

Tokyo Medical and Dental University

PhD Program in
Data Life Science Global Leader Program
(5-year Master's and Doctoral Program)
Admission Guide 2023

For Self-Supporting International Students

Table of Contents

1. Introduction
2. Academic Policies
 - Outline of the Biomedical Sciences and Engineering Track
 - List of Supervisors
3. Fields of Study and Number of Students to Be Accepted
4. Qualifications
5. Tuition and Other Costs
6. Application Procedure
7. Features of TMDU-DLSP
8. Selection
9. Enrollment Term
10. Supplementary Information
11. Contact Information

Introduction

Dear Applicant:

Thank you for considering Tokyo Medical and Dental University for your graduate study. Our master's and doctoral programs are highly ranked and are comprised of a full spectrum of biomedical study for both academic and professional carriers. In 2007 Tokyo Medical and Dental University has started a new International Graduate Program for Biomedical Science to offer more opportunities for international students to study in this area. In 2014 and 2018, this program was reformed. In this program, all courses are

lectured in English. Tokyo Medical and Dental University gratefully accepts motivated applicants and promotes the diversity of the graduate school.

We offer you our best wishes for your successful application to the Program.

2. Academic policies

Outline of the Data Life Science Global Leader Program

Recent advances of the Digital Revolution (also known as the third Industrial Revolution) have enabled us to utilize “big data” in all scientific and social fields. In biological and medical sciences, analyses of very complex systems such as immune system, epigenomics, lifestyle diseases and aggravation of infectious diseases have become possible. At the same time, the importance of techniques and methodology for data acquisition has also been increasing. As data life science is expanding so rapidly, professionals and leaders who have research capability and practical knowledge and skills in these fields are urgently needed.

Data Life Science Global Leader Program (DLS-GLP) aims to educate students so that they can contribute to solve problems in the life science with knowledge of various aspects of data; from their acquisition to analyses. They are also expected to learn related subjects such as the basic science, technology development and clinical medicine.

The DLS-GLP is a rigorous and flexible program. Japan has the highest level of bioscience and medicine in the world, with the quality of advancement in bioscience and biotechnology, and Tokyo Medical and Dental University has been consistently ranked by Times Higher Education (THE) World University Ranking and Quacquarelli Symonds (QS) World University Ranking as one of the top five medical schools in Japan.

The students will be exposed to an environment with high standards of research. At the same time, the students will be given opportunities to study across disciplines from bioscience and biotechnology to data science while developing their own specialty.

Furthermore, students are able to have advisors from other disciplines such as chemistry, pharmaceutical science and information science, and to participate in various educational programs outside the classroom.

List of Supervisors

Supervisor	Field	Contact Address	Research Projects
Nobutoshi Ito (Professor)	Structural Biology	ito.str@tmd.ac.jp	<ol style="list-style-type: none"> 1. Structure analysis by protein crystallography and cryo EM for disease-related proteins, including immune-system, nuclear receptors, and autophagy-related proteins. 2. Thermodynamic analysis of protein-protein interactions.
Katsumori Segawa (Professor)	Biochemistry & Molecular Genetics	segawa.mche@tmd.ac.jp	<ol style="list-style-type: none"> 1. Mechanisms of membrane lipid homeostasis 2. Physiology and pathophysiology of diseases caused by dysregulated membrane lipid homeostasis
Hirokazu Kaji (Professor)	Biomechanics	kaji.bmc@tmd.ac.jp	<ol style="list-style-type: none"> 1. Drug delivery system 2. Cell delivery system 3. Micropysiological system
Hirokazu Tamamura (Professor)	Medicinal Chemistry and Organic Chemistry	tamamura.mr@tmd.ac.jp	<ol style="list-style-type: none"> 1. Medicinal chemistry of small drugs: antagonists and inhibitors 2. Organic chemistry of peptides and peptidomimetics 3. Development of mid-size drugs 4. Chemical biology for bioprobes
Masashi Ikeuchi (Professor)	Biodesign, Biomedical Microdevice and System Integration	ikeuchi.mech@tmd.ac.jp	<ol style="list-style-type: none"> 1. 3D Microfabrication of Biomaterials 2. Microdevice for Regenerative Medicine and Assisted Reproductive Medicine 3. Integrated Microfluidics for Biomedical Mass Processing

Kohji Mitsubayashi (Professor)	Biomedical Devices and Instrumentation	m.bdi@tmd.ac.jp	1. Contact lens and Mouth guard type biosensors with for tele-medicine 2. Bio-fluorometric gas sensors and imaging-camera for diagnosis with breath & body volatiles 3. Ear-phone type gas-sensors for monitoring of blood volatiles as a novel wearable bio-instrument
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3. Fields of study and number of students to be accepted

- (1) Tokyo Medical and Dental University offers both Master's and Ph.D. programs in the fields of Biomedical Science and Technology (BST).
- (2) Number of students to be accepted for 2023: a few

4. Qualifications

- (1) Nationality: The applicants must not be Japanese citizens.
- (2) Academic Background:

Master's program

(a) Applicant has received or expects to receive an academic degree equal to a bachelor's degree in foreign university or other institute (limited to the facilities which the MEXT minister appoints as a facility which received the evaluation about the general situation such as the education research activities or a facility which follows it by the person who received the certification of the foreign government or the related organization) by completing courses that are 3 years or more in length (include completing the courses in Japan by completing correspondence classes offered by schools in that country and the course of study of a foreign educational facility that is designated under the foreign country's educational system) by September 2023

(b). Applicant's ability must be recognized by Tokyo Medical and Dental University Graduate School as equal to or higher than that of a bachelor degree holder.

Ph.D. program:

(a) Applicants must have a minimum of 18 years of education or will complete such education by the end of September 2023.

(b). Applicant's ability must be recognized by Tokyo Medical and Dental University Graduate School as equal to or higher than that of a master degree holder.

- (3) Health: Applicants must be in good health without any difficulty in academic work.
- (4) Language Ability: Applicants must have sufficient knowledge and skills in

English.

(5) Applicants who are not in Japan at the time of application must arrive in Japan by September 30th, 2023.

(*1) Acceptance will be cancelled if an applicant fails to arrive in Japan by the designated date.

(*2) Acceptance will be cancelled if an applicant in a bachelor's or master's program at the time of application apply to the master's or doctoral program, respectively, but fails to complete his/her program by September 30th, 2023.

5. Tuition and other costs (estimated, for the fiscal year 2022)

(1) Fee for the entrance examination: JPY36,000.-

(2) Fee for matriculation: JPY282,000.-

(3) Tuition: JPY535,800.-

*Please note that these fees may change.

6. Application Procedure

The applicant must first obtain approval for application from the prospective supervisor. The potential supervisors are listed on page 3 and 4.

All of the following documents should be sent by email and also by express mail in a single package to the following address by April 28th, 2023:

International Student Support Unit
Institute of Global Affairs
Tokyo Medical and Dental University
1-5-45, Yushima, Bunkyo-ku,
Tokyo 113-8510, Japan
TEL +81-3-5803-4076/4077 FAX: +81-3-5803-0105
E-mail: fssu@ml.tmd.ac.jp

- (1) Application form (digital file and a paper version printed on both sides) The form is available at the website shown below.
http://www.tmd.ac.jp/international/center/International_Student_Scholarship/index.html
- (2) Field of Study and Research Plan (digital file and a paper version printed on both sides). The form is available at the website shown below.
http://www.tmd.ac.jp/international/center/International_Student_Scholarship/index.html
- (3) Recommendation Letter: A letter of reference from a head of the institution the applicant belongs to and another reference is desirable from a supervisor who knows the applicant personally. All recommendation letters should be addressed to the President of Tokyo Medical and Dental University.
- (4) For those who reside outside Japan: Certificate of family register or citizenship in

their home country (if applicable).

For those who are already in Japan: Photocopy of resident card

- (5) Official academic transcripts from university and/or graduate school attended.
- (6) Certificates of graduation (or prospective graduation) from university. Certificate of completion (or prospective completion) of graduate course or degree (if applicable).
- (7) For those who apply to the PhD program: Thesis by which the applicant obtained his/her master's degree or its equivalent (in English) (if applicable).
If the applicant attended a master's program which does not require the master's thesis, please state so and submit its equivalent, if any.
- (8) Training and supervision plan (prepared by the supervisor)
- (9) A photocopy of your passport:
- (10) Fee for the entrance examination: JPY36,000.- (estimated, based on fiscal year 2019's amount) Concerning the how to pay the entrance exam fee, please contact the Foreign Student Support Unit by email at [fssu@ml.tmd.ac.jp].
- (11) A document to certify English proficiency, such as a TOEFL score, if an applicant is not a native in English.

Caution: Applicants need to take contact with the prospective supervisor before sending application documents

If a false statement has been made on application documents enrollment will be cancelled even after admission.

- Application Filing Period

April 12th, 2023 to April 28th, 2023

- Acceptance of Admission

The results will be posted to all applicants by the middle of June.

7. Features of TMDU-DLSP

- (1) Students engage in study and research using English
- (2) Applicants are allowed to take the entrance examination in their countries of residence
- (3) Once students gain required credits at master's and Ph.D. programs, submit a dissertation on their research work, and pass a final examination, students will be awarded a Master's degree (Science or Engineering) and Ph.D. degree (Science or Engineering).

8. Selection

Successful applicants will be selected based on their application documents and the interview (direct or over the Internet) with our professors. Applicants are informed of the details of interview by email at the beginning of May.

9. Enrollment Term

October 1st, 2023

10. Supplementary information

- (1) Tuition may be exempted based on student's academic performance and financial status.
- (2) Students are encouraged to apply for scholarships.
- (3) Students are advised to have some knowledge of Japanese culture and, education in general before coming to Japan. Studying and research are conducted in English, but students are encouraged to learn Japanese.

11. Contact Information

If you have questions about your application, please ask by e-mail.

E-mail: fssu@ml.tmd.ac.jp

International Student Support Unit
Institute of Global Affairs
Tokyo Medical and Dental University
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