

Academic Year 2027

**First-term Doctoral Program (Master's Course) in
Pharmaceutical Sciences**

**Division of Pharmaceutical Science Research,
Graduate School of Pharmaceutical Sciences,**

Osaka Medical and Pharmaceutical University

Student Recruitment Guidelines



Osaka Medical and Pharmaceutical University

First-term Doctoral Program (Master's Course) in
Pharmaceutical Sciences

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University Philosophy

Based on its founding ethos and credo "*Shisei Jinjutsu* (Sincerity and Benevolent Medical Practice)", the Osaka Medical and Pharmaceutical University educates students to become highly humane and creative medical professionals who will contribute to the welfare of humanity and the advance of culture through the provision of teaching with an international outlook, research and high-quality medical practices.

Purpose of University

The University aims, in conformity with its philosophy, to foster human resources with rich humanity and an international outlook who will:

1. Strive to maintain and promote well-being, prevent and overcome diseases, and relieve pain, which are challenges shared by all mankind;
2. Respond to changes in society and continue to learn the latest knowledge and the best technology throughout their lifetimes; and
3. Play an active part with an inquisitive spirit in fields ranging from community healthcare to world-class research and development.

Purpose of Graduate School

The Graduate School aims to teach and research the theory and applications of medical science, pharmaceutical science and nursing science, and master their depths, thereby contributing to the advance of culture.

Purpose of First-term Doctoral Program

The first-term doctoral program (master's course) aims to train human resources to become pharmaceutical researchers or professionals who have developed their research ability with an excellent international perspective through advanced research and the acquisition of knowledge and skills in the field of Pharmaceutical Sciences.

Admissions Policy

The first-term doctoral program (master's course) is for those who have completed a four-year undergraduate program (in pharmacy, agriculture, engineering, science, etc.) and it seeks students who understand the philosophy of the university, meet the first-term doctoral program purpose of human resource development, and possess flexible thinking and creativity. The following qualifications are also required:

- Those who have acquired cutting-edge research skills, knowledge, and ethics in pharmaceutical sciences related to the life sciences and drug discovery sciences, with a strong motivation to become active as researchers or professionals with an international perspective.

Those who have completed 16 years of school education abroad are also eligible.

Successful applicants will be selected based on the results of each applicant's 1) foreign language proficiency (English); 2) essay (in specialized field); 3) interview, and 4) presentation and an oral examination.

Curriculum Policy

Students in the first-term doctoral program (master's course) belong to one of three research domains: molecular structure and functional analysis, drug discovery, and life and environmental sciences. They receive education and research guidance mainly from supervisors in the assigned laboratory. The curriculum is organized and implemented in accordance with the following principles.

1. To enable students to acquire deeper specialized knowledge and ethics based on their basic knowledge on the pharmaceutical sciences, so that they can improve and enhance their ability to apply their knowledge in specialized fields.
2. Lectures are based on an elective system, taking account of students' autonomy and expertise.
3. To include special seminars and studies to develop problem-solving skills and communication skills necessary for international research collaborations.

Instruction incorporates active learning, experiential learning, online education, and LMS-based platforms, adapted to the needs of each course..

Diploma Policy

The requirements for the awarding a degree in the first-term doctoral program (master's course) are: being enrolled for the designated period, receiving educational and research instructions in line with the philosophy of master's education and research, passing the screening and examination of a master's dissertation, and completing the master's course. The degree to be awarded is Master's Degree in Pharmaceutical Science, and the criterion below is to be used for the screening.

- Having a broad, distinguished intellectual background, a wide range of academic knowledge, the potential to acquire a flexible approach to applied research, a strong ethical sense, and an international perspective.

First-term Doctoral Program (Master's Course) in Pharmaceutical Sciences

**Division of Pharmaceutical Science Research,
Graduate School of Pharmacy and Pharmaceutical Sciences,**

Osaka Medical and Pharmaceutical University

Student Recruitment Guidelines

1. Number of students to be recruited: Pharmaceutical sciences major: a few

2. Major and field

Major	Field
Pharmaceutical Sciences	Molecular Structure-Function Analysis, Drug Discovery Chemistry, Life and Environmental Sciences

Application Qualifications (Applicants must qualify under any one of the following conditions)

- 1) Those who graduated from four-year university courses or are expected to graduate in March 2027
- 2) Those who have completed 16 years of school education abroad
- 3) Those who are designated by the Minister of Education, Culture, Sports, Science and Technology
- 4) Those who are recognized by this graduate school to have at least the same academic ability as university graduates

Note: If you are an international student (a person who does not have Japanese nationality and has not obtained a permanent residence permit in Japan) and privately financed, you are eligible for the above-mentioned application, on the condition that you can obtain or renew your status of residence of Student stipulated by the Immigration Control and Refugee Recognition Act after admission.

4. Application Period and Method

- 1) Period: Monday, July 27, 2026 to Monday, August 10, 2026
- 2) Submission in Person: Educational Affairs Section, Pharmaceutical Academic Affairs Department Business Hours: 9 am–4:30 pm on weekdays
- 3) Submission by postal mail: Send your application to Educational Affairs Section, Pharmaceutical Academic Affairs Department by simplified registered mail or express mail. Only ones marked with a postmark during the application period will be accepted. In addition, write First-term Doctoral Program Application in red on the envelope.

5. How to Apply for Admission

Please submit the following documents along with the entrance examination fee of 20,000 yen (exempted for graduates of this university) during the application period.

If you submit your application by postal mail, please transfer the application fee of 20,000 yen to the bank account listed below. Please note that the bank transfer fee shall be borne by the applicant.

Application Fee: 20,000 yen*

Bank Account for Payment : Bank: Sumitomo Mitsui Banking Corporation, Takatsuki Branch
Account Type: Ordinary Account
Account Number: 1777923
Account Name: Gak. Osaka Ika Yakuka Daigaku

Please note that the bank transfer fee must be borne by the applicant.

- Please make the payment under the name of the applicant.
 - Applications will not be accepted if the payment is not completed within the application period.
- 1) Application Form
Use the form designated by this university and attach a photo of yourself taken within three months prior to the application.
 - 2) Graduation Certificate*¹ or Certificate of Expected Graduation*¹
To be prepared and sealed up by the graduating university
 - 3) Official Transcript*¹
To be prepared and sealed up by the university
 - 4) Statement of Purpose*¹
To be described in a form specified by the University, limited to 1,000 characters in Japanese or 250 words in English
 - 5) Abstract of Graduation Research
To be described in a form specified by this university, limited approximately to 500 characters in Japanese or 150 words in English
 - 6) Return Envelope (*Nagagata* #3 (120 mm x 235 mm) Standard-size envelope)
Required only if you mail the application documents: In order for us to send the examination ticket, the envelope needs to be self-addressed with a 374-yen stamp on the envelope.
 - 7) Data on Graduation Research Presentation
Please submit Microsoft PowerPoint files (to be stored on CD-R or DVD-R) to Educational Affairs Section, Pharmaceutical Academic Affairs Department by 10 am on the day of the examination.
 - 8) Prior Consultation
Please consult in advance and obtain approval from the faculty member (prospective supervisor) of the laboratory you wish to join.

*1. Required only if you are from a different university.

Submit the following items in addition to items 1) to 8) if you are an international student.

- 9) Certificate of Eligibility or resident card (with the residence status and period of residence stated), and a copy of passport in the case of applying from outside Japan
- 10) Guarantor's letter^{*2} (The guarantor needs to be an adult independently maintaining a livelihood in Japan)
- 11) Medical Certificate
- 12) Letter of Recommendation
- 13) Resume

*2. Required only if you are an international student privately financed.

6. Selection Method

The applicant will be selected as a screening result of an academic examination^{*3}, interview, and submitted documents.

*3. You may be exempt from the academic examination if you are a government-sponsored foreign student.

7. Academic Examination

- 1) Date: Friday, August 21, 2026
- 2) Place: The Abuyama Campus of Osaka Medical and Pharmaceutical University
4-20-1
Nasahara, Takatsuki City
- 3) Schedule

10:00 am – 12:00 pm	Written Exam: Foreign language (English) ^{*4} All questions in three major fields must be answered.
1:00 pm - 2:30 pm	Written exam: pharmacy and pharmaceutical sciences One out of three questions in three major fields should be answered. ^{*5}
From 3:00 pm	Presentation and oral examination: To be presented based on applicant's submitted data on his/her graduation research ^{*6}

An interview will be held after the presentation and oral examination.

- *4. 1) The foreign language test may be exempted if you are an international student making a presentation in English.
- 2) It is possible to bring in dictionaries (except for electronic and specialized dictionaries).
- *5. For the written examination (pharmacy and pharmaceutical sciences), questions may also be given and answered in English upon request. If you prefer English, please make such request when submitting your application.
- *6. If you are from a university that does not have a graduation research program, please give a presentation on the purpose of going onto graduate school and your aspiration for research.

8. Announcement of Acceptance

The announcement of acceptance will be made at The Abuyama Campus of Osaka Medical and Pharmaceutical University on Friday, September 11, 2026, and each applicant will be notified in writing.

9. Admission Procedure

Each successful applicant will be notified individually of the admission procedure in detail.

The applicant who has accepted the procedure described in this notice will be admitted.

Deadline: Primary Deadline (for payment of the enrollment fee and submission of the required documents) Friday, December 11, 2026

Secondary Deadline (for payment of the first half-year tuition fees) Monday, March 8, 2027

10. Payment

1) Admission fee: 100,000 yen (excepted if you are a graduate of this university)

2) Tuition: 500,000 yen (annual sum)

In addition, pay 18,000 yen (annual sum) as a commission (the PA fee at Faculty of Pharmacy).

11. Teaching Assistant (T.A.) System

Students in this doctoral program can be commissioned as a teaching assistant (T.A.) to receive payment

12. Others

1) Neither documents submitted nor payment, once made, will be returned.

2) The admission may be canceled if there is a fact such as a false statement in submitted documents.

3) Those who wish to receive special considerations before taking an exam or studying, contact Educational Affairs Section, Pharmaceutical Academic Affairs Department in advance.

4) Applicants must be sure to discuss the research details with the academic advisor in charge at the laboratory they wish to join, prior to submitting an application.

Contact information for entrance examination:

Educational Affairs Section, Pharmaceutical Academic Affairs Department,
Osaka Medical and Pharmaceutical University

4-20-1 Nasahara, Takatsuki, Osaka 569-1094

Tel.: +81-72-690-1000 (Main phone number)

Tel.: +81-72-690-1013 (Direct)

E-mail: p-educate@ompu.ac.jp(Direct)

Website: <https://www.ompu.ac.jp/>

Major research projects in the Pharmacy major (Doctorate program)

Field	Department・Academic advisor	Research themes
Molecular Structure and Function Analysis	Biochemistry Prof. Tomoaki Hishida Lecturer Shinobu Fujii	• Role of stemness and cellular senescence in carcinogenesis • Regulation of cellular phenotypes using partial reprogramming technologies • Molecular mechanism of inflammatory response regulated by cytokines • Molecular mechanism of growth and differentiation signaling mediated by protein kinases and transcriptional factors • Systematic analysis of intracellular signal transduction pathways by using the CRISPR/Cas9 method • Molecular theory of the enzymatic function of phospholipases
	Physical Chemistry Assoc. Prof. Koji Tomoo Assoc. Prof. Akiko Asano	• Analysis of the structure and function of translational initiation factors of eukaryote • Elucidation of the self-aggregation mechanism of tau protein related to Alzheimer's disease and development of inhibitors for tau aggregation • Elucidation of the intracellular transport mechanism of xylooligosaccharide in bacteria • Elucidation of the iron transport system in the pathogenic bacteria and development of the new antimicrobial agent • Research on the conformation control of peptides • Research on the cell penetrating peptides using non-proteinogenic amino acids
	Functional Morphology Prof. Hiroaki Okuda	• Research on the mechanism of chronic pain and the development of new treatments • Research on anti-inflammatory mechanisms of plant-derived phytochemicals • Research on the functional diversity of glial cells • Research on the mechanisms of cell proliferation, differentiation, and cell death
Drug Discovery Chemistry	Medicinal Chemistry Prof. Tomoya Hirano	• Development of photofunctional molecules for medical purposes • Development of assay system for epigenetics and epitranscriptome • Drug discovery for biological defense, anticancer and senolytics
	Pharmaceutical Organic Chemistry Prof. Yoshihide Usami ★	• Research on the synthesis and biological activity of carbasugar type natural products and their analogs • Synthesis of novel heterocyclic compounds • Design and synthesis of vanin-1 inhibitors
	Bioorganic Chemistry Prof. Shinya Fujii Assoc. Prof. Shun-ichi Wada	• Development of novel biologically active compounds using a wide variety of elements • Development of new synthetic methods for functionalized organometallic compounds • Medicinal chemistry research based on vitamins and hormones • Development of carrier peptides capable of cell penetration • Application of carrier peptides as a tool for the intracellular delivery of nucleic acid drugs • Development of molecular imaging peptide probes for visualization of cancer cells • Development of small molecule drugs to improve mitochondrial function • Design and synthesis of novel bioactive compounds
	Natural Products Research Prof. Masahiko Taniguchi	• Research on the structural analysis and bioactivity of various herbal medicine constituents • Research on the usefulness of supplements • Research on medicinal plant-derived epigenome (histone deacetylase) and protein-protein interaction modulators
Life and Environmental Sciences	Environment and Health Sciences Prof. Keiichiro Okuhira Lecturer Takashi Azuma	• Research on the function and physiological role of atherosclerosis-related factors • Research on the development of drug delivery systems for cancer chemotherapy • Research on the molecular mechanism of obesity leading to lifestyle-related diseases • Research on the tight junction modulation of blood-brain barrier • Research on the investigation of pharmaceutical residues in the environmental waters

Field	Department·Academic advisor	Research themes
Life and Environmental Sciences	Microbiology and Infection control Prof. Atsushi Komano	• Development of novel strategies to control pathogenic microbe infections • Elucidation of molecular mechanism of the virulence of pathogenic microbes via host-pathogen interactions
	Pathobiochemistry Prof. Ko Fujimori	• Function of lipid mediators and their regulatory mechanisms • Molecular mechanism of obesity • Regulation of cellular growth and differentiation • Regulation of lipid metabolism by natural products
	Pathological and Molecular Pharmacology Prof. Mamoru Ohkita Assoc. Prof. Masashi Tawa	• Research on pathophysiological roles of endothelin and nitric oxide • Research on drug efficacy evaluation for acute kidney injury and chronic kidney disease and its underlying mechanism • Research on drug development targeting soluble guanylate cyclase • Development research of new therapeutic agents for various cardiovascular diseases • Pharmacological research of various functional foods
	Pharmacology Prof. Hisashi Shirakawa Assoc. Prof. Saki Shimizu	• Functional analysis of dopaminergic and serotonergic nervous system in the brain • Pathophysiological research on neuropsychiatric diseases (e.g., schizophrenia, depression, Parkinson's disease, epilepsy) • Pharmacological research on central nervous system drugs
	Pharmacotherapeutics and Toxicology Prof. Ryuji Kato Assoc. Prof. Yuka Kohda	• Investigation of mechanisms underlying serious adverse effects and the Assocd predictive markers • Research on pathophysiology and prevention of oxidative stress-related diseases • Research on clinical usefulness of Therapeutic Drug Monitoring in home health care
	Pharmacotherapeutics II Prof. Akio Fukumori Lecturer Takako Yamaguchi	• Pathophysiological mechanisms of dementia and their application to diagnosis and treatment • Pathogenesis of autoimmune encephalitis and its application to diagnostic and therapeutic strategies • Comprehensive identification of orphan receptor ligands using genetically encoded noncanonical amino acids • (For intended for working graduate students) Analysis of clinically relevant drug information using electronic medical records and adverse event databases • Synthesis and structural analysis of organic reagents and their application to analytical chemistry • Development of spectroscopic methods for biomarker detection • Design and synthesis of bioactive metal complexes
	Analytical and Bioanalytical Chemistry Prof. Akira Kotani	• Design and development of electrochemical sensors to determine biologically important substances • Development of highly sensitive and selective analytical methods for determining drugs and biological molecules • Research on in vivo diagnostic technologies based on electrochemical and/or radiochemical methods
	Pharmaceutics Prof. Junya Nagai Assoc. Prof. Hideyuki Motohashi	• Variation in function and expression of drug transporters in life style-related diseases and elucidation of the molecular mechanisms underlying its variation • Evaluation of relationship between transmembrane transport properties and efficacy/toxicity of anticancer agents • Biopharmaceutical research on development of new cell medicine

Field	Department・Academic advisor	Research themes
Life and Environmental Sciences	Formulation Design and Pharmaceutical Technology Prof. Yuichi Tozuka Assoc. Prof. Hiromasa Uchiyama	• Development of solubilization techniques of poorly water soluble drugs • Particle design for dry powder inhalation • Functional particle formation by mechanochemistry • Formulation design for self-emulsifying drug delivery systems
	Clinical Kampo Medicines Prof. Makio Shibano	• Research on anti-chronic inflammatory activities of traditional herbal medicines • Scientific evaluation for specific processing of traditional herbal medicines • Research on preventing medical side effects of Kampo medicines

Applicants must discuss the research details with the responsible faculty member at the laboratory they wish to join, prior to submitting an application.

Departments marked with * will not receive any applicants.

Departments marked with ★ will retire before the completion of their projects.

