Contents

Exclusive Summary ............................................. 1
Class Subjects List for Graduate School of Medical Sciences .......... 2
Requirements for Course Completion ................................ 4
Research Guidance ........................................... 5
Guidelines for Research Guidance ................................ 6
[Form 1] Research Plan ....................................... 7
[Form 2] Academic and Research Plan ................................ 8
Course Registration ........................................... 9
Miscellaneous .................................................. 10
Research Group Contact List ................................ 13
Campus Map .................................................. 14
Graduate School of Medical Sciences
Division of Pharmacy, Doctoral Course

Number of students: 4 students

● Admission Policy (AP)

The Division of Pharmacy aims to arouse the latest knowledge in the medical academic discipline, to conduct practical research as a medical professional as well as a strong sense of ethics and global vision, centered on pharmacy and the capability. In an interdisciplinary environment unique to the graduate school that coordinates across the three medical disciplines of pharmaceutical, medical and health sciences, the School aims to develop highly professional leaders of pharmaceutical education and research, as well as medical experts who combine the discipline of natural science and excellent research abilities through education covering various fields from the basics of pharmacy to clinical pharmacy.

Specifically, the school accepts those who aim to be active on the front lines in highly expertised practice, such as pharmacists who play a leading role in clinical practice; pharmaceutical faculty members who are in a position to lead the medical pharmaceutical education and research; public administrators engaged in the fields of medical, public welfare, pharmaceutical affairs and the environment; and researchers of new drug development and clinical pharmacotherapy.

As basic policy on our selection of students, we consider that the followings are important:

・ A higher level of academic ability (major field and English)
・ High comprehension and passion to the research work
・ Strong motivation to succeed in the field described above in future

In the selection process, we evaluate the basic academic ability, English proficiency, logical thinking ability, comprehension to research subject and so on.

● Curriculum Policy (CP)

The Division of Pharmacy enables students to extensively learn not only pharmaceutically related subjects but also the most advanced medical science deeply related to pharmacy and technical English and provides curriculums that contribute to education and research combined with medical pharmaceutical science for the realization of advanced pharmacotherapy. Specifically, (1) the Initial-stage Comprehensive Curriculum provides vast learning of advanced medical study related to pharmacy, (2) Frontier Life Science encourages students to actively take seminars in a related field to encourage the acquisition of knowledge. (3) The Seminar on Advanced Medical Science promotes active participation of students in academic conferences, and credits are granted for presentations at related conferences, aiming to cultivate the habits of striving for new knowledge. (4) Elective courses in pharmacy provides 10 types (20 credits) of major subjects taught by teachers of pharmacology to encourage the acquisition of leading edge knowledge in consideration of an individual career path, as well as training for practical clinical activities and to help students acquire academic knowledge and abilities to conduct research in a systematic manner. (5) The curriculum consists of the Seminar for Research Practice that offers learning in the laboratory seminar conference setting, the Research in Medico-Pharmaceutical Sciences that aims to prepare doctoral thesis for degree application and the Exercise in Medico-Pharmaceutical Sciences that provides practical training for conference presentations. By taking these curriculums, students can work on the up-to-date research projects in the specialized academic domain.

● Diploma Policy (DP)

The goal of the Division of Pharmacy is to foster pharmacists who have advanced knowledge in a specialty, excellent research abilities and global vision by implementing an advanced interdisciplinary approach necessary for medical experts and working on the newest medico-pharmaceutical related studies under the leadership of Graduate School Committees. To achieve this, students will extensively learn the latest medical science related to pharmacy and take various major subjects. The Research in Medico-Pharmaceutical Sciences lets students must submit a thesis describing research outcomes and conduct an oral presentation and discussion, which are reviewed by Graduate School Committees. The majority of research outcomes must be publicized (or accepted for publication) in peer-reviewed academic journals. Students who have passed the entire process are granted the Doctor of Pharmacy or Doctor of Philosophy.

● Envisioned career path:

・ Medical institutions (e.g., hospital, pharmacy)
・ Pharmacy schools (e.g., faculty members)
・ Medical or pharmacy-related affairs
・ Research and development departments of pharmaceutical and chemical companies
・ Sales and academic departments of pharmaceutical and chemical companies
### Division of Pharmacy (Doctoral Course)

<table>
<thead>
<tr>
<th>Subject Category</th>
<th>Class Name</th>
<th>Academic Supervisor</th>
<th>Timetable No.</th>
<th># of credit</th>
<th>Schedule</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compulsory</td>
<td>Reading and Writing of Scientific Papers</td>
<td>-</td>
<td>06001</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td>Information Processing</td>
<td>-</td>
<td>06110</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td>Practice in Bio-Statistics</td>
<td>-</td>
<td>06002</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td>Cell Culture</td>
<td>-</td>
<td>06003</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td>Cell Culture (Practice)</td>
<td>-</td>
<td>06004</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td>Culture of Bacteria</td>
<td>-</td>
<td>06005</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td>Culture of Bacteria (Laboratory Practice)</td>
<td>-</td>
<td>06006</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td>Methodology of Morphological Analysis</td>
<td>-</td>
<td>06007</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td>Practice of Methods for Morphological Analysis</td>
<td>-</td>
<td>06008</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td>Gene Engineering</td>
<td>-</td>
<td>06009</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td>Practice of Gene Engineering</td>
<td>-</td>
<td>06010</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td>Methodologies in Biochemistry &amp; Molecular Biology</td>
<td>-</td>
<td>06011</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td>Experiments in Biochemistry &amp; Molecular Biology</td>
<td>-</td>
<td>06012</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Immunology</td>
<td>-</td>
<td>06013</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Immunology Practice</td>
<td>-</td>
<td>06014</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Methods of Isotope Tracer Experiment</td>
<td>-</td>
<td>06015</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Training of Isotope Tracer Technique</td>
<td>-</td>
<td>06016</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Laboratory Animal Science</td>
<td>-</td>
<td>06017</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Laboratory Animal Science Training</td>
<td>-</td>
<td>06018</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Methodology of Social Medicine</td>
<td>-</td>
<td>06021</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Practice of Social Medicine</td>
<td>-</td>
<td>06022</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>General Approach to the Patients</td>
<td>-</td>
<td>06111</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Introduction to Basic Medical Science

**Ⅰ** Introduction to Basic Medical Science

- Gary Ross

- Timetable No.: 09423
- Credit: 1
- Schedule: Semester 1

**Ⅱ** Introduction to Basic Medical Science

- Gary Ross

- Timetable No.: 09424
- Credit: 1
- Schedule: Semester 2

#### Introduction to Clinical Medicine

- Timetable No.: 06102
- Credit: 2

#### Frontier Life Science

- Timetable No.: 09426
- Credit: 2
- Schedule: Semester 1 & 2

#### Regulatory Science of Medical Products

- Timetable No.: 09032
- Credit: 2
- Schedule: Year-round

### Common Subjects for the Doctoral Course

- Seminar on Tumor Biology

- Timetable No.: 06106
- Credit: 2
- Schedule: Year-round

- Gene Engineering Basic Course

- Timetable No.: 06019
- Credit: 1

### Division of Pharmacy and Medicine

#### Vascular Biology and Medicine

- Molecular Biology of the Cardiovascular System

- Timetable No.: 03001
- Credit: 12

- Vascular Cell Biology

- Timetable No.: 03002
- Credit: 6

- Biomedical Sciences

- Timetable No.: 03003
- Credit: 6

- Signal Transduction in the Cardiovascular System

- Timetable No.: 03011
- Credit: 12

- Circulation Physiology

- Timetable No.: 03012
- Credit: 6

- Pathophysiology of Vascular Proliferative Disorder

- Timetable No.: 03013
- Credit: 6

- Angiogenesis and Connective Tissue Metabolism

- Timetable No.: 03021
- Credit: 12

- Connective Tissue Diseases

- Timetable No.: 03022
- Credit: 3

- Dermatology

- Timetable No.: 03023
- Credit: 3

- Neoplasm of the Skin

- Timetable No.: 03024
- Credit: 3

- Immunology of the Skin

- Timetable No.: 03025
- Credit: 3

#### Clinical Chemistry and Laboratory Medicine

- Clinical Chemistry and Laboratory Medicine

- Timetable No.: 03031
- Credit: 12

- Laboratory Medicine

- Timetable No.: 03032
- Credit: 6

- Microbiology

- Timetable No.: 03033
- Credit: 2

- Endocrinology

- Timetable No.: 03034
- Credit: 4

- Transmission of Mediator Signals in Blood

- Timetable No.: 03041
- Credit: 12

- Intensive Care Medicine

- Timetable No.: 03042
- Credit: 4

- Critical Care Medicine

- Timetable No.: 03043
- Credit: 4

- Emergency and Critical Care Medicine

- Timetable No.: 03044
- Credit: 4

- Internal Medicine

- Timetable No.: 03051
- Credit: 12

- Cardiology

- Timetable No.: 03052
- Credit: 4

- Endocrinology and Metabolism

- Timetable No.: 03053
- Credit: 8

- Neonatal and Developmental Medicine

- Timetable No.: 06005
- Credit: 12

- Pediatric Hematology and Oncology

- Timetable No.: 06006
- Credit: 4

- Hereditary Metabolic Diseases

- Timetable No.: 06007
- Credit: 4

- Pediatrics

- Timetable No.: 06008
- Credit: 4

- Radiology

- Timetable No.: 06046
- Credit: 12

- Radiological Diagnosis

- Timetable No.: 06047
- Credit: 4

- Endovascular Therapy

- Timetable No.: 06048
- Credit: 4

- Magnetic Resonance Imaging

- Timetable No.: 06049
- Credit: 2

- Imaging Diagnosis

- Timetable No.: 06050
- Credit: 2

- Cardiovascular System

- Timetable No.: 06057
- Credit: 12

- Cardiovascular Surgery

- Timetable No.: 06058
- Credit: 6

- Thoracic Surgery

- Timetable No.: 06059
- Credit: 8
<table>
<thead>
<tr>
<th>Subject Category</th>
<th>Class Name</th>
<th>Academic Supervisor</th>
<th>Timetable No.</th>
<th># of credit</th>
<th>Schedule</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division of Pharmacy</td>
<td>Molecular Information Pharmacology</td>
<td>Yoshinobu Nakanishi</td>
<td>05001</td>
<td>2</td>
<td>Biennially (Semester 1 in the even years) Until Academic Year 2018</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drug Metabolism and Toxicology</td>
<td>Miki Nakajima</td>
<td>05002</td>
<td>2</td>
<td>Biennially (Semester 2 in the even years)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Molecular Biopharmaceutics</td>
<td>Ikumi Tamai</td>
<td>05003</td>
<td>2</td>
<td>Biennially (Semester 1 in the odd years)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prediction and Evaluation of Drug Efficacy</td>
<td>Yukio Kato</td>
<td>05004</td>
<td>2</td>
<td>Biennially (Semester 2 in the odd years)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research Methods for Social Epidemiology</td>
<td>Hirohito Tsuboi</td>
<td>05005</td>
<td>2</td>
<td>Biennially (Semester 2 in the even years)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clinical Drug Information</td>
<td>Kunizo Arai</td>
<td>05007</td>
<td>2</td>
<td>Biennially (Semester 2 in the odd years)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clinical Pharmacokinetics</td>
<td>Ryo Matsushita</td>
<td>05008</td>
<td>2</td>
<td>Biennially (Semester 1 in the even years)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medical Communication</td>
<td>Junko Ishizaki</td>
<td>05009</td>
<td>2</td>
<td>Biennially (Semester 2 in the even years)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advanced Self-defense Mechanisms</td>
<td>Takayuki Kuraishi</td>
<td>05014</td>
<td>2</td>
<td>Biennially (Semester 1 in the odd years)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar for Research Practice</td>
<td>Primary supervisor</td>
<td>-</td>
<td>12</td>
<td>Year-round</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exercise in Medico-Pharmaceutical Sciences</td>
<td>Primary supervisor</td>
<td>-</td>
<td>2</td>
<td>Year-round</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research in Medico-Pharmaceutical Sciences</td>
<td>Primary supervisor</td>
<td>-</td>
<td>2</td>
<td>Year-round</td>
<td></td>
</tr>
<tr>
<td>Common Subject for Division of Pharmacy</td>
<td>Recent Advance in Medicine</td>
<td>-</td>
<td>06301</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar on Up-To-Date</td>
<td>-</td>
<td>06321</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Notes on course registration]

Subject marked with ★ is a recommended course provided by academic supervisors in the pharmacy field. Please refer to the registration guide and course model on page 4 when registering classes.

Registration of subjects not marked with ★ requires a separate registration. In that case, contact the Pharmacy Student Affairs Section immediately.

Additionally, be sure to register compulsory subjects for the first year at the time of school entry (no need to register for the 2nd, 3rd and 4th year).

The timetable numbers vary depending on a laboratory that each student is affiliated with. Be sure to check the timetable numbers on the Acanthus Portal.

To find information on lecture contents and contact info of academic supervisors, go to the Syllabus of Kanazawa University (http://sab.adm.kanazawa-u.ac.jp/).

Check with academic supervisors to find detailed time schedule of classes.

Class schedule is subject to change without prior notice.
Requirements for Course Completion

**Requirements for completion of the course**

To complete the Doctoral Course in the Division of Pharmacy, you must meet all three requirements below:

- You must be in residence for a minimum of four years at the university;
- You must acquire a minimum of 34 credits and attend the necessary lectures and obtain the research guidance;
- You must pass both the defense of your doctoral thesis and the final examination;

Students with outstanding research accomplishments can be considered for early graduation from the doctoral course on the condition that they have been in residence for at least three years.

For details, please contact your primary supervisor.

---

**Course Registration**

<table>
<thead>
<tr>
<th>Essential GS Course</th>
<th>Fostering the Independence of Researchers</th>
<th>1 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Stage Comprehensive Curriculum</td>
<td></td>
<td>4 credits</td>
</tr>
<tr>
<td>Optional subjects offered by the Division of Pharmacy</td>
<td></td>
<td>12 credits</td>
</tr>
<tr>
<td>Compulsory subjects offered by the Division of Pharmacy</td>
<td>Seminar for Research Practice (12 credits)</td>
<td>16 credits</td>
</tr>
<tr>
<td></td>
<td>Exercise in Medico-Pharmaceutical Sciences (2 credits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research in Medico-Pharmaceutical Sciences (2 credits)</td>
<td></td>
</tr>
<tr>
<td>Subjects offered by other divisions (common subjects for the Doctoral Course)</td>
<td></td>
<td>1 credits</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>34 credits</td>
</tr>
</tbody>
</table>

**Course model: Requirements for course completion (34 Credits)**

1. **Essential GS Course (1 credits)**
   - Fostering the Independence of Researchers (1)

2. **Initial Stage Comprehensive Curriculum (4 credits)**
   - Regulatory Science of Medical Products (2)
   - Introduction to Basic Medical Science1 (1)
   - Introduction to Basic Medical Science2 (1)
   - Frontier Life Science (2) [For students who hold full-time jobs]

3. **Subjects offered by the Division of Pharmacy (12 discretionary credits)**
   - Prevention and Treatment of Infectious Diseases (2)
   - Drug Metabolism and Toxicology (2)
   - Molecular Biopharmaceutics (2)
   - Prediction and Evaluation of Drug Efficacy (2)
   - Research Methods for Social Epidemiology (2)
   - Clinical Drug Information (2)
   - Clinical Pharmacokinetics (2)
   - Medical Communication (2)
   - Advanced Self-defense Mechanisms (2)

4. **Compulsory subjects offered by the Division of Pharmacy (16 credits)**
   - Seminar for Research Practice (12)
   - Research in Medico-Pharmaceutical Sciences (2)
   - Exercise in Medico-Pharmaceutical Sciences (2)

5. **Subjects offered by other divisions (Common subjects for the Doctoral Course) (1 credits)**
   - Seminar on Advanced Medical Science (1)

\[1 + 4 + 12 + 16 + 1 = 34 \text{ Credits}\]
1. Research Guidance System

The Division of Pharmacy employs a guidance system with multiple teachers to improve the quality of research guidance.

1) Research guidance group

(1) Each student is assigned to a research guidance group consisting of one primary supervisor and two supervisors.

(2) The formation of each research guidance group is decided at committee meetings of each division.

(3) Primary supervisors bear the responsibility of providing guidance to help students prepare plans for taking subjects and research plans, carry out research, prepare an interim research report and doctoral thesis, as well as degree applications.

(4) Supervisors assist primary supervisors.

2. Research guidance and degree application procedure

The following is the schedule for research guidance and the degree application procedure so that students may meet the requirements within a specified course term.

(1) Students must receive counseling from a research guidance group immediately after entering the school and prepare the "[Form 1] Research Plan" and "[Form 2] Academic and Research Plan" for submission to the primary supervisor. Form 1 contains a complete description of research plan during the academic years and Form 2 contains an academic and research plan for each academic year. These forms can be obtained from the following web site. (http://www.p.kanazawa-u.ac.jp/student/format.html)

(2) Students must submit a program registration of the academic year on the Acanthus Portal before specified date in accordance with Form 2. The deadlines for each program registration will be announced on the Acanthus Portal at the beginning of each term. (See page 9)

(3) Students must conduct their research according to research plan. If there is a major change in research plan, notify the research guidance group and modify Form 1 and Form 2 after consulting with the group.

(4) Students must compile research outcomes into a doctoral thesis with the help of the research guidance group. The prepared doctoral thesis is reviewed and modified by the group and sent to a preliminary examination.

(5) Students must complete a degree application procedure in accordance with the review requirements for the doctoral thesis.

(6) Students must undergo the evaluation of the doctoral thesis and final oral examination of the doctoral thesis.

(7) Students who have completed the above steps are evaluated at a committee meeting of each division for final review based on the credit acquisition status and the results of the final examination. Those who have passed the final review may complete the doctoral course and receive the Doctor of Philosophy in Pharmacy or Doctor of Philosophy.
The Division of Pharmaceutical Sciences and the Division of Pharmacy, Graduate School of Medical Sciences, Kanazawa University, implements the following guidelines for guidance, such as preparing the doctoral thesis ("research guidance"): 

1. The primary supervisor shall use Form 1 of the research plans submitted by the student to determine plans for research guidance until the student's final academic year upon consultation with the student and provide it to the student after admission to the school without delay.

2. The primary supervisor shall, at his or her discretion, receive a report describing the progress of research from the student. Upon consultation with the student, the primary supervisor shall review and modify the research guidance plans prepared in 1. above if the need arises.

3. The student shall prepare Form 2 of the academic and research plans according to Form 1 of the research plans and submit it to the primary supervisor at the beginning of each academic year.

4. The primary supervisor shall retain Forms 1 and 2 of the research plans related to the student for five years after graduation.
# Research Plan

**Graduate School of Medical Sciences,**
**Division of ____________**

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Name of primary supervisor</th>
<th>Signature</th>
</tr>
</thead>
</table>

**Research theme**

<table>
<thead>
<tr>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
</tr>
<tr>
<td>Research plans</td>
</tr>
<tr>
<td>1st year</td>
</tr>
<tr>
<td>2nd year</td>
</tr>
<tr>
<td>3rd year</td>
</tr>
<tr>
<td>4th year</td>
</tr>
</tbody>
</table>

**Date: / /**
# Academic and Research Plan

**Year 20___ Academic and Research Plan**

**Doctoral course**

**Graduate School of Medical Sciences,**

**Division of ____________**

**Student Number**

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Name of primary supervisor</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Research theme**

**Description**

<table>
<thead>
<tr>
<th>Class title</th>
<th>Credit</th>
<th>Taught by</th>
<th>Class title</th>
<th>Credit</th>
<th>Taught by</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Courses**

<table>
<thead>
<tr>
<th>Class title</th>
<th>Credit</th>
<th>Taught by</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes**

1. Course registration must be conducted on the Acanthus Portal.
2. After completing course registration, be sure to check the list of course registration authorizations to be sent to you at a later date.

**Date:** / / 

- 8 -
Course Registration

Students must register all courses for which they wish to obtain credits during the semester.

(1) Determination of courses
Students are encouraged to refer to the list of courses on pages 2 and the syllabus (http://sabadm.kanazawa-u.ac.jp/) and prepare Form 2 of the academic and research plan on page 7 upon consultation with the primary supervisor.

(2) Course registration
Students may use the Acanthus Portal (https://acanthus.cis.kanazawa-u.ac.jp/Portal/) to register courses that they want to take for each semester according to Form 2 of the academic and research plan prepared at (1).

Please log in to the Acanthus Portal using the ID and password provided with this guidebook. Students are encouraged to access the website once.

Be sure to check the course registration deadline on the Acanthus Portal and complete the registration within the time frame.

For details on how to register courses from the Acanthus Portal, please refer to the "Handbook for Graduate Students" on page 145.

* Courses in semester 2 can also be registered together with the courses for semester 1. The opposite case is not allowed.

* Make sure there are no omissions.

* Acanthus Portal may be accessed from any computer as long as it is connected to the Internet, regardless of whether you are on campus or off campus.

(3) Receipt of the course registration authorization list and confirmation of registration information
After registering courses, a course registration authorization list will be issued by the Pharmacy Student Affairs Section. This authorization list must contain all of the courses you would like to take for credit certification. Be sure to check the list because courses not listed on the authorization list will not be counted towards credits after taking the courses.

If there are any corrections, make a correction on the Acanthus Portal within a set time frame in the same manner as the registration.

(Reference) Course registration for the first semester 2016

[First semester]
- Monday, April 10 through Friday, April 21: Course registration period for classes and subjects
- Tuesday, April 25 through Thursday, April 27: Issue of course registration authorization list (confirmation of registered classes), Correction period of classes and subjects
- From Monday, May 1: Issue of course registration authorization list after correction

[Second semester]
- Monday, October 2 through Thursday, October 19: Course registration period for classes and subjects

* Internet access is available for 24 hours. (To be advised the begininning time and deadline for course registration.)
1. **Student identification card**

   Student identification card will be ready for pickup at the Pharmacy Student Affairs Section (Center window at the office on G2F of Natural Science and Technology Main Hall) from Friday, April 7. **Office hours are 8:30 a.m. to 5 p.m. on weekdays.**

   Students are encouraged to pick up their student identification card without delay as a student number is required for various procedures.

   If you are a student who hold full-time job and cannot go to the Pharmacy Student Affairs Section for pickup due to unavoidable reasons, you may ask your primary supervisor to pick it up on your behalf. In this case, please consult with your primary supervisor in advance.

   Additionally, students are **required to have their student identification card in order to receive periodical health checkups provided by the university.**

   ![Periodical Health Checkups]

   | Males: Friday, April 21. 1:00 p.m. to 4:30 p.m. | Female: Monday, April 17. 1:00 p.m. to 4:30 p.m. | Location: Health Service Center (Main Hall), Kakuma Campus |

2. **Acanthus Portal**

   The University operates the portal site "Acanthus Portal" to implement the ICT education in an effective manner. Using this site, students may obtain important information on courses, achievements, completion status and doctoral thesis information. Students are encouraged to check it frequently. For more details on features and instructions for use, please refer to the Graduate School Handbook on page 159.

3. **Academic year and semester**

   The first academic year of the Division of Pharmaceutical Sciences starts on April 1 and ends on March 31 of the following year.

   Academic year is divided into two semester and four quarter. The first semester (the first and second quarters) starts in April 1 and ends in September 30 and the second semester (the third and fourth quarter) starts in October 1 ends in March 31.

   The academic calendar that will be posted at the beginning of a new academic year provides information, such as the start date of class and school events.

4. **Change of personal information**

   Students are required to change their personal information using the Acanthus Portal if there are any changes to the address and telephone number of the student and parents provided on the student information form submitted at the time of school entry. If the last name needs to be changed, please follow the procedures as directed at the Pharmacy Student Affairs Section.

   For those who are in employment and covered by the "Special Exception on Education Based on Article 14 of the Standards for the Establishment of Graduate Schools" (See 9), please notify the Student Office if there is a change to a place of employment.

5. **Parking on the Kakuma Campus**

   Due to the limited parking space available on the Kakuma Campus, student vehicles are not permitted to park on campus unless there are special circumstances.

   However, due to unavoidable reasons, if you wish to commute by car, you may apply for a car entry pass at the Pharmacy Student Affairs Section. To be advised more details of application period parking fee on the Acanthus Portal in early April.
6. **Temporary withdrawal from the course (leave of absence), returning to the University and permanent withdrawal**

In each case, students must carefully consult with the primary supervisor and apply for it. Designated forms can be found at the Pharmacy Student Affairs Section.

1. **Temporary withdrawal**
   - Required document: Request for temporary withdrawal (designated form)
   - Submission deadline: The 15th of the preceding month in which the student wishes to take leave in principle.
   - Temporary withdrawal can be requested by the end of semester or quarter if a student leaves school for illness etc. for more than one month. **Doctor's note must be submitted if it is for an illness.**
   - If you are withdrawing in the middle of a semester, you must pay the full tuition for the semester.

2. **Returning to the University**
   - Required document: Request for reinstatement (designated form)
   - Submission deadline: The 15th of the preceding month in which the student wishes to return to the University in principle.
   - If you wish to return to the University during a leave of absence, you must go through the appropriate reinstatement process.

3. **Permanent withdrawal**
   - Required document: Request for permanent withdrawal (designated form)
   - Submission deadline: The 15th of the preceding month in which the student wishes to withdraw from the University in principle.
   - Request for permanent withdrawal will not be approved if the student has not paid the tuition for the semester or quarter.

7. **Certificates**

Certificates, such as school certificate, transcript and student discount certificate for Japan Railways, can be instantly obtained from an automatic certificate machine located in front of the window at the Pharmacy Student Affairs Section. When using the machine, follow the directions on the screen and insert your student ID card and enter a PIN (your PIN number is your Acanthus portal ID password).

For more information of the automatic certificate machines, such as location, hours and available types of certificates, refer to Kanazawa University website by visiting “Home > Student Life > Certificates”.

Additionally, the certificates issued at the automatic certificate machines are available to students with a student ID card in principle. However, for unavoidable reasons, students who hold full-time jobs may also request certificates by mail. The request must contain the following three documents and be sent to the Pharmacy Student Affairs Section.

1. Self-addressed stamped envelope (oblong envelope (120 mm × 235 mm) with your address written on the front and affixed with a stamp)
2. Copy of identification (e.g.: Driver's license or insurance card)
3. Document stating the following seven items (in any format)
   1. Name
   2. Date of birth
   3. Student number and division
   4. Return address
   5. Daytime phone number of the applicant
   6. Type of certificate and a number of copies
   7. Intended use and destination

**Note:**
We do not accept a request for certificates by phone or e-mail. When requesting by mail, please make preparations in advance as it may take up to three days before your request is processed.

Address: Kakuma-machi, Kanazawa, 920-1192 Japan  Pharmacy Student Affairs Section
8. **Longer-term program policy**

The Division of Pharmaceutical Sciences has a longer-term program policy, which enables students who have difficulty completing the course within the standard length of time (three years) for a good reason, such as having a profession outside of the school, to plan and implement a study program exceeding the standard term to obtain a degree.

If you wish to use this system, contact your primary supervisor or the Pharmacy Student Affairs Section.

1. **Eligibility**
   - Working professional (including temporary hiring)
   - Student partaking in housework, childcare, or nursing care

2. **Application deadline**
   - The last day of February for the 1st year or 2nd year

9. **Special Exception on Education Based on Article 14 of the Standards for the Establishment of Graduate Schools**

The “Special Exception on Education Based on Article 14 of the Standards for the Establishment of Graduate Schools” is created in order to facilitate postgraduate learning of applicants under special selection who are students who hold full-time jobs.

Please consult the Pharmacy Student Affairs Section if you wish to apply.

Reference:
Standards for the Establishment of Graduate Schools
(Excerpts from No. 28 of Ministry of Education Regulations, 1974)

Article 14: Appropriate education to facilitate teaching and/or research guidance may be implemented in the evening or other times/periods if deemed especially necessary for educational purposes within any postgraduate course.

10. **School buildings**

All of the school buildings are locked during the following hours to limit the entry of outsiders:
   - Monday to Friday: 8:00 p.m. to 7:30 a.m.
   - Weekends and holidays: All day

If you wish to enter the buildings after hours, swipe your student ID card through the card reader to gain entry.

11. **Alumni Association, Kanazawa University School of Pharmaceutical Sciences**

Alumni Association, Kanazawa University School of Pharmaceutical Sciences is a prestigious alumni association of the Faculty of Pharmaceutical Sciences in the College of Medicine, Pharmaceutical and Health Sciences, Kanazawa University, holding nearly 6,000 members, including the current undergraduate students, graduate students and faculty members from the Division of Pharmacy and Division of Pharmaceutical Sciences.

The purpose of the association is to promote mutual friendship and information exchange between members, as well as to share news and status of the University and members as colleagues engaged in the same studies with the aim to enhance academic development throughout life.

Activities of the association include education support projects for current students (support for extracurricular activities, etc), issuance of newsletters and name lists, announcements of academic information and hosting of lodge meetings after graduation throughout the nation.

We encourage all new students to understand our guidelines and become a member of the association.

Contact: Kakuma-machi, Kanazawa, 920-1192 Japan Executive Office of Alumni Association, Kanazawa University School of Pharmaceutical Sciences Tel:(076)260-6366
## Research Group Contact List

*The rest of the address followed by @ is @p.kanazawa-u.ac.jp.*

<table>
<thead>
<tr>
<th>Laboratory</th>
<th>Contact</th>
<th>Professor</th>
<th>Associate Professor</th>
<th>Assistant Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Defense and Responses</td>
<td>nakanaka@</td>
<td>Yoshinobu Nakanishi</td>
<td>Akiko Shiratsuchi-Hirayama</td>
<td>Saori Nonaka</td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4481</td>
<td></td>
<td>Takayuki Kuraishi</td>
<td></td>
</tr>
<tr>
<td>Drug Management and Policy</td>
<td>tsuboih@</td>
<td></td>
<td>Hirohito Tsuboi</td>
<td>Naoko Yoshida</td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4403</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical Drug Informatics</td>
<td>arai@</td>
<td>Kunizo Arai</td>
<td>Junko Ishizaki</td>
<td>Yukio Suga</td>
</tr>
<tr>
<td></td>
<td>☎ 076-264-6224</td>
<td></td>
<td></td>
<td>Natsuko Ishida</td>
</tr>
<tr>
<td></td>
<td>matusita@</td>
<td>Ryo Matsushita</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4405</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Membrane Transport and Pharmacokinetics</td>
<td>tamai@</td>
<td>Ikumi Tamai</td>
<td>Takeo Nakanishi</td>
<td>Hisakazu Komori</td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4479</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molecular Pharmacotherapeutics</td>
<td>ykato@</td>
<td>Yukio Kato</td>
<td>Noritaka Nakamichi</td>
<td>Yusuke Masuo</td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4465</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug Metabolism and Toxicology</td>
<td>nmiki@</td>
<td>Miki Nakajima</td>
<td>Tatsuki Fukami</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4408</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pharmaceutical and Organic Chemistry</td>
<td>ohmiya@</td>
<td>Hirohisa Ohmiya</td>
<td>Fuyuhiko Inagaki</td>
<td>Shigeo Yasuda</td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4485</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>mukai@</td>
<td>Chisato Mukai</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4411</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Molecular Genetics</td>
<td>matsukas@</td>
<td>Tsukasa Matsunaga</td>
<td>Manabu Inobe Mitsuo Wakisugi</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4487</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bioorganic Chemistry</td>
<td>kunisima@</td>
<td>Munetaka Kunishima</td>
<td>Masanori Kitamura</td>
<td>Kohei Yamada</td>
</tr>
<tr>
<td></td>
<td>☎ 076-264-6201</td>
<td></td>
<td></td>
<td>Kenji Mishiro</td>
</tr>
<tr>
<td>Clinical and Analytical Sciences</td>
<td>odani@</td>
<td>Akira Odani</td>
<td>Kazuma Ogawa</td>
<td>Tatsuto Kiwada</td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4459</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaccinology and Applied Immunology</td>
<td>shigeto@</td>
<td>Shigeto Yoshida</td>
<td>Mitsuhiro Iyori</td>
<td>Takahiko Tamura</td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4463</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synthetic Organic Chemistry</td>
<td>jimatsuuo@</td>
<td>Junichi Matsuo</td>
<td>Tomoyuki Yoshimura</td>
<td>Tsuyoshi Taniguchi</td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4474</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molecular Pharmacology</td>
<td>k-kaneda@</td>
<td>Katsuyuki Kaneda</td>
<td>Eiichi Hinoi</td>
<td>Satoshi Deyama</td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4468</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molecular Pharmacognosy</td>
<td>(Goto)</td>
<td></td>
<td>Kyoko Nakagawa-Goto</td>
<td>Yohei Saito</td>
</tr>
<tr>
<td></td>
<td>kngoto@</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>☎ 076-264-6305</td>
<td></td>
<td>Yohei Sasaki i</td>
<td>Hirokazu Ando</td>
</tr>
<tr>
<td></td>
<td>(Sasaki)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sasaki@</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4441</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hygienic Chemistry</td>
<td>suzukir@</td>
<td>Ryo Suzuki</td>
<td>Akira Toriba Tang Ning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4485</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Chemistry</td>
<td>odani@</td>
<td>Akira Odani (concurrent post)</td>
<td>Shuichi Fukuyoshi</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4459</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yamashita Research Group</td>
<td>katsumi@</td>
<td></td>
<td>Katsumi Yamashita</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☎ 076-264-6270</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uchiyama Research Group</td>
<td>uchiyama@</td>
<td></td>
<td>Masahiko Uchiyama</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☎ 076-234-4428</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
By Airplane:
Approx. 2 hours from Incheon (Seoul) to Komatsu Airport
Approx. 2 hours from Podong (Shanghai) to Komatsu Airport

Approx. one hour from Haneda (Tokyo) to Komatsu Airport

JR Train:
Approx. 2 hours & 28 minutes from Tokyo Station to Kanazawa Station
Approx. 3 hours from Osaka Station to Kanazawa Station
Approx. 3 hours from Nagoya Station to Kanazawa Station

From Kanazawa Station to Campuses (by Hokuriku Railroad Bus (北陸鉄道バス))

> Kakuma Campus
To “Kanazawa Daigaku Shizenken Mae（in front of Natural Science & Technology Hall, 金沢大学自然研前）”, “Kanazawa Daigaku Chuo（Kanazawa University Central, 金沢大学中央）”, or “Kanazawa Daigaku (Kakuma)（金沢大学（角間））” bus stops (Approx. 34-37min)
Catch a bus #91, 93, 94, or 97(Route name is Kanazawa Daigaku(Kakuma)（金沢大学（角間））) from Bus Terminal#6, Kanazawa Station East Exit.

>Takaramachi - Tsuruma Campus
To Kodatsuno（小立野）bus stop (Approx. 20 min)
Catch a bus from Kanazawa Station East Exit
- Bus Terminal #7 (Route name is Tobu Shako(東部車庫))
- Bus Terminal #6 (Route name is Yuyagahara/Iozen(湯谷原・医王山))