

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





## *Message from the President*



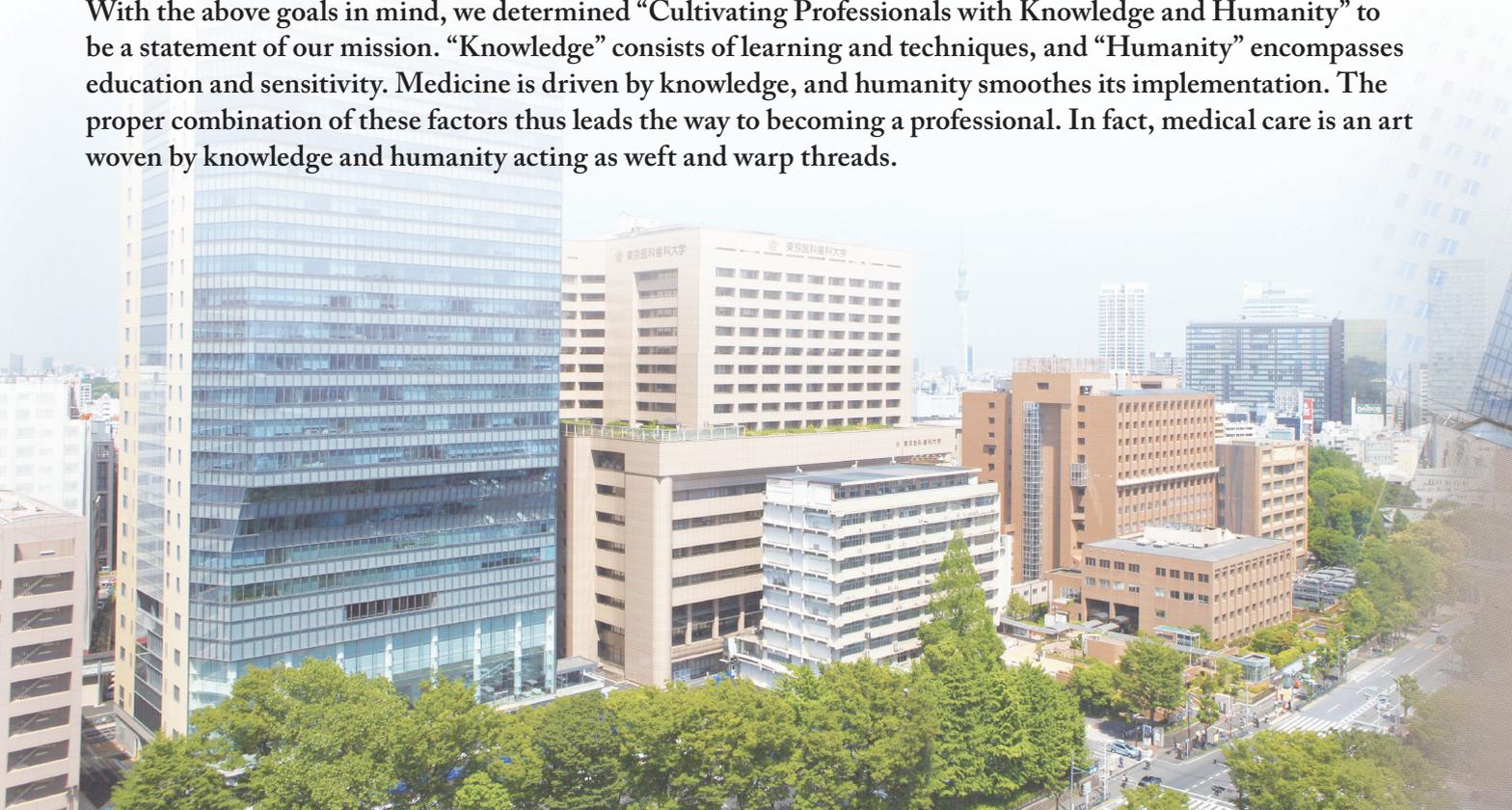
**Takashi OHYAMA, D.D.S., Ph.D., President**

### **“Cultivating Professionals with Knowledge and Humanity”**

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.



## Message from the Supervisor



**Junji TAGAMI, D.D.S., Ph.D.**

Professor and Chair,  
Cariology and Operative Dentistry

Our oral health care programs all share one ultimate mission: to ensure the well-being of our patients. In our department, we aim to help people maintain their own teeth throughout their lives, as sound, natural and aesthetically pleasing teeth are very important to one's overall health and quality of life. In order to achieve this goal, we carry out high-caliber research projects to enhance and evaluate dental materials and techniques in operative dentistry, particularly regarding adhesives, caries prevention, diagnosis, treatment, and oral health maintenance, and we provide clinical training to licensed graduate students. Another important aspect of our approach is to promote the use of minimally invasive treatment, a treatment methodology that is optimal from a caregiver's perspective and which will become popular with patients once they understand its benefits.

I would thus like to extend an invitation to all who wish to pursue high-level research and gain an insight into modern dentistry to join the international team of scientists in Cariology and Operative Dentistry.

## Messages from Alumni



**Chalida Nakalekha Limjeerajarus, D.D.S., Ph.D.,**

Lecturer at Chulalongkorn University, Thailand (Graduation in 2009 (Fixed Prosthodontics))

Dear friends around the world,

It is my privilege to be able to let you know about my PhD study life in Japan. I came to Japan in 2005 with no knowledge of Japanese language or culture. After spending five years in Japan, and finishing my PhD, I went back to my country full of experiences and with new knowledge and friends from around the world — and I was fluent in Japanese, too! TMDU's International Exchange Center not only provided me the opportunity to learn Japanese, but also gave us lots of opportunities to experience Japanese cultural activities and experiences.

I hope you will enjoy your life experience in Japan as much as I did mine.



**Yang Yuan, D.D.S., Ph.D.,**

Clinical Staff at Oral Diagnosis and General Dentistry (General Dentistry 2), Dental Hospital, TMDU (Graduation in 2007 (Cariology and Operative Dentistry))

Message to future students

I came to Japan in 2002, and joined the Department of Cariology and Operative Dentistry as a PhD student in 2003.

The university is well organized. The labs are well equipped with a variety of research instruments. The library provides a large number of textbooks, including internationally-renowned ones, and all the research journals I needed to get the necessary information and expand my view. The university also has many research journals online, so that you can also get information whenever you need.

During my time as a PhD student, my mentor gave me great support for my research. Also, other staff members and teachers were very kind and supportive. Owing to their help, I had the chance to present my research in conferences held in Japan and abroad. At the same time, I published several papers, with most of them as the first author. The journals that accepted my papers included the *Journal of Dental Research* and *Dental Materials*, which I could not have even dreamed about it before I came to Japan. As far as I know, most former international students and researchers continue the success of their career in Japan, in their home countries, or somewhere else in the world. Some of them contributed to building a partnership between the TMDU and their current institutes.

I received my PhD degree from TMDU in 2007. Later, I passed the Japanese National Board Examination for dental practice. Currently, I am a resident dentist in Oral Diagnosis and General Dentistry (General Dentistry 2), at TMDU's Dental Hospital.



**Pariksha Bharti Raghav, B.D.S., Ph.D.,**

(Graduation in 2012 (Periodontology))

Cherished moments at TMDU

I always wanted to get my higher education from abroad to gain an international experience. When my husband was invited to Japan for a work-related project, I saw it as an opportunity to explore my options in Tokyo. I contacted Tokyo Medical and Dental University's International Student Section for course information. Everyone I talked to was very helpful. I was given an overview of various departments after which I decided that I fit perfectly in the Periodontology department. Prof. Yuichi Izumi was very kind to accept me as a PhD candidate.

Soon after I enrolled in the program, I joined Japanese classes at TMDU, which helped me learn the language, and it made my everyday life quite easier. I also got to learn about the rich Japanese culture during these classes.

Dr. Sayaka Katagiri, Dr. Hiroaki Kobayashi and Dr. Yasuo Takeuchi, my supervisors were a great support. I appreciate all their time and energy that they put, to guide me and helped to bring out the best out of me. Their constant motivation inspired me to perform better.

I made amazing friends during my time in TMDU. Everyone was from a different culture and that helped me expand my horizons. We shared good laughs and I am so happy that I made some friends for life.

I am so glad that I chose TMDU. Each and every project taught me something new. The University gave me a chance to attend various conferences and seminars to represent my research at national and international platforms. This university is the reason that I have become the refined person I am today. I cherish the days spent at TMDU. Even though I have moved on to the next phase of my life, the foundations built at this place will forever be with me.

# Overview of the Postgraduate Programs in Dental Sciences

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

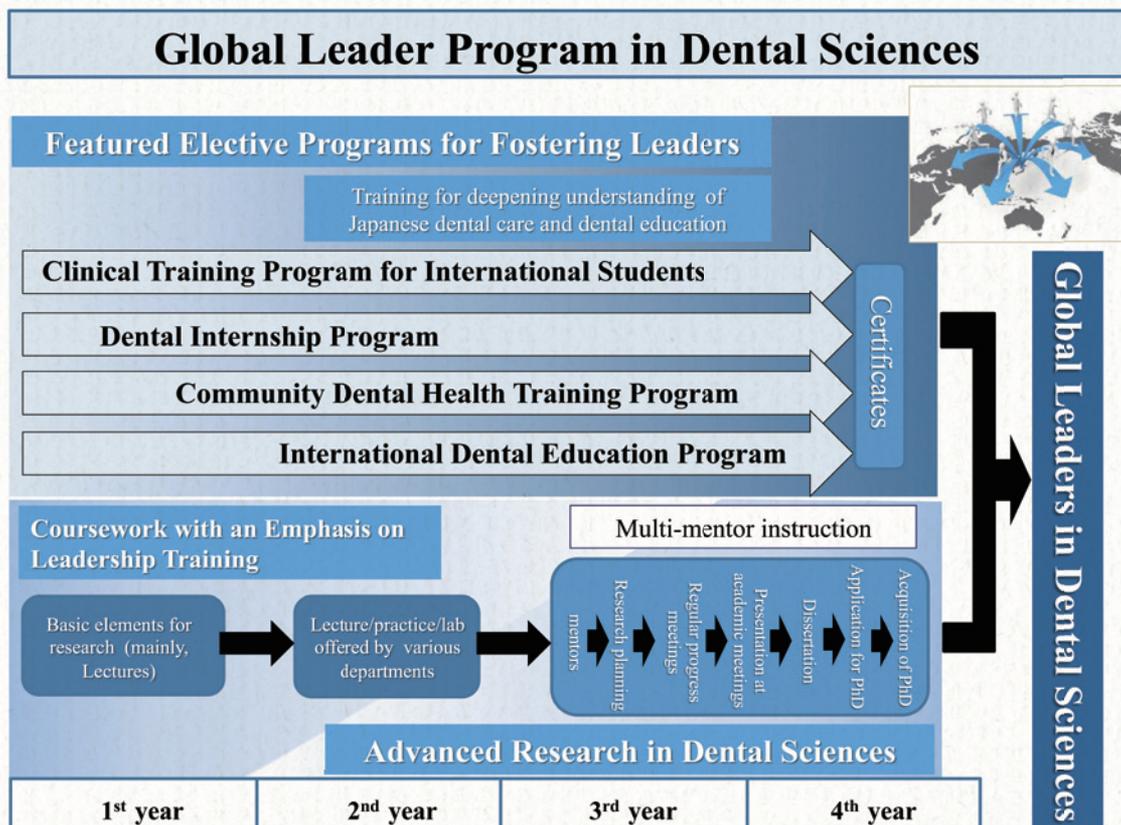
This course is devoted to developing researchers who have a high level of specialized knowledge in dentistry; educators who are rich in spirit and have highly developed expertise in devising and implementing effective educational strategies; highly specialized dental professionals who have uncompromising 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.

# Profile of Faculty (Course: Medical and Dental Sciences)

## Department: Oral Restitution

Section	Chief	Research Theme
Oral Pathology	Akira YAMAGUCHI akira.mpa@tmd.ac.jp	<ul style="list-style-type: none"> <li>Clinico-pathological studies on oral lesions</li> <li>Mechanism of bone destruction by oral cancer</li> <li>Molecular mechanism of bone regeneration</li> </ul>
Bacterial Pathogenesis	Ichiro NAKAGAWA ichiro-n.bac@tmd.ac.jp	<ul style="list-style-type: none"> <li>Analysis of bacterial survival strategy based on bacterial whole genome gene expression</li> <li>Regulation of bacterial gene acquisition and evolution by comparative genomics</li> <li>Analysis of recognition system and immune response against intracellular bacteria</li> </ul>
Molecular Immunology	Miyuki AZUMA miyuki.mim@tmd.ac.jp	<ul style="list-style-type: none"> <li>Mechanism of immune responses in oral diseases</li> <li>Studies on lymphocyte functional molecules</li> <li>Immunotherapy by molecular targeting</li> </ul>
Advanced Biomaterials	Motohiro UO uo.abm@tmd.ac.jp	<ul style="list-style-type: none"> <li>X-ray related analyses of dental materials, biomaterials and biological tissues</li> <li>Microstructural analysis and development of dental ceramics</li> <li>Development of esthetic and durable dental composite resins</li> </ul>
Diagnostic Oral Pathology	Toshiyuki IZUMO izumo.dlab@tmd.ac.jp	<ul style="list-style-type: none"> <li>Surgical pathology of oral cancer</li> <li>New diagnostic approaches based on molecular pathology</li> <li>Diagnostic science on oral lesions</li> </ul>
Oral Radiation Oncology	Masahiko MIURA masa.mdth@tmd.ac.jp	<ul style="list-style-type: none"> <li>Molecular imaging of tumor microenvironment</li> <li>Radio sensitization of tumor cells</li> <li>Radiotherapy of oral cancer</li> </ul>
Oral and Maxillofacial Surgery	Ken OMURA omura.osur@tmd.ac.jp	<ul style="list-style-type: none"> <li>Clinical and basic studies on oral cancer</li> <li>Clinical and basic studies on dentofacial deformity</li> <li>Clinical and basic studies on reconstruction and regeneration of jaw bone</li> </ul>
Oral and Maxillofacial Radiology	Tohru KURABAYASHI kura.orad@tmd.ac.jp	<ul style="list-style-type: none"> <li>Improvement of maxillofacial imaging efficacy</li> <li>Novel MRI techniques for maxillofacial diagnosis</li> <li>Molecular mechanisms of cellular radiosensitivity</li> </ul>
Anesthesiology and Clinical Physiology	Haruhisa FUKAYAMA fukayama.anph@tmd.ac.jp	<ul style="list-style-type: none"> <li>Development of drug delivery system using alternating current</li> <li>Conditioned Pain Modulation</li> <li>New methods for local anesthesia in dentistry</li> </ul>
Orofacial Pain Management	Masahiko SHIMADA mshimada.ofpm@tmd.ac.jp	<ul style="list-style-type: none"> <li>New treatment methods for neuropathic pain</li> <li>Analyses of abnormal orofacial sensations</li> <li>Study of orofacial chronic pain</li> </ul>
Pediatric Dentistry	Will be named soon	<ul style="list-style-type: none"> <li>Development and developmental disturbances of tooth and jaw</li> <li>Tooth and stomatognathic function of children</li> <li>Growth of dento-maxillofacial complex of children</li> </ul>
Orthodontic Science	Takashi ONO t.ono.orts@tmd.ac.jp	<ul style="list-style-type: none"> <li>Orthodontic studies on occlusal and system functions</li> <li>Neurophysiological studies on dentomaxillofacial functions</li> <li>Biological and biomaterial studies on functional adaptation</li> </ul>
Cariology and Operative Dentistry	Junji TAGAMI tagami.ope@tmd.ac.jp	<ul style="list-style-type: none"> <li>Development and evaluation of dental adhesive</li> <li>Studies on caries prevention, diagnosing and treatment</li> <li>Development of aesthetic dental treatments</li> </ul>
Fixed Prosthodontics	Hiroyuki MIURA h.miura.fpro@tmd.ac.jp	<ul style="list-style-type: none"> <li>Studies on occlusion of crown-bridge restorations</li> <li>Clinical studies on new equipment and materials for crown-bridge restorations</li> <li>Systemic affects of crown-bridge materials</li> </ul>
Pulp Biology and Endodontics	Hideaki SUDA h.suda.endo@tmd.ac.jp	<ul style="list-style-type: none"> <li>Molecular biology of pulp and periapical tissues</li> <li>Neurophysiology of dental pain</li> <li>Application of lasers to endodontics</li> </ul>
Removable Partial Prosthodontics	Noriyuki WAKABAYASHI wakabayashi.rpro@tmd.ac.jp	<ul style="list-style-type: none"> <li>Evaluation of stomatognathic system after tooth loss</li> <li>Development of innovative removable prosthodontics</li> <li>Evaluation of restorations for partially edentulous patients</li> </ul>
Oral Implantology and Regenerative Dental Medicine	Shohei KASUGAI kas.mfc@tmd.ac.jp	<ul style="list-style-type: none"> <li>Development of dental implants</li> <li>Diagnosis and treatment of peri-implantitis</li> <li>Bone and soft tissue regeneration</li> </ul>

## Department: Maxillofacial/Neck Reconstruction

Section	Chief	Research Theme
Maxillofacial Anatomy	Shunichi SHIBATA sshibata.mfa@tmd.ac.jp	<ul style="list-style-type: none"> <li>Structural features of mandibular bone and condylar cartilage</li> <li>Histology and embryology of teeth and periodontal tissue</li> <li>Mechanism of root formation in organ culture system</li> </ul>
Cognitive Neurobiology	Masato TAIRA masato.cnb@tmd.ac.jp	<ul style="list-style-type: none"> <li>Neural mechanisms for control of motor behavior</li> <li>Neural mechanisms for perception and cognition</li> <li>Processing of vocalizations in auditory cortex</li> </ul>
Molecular Craniofacial Embryology	Sachiko ISEKI s.iseki.emb@tmd.ac.jp	<ul style="list-style-type: none"> <li>Molecular mechanisms of craniofacial development and anomalies</li> <li>Regeneration of hard tissue of craniofacial region</li> <li>Regulation of gene expression in cell proliferation and differentiation</li> </ul>
Cellular Physiological Chemistry	Ikuo MORITA morita.cell@tmd.ac.jp	<ul style="list-style-type: none"> <li>Regulation of diseases by controlling angiogenesis</li> <li>Study for connexins and gap junction</li> <li>Molecular aspects of inflammation</li> </ul>
Maxillofacial Surgery	Kiyoshi HARADA haradak.mfs@tmd.ac.jp	<ul style="list-style-type: none"> <li>Research for cleft lip &amp; palate and facial deformity</li> <li>Research on oral cancer and precancer</li> <li>Molecular biology of oral diseases</li> </ul>
Maxillofacial Orthognathics	Keiji MORIYAMA k-moriyama.mort@tmd.ac.jp	<ul style="list-style-type: none"> <li>Orthodontic/orthognathic treatments for birth defect and jaw deformity patients</li> <li>Molecular genetic research for birth defects</li> <li>Research on craniofacial growth and development</li> </ul>
Maxillofacial Prosthetics	Hisashi TANIGUCHI h.taniguchi.mfp@tmd.ac.jp	<ul style="list-style-type: none"> <li>Diagnosis for maxillofacial prosthetic</li> <li>Modal analysis for human dentition</li> <li>Acoustic analysis of speech and voice</li> </ul>

## Department: Bio-Matrix

Section	Chief	Research Theme
Biostructural Science	Yoshiro TAKANO <a href="mailto:takanoy.bss@tmd.ac.jp">takanoy.bss@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Mechanisms of biological mineralization</li> <li>•Molecular mechanisms of tooth development and evolution</li> <li>•Regeneration of dental and periodontal tissues</li> </ul>
Pharmacology	Keiichi OHYA <a href="mailto:kohya.hpha@tmd.ac.jp">kohya.hpha@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Pharmacological studies of the formation and resorption of teeth and bone</li> <li>•Drug effects on the cell differentiation process in hard tissues</li> <li>•Detection of the new drug targets for hard tissue diseases</li> </ul>
Connective Tissue Regeneration	Tamayuki SHINOMURA <a href="mailto:t.shinomura.trg@tmd.ac.jp">t.shinomura.trg@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Study of chondrogenic differentiation</li> <li>•Maintenance mechanisms of chondrogenic phenotype</li> <li>•Study of extracellular matrix</li> </ul>
Biochemistry	Will be named soon	<ul style="list-style-type: none"> <li>•Functions and regulation of the extracellular matrix</li> <li>•Assembly of lysosomal membrane proteins</li> <li>•Bone and central nervous system in weightless environments</li> </ul>
Cell Signaling	Tomoki NAKASHIMA <a href="mailto:naka.csi@tmd.ac.jp">naka.csi@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Signal transduction in osteoclasts and osteoblasts</li> <li>•Interaction between the immune system and bones</li> <li>•Novel therapies for rheumatoid arthritis</li> </ul>
Periodontology	Yuichi IZUMI <a href="mailto:y-izumi.peri@tmd.ac.jp">y-izumi.peri@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Etiology, host responses and periodontal medicine</li> <li>•Periodontal regeneration by tissue engineering and cell sheet engineering</li> <li>•Clinical application of lasers in periodontics</li> </ul>

## Department: Public Health

Section	Chief	Research Theme
Forensic Dentistry	Will be named soon	<ul style="list-style-type: none"> <li>•Judicial autopsy</li> <li>•Forensic pathology</li> <li>•Forensic dentistry</li> </ul>
Health Care Economics	Koichi KAWABUCHI <a href="mailto:kawabuchi.hce@tmd.ac.jp">kawabuchi.hce@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Research on health care economics</li> <li>•Research on health care management</li> <li>•International comparison on health care reform</li> </ul>
Dental Education Development	Ikuko MORIO <a href="mailto:imorio.edev@tmd.ac.jp">imorio.edev@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Comparative study of dental education</li> <li>•Research projects for dental students</li> <li>•English education programs for dental students</li> </ul>
Oral Health Promotion	Yoko KAWAGUCHI <a href="mailto:yoko.ohp@tmd.ac.jp">yoko.ohp@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Epidemiology and oral disease prevention</li> <li>•Community dentistry and oral health promotion</li> <li>•International studies on oral health</li> </ul>
Sports Medicine/Dentistry	Toshiaki UENO <a href="mailto:t.ueno.spmd@tmd.ac.jp">t.ueno.spmd@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Improvement of oral health care for athletes</li> <li>•Oral functions and body motor functions</li> <li>•Prevention of oral injuries and mouthguards</li> </ul>
Educational System in Dentistry	Kouji ARAKI <a href="mailto:k.araki.gend@tmd.ac.jp">k.araki.gend@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Comparison of the measurement attribute by the different test method</li> <li>•Development of programs for improving clinical skill by simulation systems</li> <li>•Accreditation standards for dental education</li> </ul>
Educational Media Development	Atsuhiko KINOSHITA <a href="mailto:kinoshita.emdv@tmd.ac.jp">kinoshita.emdv@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Development and application of computer assisted simulation system for education</li> <li>•Application of e-learning system on health science education</li> <li>•Development and application of new educational media for health science</li> </ul>

## Department: Gerontology and Gerodontology

Section	Chief	Research Theme
Gerodontology	Shunsuke MINAKUCHI <a href="mailto:s.minakuchi.gerd@tmd.ac.jp">s.minakuchi.gerd@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Oral function and swallowing disorders related to aging</li> <li>•Medical management during dental treatment</li> <li>•Fabricating complete denture and implant over denture applying CAD/CAM</li> <li>•Development of denture materials for the aged</li> </ul>

## Department: Comprehensive Patient Care

Section	Chief	Research Theme
Dentistry for Persons with Disabilities	Osamu SHINOZUKA <a href="mailto:o.shinozuka.dpd@tmd.ac.jp">o.shinozuka.dpd@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Study on oral biofilm formation and elimination</li> <li>•Study on drug-induced gingival overgrowth</li> <li>•Oral health status of the medically compromised patient</li> </ul>
General Dentistry	Will be named soon	<ul style="list-style-type: none"> <li>•Study on application of ArF laser to teeth adhesion treatment</li> <li>•Study on Clinical education pre- and post- graduation</li> <li>•Study on diagnostic system of dental caries using digital images</li> </ul>
Psychosomatic Dentistry	Akira TOYOFUKU <a href="mailto:toyoompm@tmd.ac.jp">toyoompm@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Study on pathophysiological mechanisms of oral psychosomatic disorders</li> <li>•Psychosomatic study on oro-facial unidentified complaints such as dysaesthesia and chronic pain</li> <li>•Therapeutic research and development for oral psychosomatic disorders</li> </ul>
Behavioral Dentistry	Shiro MATAKI <a href="mailto:mataki.diag@tmd.ac.jp">mataki.diag@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Communication ability in clinical dentistry</li> <li>•Application of behavioral sciences to education</li> <li>•Stress assessment of patients and medical staff</li> </ul>
Temporomandibular Joint and Oral Function	Kouji KINO <a href="mailto:k-kino.tmj@tmd.ac.jp">k-kino.tmj@tmd.ac.jp</a>	<ul style="list-style-type: none"> <li>•Study for factors of temporomandibular disorders</li> <li>•Study for psychosomatic factors of TMD patients</li> <li>•Study of modifying factors for sleep bruxism</li> </ul>

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

Entrance Period: **April / October**  
Entrance Examination: **August**

Tuition Fee		Admission Fee	Examination Fee
(Annual)	(for 6 months)		
535,800 yen	267,900 yen	282,000 yen	30,000 yen

For the Japanese Government Scholarship students, fees for the entrance examination, matriculation, and tuition will be exempted.

## International Students with a Japanese Government scholarship

### Recommended by the Japanese Embassy

Candidates will be recruited and selected at their locale.  
**Entrance period:** April or October



### Recommended by the University (for new international students)

General admission quota [1 or 2 new student(s)]  
**Entrance period:** Entering as a Graduate International Research Student in October, and then as a Ph.D. student the next April



**Special admission quota** [12 new students]  
Global Leader Program in Dental Sciences for International Students  
**Entrance period:** October



### Recommended by the University (for current international students)

Several current international students will be selected for special Japanese Government scholarships.  
**Transition period:** April



## International Students (privately funded)

- Home government scholarship
- International Summer Program (ISP) International Student PhD Program Special Selection [up to 3 new students]
  - Waiver of application, enrollment, and tuition fees
  - Eligible to apply for a special TMDU scholarship**Entrance period:** April and October (Academic year 2013)
- 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 information.

More information about the Japanese government scholarships can be found at the following websites:

Ministry of Education, Culture, Sports, Science and Technology-Japan  
[www.mext.go.jp/english/](http://www.mext.go.jp/english/)

Independent Administrative Institution Japan Student Services Organization  
[www.jasso.go.jp/index\\_e.html](http://www.jasso.go.jp/index_e.html)

International Exchange Center, TMDU +81-3-5803-4723  
Please call between 1 p.m. and 4 p.m. (Japan Standard Time).



**TMDU**

TOKYO MEDICAL AND DENTAL UNIVERSITY

Cultivating Professionals with Knowledge and Humanity  
[www.tmd.ac.jp/english/](http://www.tmd.ac.jp/english/)

