### Research Assistant (RA), Teaching Fellow (TF) and Teaching Assistant (TA) Programs

#### Research Assistant (RA) Program

The RA program was introduced to improve young researchers' research abilities as well as to enhance the research environment by encouraging outstanding students in the Doctoral Program to participate in research projects as research assistants at the Faculty of Medicine. Selected applicants receive an annual salary of approximately 500,000 yen based on their work performance.

#### • Teaching Fellow (TF) Program

As one part of the graduate school education, this program aims to provide students in doctoral programs (who have experience of working as teaching assistants (TA)) with opportunities to be employed as teaching fellows (TF) and be responsible for teaching subjects mainly in the School of Medicine sharing the teaching with members of the faculty. Annual rewards vary depending on the subject they are put in charge of, and an annual stipend of approximately 80,000 to 120,000 yen is paid to such TF depending on their work performance.

#### Teaching Assistant (TA) Program

This program aims to strengthen the university education by providing economic support for graduate students and offering training opportunities on the path to become faculty members and researchers. As teaching assistants (TA), students in this program engage in educational assistance work in subjects provided mainly in the School of Medicine. The annual rewards vary depending on the subject a TA is put in charge of, and an annual stipend of approximately 70,000 to 100,000 yen is paid to such TA depending on their work performance.

# International Exchanges

The Graduate School of Medicine is promoting international collaborations through exchanges of researchers and joint research projects. As an international exchange project, we have established an international exchange fund to provide assistance and aid to be able to invite and accept non-Japanese researchers, dispatch and train young researchers, and provide scholarships and aid to international students.

• Number of International Students in the				(As of April 1, 202) International Student Number			
Area	Country/Region	Number		by Graduate Program ():number of female students include			
Asia 43 students	Bangladesh	1		Master's Program	Docto	ral Progra	
	China	39				0 (19)	
	Malaysia	1					
	Taiwan	1		Methods of Financial Suppo			
	Vietnam	1		( ):number of female students inclu			
Central and South America 1	Argentine	1		Japanese government		6(3)	
Middle East 1	Afghanistan	1		Self-Supported		38 (19	
Africa 1	Egypt	1		Foreign government		2(2)	
TOTAL		46		TOTAL		46 (24	
International Students (Other visa status)		2		International Students (Other visa status)		2 ( 1)	
			ľ	GRAND TOTAL		40 (20	

48 (25)

(All International Students)

#### Message from an International Doctoral Student

https://edu.med.hokudai.ac.jp/international-relations

## Paving the way for medical research using statistical knowledge

#### Yang Yichi

3rd-year Doctoral Student

Social Medicine Course, Department of Biostatistics [People's Republic of China]

I became interested in statistical methods implemented in medicine and public health areas when I was an undergraduate student majoring in preventive medicine. After studying infectious disease modeling in my master's course, I became more and more interested in the mathematics and statistics behind the methodology. This is why I chose to join the department of biostatistics to engage in further study of statistical methods for medicine.

I am currently analyzing asthma cohort study data collected by physicians from the department of respiratory medicine at Hokkaido University Hospital under the supervision of Associate Professor Yokota. This led to my current research theme, which is a joint model for survival analysis of recurrent events. Standing on the shoulders of giants, I hope to further build on the current model developed and improved thus far to better match the respiratory function data collected from asthma patients and propose protocols for the prevention of asthma and the prediction of asthma exacerbations. I would like to continue making every effort to analyze clinical data in an appropriate and effective manner using my statistical skills to pave the way for medical research.

# Career Options after Completion of the Doctoral Program

(2007-2020 FY, total number of students who completed the program: 1,073)

More than half of the students completing the Doctoral Program work as medical doctors or medical experts at general hospitals or at university hospitals. The second largest career sector is as researchers at universities and companies.

Universities 172	University hospitals 251	
Faculty 84 Researchers 86 Others 2	Medical doctors 244 Nurse 1 Technologists 6	
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#### Message from a Graduate of the Doctoral Program

## New perspectives gained from research

Doctoral degree completed in March 2020 NISHIMURA Yoko

Physician, JCHO Sapporo Hokushin Hospital

I have been working as a urologist for 10 years. However, my personal experience with infertility treatment and pregnancy enabled me to recognize the importance of prevention in childhood illness. This in turn led me to enter graduate school. There I engaged in epidemiological research at Hokkaido University's Center for Environmental and Health Sciences with a focus on the theme of "Studies on effects of prenatal exposure to endocrine-disrupting chemicals on sex differentiation." Following graduation, I have continued my research on weekends as a visiting researcher while working at a hospital on weekdays. I am also trying to make my patients aware of the importance of disease prevention. I think that recurrent education will contribute not only to our own growth but also to solving the problems facing society. It is my hope that many people, regardless of their age or career background, will be able to take a new step at Hokkaido University.

#### Message from a Graduate of the MD-PhD Program

## Medical Doctor "&" Doctor of Philosophy

Doctoral degree completed in March 2020

**KASHIWAGI Sayaka** 

ecially Appointed Assistant Professor, Department of Cell Physiology, Faculty of Medicine, Hokkaido University

Since April 2020, I have been engaged in research and education as a specially appointed assistant professor in the Department of Cell Physiology (Prof. Yusuke Ohba). I have been interested in general science since I was a child and entered Hokkaido University as a general science student intending to enter graduate school in the future. The MD-PhD course was thus an ideal system for me and I decided to enter the School of Medicine. At my department we constructively elucidate the operating principles of the "cell," which is the basic unit of life. I am currently investigating the effects of various ions on cellular functions such as endocytosis and membrane trafficking. I believe the advantage of performing basic research through the MD-PhD course is that one can receive a medical education. The experience of learning how individual organs and the human body work, and of being in a clinical setting, will serve as a strong motivation to continue one's research.

## **Future Directions**





