Message from the Dean



Professor Takashi OKIJI, D.D.S., Ph.D.

Dean, Faculty of Dentistry Professor and Chair, Pulp Biology and Endodontics

In TMDU Graduate School of Medical and Dental Sciences, Study Areas in Dentistry, we implement a curriculum that enables a comprehensive induction of our students into high quality clinical procedures and cutting edge research. Our graduate students are trained on how to maintain oral health, prevent and treat disease and correct deformity to fully rehabilitate the patients. Furthermore, in our research, we do all the possible efforts to improve the already existing dental procedures, as well as to develop new, more effective and conservative treatment approaches using the latest technology available to us. We encourage the collaborative work of staff and students from the dental chair to the laboratory bench and vice versa to fulfill our mission of delivering first class treatment and education. We provide our students with the equipment and support necessary to develop their clinical skills, when licensed, and their research potential which will ultimately translate to better dentistry. Our program encourages sharing and communication of recent advances in dentistry through participation in world class meetings and events along with trend-setting scientists. We would like to welcome high profile individuals who want to be part of our program to deliver optimum dental and orofacial care and rehabilitation.

Messages from Alumni



Ornnicha Thanatvarakorn, D.D.S., Grad.Dip. in Clin.Sc.(Operative), Ph.D. aduation in 2015 (Cariology and Operative Dentistry)

I had been studied in Japan as a PhD student for 4 years in Cariology and Operative Dentistry Department, where I got to know many riends from all around the world. Not only the knowledge, but also the happiness and smile we shared together, which made me truly enjoy my tudent life.

In the lab, I found myself surrounded by the researchers who were interested in the same field, which encouraged me to step forward in my ofession. The supervisors, also all the staffs, were very kind and supportive. There were plenty of instruments and equipment necessary for my esearch, as well as abundant sources of information I need provided in library or as e-journal

Apart from that, I got the opportunity to attend the conferences both in Japan and abroad, where I could share my study with others and proadened my horizons as wel

I appreciated to say that studying in TMDU was the best time in my life which I would never forget.



Frang V.N. Nguyen, D.D.S., Ph.D., Graduation in 2017 (Oral Implantology and Regenerative Dental Medicine)

lessage to you TMDU - the right choice!

Applying for higher education at TMDU is one of those decisions that have changed my life remarkably. Academically, this is one of the ost recognized dental schools with the best professors and research supervisors. Not only are they knowledgeable, they also give you all the lucation that is relevant, suitable and necessary matching each student's potential and interest. They are wholehearted teachers who care for heir students and stay in touch to help them during their time away from home.

Studying abroad is not just about getting a higher degree. I have innumerable sweet memories with other Japanese and international friends at TMDU and I can't stop smiling every time I think about them. I have grown to be independent. I have learnt to connect research with textbook nd apply them to clinical practice. I have become a well-prepared graduate who is ready for the next chapter of academic life. Let me express the t appreciation to my dearest professor and supervisors. Thank you TMDU for giving me this life-changing opportunity four years ago! To those who are planning to apply, this is the good choice you should make All the best!

Nd Abdulla Al Masud Khan, B.D.S., Ph.D. JSPS post doc fellow, Graduation in 2013(Bio-matrix)

her in Tokyo Medical and Dental University (TMDU

Research has always been an interest of mine. But our educational system is not research oriented. I enrolled in Department of Bio-matrix 1 TMDU in 2009 which was completely new environment for me. My department focused on clarifying the mechanism of formation and esorption of mineralized tissue, especially identification of new therapeutic target for hard-tissue (bone, tooth enamel, dentin, cementum) elated disease. It's interesting but too much complicated as fresher. I experienced animal experimentation here

I was fortunate enough getting all-out supports from my department, especially from my supervisor's Professor Keiichi Ohya and Professor Kazuhiro Aoki. They never got angry with me despite my poor knowledge on basic research rather than introduced me to it with great care. At ne beginning, I thought, I could not complete my PhD and for one year 6 months, I was struggling for getting positive data from my research. I over come the situation thanks to their cooperation. During my PhD I presented my research in conferences held in Japan (6 times) and abroad (IADR 2012/11, ASBMR 2011). I received "Young Investigator Award" in The 86th Annual Meeting of Japanese Pharmacological Society, 2013 and presented my research in "Research Day at Harvard School of Dental Medicine, 2012" as a Member of Global Center of Excellence Program (G-COE), TMDU. After finished my PhD in 2013, back to country, joined as assis

In April 2017, I have been awarded as JSPS Postdoctoral fellow by which i will conduct research in TMDU under the guidance of my upervisor Professor Kazuhiro Aoki.

TMDU - committed to pioneering medical and dental research where you can build yo



Cultivating Professionals with Knowledge and Humanity, thereby Contributing to People's Well-being www.tmd.ac.jp/english/



Tokyo Medical and Dental University Postgraduate Programs for International Students (Dentistry)



Message from the Executive Director/Executive Vice President



1 11 1

1 11 1

I II n

I II I

Junji TAGAMI, D.D.S., Ph.D., Executive Director/Executive Vice President of Education and International Student Exchange

Cultivating Professionals with Knowledge and Humanity, thereby Contributing to People's Well-being

Tokyo Medical and Dental University is unique among medical and dental universities in Japan in that we have three divisions dedicated to graduate education and research: Medical and Dental Sciences, Health Care Sciences, and Biomedical Sciences (Education and Research). In all, TMDU is composed of four undergraduate faculties (Medicine, Dentistry, Health Care Sciences and Oral Health Care Sciences), an undergraduate College of Liberal Arts and Sciences, two research institutes (the Institute of Biomaterials and Bioengineering and the Medical Research Institute), a university hospital attached to the Faculty of Medicine, and a university hospital attached to the Faculty of Dentistry.

At TMDU we strive to produce scientists who expend every possible effort in seeking the truth, and who have the courage and ability to explore new areas, the tolerance and humility to respect diversity and accept new ideas, and the intellectual curiosity born of a broad education. These qualities are necessary for successfully engaging in clinical practice or research, and, indeed, are required for ensuring the future of mankind. Meeting the challenging standards expected of a TMDU student will lead you to a satisfying and fulfilling scientific career, one that will completely reward the hard work you will invest in your studies.

With the above goals in mind, we determined "Cultivating Professionals with Knowledge and Humanity" to be a statement of our mission. "Knowledge" consists of learning and techniques, and "Humanity" encompasses education and sensitivity. Medicine is driven by knowledge, and humanity smoothes its implementation. The proper combination of these factors thus leads the way to becoming a professional. In fact, medical care is an art woven by knowledge and humanity acting as weft and warp threads.

THE TWO THE TWO



Oral Health Sciences

Department	Chief	Research Theme
Advanced Biomaterials	Motohiro UO uo.abm@tmd.ac.jp	•X-ray related analyses of dental materials, biomaterials and biological tissues •Microstructural analysis and development of dental ceramics •Development of esthetic and durable dental composite resins
Anesthesiology and Clinical Physiology	Haruhisa FUKAYAMA fukayama.anph@tmd.ac.jp	Development of drug delivery system using alternating current Conditioned Pain Modulation New methods for local anesthesia in dentistry
Bacterial Pathogenesis, Infection and Host Response	Toshihiko SUZUKI suzuki.bact@tmd.ac.jp	 Analysis of bacterial survival strategy based on bacterial whole genome gene expression Regulation of bacterial gene acquisition and evolution by comparative genomics Analysis of recognition system and immune response against intracellular bacteria
Cariology and Operative Dentistry	Junji TAGAMI tagami.ope@tmd.ac.jp	•Development and evaluation of dental adhesive •Studies on caries prevention, diagnosing and treatment •Development of aesthetic dental treatments
Diagnostic Oral Pathology	will be named soon	 Surgical pathology of oral cancer New diagnostic approaches based on molecular pathology Diagnostic science on oral lesions
Fixed Prosthodontics	Hiroyuki MIURA h.miura.fpro@tmd.ac.jp	•Studies on occlusion of crown-bridge restorations •Clinical studies on new equipment and materials for crown-bridge restorations •Systemic affects of crown-bridge materials
Molecular Immunology	Miyuki AZUMA miyuki.mim@tmd.ac.jp	Mechanism of immune responses in oral diseases Studies on lymphocyte functional molecules Immunotherapy by molecular targeting
Oral and Maxillofacial Radiology	Tohru KURABAYASHI kura.orad@tmd.ac.jp	Improvement of maxillofacial imaging efficarcy Novel MRI techniques for maxillofacial diagnosis Molecular mechanisms of cellular radiosensitivity
Oral and Maxillofacial Surgery	Hiroyuki HARADA hiro-harada.osur@tmd.ac.jp	•Clinical and basic studies on oral cancer •Clinical and basic studies on dentofacial deformity •Clinical and basic studies on reconstruction and regeneration of jaw bone
Oral Implantology and Regenerative Dental Medicine	Shohei KASUGAI kas.mfc@tmd.ac.jp	Development of dental implants Diagnosis and treatment of peri-implantitis Bone and soft tissue regeneration
Oral Pathology	Toru IKEDA tohrupth.mpa@tmd.ac.jp	Clinico-pathological studies on oral lesions Mechanism of bone destruction by oral cancer Molecular mechanism of bone regeneration
Oral Radiation Oncology	Masahiko MIURA masa.mdth@tmd.ac.jp	Molecular imaging of tumor microenvironment Radiosensitization of tumor cells Radiotherapy of oral cancer
Orofacial Pain Management	Masahiko SHIMADA mshimada.ofpm@tmd.ac.jp	New treatment methods for neuropathic pain Analyses of abnormal orofacial sensations Study of orofacial chronic pain
Orthodontic Science	Takashi ONO t.ono.orts@tmd.ac.jp	Orthodontic studies on occlusal and system functions Neurophysiological studies on dentomaxillofacial functions Biological and biomaterial studies on functional adaptation
Pediatric Dentistry	Michiyo MIYASHIN miyashin.dohs@tmd.ac.jp	Development and developmental disturbances of tooth and jaw Tooth and stomatognathic function of children Growth of dento-maxilofacial complex of children
Pulp Biology and Endodontics	Takashi OKIJI t.okiji.endo@tmd.ac.jp	Molecular biology of pulp and periapical tissues Neurophysiology of dental pain Application of lasers to endodontics
Removable Partial Denture Prosthodontics	Noriyuki WAKABAYASHI wakabayashi.rpro@tmd.ac.jp	Evaluation of stomatognathic system after tooth loss Development of innovative removable prosthodontics Evaluation of restorations for partially edentulous patients

Maxillofacial and Neck Reconstruction

Department	Chief	Research Theme
Cellular Physiological Chemistry	Will be named soon	•Regulation of diseases by controlling angiogenesis •Study for connexins and gap junction •Molecular aspects of inflammation
Cognitive Neurobiology	Masato TAIRA masato.cnb@tmd.ac.jp	Neural mechanisms for control of motor behavior Neural mechanisms for perception and cognition Processing of vocalizations in auditory cortex
Maxillofacial Anatomy	Shunichi SHIBATA sshibata.mfa@tmd.ac.jp	 Structural features of mandibular bone and condylar cartilage Histology and embryology of teeth and periodontal tissue Mechanism of root formation in organ culture system
Maxillofacial Orthognathics	Keiji MORIYAMA k-moriyama.mort@tmd.ac.jp	 Orthodontic/orthognathic treatments for birth defect and jaw deformity patients Molecular genetic research for birth defects Research on craniofacial growth and development
Maxillofacial Prosthetics	Hisashi TANIGUCHI h.taniguchi.mfp@tmd.ac.jp	•Diagnosis for maxillofacial prosthetics •Modal analysis for human dentition •Acoustic analysis of speech and voice
Maxillofacial Surgery	will be named soon	Research for cleft lip & palate and facial deformity Research on oral cancer and precancer Molecular biology of oral diseases
Molecular Craniofacial Embryology	Sachiko ISEKI s.iseki.emb@tmd.ac.jp	 Molecular mechanisms of craniofacial development and anomalies Regeneration of hard tissue of craniofacial region Regulation of gene expression in cell proliferation and differentiation

Diploma Policy (Ph.D. in Dentistry/Science)

This course is devoted to developing researchers who have a high level of specialized knowledge in dentistry; educators who are rich in spirit and have highly developed expertise in devising and implementing effective educational strategies; highly specialized dental professionals who have uncompromising ethical views and a passionate interest in research; and opinion leaders who will act as pioneers in a new and more progressive era.

Curriculum Policy (Four-year course, matriculation in October; graduation in September)

This course is based on a well-balanced combination of coursework and research. Students will take various courses mainly in their first and second years, and will also be able to take seminars, clinical practice sessions (by clinical sections), special lectures, and other programs geared for graduate students. Students will engage in research work in the framework of a multi-mentor system, and publishing papers in peer-reviewed international journals.

Admission Policy

Applicants to this program are expected to have broad knowledge and skills in dentistry and a habit of learning independently. Applicants should have a strong, inquiring mind, passion for their field, and patience for conducting research.



This PhD course is shown as an example

ile of Faculty (Course: Medical and Dental Sciences)



Bio-Matrix

Department	Chief	Research Theme
Biochemistry	Tetsuro WATABE t-watabe.bch@tmd.ac.jp	 Functions and regulation of the extracellular matrix Assembly of lysosomal membrane proteins Bone and central nervous system in weightless environments
Biostructural Science	Will be named soon	Mechanisms of biological mineralization Molecular mechanisms of tooth development and evolution Regeneration of dental and periodontal tissues
Cell Signaling	Tomoki NAKASHIMA naka.csi@tmd.ac.jp	 Signal transduction in osteoclasts and osteoblasts Interaction between the immune system and bones Novel therapies for rheumatoid arthritis
Connective Tissue Regeneration	Tamayuki SHINOMURA t.shinomura.trg@tmd.ac.jp	•Study of chondrogenic differentiation •Maintenance mechanisms of chondrogenic phenotype •Study of extracellular matrix
Periodontology	Yuichi IZUMI y-izumi.peri@tmd.ac.jp	Etiology, host responses and periodontal medicine Periodontal regeneration by tissue engineering and cell sheet engineering Clinical application of lasers in periodontics
Pharmacology	Will be named soon	Pharmacological studies of the formation and resorption of teeth and bone Drug effects on the cell differentiation process in hard tissues Detection of the new drug targets for hard tissue diseases

Public Health

Department	Chief	Research Theme
Dental Education Development	Ikuko MORIO imorio.edev@tmd.ac.jp	Comparative study of dental education Research projects for dental students English education programs for dental students
Educational Media Development	Atsuhiro KINOSHITA kinoshita.emdv@tmd.ac.jp	 Development and application of computer assisted simulation system for education Application of e-learning system on health science education Development and application of new educational media for health science
Educational System in Dentistry	Kouji ARAKI k.araki.gend@tmd.ac.jp	 Comparison of the measurement attribute by the different test method Development of programs for improving clinical skill by simulation systems Accreditation standards for dental education
Forensic Dentistry	Koichi SAKURADA sakurada.fde@tmd.ac.jp	Judicial autopsy Forensic pathology Forensic dentistry
Health Care Economics	Koichi KAWABUCHI kawabuchi.hce@tmd.ac.jp	Research on health care economics Research on health care management International comparison on health care reform
Oral Health Promotion	Yoko KAWAGUCHI yoko.ohp@tmd.ac.jp	•Epidemiology and oral disease prevention •Community dentistry and oral health promotion •International studies on oral health
Sports Medicine/Dentistry	Toshiaki UENO t.ueno.spmd@tmd.ac.jp	Improvement of oral health care for athletes Oral functions and body motor functions Prevention of oral injuries and mouthguards

Gerontology and Gerodontology

Department	Chief	Research Theme
Gerodontology and Oral Rehabilitation	Shunsuke MINAKUCHI s.minakuchi.gerd@tmd.ac.jp	Oral function and swallowing disorders related to aging Medical management during dental treatment Fabricating complete denture and implant over denture applying CAD/CAM Development of denture materials for the aged

Comprehensive Patient Care

Department	Chief	Research Theme
Behavioral Dentistry	Shiro MATAKI mataki.diag@tmd.ac.jp	Communication ability in clinical dentistry Application of behavioral sciences to education Stress assessment of patients and medical staff
Dentistry for Persons with Disabilities	Osamu SHINOZUKA o.shinozuka.dpd@tmd.ac.jp	•Study on oral biofilm formation and elimination •Study on drug-induced gingival overgrowth •Oral health status of the medically compromised patient
General Dentistry	Will be named soon	•Study on application of ArF laser to teeth adhesion treatment •Study on Clinical education pre- and post- graduation •Study on diagnostic system of dental caries using digital images
Psychosomatic Dentistry	Akira TOYOFUKU toyoompm@tmd.ac.jp	•Study on pathophysiological mechanisms of oral psychosomatic disorders •Psychosomatic study on oro-facial unidentified complaints such as dysaesthesia and chronic pain •Therapeutic research and development for oral psychosomatic disorders

Types of Admissions and Scholarships for International PhD Students (Dentistry)

Entrance Period: April / October



- Eligible to apply for a special TMDU scholarship
- Entrance period: April and October
- Global Leader Program in Dental Sciences for International Students (private funds) [12 new students]
 - For students who do not have a scholarship
 - · For both new and current international students Entrance/Transition period: October
- Private association scholarships



Please contact us if

you require any further

International Global Affairs, TMDU E-mail: iec.adm@tmd.ac.jp