

Tokyo Medical and Dental University

International Biomedical Science Ph. D. (5-year:
Master and Doctor) Program

Admission Guide 2012

For International Students with Japanese
Government Scholarship

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1. Introduction

Dear Applicant:

Thank you for considering Tokyo Medical and Dental University for your graduate study. Our master's and doctor's 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. From 2012, this program will be a part of the graduate school of Medicine and Dentistry due to the reform of the graduate schools. In the 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.

Caution:

The International Graduate Program for Biomedical Science is supported by a Japanese Educational Government subsidy. Tokyo Medical and Dental University ensures to provide scholarship for international students who will start their study from the master's program and continue to complete the doctor's program in totally up to 5 years. In other words, the International Graduate Program Scholarship is not allowed to those who will start the study from the doctor's program in Tokyo Medical and Dental University.

2. Academic policies

Outline of the International Biomedical Science Ph. D. Program

From the end of the 20th century to the beginning of the 21st, the entire genome sequences of various organism species were decoded. In Japan – which is becoming unique as a country with a low birthrate and large elderly population – post-genome research stemming from the decoded genome information and a better understanding of phenomena such as molecular structures, together with the development of the technology to control them, are expected to lower the cost burden on society as well as contribute to a higher quality of life through materialization of a healthy elderly society devoid of diseases and in which revolutionary therapies and medicines are developed and the burden on the environment is reduced. The 21st century is becoming a century of life science. Now that academic fields and social and industrial structures are changing, it is necessary to promote practical research in fusing the interdisciplinary fields related to complex disease research with leading-edge life science, and to foster human resources who have the managerial ability to realize innovations based on life science analysis and the ability to resolve practical problems. The aim of this Ph. D. program is to nurture such people.

List of Supervisors

Supervisor	Field	Contact Address	Research Projects
Fumito Maruyama	Microbial Genomics and Ecology	fumito-m.bac@tmd.ac.jp	<ol style="list-style-type: none"> 1) Roles of microbe for human homeostasis using metagenomic data of microbiome. 2) Comparative (meta) genomic analysis and experimental validation for understanding bacterial evolution and diversification. 3) Artificial mix or stimulation of indigenous bacteria for development of new medical treatment of human diseases.
Yuji Miyahara	Bioelectronics	miyahara.bsr@tmd.ac.jp	<ol style="list-style-type: none"> 1) Biomaterials and interface modification for nanobio-devices 2) Detection of biomolecular recognition using bio-transistors 3) Cell functional analysis on solid-state substrate
Akio Kishida	Material based Medical Engineering	Kishida.fm@tmd.ac.jp	<ol style="list-style-type: none"> 1) Tissue Engineering by the decellularized biological scaffold 2) Gene delivery system 3) Functional polymers for medical devices
Akiko Nagai	Inorganic biomaterials	nag-bcr@tmd.ac.jp	<ol style="list-style-type: none"> 1) Fabrication of bioceramics 2) Electric polarization of bioceramics 3) Application of the polarized bioceramics
Hiroshi Nishina	Developmental and Regenerative Biology	nishina.dbio@mri.tmd.ac.jp	<ol style="list-style-type: none"> 1) Physiological roles of the JNK signaling pathway 2) Physiological roles of the Hippo signaling pathway 3) Mechanism of liver formation
Takeshi Tsubata	Immunology	tsubata.imm@mri.tmd.ac.jp	<ol style="list-style-type: none"> 1) Cell biological studies on B lymphocyte signaling and antibody production 2) Role of membrane-bound B lymphocyte lectins in autoimmunity and infection immunity 3) Development of new strategies to control infection and autoimmunity.
Hiroshi Tanaka	Computational biology	tanaka@bioinfo.tmd.ac.jp	<ol style="list-style-type: none"> 1) cancer systembiology 2) molecular network analysis 3) virus evolution

Nobutoshi Ito	Structural Biology	ito.str@tmd.ac.jp ikura.str@tmd.ac.jp (Teikichi Ikura)	1) X-ray crystallographical study of proteins related to various diseases. 2) Functional studies of proteins in regard to protein folding and proline isomerization
Hidegori Aizawa	Molecular Neuroscience	haizawa.aud@mri.tmd.ac.jp	1) the role of glutamate transporters in the pathogenesis of major mental illness 2) the role of glutamate transporters in the pathogenesis of glaucoma 3) regulatory mechanism of the local blood flow in the limbic forebrain
Junko Kurokawa	Bio-informational Pharmacology	junkokuro.bip@mri.tmd.ac.jp	1) Molecular mechanisms for gender difference in cardiovascular diseases 2) Use of iPS cells for cardiovascular toxicology and pharmacology 3) Pathogenesis of cardiac arrhythmias and sudden cardiac death
Kenichi Kozaki	Therapeutic Genomics	ken-1.cgen@mri.tmd.ac.jp	The principal aims of our practice are to understand (1) Integrative approaches for genetic and epigenetic analyses using the bio-resources of cancers, lifestyle-related diseases, and genetic diseases (2) Molecular mechanisms underlying these diseases (3) Therapeutic genomics for Personalized Medicine in these diseases
Kiyotsugu Yoshida	Molecular Genetics	yos.mgen@mri.tmd.ac.jp	1) Biology and genetics of carcinogenesis 2) Control of cell growth and cell cycle in cancer 3) Invasion and metastasis of tumor
Noriko Sato	Epigenetic Epidemiology	nsato.epi@tmd.ac.jp	1) Developmental origin of adult disease 2) Genomics and epigenomics of non-communicable disease 3) Interaction between genome and environment

Yujiro Tanaka	Genome Structure and Regulation	ytanaka.bgen@mri.tmd.ac.jp	1) Systems analysis of cancer-specific stress response mechanisms by next generation sequencing. 2) Analysis of chromatin dynamics in living cells using synthetic substrates of histone modifying enzymes.
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3. Graduate Admission

Master's Program

- Admission Requirements

Applicants must have a Bachelor's degree and have a minimum school education of 15 years or an academic capability equivalent to Bachelor's degree holders when you enroll to the Graduate School. Please keep in mind that applicants are not allowed to defer their admission to the next academic year.

Applicants must not be those who live in Japan at the time of application.

Applicants need to take contact with the supervisor of the laboratory you wish to belong to before sending application documents.

- Application Filing Period

December 15, 2011 to February 7, 2012

- Acceptance of Admission

The results will be posted to all applicants on July 15, 2012

4. Application Documents

The applicant should first obtain approval of a course of study from the supervisor of the laboratory you wish to belong to. The supervisors are listed at <http://sbsn.tmd.ac.jp/eng/faculty/>

Applicants must submit the following documents:

1. Application form (prescribed form)
 - 1) APPLICATION FOR JAPANESE GOVERNMENT (MONBUKAGAKUSHO:MEXT) SCHOLARSHIP
 - 2) APPLICATION FOR JAPANESE GOVERNMENT (MONBUKAGAKUSHO:MEXT) SCHOLARSHIP (ATTACHMENT)
 - 3) Field of Study and Study Program
2. Dean's recommendation letter from the student's home institution (in English)
(If it is very difficult to get Dean's recommendation letter, please take contact with the supervisor of the laboratory you wish to belong to.)
3. Recommendation to verify the potential of applicant by Department Head, supervisor, etc. (in English) (If it is very difficult to get recommendation letter from Department Head or supervisor, please take contact with the supervisor of the laboratory you wish to

belong to.)

4. Official academic transcript for undergraduate courses (in English)
5. Certificate of graduation or expected graduation from university (in English)
6. Degree certificate or certificate of expected degree to be awarded (in English)
7. TOEFL (Test of English as a Foreign Language) score within the last three years of application (International applicants whose language of instruction was not English must take the test of TOEFL)
8. Two copies of photo which are taken within the past 6 months (4.5x3.5cm)
9. One copy of your passport containing the page of your name and photo

All of above should be sent together in a single package to:

Tokyo Medical and Dental University
Educational Affairs Section
1-5-45, Yushima, Bunkyo-ku
Tokyo 113-8510, Japan
TEL +81-3-5803-4534

5. Japanese Government (MEXT) Scholarship

Students accepted to the program will be financially supported by Monbukagakusho Scholarship through university recommendation.

Although the master's and doctor's programs are independent from each other, this scholarship will only be granted to students who will start their study on biomedical science at Tokyo Medical and Dental University from the master's program and continue to complete the doctor's program. The scholarship gives a monthly stipend(155,000 Yen for master's program students,156,000 Yen for doctor's program students*)for two years. If Japanese government approves extension of scholarship, you can receive the scholarship for a maximum of five years (*This stipend is subject to changes by the rule of Monbukagakusho).

Successful applicants for the Monbukagakusho Scholarship are not requested to pay the entrance examination, admission and tuition fees during the master's program. If you can extend the scholarship for five years, you are not requested to pay the entrance examination, admission and tuition fees for the doctor's program during the master's program.

6. Selection

Successful applicants will be selected based on their application documents and the interview (direct or over the Internet) with our professors. Applicants need to take contact with the supervisor of the laboratory you wish to belong to before sending application documents.

The list of professors is included in the following web page:

<http://sbsn.tmd.ac.jp/eng/faculty/>

7. Enrollment Term

October 1, 2012

8. Contacting the Application Processing Service

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

-E-mail: grad.bio.adm@cmn.tmd.ac.jp

Tokyo Medical and Dental University
Educational Affairs Section
1-5-45, Yushima, Bunkyo-ku
Tokyo 113-8510, Japan
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<http://sbsn.tmd.ac.jp/eng/admission/>