taiwan	College of Oral Medicine, Taipei Medical University	2004/04/23
Republic of Indonesia	Faculty of Dentistry, University of Indonesia	1993/08/31
United States of America	School of Dental Medicine, University of Pennsylvania Harvard School of Dental Medicine School of Dentistry, University of North Carolina at Chapel Hill School of Dentistry, University of California San Francisco	1994/01/27 1996/07/26 1999/03/18 2000/08/28
Canada	Faculty of Dentistry, McGill University	2006/08/07

Australia	Faculty of Medicine, Dentistry and Health Sciences, School of Dental Science, University of Melbourne	1994/03/31
Republic of Singapore	Faculty of Dentistry, National University of Singapore	1995/07/20
Malaysia	Faculty of Dentistry, University of Malaya	1995/08/27
Kingdom of Denmark	School of Dentistry, Faculty of Health Sciences,University of Copenhagen	1995/08/31
Union of Myanmar	Institute of Dental Medicine Yangon	1995/09/08
Socialist Republic of Vietnam	Faculty of Odonto-Stomatology, University of Medical Sciences Ho Chi Minh City University of Odonto-Stomatology, Hanoi	1996/01/16 2005/06/07
Mongolia	Dental School, Mongolian National Medical University	1999/01/19
Democratic Socialist Republic of Sri Lanka	Faculty of Dental Sciences, University of Peradeniya	1999/04/29
Kingdom of Cambodia	Faculty of Dentistry University of Health Sciences Phnom Penh Cambodia	2002/09/19
Lao People's Democratic Republic	Faculty of Medical Sciences, National University of Laos	2003/10/28
Republic of the Philippines	College of Dentistry, University of the Philippines Manila	2003/11/06
Federal Republic of Germany	Charite Universitary Medicine Berlin	2004/03/17
Taiwan	College of Medicine and School of Dentistry, National Taiwan University	2005/06/14

Institute of Biomaterials and Bioengineering

Nations /Area	Universities	Dates of Agreements
United Kingdom of Great Britain and Northern Ireland	Bioengineering Unit, University of Strathclyde Interdisciplinary Research Centre in Biomedical Materials and Science, Queen Mary and Westfield College, University of London	1993/03/26 1995/07/03
Kingdom of Sweden	Department of Biomedical Engineering, Linköping University	1995/09/26
Republic of Poland	Institute of Biocybernetics and Biomedical Engineering and International Center of Biocybernetics, Polish Academy of Science	1996/02/21
Republic of Korea	Institute for Biomaterials Research and Development, Kyungpook National University	1996/09/24
People's Republic of China	School of Stomatology, Peking University	2006/06/06

Medical Research Institute

Nations /Area	Universities	Dates of Agreements
Republic of Singapore	Oncology Research Institute, National University of Singapore	2003/01/01
United States of America	General Hospital Corporation D/B/A, Massachusetts General Hospital	2005/04/25
Kingdom of Thailand	Faculty of Dentistry, Chulalongkorn University	2006/02/28

Biomedical Science PhD Program • School of Biomedical Science • Medical Research Institute

Nations /Area	Universities	Dates of Agreements
Republic of Poland	Medical University of Gdansk	2003/11/01
Federal Republic of Germany	Deutsches Rheuma-Forschungszentrum Berlin	2004/02/01
People's Republic of China	School of Basic Medical Sciences, Peking University Health Science Center	2006/02/27

Number of International Students

(May 1, 2007)

Classification		Graduate Students					Undergraduate Students				Research Students								Japanese Language Course Students		Subtotal		Total		
		Graduate School		Graduate School of Health Sciences		Biomedical Science PhD Program	Faculty of Medicine		Faculty of Dentistry		Faculty of Medicine		Faculty of Dentistry		Institute of Biomaterials and Bioengineering		Medical Research Institute		International Student Center		International Student Center	National Expense		Private Expense	
Country/Area																									
Asia	Korea	2			1		1					1									2	3	5		
	China	11	44	2	2		2		3		2	1	11	1	5			2			15	71	86		
	Mongolia	4	1																		4	1	5		
	Taiwan		3																		0	3	3		
	Philippines	1																		1	2	0	2		
	Indonesia	1	1																		1	1	2		
	Vietnam	1						3													4	0	4		
	Laos	1																			1	0	1		
	Cambodia	1																			1	0	1		
	Malaysia	1	1								2										1	3	4		
	Brunei							1													1	0	1		
	Thailand	17	4					1	1												18	5	23		
	Myanmar	2	1																		2	1	3		
	Nepal							1													1	0	1		
	Bangladesh	8	7																		8	7	15		
	India	3	2																		1	4	2	6	
	Sri Lanka	3	2																		1	4	2	6	
	Afghanistan		2																			0	2	2	
	Iran		4																			0	4	4	
	Iraq	1																			1	2	0	2	
Lebanon	1																				1	0	1		
Jordan	2																				2	0	2		
Africa	Egypt	2																			2	0	2		
	Libya	2																			2	0	2		
	Ethiopia												1								1	0	1		
	Cote d'Ivoire	1																			1	0	1		
	Ghana		1																		0	1	1		
Europe	United Kingdom	1																			1	0	1		
	Germany										1										1	0	1		
	Cyprus	1																			1	0	1		
	Bosnia and Herzegovina	1																			1	0	1		
	Azerbaijan	1																			1	0	1		
	Bulgaria	2																			2	0	2		
Central and South America	Mexico	1	1			1															1	2	3		
	Haiti	1																			1	0	1		
	Brazil	1																			1	0	1		
	Argentina												1								1	0	1		
	Paraguay	3																			3	0	3		
	Peru	1																			1	0	1		
Oceania	Fiji	1				1															1	1	2		
	Australia									1											0	1	1		
Subtotal		79	74	2	3	0	5	6	4	0	5	2	12	3	5	0	0	0	2	0	0	4	96	110	206
Grand Total		National Expense 81		Private Expense 82		National Expense 6		Private Expense 9		National Expense 5		Private Expense 19		National Expense 4											
		163					15					24					4					206			

* "Private Expense" (Graduate Students) includes visiting students from other universities.



International House	
Address	8-1, Kounodai 2 chome, Ichikawa City, Chiba Prefecture
Data on the Building	Three-Story Reinforced Concrete Building
Floor Space	1,708 m ²
Rooms for Personal Use	Single 33 Rooms, Couple 10 Rooms, Family 5 Rooms
House Office and Shared Facilities	House Office, Entrance, Hall Mail Boxes, Store Room, Lounge, Laundry Room

International Student House	
Address	8-1, Kounodai 2 chome, Ichikawa City, Chiba Prefecture
Data on the Building	Four-Story Reinforced Concrete Building
Floor Space	1,175 m ²
Rooms for Personal Use	Single 50 Rooms
House Office and Shared Facilities	Lounge, Laundry Room

* International House includes rooms for accommodation.



Statistics 2007

Number of Staff Members

Number of Students

Number of Applicants and Students Admitted (Fiscal Year 2007)

Number of Graduates • Career Prospects after Graduation

Degrees Conferred

Educational Facilities

Grant-in-AID for Scientific Research (Fiscal Year 2007)

Entrusted Research Expenses (Fiscal Year 2006)

Endowed Departments

Finances (2007 Fiscal Year Budget)

Number of Staff Members

(May 1, 2007)

Classification	Director	Academic Staff					Other Staff			Total	
		Professor	Associate Professor	Lecturer	Research Associate	Subtotal	Clerk	Co-medical	Nurse		
President	1										
Trustee	5(3)										
Auditor	2(1)										
Administration Bureau							141			141	141
Graduate School		76	56	38	143	313				313	
Graduate School of Health Sciences		17	6	3	13	39				39	
School of Biomedical Science		8	4	1	1	14				14	
Faculty of Medicine							76	6		82	82
University Hospital, Faculty of Medicine		1	9	32	83	125	5	85	630	720	845
Faculty of Dentistry		6	2	5		13	35	4		39	52
University Hospital, Faculty of Dentistry			4	13	21	38		51	58	109	147
School of Dental Technicians				4		4					4
College of Liberal Arts and Sciences		10	11		2	23	5			5	28
Institute of Biomaterials and Bioengineering		10	5		17	32	5			5	37
Medical Research Institute		16	20	1	26	63	10			10	73
University Library							7			7	7
Kounodai Branch Library							1			1	1
Human Gene Sciences Center		1		1	1	3					3
Research Center for Frontier Life Science											
(Instrumental Analysis Research Center for Life Science)			1		1	2					2
(General Isotope Center)			1			1					1
(Animal Research Center)			1		1	2					2
Joint Institutes for Education and Research Administration Office							10			10	10
International Student Center		2	3			5					5
Health Service Center			1			1			1	1	2
Center for Education Research in Medicine and Dentistry		2	1	1		4					4
Number of Staff Members	8(4)	149	125	99	309	682	295	146	689	1130	1820(4)

* Note () : The numbers in parentheses indicate part-time directors

Number of Students

Graduate Students

(May 1, 2007)

● Graduate School

Specialized Courses	Capacity of Admission	Total Capacity	Master's Program			Doctor's Program					Total	
			1st year	2nd year	Subtotal	1st year	2nd year	3rd year	4th year	Subtotal		
Medico-Dental Sciences	35	70	45 23	47 21	92 44						92	44
Medico-Dental Sciences (MMA Course)	15	25	19 10	12 8	31 18						31	18
Oral Health Sciences	42	168				55 (4)	31 (3)	66 29	70 (4)	222 (11)	222 (11)	104
Maxillofacial/ Neck Reconstruction	30	120				26 (1)	24 (1)	20 6	27 (1)	97 (3)	97 (3)	28
Bio-Matrix	18	72				12 4	14 (1)	7	20 6	63 (2)	63 (2)	24
Public Health	20	80				24 [3]	23 [4]	11	34 [7]	94 [14]	94 [14]	51
Gerontology and Gerodontology	10	40				13 6	19 8	12 3	24 8	68 25	68	25
Comprehensive Patient Care	8	32				9 6	10 7	8 1	18 10	45 24	45	24
Cognitive and Behavioral Medicine	19	76				19 4	19 8	15 4	19 7	72 23	72	23
Bio-Environmental Response	17	68				15 7	20 8	11 7	17 6	63 28	63	28
Systemic Organ Regulation	29	116				31 10	31 12	28 9	48 13	138 44	138	44
Advanced Therapeutical Sciences	21	84				28 15	23 9	25 6	27 10	103 40	103	40
Subtotal	264	951	64 33	59 29	123 62	232 (5)[3]	214 (5)[4]	218 79	301 (6)[7]	965 (16)[14]	1,088 (16)[14]	453

● Graduate School of Health Sciences

Specialized Courses	Capacity of Admission	Total Capacity	Master's Program			Doctor's Program					Total	
			1st year	2nd year	Subtotal	1st year	2nd year	3rd year	4th year	Subtotal		
Comprehensive Health Nursing Sciences	(1) 17 (2) 8	(1) 34 (2) 24	17 16	17 17	34 33	13 13	12 11	18 17		43 41	77	74
Biomedical Laboratory Sciences	(1) 12 (2) 6	(1) 24 (2) 18	12 11	14 12	26 23	6 4	8 6	12 5		26 15	52	38
Subtotal	(1) 29 (2) 14	(1) 58 (2) 42	29 27	31 29	60 56	19 17	20 17	30 22		69 56	129	112

● Biomedical Science PhD Program

Specialized Courses	Capacity of Admission	Total Capacity	Master's Program			Doctor's Program					Total	
			1st year	2nd year	Subtotal	1st year	2nd year	3rd year	4th year	Subtotal		
Bioinformatics	(1) 16 (2) 7	(1) 32 (2) 21	19 5	16 6	35 11	11 6	8 1	15 5		34 12	69	23
Functional Biology	(1) 15 (2) 6	(1) 30 (2) 18	27 9	21 10	48 19	6 3	4 2	9 5		19 10	67	29
Subtotal	(1) 31 (2) 13	(1) 62 (2) 39	46 14	37 16	83 30	17 9	12 3	24 10		53 22	136	52

Grand total (Master's Program • Doctor's Program)	Capacity of Admission	Total Capacity	Master's Program			Doctor's Program					Total	
			1st year	2nd year	Subtotal	1st year	2nd year	3rd year	4th year	Subtotal		
	264	951	64 33	59 29	123 62	232 (5)[3]	214 (5)[4]	218 79	301 (6)[7]	965 (16)[14]	1,088 (16)[14]	453

Grand total (Master's Program • Doctor's Program)	Capacity of Admission	Total Capacity	Master's Program			Doctor's Program					Total	
			1st year	2nd year	Subtotal	1st year	2nd year	3rd year	4th year	Subtotal		
	87	201	75 41	68 45	143 86	36 26	32 20	54 32		122 78	265	164

* Note 1 : The numbers in red indicate the female students.

* Note 2 () : The numbers in angle brackets indicate International students in the Graduate Dental Science Course.

* Note 3 [] : The numbers in brackets indicate International students in the Graduate Public Health Leader Course.

* Note 4 (1) : Master's Program

* Note 5 (2) : Doctor's Program

Grand Total
1,353 617
(16)[14]

Number of Students Undergraduate Students

(May 1, 2007)

● Faculty of Medicine

		Capacity of Admission	Total Capacity	1st year	2nd year	3rd year	4th year	5th year	6th year	Total
School of Medicine		75 (5)	470	78 16	85 19	88 26 [5 3]	81 30 [5 3]	85 33 [5 3]	90 20 [8 2]	507 144 [23 11]
School of Health Sciences	Nursing Science	50 (10)	220	54 52	49 44	59 53 [10 8]	65 62 [12 11]			227 211 [22 19]
	Medical Technology	30 (10)	140	33 23	34 25	38 31 [10 9]	39 25 [10 6]			144 104 [20 15]
Subtotal		80 (20)	360	87 75	83 69	97 84 [20 17]	104 87 [22 17]			371 315 [42 34]

● Faculty of Dentistry

		Capacity of Admission	Total Capacity	1st year	2nd year	3rd year	4th year	5th year	6th year	Total
School of Dentistry		55 (10)	370	56 25	62 22	66 27 [11 6]	62 25 [9 6]	63 32 [11 8]	67 31 [12 12]	376 162 [43 32]
School of Oral Health Care Sciences		25 (10)	120	27 26	27 25	32 31 [10 10]	30 30 [9 9]			116 112 [19 19]

Grand total	Capacity of Admission	Total Capacity	1st year	2nd year	3rd year	4th year	5th year	6th year	Total
	235 (45)	1,320	248 142	257 135	283 168 [46 36]	277 172 [45 35]	148 65 [16 11]	157 51 [20 14]	1,370 733 [127 96]

● Research Students

Classification	Male	Female	Total
Faculty of Medicine School of Medicine School of Health Sciences	49 9	20 26	69 35
Faculty of Dentistry School of Dentistry	151	106	257
Institute of Biomaterials and Bioengineering	7	2	9
Medical Research Institute	8	4	12
Total	224	158	382

- * Note 1 : The numbers in red indicate the female students.
* Note 2 (< >) : The numbers in angle brackets indicate the maximum number of students who can transfer into the third-year program from other institutions. They are not included in the numbers above them.
* Note 3 [] : The numbers in brackets indicate the students transferring into the third-year program from other institutions.

Number of Applicants and Students Admitted (Fiscal Year 2007)

Graduate School

● Graduate School

Specialized Courses	Capacity of Admission	Applicants			Students Admitted		
		Male	Female	Total	Male	Female	Total
Medico-Dental Sciences	50	95	82	177	31	33	64
Oral Health Sciences	42	34	21	55	29	21	50
Maxillofacial/Neck Reconstruction	30	24	5	29	21	4	25
Bio-Matrix	18	9	4	13	8	4	12
Public Health	20	10	11	21	9	11	20
Gerontology and Gerodontology	10	7	6	13	7	6	13
Comprehensive Patient Care	8	5	6	11	3	6	9
Cognitive and Behavioral Medicine	19	17	3	20	15	3	18
Bio-Environmental Response	17	8	9	17	8	7	15
Systemic Organ Regulation	29	23	10	33	21	9	30
Advanced Therapeutical Sciences	21	13	13	26	13	13	26
Total	264	245	170	415	165	117	282

● Graduate School of Health Sciences

Specialized Courses	Capacity of Admission	Applicants			Students Admitted		
		Male	Female	Total	Male	Female	Total
Comprehensive Health Nursing Sciences	(1) 17 (2) 8	2 1	39 25	41 26	1 0	16 13	17 13
Biomedical Laboratory Sciences	(1) 12 (2) 6	3 5	18 4	21 9	1 2	11 4	12 6
Total	(1) 29 (2) 14	5 6	57 29	62 35	2 2	27 17	29 19

● Biomedical Science PhD Program

Specialized Courses	Capacity of Admission	Applicants			Students Admitted		
		Male	Female	Total	Male	Female	Total
Bioinformatics	(1) 16 (2) 7	42 5	16 6	58 11	13 5	5 6	18 11
Functional Biology	(1) 15 (2) 6	57 3	29 2	86 5	18 3	9 2	27 5
Total	(1) 31 (2) 13	99 8	45 8	144 16	31 8	14 8	45 16

- * Note 1 (1) : Master's Program
* Note 2 (2) : Doctor's Program

Number of Applicants and Students Admitted (Fiscal Year 2007)

Faculty

● Faculty of Medicine

	Capacity of Admission	Applicants			Students Admitted		
		Male	Female	Total	Male	Female	Total
School of Medicine	75<5>	440<65>	199<37>	639<102>	62<2>	16<3>	78<5>
School of Health Sciences							
Nursing Science	50[10]<10>	9[1]<4>	186[28]<83>	195[29]<87>	2[0]<2>	48[10]<8>	50[10]<10>
Medical Technology	30<10>	38<10>	110<17>	148<27>	10<1>	22<9>	32<10>
Subtotal	155[10]<25>	487[1]<79>	495[28]<137>	982[29]<216>	74[0]<5>	86[10]<20>	160[10]<25>

● Faculty of Dentistry

	Capacity of Admission	Applicants			Students Admitted		
		Male	Female	Total	Male	Female	Total
School of Dentistry	55<10>	262<16>	171<21>	433<37>	30<4>	25<6>	55<10>
School of Oral Health Care Sciences	25<10>	4<0>	112<23>	116<23>	0<0>	25<10>	25<10>
Subtotal	80<20>	266<16>	283<44>	549<60>	30<4>	50<16>	80<20>

Grand total	Capacity of Admission	Applicants			Students Admitted		
		Male	Female	total	Male	Female	Total
	235[10]<45>	753[1]<95>	778[28]<181>	1531[29]<276>	104[0]<9>	136[10]<36>	240[10]<45>

* Note 1 [] : The numbers in brackets indicate the number of students admitted on recommendation
* Note 2 < > : The numbers in angle brackets indicate the students transferring into the third year program from other institutions. They are not included in the numbers above them.
* Note 3 : The number of foreign students is not included.



Number of Graduates • Career Prospects after Graduation

Graduate School

Classification			Fiscal year 2006	Total	Higher Education	Resident	Employment	Others
Graduate School	Doctor's Program		212	839	2	2	144	64
	Master's Program		65	187	20		39	6
Medical Research Division	Doctor's Program	Medical Science		978 (58)				
		Nursing Science		30				
		Medical Laboratory Science		10				
	Master's Program	Nursing Science		100				
		Medical Laboratory Science		93				
Dental Research Division	Doctor's Program			1,361 (28)				
Health Sciences	Doctor's Program		13	54			9	4
	Master's Program		28	172	6		16	6
Biomedical Science PhD Program	Doctor's Program		4	4	1		3	
	Master's Program		25	71	12		11	2
total			347	3,899	41	2	222	82

Faculty

Classification		Fiscal year 2006	Total	Higher Education	Resident	Employment	Others
Faculty of Medicine	School of Medicine	86	3,734		76	1	9
	School of Health Sciences	90	1,418	22		60	8
Faculty of Dentistry	School of Dentistry	69	3,943	1	61		7
Total		245	9,095	23	137	61	24

* Note : The numbers in parentheses indicate the number of students in the Research Division (former curriculum) .

Degrees Conferred

Doctor's Program

Classification	Doctor of Philosophy in Medical Science	Doctor of Philosophy in Dental Science	Doctor of Philosophy	Doctor of Nursing Science	Doctor of Medical Laboratory Science	Doctor of Philosophy in Science
Fiscal year 2006	97	95	10	3	1	5
Total	1,332	1,646	78	50	24	5

Granted by Merit of Thesis

Classification	Doctor of Philosophy in Medical Science	Doctor of Philosophy in Dental Science	Doctor of Philosophy	Doctor of Nursing Science	Doctor of Medical Laboratory Science
Fiscal year 2006	13	4	1	1	0
Total	1,662	466	16	7	7

Master's Program

Classification	Master of Medical Science	Master of Dental Science	Master of Medical Administration(1)	Master of Medical Administration(2)	Master of Nursing Science	Master of Medical Laboratory Science	Master of Science	Master of Biomedical Science	Master of Functional Biology
Fiscal year 2006	40	0	12	12	16	12	23	1	1
Total	157	5	31	25	197	168	69	1	1

* Note 1 (1) : Administrative Management of Medical Service
* Note 2 (2) : Healthcare Policy



Graduation Ceremony



Entrance Ceremony

Educational Facilities

(May 1, 2007)

Enrollment of the Students

School	Grade		Total
	1st year	2nd year	
School for Dental Technicians	21(14)	18(13)	39(27)
Special Training Course of School for Dental Technicians	13(7)	7(4)	20(11)
Total	34(21)	25(17)	59(38)

Number of Graduates

School	Fiscal year 2006	Total
School for Dental Technicians	20	988
Special Training Course of School for Dental Technicians	10	448
Total	30	1,436

Number of Applicants and Students Admitted (Fiscal Year 2007)

School	Capacity of Admission	Applicants			Students Admitted		
		Male	Female	Total	Male	Female	Total
School for Dental Technicians	20	24	29	53	7	13	20
Special Training Course of School for Dental Technicians	10	5	6	11	4	6	10
Total	30	29	35	64	11	19	30

Grant-in-AID for Scientific Research (Fiscal Year 2007)

(June 29, 2007)

Subject for Research	Number	Amount (in thousands of yen)
Grant-in-Aid for Scientific Research on Priority Areas	49	441,400
Grant-in-Aid for Exploratory Research	51	84,300
Grant-in-Aid for Young Scientists (A)	9	49,800
Grant-in-Aid for Young Scientists (B)	84	114,000
Grant-in-Aid for JSPS Fellows	30	28,900
Grant-in-Aid for Scientific Research (S)	1	16,300
Grant-in-Aid for Scientific Research (A)	14	161,200
Grant-in-Aid for Scientific Research (B)	72	367,800
Grant-in-Aid for Scientific Research (C)	105	147,700
Grant-in-Aid for Creative Scientific Research	3	253,300
Grant-in-Aid for Young Scientists (Start-up)	4	4,960
Total	422	1,669,660

Entrusted Research Expenses (Fiscal Year 2006)

Category for Research Expenses	Number of Projects	Amount (in thousands of yen)
Entrusted Research	86 (14)	1,520,197 (20,325)
Cooperative Research	100 (66)	184,894 (73,804)
Donation for Promotion of Learning	739	949,443
Total	925	2,654,534

* A multi-year contract means the research was conducted for more than two years including the fiscal year 2006. The "Amount" is the sum of all the money entrusted to the projects in the fiscal year 2006.
* Figures in parentheses indicate values related to multi-year projects.



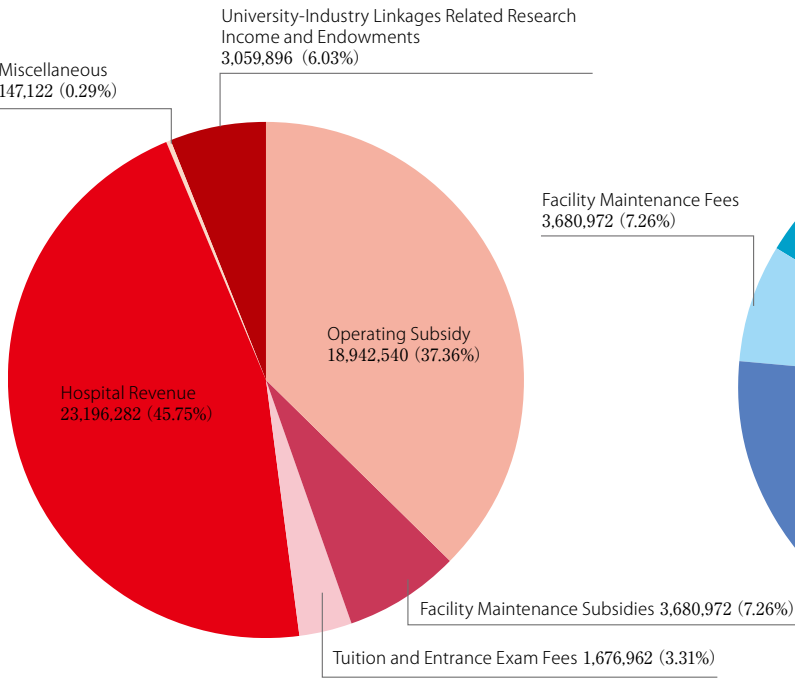
Endowed Departments

Departments/Institutes	Endowed Departments	Term	Donor
Medical Research Institute	Department of Neurotraumatology	2003/06/01 ~ 2008/05/31	The General Insurance Association of Japan
Graduate School	Department of Clinical Informatics	2003/12/15 ~ 2008/12/14	Nippon Gene Co., Ltd. / MicroDiagnostic, Inc.
Information Center for Medical Sciences	Department of Advanced Biomedical Informatics	2004/08/01 ~ 2009/07/31	VeriSign Japan K.K. / Fuji Xerox Co., Ltd. / T.T.T. Co., Ltd. / Sprite, Inc.
Graduate School	Department of Pharmacovigilance	2005/04/01 ~ 2010/03/31	Mitsubishi Tanabe Pharma Corporation / Wyeth K.K. / Takeda Pharmaceutical Co., Ltd. / Abbott Japan Co., Ltd. / Eisai Co., Ltd. / Chugai Pharmaceutical Co., Ltd.
Graduate School	Department of Nanomedicine	2005/04/01 ~ 2010/03/31	Dai Nippon Printing Co., Ltd.
Graduate School	Department of Translational Oncology	2005/10/01 ~ 2008/09/30	Taiho Pharmaceutical Co., Ltd.
Graduate School	Department of Sleep-Related Respiratory Disorders	2005/10/01 ~ 2008/09/30	Fuji Respironics Co., Ltd.
Graduate School	Development of Natural Bioproducts	2005/11/01 ~ 2008/10/31	Tokiwa Phytochemical Co., Ltd.
Graduate School	Department of Hepatitis Control	2006/04/01 ~ 2009/03/31	Schering-plough K.K.
Graduate School	Department of Cartilage Regeneration	2006/06/01 ~ 2009/05/31	Zimmer K.K.
Graduate School	Department of Advanced Therapeutics for GI Diseases	2007/04/01 ~ 2010/03/31	Nisshin Kyorin Pharmaceutical Co., Ltd. / Asahi Kasei Medical Co., Ltd. / Ajinomoto Pharma Co., Ltd. / Ucb Japan Co., Ltd. / Otsuka Pharmaceutical Co., Ltd. / Eisai Co., Ltd. / JIMRO Co., Ltd. / Zeria Pharmaceutical Co., Ltd. / Mitsubishi Tanabe Pharma Corporation
Graduate School	Department of Advanced Regulatory Vascular Surgery	2007/06/01 ~ 2010/05/31	Mitsubishi Tanabe Pharma Corporation
Graduate School	Department of Regenerative Therapeutics for Spine and Spinal Cord	2007/08/01 ~ 2009/07/31	PENTAX Corporation / Stryker Biotech K.K.

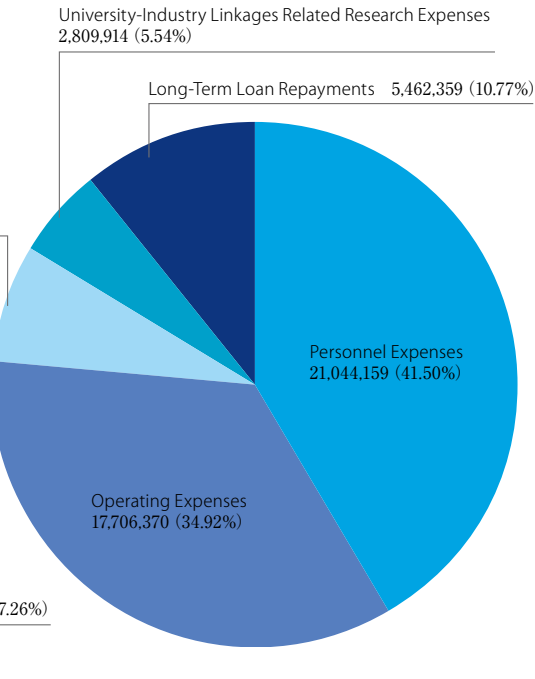
Finances (2007 Fiscal Year Budget)

(The numbers in the pie-charts represent thousands of yen)

Total Income ¥ 50,703,774 thousand yen



Total Expenses ¥ 50,703,774 thousand yen



TMDU Campus

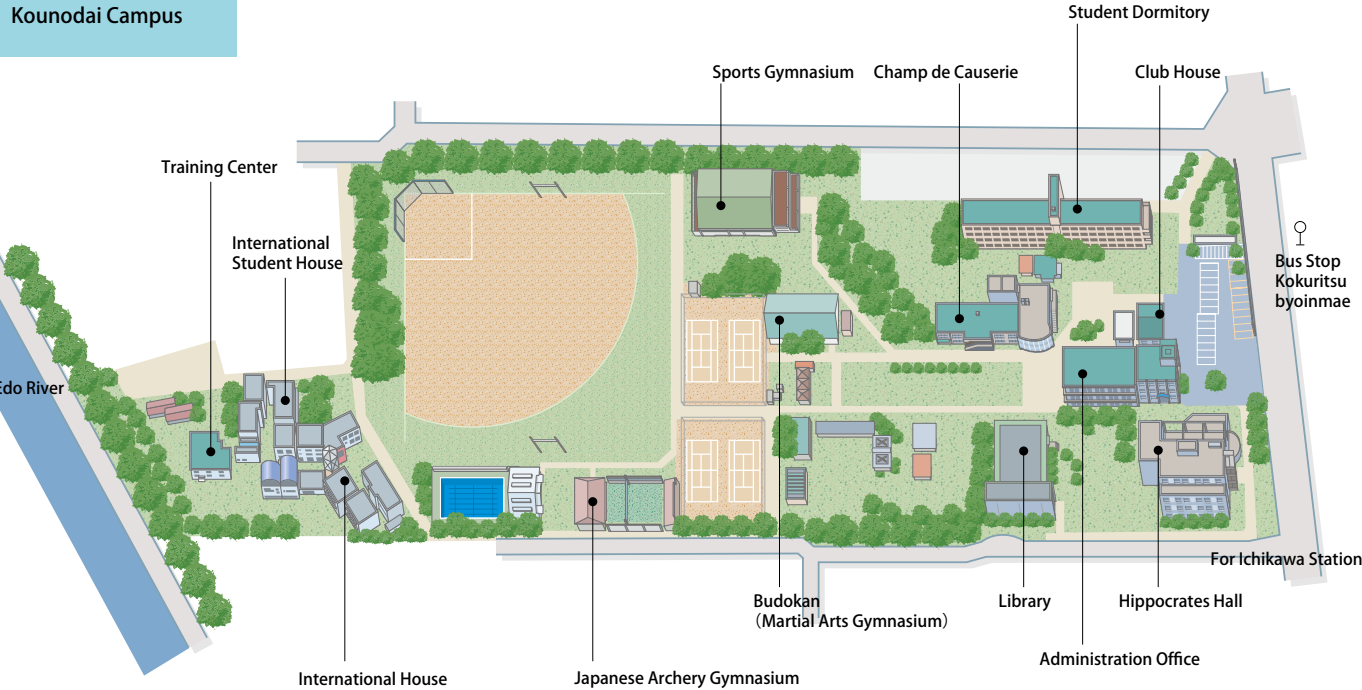


Medico-Dental Building II (Under Construction)

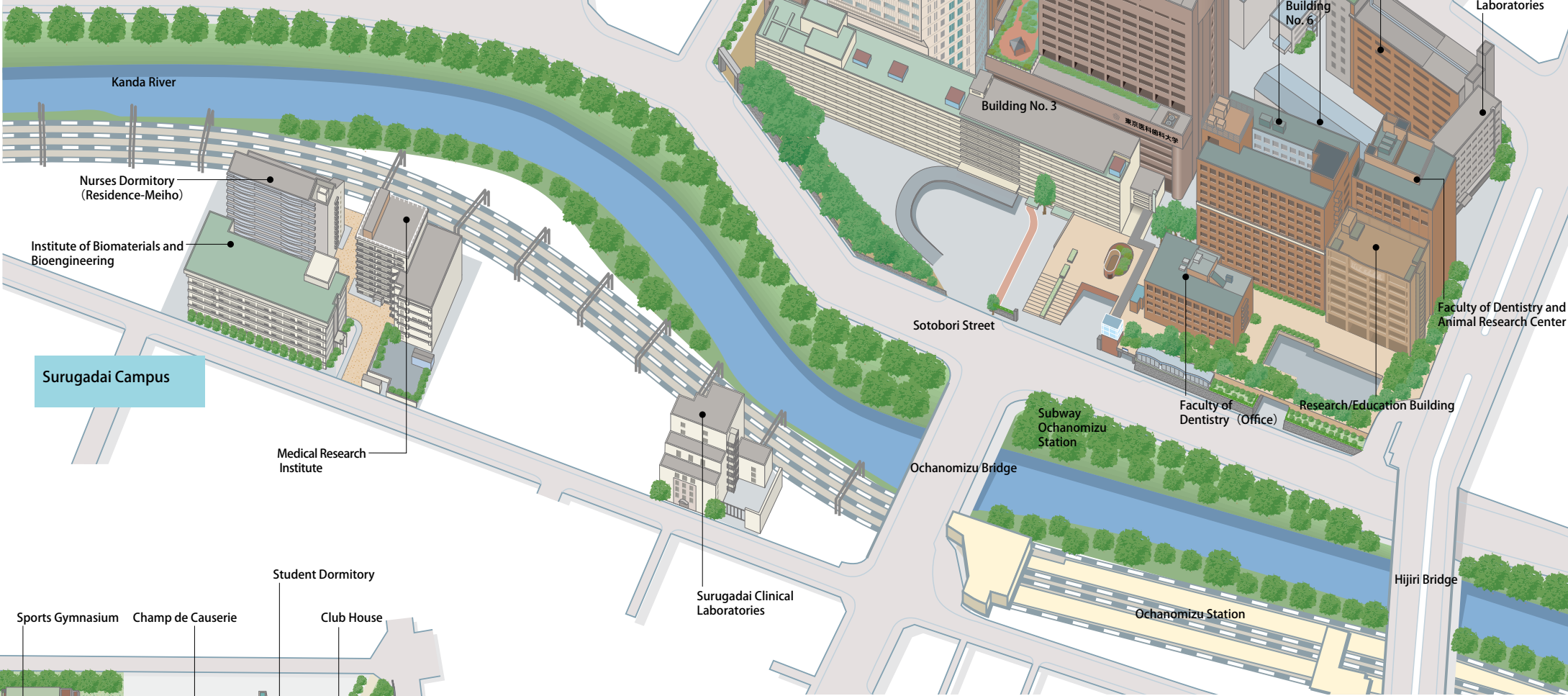
Medico-Dental Building II (Under Construction)

To foster academic doctors and world-class researchers who will meet the needs of the 21st century, a new building is under construction on Yushima campus. This building is to become a core facility of TMDU by providing space for communal use, versatile research and laboratory zones, open labs for education and research projects, and common labs for the TMDU community.

Kounodai Campus



Building No. 2 Educational Facilities



Location of University Campus, Buildings and Address

(May 1, 2007)

Yushima Campus

■ Grounds (sq. Metre) : 45,192 m² ■ Buildings (sq. Metre) : 202,244 m²

Name	Address・Zip code・Telephone
Administration Bureau / Graduate School Graduate School of Health Sciences Biomedical Science PhD Program School of Biomedical Science	5-45, Yushima 1 chome, Bunkyo-ku, Tokyo 〒113-8510 03-3813-6111
Faculty of Medicine University Hospital, Faculty of Medicine	5-45, Yushima 1 chome, Bunkyo-ku, Tokyo 〒113-8519 03-3813-6111
Faculty of Dentistry University Hospital, Faculty of Dentistry	5-45, Yushima 1 chome, Bunkyo-ku, Tokyo 〒113-8549 03-3813-6111
University Library / Health Service Center Human Gene Sciences Center Research Center for Frontier Life Sciences Instrumental Analysis Research Center for Life Science General Isotope Center / Animal Research Center Information Center for Medical Sciences Center for Education Research in Medicine and Dentistry	5-45, Yushima 1 chome, Bunkyo-ku, Tokyo 〒113-8510 03-3813-6111
School for Dental Technicians	5-45, Yushima 1 chome, Bunkyo-ku, Tokyo 〒113-8549 03-3813-6111

Surugadai Campus (1)

■ Grounds (sq. Metre) : 5,047 m² ■ Buildings (sq. Metre) : 17,946 m²

Institute of Biomaterials and Bioengineering	3-10, Kanda Surugadai 2 chome, Chiyoda-ku, Tokyo 〒101-0062 03-5280-8000
Medical Research Institute	3-10, Kanda Surugadai 2 chome, Chiyoda-ku, Tokyo 〒101-0062 03-5280-8050

Surugadai Campus (2)

■ Grounds (sq. Metre) : 532 m² ■ Buildings (sq. Metre) : 2,156 m²

International Student Center	3-21, Kanda Surugadai 2 chome, Chiyoda-ku, Tokyo 〒101-0062 03-5283-5855
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Kounodai Campus

■ Grounds (sq. Metre) : 60,938 m² ■ Buildings (sq. Metre) : 13,993 m²

College of Liberal Arts and Sciences / Kounodai Branch Library Health Service Center, Kounodai Branch	8-30, Kounodai 2 chome, Ichikawa-city, Chiba Prefecture 〒272-0827 047-300-7103
International House International Student House	8-1, Kounodai 2 chome, Ichikawa-city, Chiba Prefecture 〒272-0827 047-371-7936

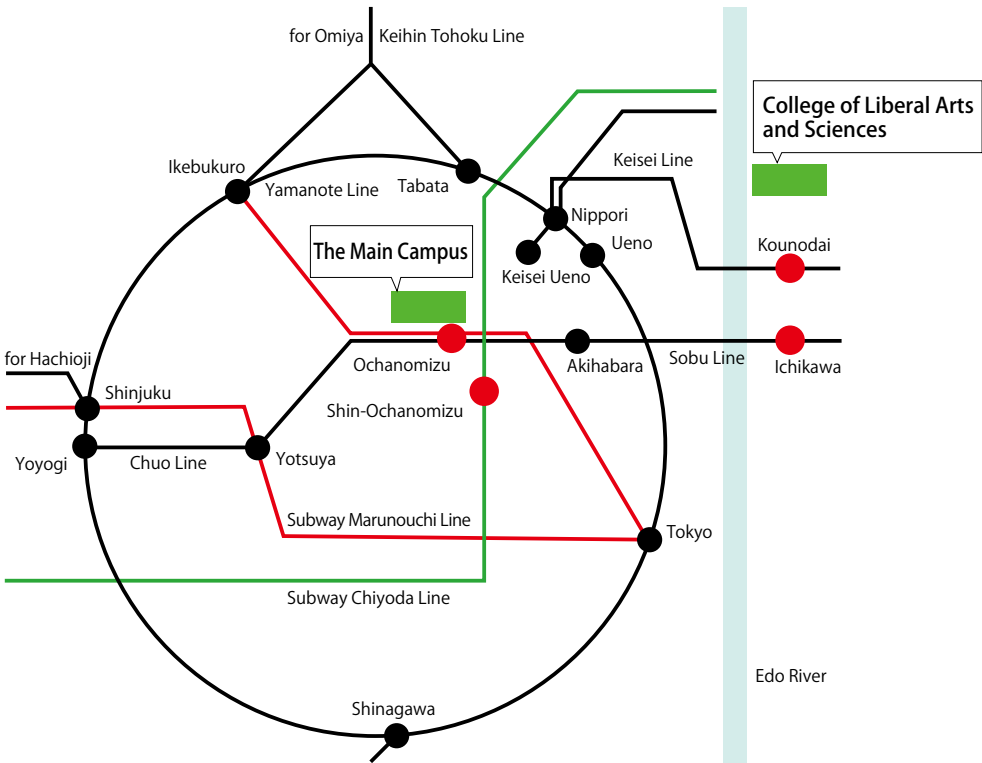
Name	Address	Grounds (sq. Metre)	Buildings (sq. Metre)
Toda Boat-House	60, Todakoen 1 chome, Toda-city, Saitama Prefecture	691 m ²	478 m ²
Akakura Resort House	Akakura-Onsen, Myoko-city, Niigata Prefecture	1,655 m ²	334 m ²
Tateyama. Oga-Resort House	Oga, Tateyama-city, Chiba Prefecture	4,334 m ²	839 m ²
Hakusan Residence Housing	36-3, Hakusan 2 chome, Bunkyo-ku, Tokyo	495 m ²	96 m ²
Wakamiyacho Residence Housing	26, Wakamiya-cho, Shinjuku-ku, Tokyo	995 m ²	
Tonoyama Residence Housing	50-3, Chuo 1 chome, Nakano-ku, Tokyo	1,960 m ²	1,815 m ²
Etchujima Residence Housing	3, Etchujima 1 chome, Koto-ku, Tokyo	18,136 m ²	28,492 m ²
The Ossuary (Nokotsu-do)	10-1, Kounodai 3 chome, Ichikawa-city, Chiba Prefecture	(115)	
Total		139,975 m ² (115)	268,393 m ²

* Surugadai Campus (1) indicates the Institute of Biomaterials and Bioengineering and Medical Research Institute and Nurses Dormitory.

* Surugadai Campus (2) indicates Surugadai Clinical Laboratories.

* The numbers in parentheses independently show temporary or long-term rental grounds and buildings.

Location



The Main Campus

JR Line Ochanomizu Sta.
Subway Marunouchi Line Ochanomizu Sta.
Subway Chiyoda Line Shin-Ochanomizu Sta.

Kounodai Campus

Keisei Line Kounodai Sta.



Symbol of Tokyo Medical and Dental University

This is the symbol of Tokyo Ikashika Daigaku (Tokyo Medical and Dental University), which has the following meaning:

1. This symbol is designed to show the history of development of Tokyo Medical and Dental University. This shape represents the plum blossom ; it is the symbol of Yushima Tenjin (Yushima Shrine) which exists in the same location as the University. Tenjin is the God of Knowledge.
2. The center circle of this symbol, the core of the flower, was the emblem of the former Tokyo Koto Shikaigakko (Tokyo National School of Dentistry) and the 5 petals around the core show the present University which has developed from that school.
3. The 5 petals express the Faculty of Medicine, Faculty of Dentistry, College of Liberal Arts and Sciences, Institute of Biomaterials and Bioengineering, and Medical Research Institute, and these 5 petals, which join together to make the flower bloom, represent the activity of the University.
4. The bold outline of these 5 petals suggests further development and progress in the future.