

Spring 2019

**Doctoral Program in the Graduate School of Medicine**  
**Student Application Guidelines**

**Program for Leading Graduate Schools**

**“Project for Reducing the Burden of**

**Non-Communicable Disease (NCD)**

**in the Asian Pacific Region”**

**(General Entrance Exam and  
Special Entrance Exam for Students of Designated Universities)**

**National University Corporation**

**Shiga University of Medical Science**

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# About Our Program

## The Program for Leading Graduate Schools

The Program for Leading Graduate Schools is an initiative of the Ministry of Education, Culture, Science, Sports and Technology of Japan (MEXT). It is designed to promote and enhance graduate school education in Japan providing students with a world-class education through the development and implementation of Ph.D. degree program. The Program aims to train creative leaders with a broad perspective for industry, government, and academia on a global scale. Transcending disciplinary borders, prominent teachers and students both within and outside of the country and leading experts in industry, government, and academia will be invited to participate in the Program. Shiga University of Medical Science (SUMS) is among the selected Japanese University that participate in the Program for Leading Graduate Schools in 2013.

The Program for Leading Graduate Schools categorized into three types.

1. “All-round”
2. “Complex”
3. “Only-one”.

“Reducing the burden of non-communicable disease (NCD) in the Asian Pacific Region” by SUMS was selected as an “Only-one” program.

The ultimate goal of the Program for Leading Graduate Schools is to educate leaders with the following qualities.

**【Skills required in leaders who can take initiative in industry, government, and academia on a global scale】**

1. To develop an ability to take action on global scale in collaboration with others, with courage and conviction.
2. To develop an ability to discover problems, construct hypotheses, and create innovative solutions by capitalizing on one’s own knowledge and skills.
3. To develop insight into the true nature of things based on a broad perspective and a deep knowledge base, as well as a high level of expertise and global consciousness.

## Graduate Program for Reducing the Burden of NCD in the Asian Pacific Region

The NCD Program intends to foster leaders with the following qualities through education that makes the best use of a solid base for epidemiologic research in lifestyle-related diseases offered by the Center for Epidemiologic Research in Asia and other organizations at SUMS:

- 1) Well-balanced NCD leaders who possess medical knowledge concerning NCD, expertise in epidemiological methodology and biostatistics, as well as the ability to formulate novel solutions for improving public health in Asia;
- 2) Global leaders who are internationally minded, proficient in English, and capable of engaging in logical discussion;
- 3) Academic leaders with first-rate research skills based on extensive experience in large-scale epidemiologic research studies and international collaborative research;
- 4) Dynamic leaders capable of playing an active role at the front line of health-related industries and government agencies focused on public health issues;
- 5) Leaders with a professional network across industry, government, and academia.

## Admission Policy

The Graduate Program for Reducing the Burden of NCD in the Asian Pacific Region is a doctoral program selected as the only one of its type by the Program for Leading Graduate Schools by MEXT in 2013. The prevalence of NCD, including cancer, cerebrovascular disease, and cardiovascular disease, as well as their associated risk factors such as diabetes, hypertension, and dyslipidemia (deemed lifestyle-related diseases) has become a particularly serious concern in emerging Asian countries. The Graduate Program for Reducing the Burden of NCD in the Asian Pacific Region aims to train future global leaders who will initiate the development of measures to combat NCD and extend healthy life expectancy in emerging Asian countries using the solid research platform in lifestyle disease epidemiology offered by the Center for Epidemiologic Research in Asia and other organizations at SUMS. Students who plan to enroll in the NCD Program should be flexible enough to adapt to Asian and other foreign cultures and be sufficiently proficient in English so that they can participate in lectures and exercises conducted in English. We look for students with determination, a strong sense of duty, and high ethical standards that aspire to be active leaders in overcoming NCD-related problems in the Asian Pacific region.

## Curriculum Policy

The curriculum is designed to foster internationally minded leaders actively engaged in interdisciplinary work. Thus, an emphasis is placed on English communication so that students can develop effective debating skills in English. The Center for Epidemiologic Research in Asia plays a central role in educating well-balanced leaders possessing medical knowledge of NCD, expertise in epidemiological methodology and biostatistics, as well as the ability to formulate novel solutions for improving public health in Asia. Japanese and international students study together in small classes or workshops facilitated by faculty members of Japanese and foreign nationalities. Students enrolled in this program will also participate in a training program or conduct fieldwork in Asia, Europe, and the US.

## Diploma Policy

In order for the students enrolled in this doctoral program to be certified for a diploma, they must complete the research curriculum; obtain all the required credits; publish a doctoral dissertation in an international academic journal; and pass the dissertation review and final examination held by the screening board, which includes external judges as well as foreign scholars. Students will be assessed on whether they have been able to acquire 1) medical knowledge of NCD, expertise on epidemiological methodology and biostatistics, and an ability to devise novel solutions to address public health issues in Asia; 2) sufficient proficiency in English to engage in effective debate; and 3) leadership skills necessary to solve NCD-related problems in Asia and the rest of the world, combined with the flexibility to work in harmony with other people while upholding high ethical standards.

# Student Application Guidelines

## Number of Students to Be Admitted

Nine students will be admitted to the Graduate Program for Reducing the Burden of NCD in the Asian Pacific Region, NCD Program, which has been selected as a Program for Leading Graduate Schools by the Japanese government. This program is also a part of the Course for Research in Advanced Medicine in the Doctoral Program of the Graduate School of Medicine, Shiga University of Medical Science (SUMS). This program provides education, that includes research guidance and classwork at flexible times ( e.g. during the evening) and period which are suitable for employed student in Japan as “a special case of educational methods” by applying “Article 14, Standards for Establishment of Graduate School”. Practicum subjects of the program are not applicable for this “special case”.

## Commencement of the Program

The NCD Program will begin in April, 2019.

Note: Times indicated in this document always refer to Japan Standard Time.

## Eligibility for Applicants

Applicants must fall into one of the following categories in order to qualify for admission:

1. Those who have graduated or are expected to graduate from a school of medicine or dentistry of a university, or a six-year program of pharmacy or veterinary medicine by March 2019.
2. Those who have completed or are expected to complete 18 years of school education (must include medicine, dentistry, pharmacy, or veterinary medicine in the curriculum) by March 2019.
3. Those who have completed or are expected to complete 18 years of school education in a foreign country (must include medicine, dentistry, pharmacy, or veterinary medicine in the curriculum), by taking courses in correspondence education provided by a school in a foreign country in Japan by March 2019.
4. Those who have completed a curriculum (an applicant must complete 18 years of school education in a foreign country (must include medicine, dentistry, pharmacy or veterinary medicine in the curriculum)) in an educational institution in Japan that is deemed to have courses offered by an overseas college according to the educational system of that country and have also been designated by the Minister of Education, Culture, Sports, Science and Technology
5. Those who have academic ability equivalent or superior to those who have completed a master’s program or have earned a master’s degree, and have also been designated by the Minister of Education, Culture, Sports, Science and Technology according to Notification No. 39 dated April 8, 1955, from the Ministry of Education and Notification No. 118 dated September 1, 1989, from the Ministry of Education, including those who are recognized to have an academic ability equivalent or superior to those who have graduated from a school of medicine, dentistry, pharmacy, or veterinary medicine

6. Those who stayed in a six-year college for four years or more without graduating from it (a curriculum must include medicine, dentistry, pharmacy, or veterinary medicine) and are recognized by our school that they have earned a designated number of credits with excellent grades
7. Those who have completed 16 years of school education in a foreign country (a curriculum must include medicine, dentistry, pharmacy, or veterinary medicine); those who have completed 16 years of school education in a foreign country (must include medicine, dentistry, pharmacy, or veterinary medicine in the curriculum), by taking courses in correspondence education provided by a school in a foreign country; or those who have completed a curriculum (an applicant must complete 16 years of school education in a foreign country (must include medicine, dentistry, pharmacy, or veterinary medicine in the curriculum)) in an educational institution in Japan that is deemed to have courses offered by an overseas college according to the educational system of that country and have also been designated by the Minister of Education, Culture, Sports, Science and Technology, while being recognized by our school that they have earned a designated number of credits with excellent grades
8. Those who are recognized to have academic ability equivalent or superior to those who have graduated from a college (a curriculum must include medicine, dentistry, pharmacy, or veterinary medicine) through individual screening of requirements for admission and who will be 24 years old before or on March 31, 2019.

Notes:

1. Applicants for working students must apply to one of the above criteria, already work at the point of application, and obtain an approval from their supervisor for enrollment while maintaining their job. The applicant from the following designated institution is not eligible.
2. Students of designated universities (e.g., institutions) with international exchange program partnerships with SUMS who apply for the special entrance exam must obtain letters of recommendation from their home universities. Students of non-designated Universities should apply for general examination.
3. The applicants of the special entrance exam can take the 2<sup>nd</sup> stage of the examination at your home universities by Online Conference System.

Designated Universities		
Beihua University	Harbin Medical University	University of Georgia
Changchun Municipal Hospital	University Hospital of Amiens-Picardie	University of Nairobi
The University of British Columbia	Cho Ray Hospital	Kenya Medical Research Institute
University of Michigan	University of Medicine and Pharmacy at Ho Chi Minh City	Mongolian University of Medical Science
China Medical University	Northeastern University (China)	University of Indonesia
Rome University "La Sapienza"	University of Ottawa	National Brain Center Hospital, Jakarta
The University of Picardie Jules Veme	National University of Malaysia	Bangladesh National Heart Foundation Hospital & Research Institute
		Universidade Federal de Mato Grosso

4. Those who apply under categories 5 to 8 will undergo individualized eligibility screening for admission. Please see Screening of Eligibility for Application.

## Screening of Eligibility for Application

Applicants in categories 5 through 8 must apply for review of eligibility by completing the following instruction. Prospective applicants who meet the applicant qualifications will go on to the first stage of the screening process. In addition to the application documents for the doctoral course listed in Section 3 of the Application Procedure, such applicants need to submit additional documents at the same time.

### 1. Application documents

- (1) Those who plan to apply under category 6 or 7 should submit documents 1 and 2 **in addition to the** application documents listed in Section 3 of the Application Procedure.
- (2) Those who plan to apply under category 5 or 8 should submit document 1 **in addition to the** application documents listed in Section 3 of the Application Procedure.
  - 1 Application form for eligibility screening provided by SUMS.
  - 2 Copy of the table of curriculum and syllabus at the applicant's university

### 2. Period of Application

**Monday, October 1, 2018 to Monday, October 15, 2018** \*Applications must arrive by 17:00

### 3. Place to Submit the Application Documents

Address: Admissions Office

Shiga University of Medical Science

Seta Tsukinowa-cho, Otsu City, Shiga 520-2192, Japan

TEL: 077-548-2071 (direct number) FAX: 077-548-2799

E-mail: hqnyushi@belle.shiga-med.ac.jp

- (1) Hand-delivered applications are accepted from 9:00 to 17:00 on weekdays. No documents are accepted on Saturdays, Sundays, and National Holiday.
- (2) Applicants living overseas should send all required documents by Express Mail Service (EMS). The EMS tracking number, application form for eligibility screening and Form A to Form E should be sent by fax or e-mail (fax number and e-mail address are mentioned above).

### 4. Eligibility screening

Applications will be reviewed based on the submitted documents. A request for an interview may be necessary. In such case, applicants will be contacted individually by SUMS.

### 5. Results of the eligibility screening

Applicants will be notified of the results of the eligibility screening by **October 26, 2018**.

Documents not used for the eligibility screening shall be returned to those who do not meet qualifications.

# Application Procedure

## 1. Application period

**Monday, October 1, 2018- Monday, October 15, 2018 \*Applications must arrive by 17:00**

## 2. Any inquiries and all application documents should be addressed to:

Address: Admissions Office

Shiga University of Medical Science

Seta Tsukinowa-cho, Otsu City, Shiga 520-2192, Japan

TEL: 077-548-2071 (Direct line) FAX: 077-548-2799

E-mail:hqnyushi@belle.shiga-med.ac.jp

## 3. Required application documents

(\*Use the form provided by SUMS. Forms may be completed in Japanese or English, except Items 3 and 5 which should be in English. )

Documents	Remarks
1 Application for Admission *	Form A 3 references should be faculty at your home university, supervisor of your institute, or equivalent. For students from designated universities, at least one reference should be the faculty member (or equivalent) from that designated university to qualify for Special Entrance Exam.
2 Curriculum Vitae*	Form B
3 Personal Statement*	Form C In English
4 Scientific and Academic Activities *	Form D
5 Certification of English Proficiency*	Form E In English
6 Recommendation letter*	Form F 3 recommendation letters sealed by each recommender with signature across the seal
7 Academic Transcript	Prepared and sealed by the President (Dean) of a school attended. Not required for those who have graduated/will graduate from our university. If you have completed/will complete a master's program, please also submit an academic transcript prepared and sealed by the President (Dean) of the graduate school attended.
8 Certificate of Graduation or Certificate of Expected Graduation	Prepared by the President (Dean) of a school attended. Not required for those who have graduated/will graduate from our university. If you have completed/will complete a master's program, please submit only a certificate of completion (or a certificate of expected completion) prepared by the President of the graduate school attended.
9 Payment verification form (included at the end of this booklet)*	After paying 30,000 yen as the entrance examination fee using the deposit request form (designated by the university and included at the end of this booklet) between September 18, 2018 and October 15, 2018, at a bank, attach the sealed "Certificate of Payment" on it.
10 Examination Ticket/Photo Ticket*	Attach your photo (upper front body, no hats, taken within the past three months, 4 cm high × 3 cm wide) on the designated field.



11	Address Sticker *	Fill in the address where you would like to receive a letter of acceptance. Please do not remove the mount.
12	Envelope for sending an Examination Ticket *	<b>Fill in your address and attach postage stamps equivalent to 362 yen (only for Japanese residents).</b>
13	Letter of Permission for Examination from a Supervisor	Submit only if you currently enroll in another graduate school (unless expected to graduate by March 2019) or work in a government, medical institution, company, etc. (It is not required if you currently attend our university.) (Refer to the attached format example)

Notes:

1. Form A to Form F, Please download from the website  
<https://www.shiga-med.ac.jp/admission/graduate/requirements>
2. Any changes in the description will not be accepted after submitting your application. Regardless of reasons, application documents will not be returned once they are submitted.
3. An applicant living outside of Japan should pay the examination fee following the steps mentioned in (3) in Section 4 (below) and do not need to submit Document 12.
4. Applicants from the designated universities taking the Special Entrance Examination do not need to submit Documents 9 – 13, and should pay the examination fee following the steps mentioned in “(3) Applicants living overseas” and “Overseas remittance procedure” shown as below.
5. The document submitted for eligibility screening also can be used for this application procedure. You do not need to submit same two documents.
6. If false information is found in the application documents, admission may be canceled even after the enrollment.

#### 4. Submission of application documents

##### (1) By mail

Place all required application documents in the envelope attached to the Application Guidelines and send them **by registered express mail**.

##### (2) Hand delivery

Applicants may bring the application documents to the Admissions Office, SUMS in person. See Section 2 of the Application Procedure for the address.

Submission hours: 9:00 – 17:00 on weekdays (except Saturdays, Sundays, and National Holiday)

##### (3) Applicants living overseas

Applicants living overseas should send all required documents by Express Mail Service (EMS).

The EMS tracking number and Form A to Form E should be sent by fax or e-mail (fax number and e-mail address are mentioned above).

The examination fee (30,000 yen) should be remitted from an overseas financial institution according to the procedure outlined below in Japanese yen. **A copy of the Application for remittance should be enclosed with the application documents.** The original should be kept by the applicant. The remittance fee should be borne by the applicant.

This examination fee of 30,000 yen must be kept separate from any bank or transfer charges.

Examination fees that fall short of this amount will not be accepted and the application will not be processed.

Overseas remittance procedure

Type of remittance	Telegraphic transfer (T/T)
How the money should be paid to the beneficiary	Advice and pay
Remittance fee	At the payer's expense (Applicant) (OUR)
Currency & Amount	30,000 yen
Payment due date	October 15, 2018
Purpose of remittance	Examination fee
Beneficiary bank (Paying bank)	THE SHIGA BANK, LTD
Beneficiary branch	Seta Ekimae Branch
Beneficiary's account number (Payee account number)	Ordinary Deposit 190-146970
Beneficiary's name (Name of Payee account holder)	Shiga University of Medical Science
Beneficiary branch address	1-12-9 Ogaya, Otsu City, Shiga 520-2144, Japan
SWIFT code (BIC code)	SIGAJPT
University address (Beneficiary's address)	Seta Tsukinowa-cho, Otsu City, Shiga 520-2192, Japan
Other remarks	If the payer is not the applicant, enter the applicant's name in the "Message to Payee, if any" column.

Notes:

1. Immediately after submitting remittance from overseas, inform the Admissions office (hqnyushi@belle.shiga-med.ac.jp) of the remitter's name and address, the remitted amount, and the amount of the remittance fee.
2. **Please note that if the examination fee is not received by the due date, no application documents shall be accepted. Once the application is accepted, the examination fee shall not be refunded for any reason.**

5. Other remarks

- (1) The applicant for general examination will receive the examination admission ticket by post around October 26, 2018. If you do not receive this material by October 30, 2018, please contact SUMS at the address shown in Section 2 of the Application Procedure on page 6.
- (2) The applicant for Special examination will receive the information about your examination ID No. by email around October 26, 2018. If you do not receive this email by October 30, 2018, please contact SUMS at the address shown in Section 2.of the Application Procedure on page 6.
- (3) In case an applicant requires accommodations due to disabilities, please contact the University (at the address in Section 2 of the Application Procedure) prior to submission of application documents.
- (4) Reimbursement of the examination fee  
The examination fee shall be refunded in the following situations. No refunds shall be made for any other reasons.

- 1) Those who paid the examination fee but did not submit the application documents or those who paid the examination fee but whose application documents were not accepted.
  - 2) Those who paid the examination fee more than once by mistake.
  - 3) Those who paid the examination fee but were found to be not qualified in the review process.
- Those who fall under any of these three categories should contact the University (at the address in Section 2 of the Application Procedure) by November 15, 2018.

## Selection Method, etc.

Applicants will be screened in two stages as follows:

### 1. First-stage of selection

All applications will be reviewed based on the submitted documents, i.e. Application form, Curriculum Vitae, Personal Statement, Scientific and Academic Activities, Certification of English Proficiency.

### 2. Second stage of selection

Applicants who pass the first stage of screening will undergo an English proficiency test, a essay test, and an individual interview in English. Applicants shall be selected according to the results of these tests as well as the submitted application documents.

#### (1) Testing schedule

##### 1. General Examination

Date	Timetable	Testing method
Tuesday, December 4th	10:00 – 11:30	Foreign language (English)
	12:30 – 13:30	Essay
	14:00 -	Individual interview in English*

Notes:

1. Applicants are allowed to use non-electronic dictionaries during the English proficiency test.
2. Only pencils (mechanical or propelling pencils are acceptable), a pencil sharpener (non-electronic), an eraser, eyeglasses, and a watch (with no other functions) are allowed in the examination room.
3. \*Interviews in English are held on an individual basis to determine if the applicant is suitable for our program in terms of qualifications and scholastic aptitude.
4. Examination venue (for the General Examination only)

Shiga University of Medical Science

Detailed information shall be given to those who pass the first stage of screening.

##### 2. Special Examination for applicants from designated universities

Date	Timetable	Testing method
November 26 – December 3, 2018	*	Oral exam in English

Notes:

1. The Special Examination for applicants from designated universities will be administered over the internet.
2. The oral examination will be conducted in English and will cover the same subject as the Personal Statement written in Form C.
3. The examination venue shall be designated by the applicants' university or SUMS.
4. The time for each individual oral examination will be informed via e-mail to persons in charge of the examination at each designated university and each applicant. \*

## Result Announcement

**First-stage of selection: At 10:00 on Thursday, November 15, 2018 (as schedule)**

**Second-stage of selection: At 10:00 on Thursday, December 13, 2018 (as schedule)**

1. Successful applicants' numbers will be announced on the entrance examination posting area (refer to the "Campus Map" on page 18) and our homepage (<https://www.shiga-med.ac.jp/admission/graduate/result.html>), while "a letter of acceptance" will be sent to successful applicants.
2. Applicants from designated universities who successfully pass the first stage of screening will receive a letter of admission via email. If a successful applicant does not receive this email by November 19, 2018, please contact SUMS at the address shown in Section 2 of the Application Procedure on page 6.
3. The University will send by post a letter of admission and enrollment related documents to all successful applicants of the second stage of screening.
4. We do not answer any inquiry by phone.

## Enrollment Registration

1. Date

• **Bringing in**

**From 9:00 am to 5:00 pm on Thursday, March 7, 2019**

If you are unable to come for the registration on the date designated above due to an inevitable reason, please call the phone number given in item 2. below during the hours specified above and register between 9:00 am and 5:00 pm on Friday, March 8.

• **Postal mail**

**Due not later than 5:00 pm, Friday, March 8, 2019**

If you send documents via a postal mail, please call the phone number given in item 2. not later than 5:00 pm, Thursday, March 7.

2. Place of registration (postal address)

Address: Admissions Office

Shiga University of Medical Science

Seta Tsukinowa-cho, Otsu City, Shiga 520-2192, Japan

TEL: 077-548-2071 (Direct line)

### 3. Payment

- (1) Admission fee 282,000 yen
- (2) Tuition fee 267,900 yen (for half a year) [535,800 yen (for a year)]
  - (i) Successful applicants will be informed of the details individually.
  - (ii) Tuition fees for the semester must be paid using the payment slip provided by SUMS before the end of April, 2019.
  - (iii) Tuition fee can be paid yearly.
  - (iv) When the tuition fee is revised, the new fee shall be applied starting on the day when the revision takes effect.

### 4. Exemption of Payment

Exemption and deferred payment of admission fee and tuition may be applicable, and procedures for these will be announced separately to successful applicants. In principle, all applicants from designated universities who pass the Special Entrance Examination shall be exempt from admission fee and tuition for at least one year.

### 5. Documents to Be Submitted

Documents and other information required for the registration will be notified upon shipment of a letter of acceptance.

### 6. Consideration

- (1) An Examination Ticket will be necessary for the registration, so please be careful not to lose it.
- (2) If you do not complete the registration by the above date, you will be considered as having declined enrollment.

## Handling of Private Information

Please note in advance that private information that our school obtains through the entrance examination is handled per conditions specified below.

1. Private information is handled according to “Act on the Protection of Personal Information Held by Independent Administrative Agencies, etc.” and “Rules Regarding Measures for Appropriate Management of Private Information Held by the national University Corporation, Shiga University of Medical Science (as translated).”
2. Name, address, and other private information filled in application documents, etc. are used for (1) applicant selection (application processing and selection), (2) notification of successful applicants, and (3) registration for enrollment.
3. Examination records used in the applicant selection are used for developing materials to consider our applicant selection processes in the future.
4. Private information of enrolling students provided in application documents, etc. is used for (1) teaching (student registration, study guidance, etc.), (2) support for students (health management, employment support, application for exemption of tuition or scholarship, etc.), and (3) administration regarding tuition payment.

# Enrollment

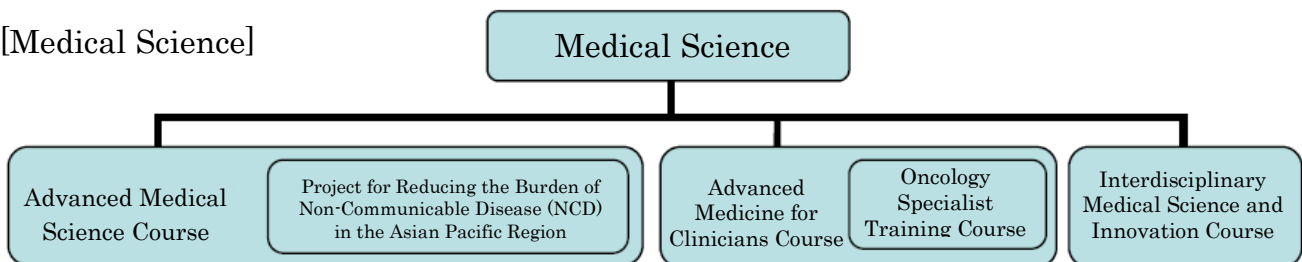
## Purpose

The purpose of this Graduate School of Medicine (Doctoral Program) is to grow excellent researchers who have advanced research ability required to be independently engaged in creative research activities, high academic expertise that serves as a foundation for the former ability, and a sense of humanity; and our mission is to dedicate ourselves to the advancement of medical science and improvements in social welfare.

## Structure

- Three courses are available under one major.
- The “Project for Reducing the Burden of Non-Communicable Disease (NCD) in the Asian Pacific Region” has been established as the leading education program for Doctor’s Program within Advanced Medical Science Course.
- The “Oncology Specialist Training Course” has been established within Advanced Medicine for Clinicians Course.

[Medical Science]



In this major, three courses are offered to grow (1) medical researchers and advanced clinicians who can perform unique and leading-edge research based on high academic expertise and broad knowledge in general medicine; (2) people with interdisciplinary knowledge and research ability, for example, on medicine and engineering or medicine and biotechnology; and (3) physicians and medical researchers with high expertise, a sense of humanity, and high ethical standards.

[Advanced Medical Science Course]

: Students engage in medical research from basic medicine to clinical medicine and develop a doctoral dissertation to obtain the degree.

- (1) Development of excellent researchers who have an advanced research ability needed to be independently engaged in creative research activities, high expertise that serves as a foundation for the former ability, high ethical standards, and a sense of humanity.
- (2) Development of highly motivated people who have an enthusiastic and inquisitive mind with creativity and who try to solve a variety of medical issues ranging from basic medicine to clinical medicine.
- (3) Development of physicians/medical researchers who have latest knowledge and research ability sufficient to play an active role in an international arena.

### **【Advanced Medicine for Clinicians Course】**

: Students engage mainly in clinical research while working to be qualified as a medical specialist and develop a doctoral dissertation to obtain the degree.

- (1) Development of advanced clinicians who have excellent research ability, advanced clinical skills, high ethical standards, and a sense of humanity
- (2) Study on issues they face in clinical sites, combined with adoption of research outcomes in clinical medicine, aimed for medical researches to encourage the development of a new diagnostic or therapeutic method
- (3) Study on medical ethics and legal theories with a focus on clinical research and development of people who can be successful leaders in clinical sites

### **【Interdisciplinary Medical Science and Innovation Course】**

: Students study about the creation of a new academic discipline and medical innovation through integration of medicine and other fields of study and develop a doctoral dissertation to obtain the degree. Classes are considered for those who graduated from a department other than a medical school.

- (1) Development of researchers who have interdisciplinary knowledge and high research skills that transcend beyond conventional academic disciplines, such as medicine, engineering, and biotechnology, combined with high ethical standards and a sense of humanity as clinicians.
- (2) Development of people who lead innovations in medical science and practice with interdisciplinary knowledge and high research ability
- (3) Development of researchers who have not only broad knowledge on basic and clinical medicines but also interdisciplinary perspectives and research ability to become successful in research institutions of college, private companies, and other organizations

## **Course Subjects and Number of Credits**

See Table 1.

## **Academic Plan**

1. During the four years of the program, students are required to earn 16 credits in the required subjects and four credits in the semi-obligatory subjects in a core area; two credits in the semi-obligatory subjects in a supplemental area; and six credits in the required subjects and two credits in a semi-obligatory of practicum.
2. Starting in the second year, students will engage in their own research work under the guidance of an academic advisor. They will participate in a training program at another institution in order to gain practical knowledge in association with their research subject. Through these experiences, students will acquire advanced research skills and become capable of conducting research independently and creatively.
3. After completion of 2 years of coursework, you will be required to a QE to evaluate your basic academic skills that are necessary for completion of your thesis research project. The QE will include:
  - a. Written examination for required subjects
  - b. Presentation of your planned research
  - c. Oral examination

Your promotion to the 3rd grade will be based on your QE results and your performance in the course work during the first 2 years.

4. Practicum subject (see above 2) are not transferable under “Article.14, Standards for Establishment of Graduate School. Students have to take 1-3 months’ leave from their current employment to complete the coursework.

### **Major Research Areas**

See Table 2.

### **Awarding of the Degree**

1. The degree will be awarded to those who have completed four years of training.
2. The degree awarded is The Doctor of Philosophy in Medical Science (in the Shiga University of Medical Science Leading Graduate Program for Reducing the Burden of Non-Communicable Disease in the Asian Pacific Region)
3. The degree will be awarded to those who have registered as graduate students over 4 years, received credit for more than 30 credits as above mentioned, taken necessary research guidance, and passed the dissertation screening and final examination.



**Table 1. Medical Science**  
**— Reducing the Burden of Non-Communicable Disease(NCD) In The Asian Pacific Region —**

Area	Course grouping	Subject	Grade	Credits			Elective/Required/semi-obligatory subjects	
				Lecture	Exersice	Practice		
Core Area	Public Health	Fundamentals of Public Health	1	2			Required	
		Health Administration and Public Health Law	2	2				
		Thesis preparation	2		2			
	Fundamentals of Epidemiology and Medical Statistics	Fundamentals of Epidemiologic Methods	1	2			Required	
		Fundamentals of Clinical Trials	1	2				
		Fundamentals of Medical Statistics	1	2				
	Advanced Topic of Epidemiology	Epidemiology of Cardiovascular and Neurological Diseases	1	2			semi-obligatory subjects	
		Epidemiology of Cancer and Respiratory Diseases	1	2				
		Epidemiology of Metabolic and Kidney Diseases	1	2				
		Social Epidemiology	2	2				
	International Communication	Workshop for Discovering Asian Culture and Ethics	1		2		Required	
		Presentation and debates ※	2		2			
	Supplemental Area	Clinical Medicine	Clinical Medicine of Cardiovascular and Neurological Diseases	1	1			semi-obligatory subjects
			Clinical Medicine of Cancer and Respiratory Diseases	1	1			
Clinical Medicine of Metabolic and Kidney Diseases			2	1				
Fundamentals of Translational Science		Medical Technology Development	2	1			semi-obligatory subjects	
		Fundamentals of Community Medicine and Nursing	2	1				
		The Role of Basic Science	1	1				
Practicum	Global Research Training	2			2	semi-obligatory subjects		
	Research and Development in Health-related Industries	2			2			
	Fieldwork in an Asia-Pacific region ※	3			4	Required		
	Presentation at International Conferences ※	4			2			

※There is a possibility that part of contents would be changed.

Table 2 Major Research Areas

(Faculty belonging to SUMS)

(As of July 1, 2018)

Department / Centre	Division / Unit	Title	Name	Major Study Themes
Department of Culture and Medicine	Division of Philosophy	Professor	Yoshihito Muroji	1. Buddha's teachings and his life 2. Philosophy of mahāyāna buddhism 3. Bioethics and medical ethics 4. Asian culture and religions
	Division of English	Professor	Reiko Aiura	1. Study on Romanticism 2. Inter-Cultural studies 3. Medical English education 4. George MacDonald's views of life and death
Department of Physiology	Division of Integrative Physiology	Professor	Seiji Hitoshi	1. Analysis of the generation, maintenance, and differentiation of neural stem cells 2. Development of regenerative therapy strategy for the damaged central nervous system 3. Understanding the pathogenesis of psychiatry diseases
Department of Biochemistry and Molecular Biology	Division of Molecular Medical Biochemistry	Professor	Hisakazu Ogita	1. Signal transduction research and genetic analysis in the field of cancer biology and cardiovascular diseases 2. Molecular mechanism of cell adhesion
Department of Pharmacology	–	Professor	Eiichiro Nishi	1. Molecular mechanism and pathophysiological role of ectodomain shedding 2. Regulatory role of transcriptional coregulator in metabolism 3. Role of metalloproteinases in cardiovascular disease, cancer and inflammatory diseases
Department of Social Medicine	Division of Public Health	Professor	Katsuyuki Miura	1. Epidemiologic research of cardiovascular diseases 2. Preventive medicine of cardiovascular diseases 3. Nutritional epidemiology
		Associate Professor	Akira Fujiyoshi	1. Epidemiology on cardiovascular disease and lifestyle-related disease 2. Coronary artery calcium 3. Mild cognitive impairment and measures up atherosclerosis
	Division of Medical Statistics	Associate Professor	Sachiko Tanaka	1. Prediction of the future incidence and death 2. Statistical methods for epidemiologic researches 3. Pharmacoepidemiology
Department of Internal Medicine	Division of and Respiratory Medicine	Professor	Yasutaka Nakano	1. Structure and function relationship of the lung 2. Structure and function relationship of respiratory diseases
	Division of Gastroenterology and Hematology	Professor	Akira Andoh	1. Mucosal immunology 2. Gut microbiota 3. Cytokine network
	Division of Diabetology, Endocrinology and Nephrology	Professor	Hiroshi Maegawa	1. Nutrition and metabolic disease 2. Mechanism of insulin resistance 3. Diabetogenic genes
		Associate Professor	Shinichi Araki	1. Mechanism of development of diabetic nephropathy 2. Risk factors on development of diabetic vascular complications 3. Nutritional research on renal pathophysiology
	Division of Neurology	Professor	Makoto Urushitani	1. Molecular targeted therapy for amyotrophic lateral sclerosis 2. Cell biological analysis of neurodegenerative diseases 3. Noninvasive diagnosis of neurological diseases
Department of Surgery	Division of Gastrointestinal Surgery and General Surgery	Professor	Masaji Tani	1. Clinical study for the prevention of post operative complications in pancreatic resection 2. Development of immunotherapies for gastrointestinal diseases 3. Study of the pancreatic function 4. Evaluation of mechanisms for the metastasis 5. Study of the intervention for surgical skill 6. Interaction between cancer cells and fibroblasts
	Division of Cardiovascular Surgery and Thoracic Surgery	Professor	Tohru Asai	1. Vascular functional investigation of coronary artery bypass conduits 2. Hemodynamic functional analysis during off-pump coronary bypass 3. Studies on cardiovascular regenerative therapy 4. Surgical invasiveness in cardiovascular surgical procedures 5. Reparative technical consideration in mitral valve surgery
Department of Neurosurgery	–	Professor	Kazuhiko Nozaki	1. Research for cerebral ischemia 2. Research for cerebral aneurysms 3. Research for cerebral arteriovenous malformations
Department of Obstetrics and Gynecology	–	Professor	Takashi Murakami	1. Minimally invasive gynecologic surgery (hysteroscopic, laparoscopic, and robotic surgery) 2. Endometriosis and adenomyosis 3. Reproductive endocrinology and infertility
Department of Radiology	–	Professor	Kiyoshi Murata	1. Researches of diagnosis imaging of the chest 2. Researches of tumor imaging 3. High-resolution CT analysis of diffuse lung diseases
Department of Medical Oncology	–	Professor	Yataro Daigo	1. Isolation and functional analysis of cancer-related gene. 2. Elucidation of molecular pathology of cancer by genomics and proteomics analysis. 3. Development of molecular-targeted drugs and cancer vaccines through translational research. 4. Development of precision medicine and new cancer biomarkers through translational research

Table 2 Major Research Areas

(Faculty belonging to SUMS)

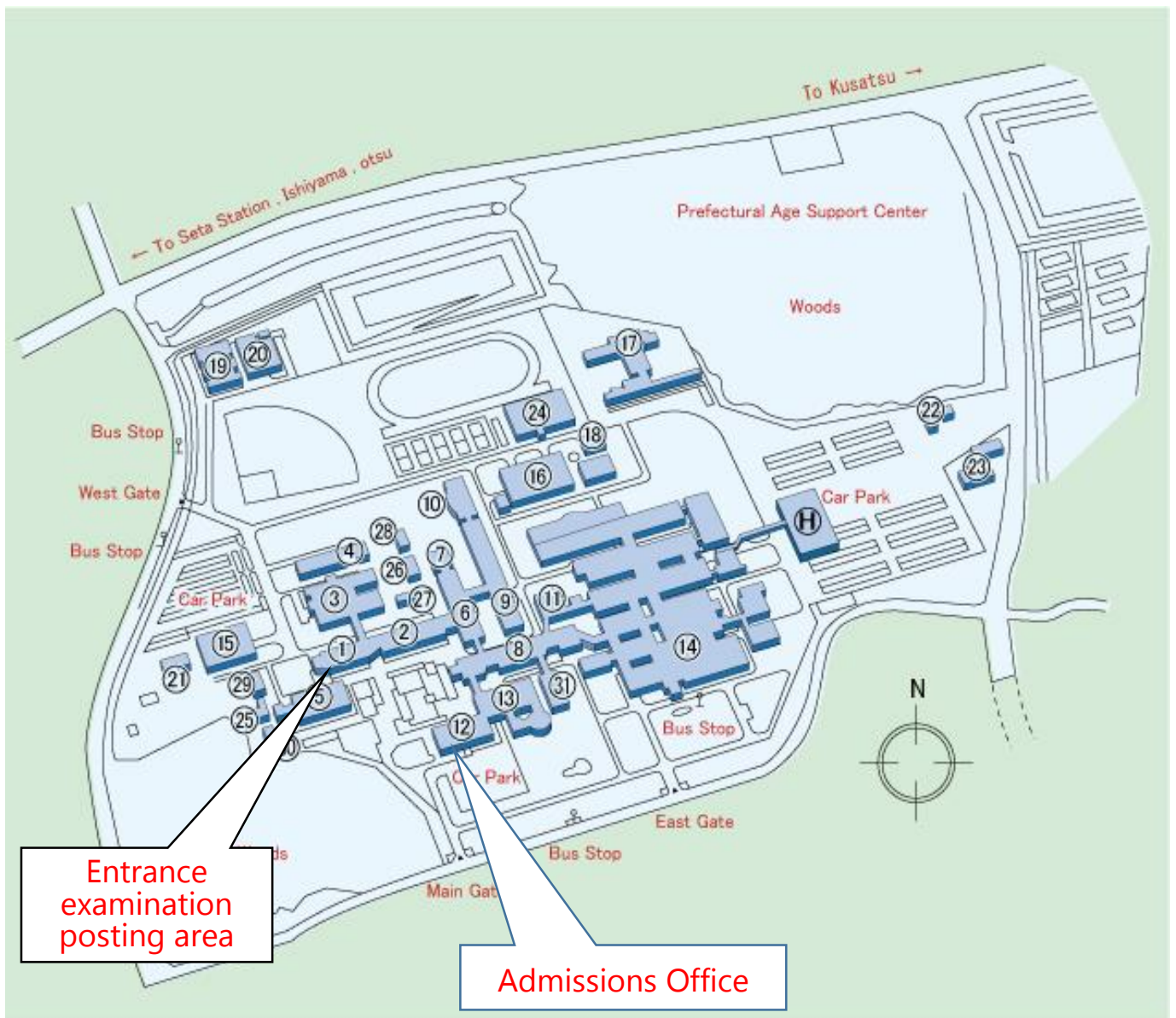
(As of July 1, 2018)

Department / Centre	Division / Unit	Title	Name	Major Study Themes
Information Technology and Management Center	–	Vice President-Professor	Satoru Nagata	1. Human interface 2. Visual information processing 3. Medical information system development
Center for Clinical Research and Advanced Medicine	–	Professor	Hiromu Kutsumi	1. Regulatory science 2. Development of innovative medicine 3. Gastroenterological endoscopy
Molecular Neuroscience Research Center	Translational Research Unit - Department of Diagnostics and Therapeutics for Brain Diseases	Professor	Ikuo Tooyama	1. Study on Alzheimer's disease and development of diagnostic and therapeutic methods 2. Prevention and preemptive medicine of dementia 3. Magnetic resonance imaging of neurological diseases 4. Molecular biology on neurological diseases
	Translational Research Unit - Department of Biomedical MR Science	Associate Professor	Akihiko Shiino	1. Development of molecularly targeted agents 2. Study and programming of diagnostic software for brain MR imaging 3. Magnetic resonance spectroscopy 4. Clinical study in neurological disorders
Center for Epidemiologic Research in Asia	–	Special Contract Associate Professor	Aya Kadota	1. Epidemiology on DM, CVD and NCD 2. Preventive medicine on DM, CVD and NCD 3. Epidemiologic study on Subclinical atherosclerosis
Department of Clinical Nursing	Division of Adult Health Nursing	Professor	Naomi Miyamatsu	1. Health impairment and its lifestyle-related risk factors in adulthood 2. Lifestyle modification for primary and secondary prevention of CVD
Department of Public Health Nursing	–	Professor	Mikiko Ito	1. Family caregivers' experiences of long-term caregiving for older people requiring assistance at home for a long term 2. Long-term prognosis of people living with chronic disease, and exploring their effective life skill

[Program Faculty belonging to other institutes]

Institute	Department / Division	Title	Name	Major Study Themes
University of Pittsburgh	–	Associate Professor	Akira Sekikawa	1. International epidemiology of chronic diseases between the US and Japan
Imperial College London	–	Professor	Paul Elliott	1. Cardiovascular disease epidemiology 2. Nutritional epidemiology 3. International cooperative studies
Shiga Prefecture	Health and Medical Welfare Department	Deputy Director	Fumihiko Kakuno	1. Public Health Administration 2. Epidemiology of Infectious disease
The National Institute of Health and Nutrition	Center for International Collaboration and Partnership	Director	Nobuo Nishi	1. Regional difference and time trend in lifestyles and obesity
Aichi Cancer Center Research Institute	Division of Molecular Medicine	Chief	Keitaro Matsuo	1. Cancer Epidemiology 2. Molecular Epidemiology
Johns Hopkins Bloomberg School of Public Health	–	Assistant Scientist	Kunihiro Matsushita	1. Cardiovascular epidemiology (coronary disease, heart failure, peripheral artery disease) 2. Chronic kidney disease epidemiology 3. Risk prediction 4. Epidemiology of diabetes, obesity and adipokines
Fukuoka University	Faculty of Medicine	Professor	Hisatomi Arima	1. Epidemiology of cardiovascular diseases and their risk factors 2. Clinical trials for prevention and treatment of cardiovascular disease 3. Meta-analysis of observational studies and clinical trials
OMRON Corporation	Division of Technology and Intellectual Property	Technical Specialist	Hiroshi Nakajima	1. Big data analysis of lifestyle such as sleep, nutrition, exercise and blood pressure 2. Research and development to support medical treatment and lifestyle modification
Glaxo Smith Kline	Healthoutcomes Department	Department Head	Toshihiko Kaise	1. Disease epidemiology (respiratory diseases, cancer, diabetes etc.)
National Cerebral and Cardiovascular Center	Department of Bioscience and Genetics	Director	Seiko Ohno	1. Genomic epidemiology in cardiovascular disease 2. Study of inherited cardiovascular disease

## Campus Map



### Name of Facility

1	General Education and Research Building	17	Nurses Housing
2	Basic Medicine Education and Research Building	18	Incinerator Facilities
3	Basic Medicine Laboratories and Lecture Halls	19	Waste Treatment Facilities
4	School of Nursing Building	20	Waste Water Treatment Facilities
5	Student Center	21	Martial Arts Gymnasium
6	Central Research Laboratory	22	Guest House
7	Molecular Neuroscience Research Center	23	International House
8	Clinical Medicine Education and Research Bldg.	24	Swimming Pool
9	Central Research Laboratory	25	Music Hall
10	Research Center for Animal Life Science	26	Nuclear Magnetic Resonance (NMR) Center
11	Clinical Lecture Halls	27	Others
12	Administration Building	28	Biomedical Innovation Center
13	University Library	29	Nursery Center
14	University Hospital	30	Creative Motivation Center
15	Gymnasium	31	<b>Center for Epidemiologic Research in Asia</b>
16	Energy Center		

## University Access

### From Kansai International Airport (KIX)

1. Take Airport Express "Haruka" bound for JR Kyoto station (approx. 75-80 min).
2. At Kyoto station, change to JR Biwako line (local train), and get off at JR Seta station (approx. 20min).
3. Take Teisan or Oumi bus bound for Shiga-Idai, and get off at Shiga-Idai-Mae (approx. 15min).

### From Osaka International Airport (ITM)

1. Take a limousine bus bound for JR Shin-Osaka station (approx. 25min).
2. At Shin-Osaka station, change to JR Kyoto line (rapid or local train).  
(note:If you get on the Super rapid train, the train can not stop at Seta Station.)
3. Get off at JR Seta station (approx. 50min). Take Teisan or Oumi bus bound for Shiga-Idai, and get off at Shiga-Idai-Mae (approx. 15min).

