

In order to become a global epitome of outstanding research and education, Nagoya University Graduate School of Medicine has been a pioneer, cutting novel paths into new vistas of medical research and education. Allow us to present some of Nagoya University's unique initiatives in globalization, research, and education.



OHNO, Kinji

MD, PhD from Nagoya University Graduate School of Medicine. After an assistant professorship in Neurology at the Mayo Clinic (US), currently professor of Neurogenetics and vice-dean at Nagoya University Graduate School of Medicine. Field of Specialization: Neuromuscular junction, RNA pathogenesis.

AKTER, Nargis

GRIESING, Sebastian

LIN, Yingni

A Leader in the Globalization of Medical Research
To Become One of the World's Top Universities

INTERVIEW

Pioneers Trailblazing Paths
to the Future

OHNO, Kinji

Professor, Department of Neurogenetics,
Graduate School of Medicine

AKTER, Nargis | A 3rd year doctoral student from Bangladesh
in the Department of Cell Physiology.

GRIESING, Sebastian | A 4th year doctoral student from Germany
in the Department of Molecular Carcinogenesis.

LIN, Yingni | A 4th year doctoral student from China
in the Department of Neurogenetics.

At Nagoya University Graduate School of Medicine, all lectures in the master's program are given in English. We are the first in Japan, to introduce a joint PhD degree program with another country. We are actively pursuing ways to make our school ever more global. We'd like to present a roundtable discussion between Professor Kinji Ohno and some of the foreign exchange students at our institution to give you a glimpse into the appeal of our program and how much progress has been made in making it appealing to the international community.

Cutting-edge Research that Attracts International Attention

OHNO: In our graduate program, we are currently working to globalize our university in order to train and nurture future generations of researchers who can make their mark on the

world. We accept outstanding students from all around the globe, and today, we'd like to hear how these students view our program. Is it adequately globalized? Does it provide an environment conducive to innovative research? First, would you please introduce yourselves?

*1/Division for Medical Research Engineering
Core department responsible for managing all analytical and measurement equipment within Nagoya University Graduate School of Medicine, providing

support to education, research, and device usage endeavors on campus. Available for use by outside researchers. Established in 2004.

*2/Joint PhD Degree Program
An International Collaborative Program in Comprehensive Medical Science between Nagoya University and the University of Adelaide's Faculty of Health and Sciences. Jointly established in October 2015.



Sharing Research Equipment and Japan's First Collaborative PhD Degree Program

OHNO: What do you currently find most appealing about our program?

GRIESING: I've also done an internship at Tokyo University, but I honestly believe the research environment here at Nagoya is superior. The Division of Medical Research Engineering*1 provides truly amazing cutting-edge core facilities and foreign students are provided with a great deal of support, allowing us to focus completely on our research.

LIN: Exactly. The research laboratory has a really wonderful atmosphere, and the professors allow the students to work as hard as they like on their research depending on their level of dedication, watching over us as we challenge ourselves to do better and greater research work. I was surprised

LIN: I'm from China and I currently belong to the Department of Neurogenetics. I'm pursuing the splicing mechanisms of molecules at the neuromuscular junction.

GRIESING: I'm from Germany and I belong to the Department of Molecular Carcinogenesis. I'm currently studying regulatory controls and target genes related to microRNA in lung cancer.

AKTER: I'm from Bangladesh. I belong to the Department of Cell Physiology and I'm currently performing the functional analysis of ion channels and molecules at the axon hillock in auditory neurons.

OHNO: There are countless universities around the world involved in medical research. What made you choose Nagoya in Japan?

LIN: A professor from Nagoya University came to Shanghai Jiao Tong University where I went to medical school. When I looked at Professor Ohno's website, I was impressed not only by the research, but since Professor Ohno had himself spent a great deal of time doing research in the US, I was very heartened by his understanding for how difficult it is for a student studying abroad.

GRIESING: My university in Germany required all undergraduates to study abroad. I had been drawn to Japanese culture, so I chose to study here. I was already interested in microRNA at the time, and so I spent 3 months in an internship with Professor Takashi Takahashi on a scholarship. It was a very rewarding 3 months and I knew that if I were to pursue a doctoral degree, I would want to do my research at this laboratory. That is why I came back here.

AKTER: I also did an internship at the National Institute for Physiological Sciences in Okazaki during my undergraduate years. I was deeply taken with the thrill of doing research, and also impressed by the kindness of the Japanese people. I looked into all of the research laboratories throughout Japan and found myself interested in the research at Professor Hiroshi Kuba's lab which led me to apply here.

by the fact that the curriculum in the undergraduate program allows medical students to focus on research from their 3rd year. In fact, we can even start our research in the 1st year, and I believe this allows students to nurture their interest in research from a very early stage of their medical education.

OHNO: At our institution, we share cutting-edge equipment, and it is openly available for anyone to use. We take pride in the fact that this system sets our school apart from all other universities in Japan. And I believe that we are the only university in Japan that offers medical students an entire 6-months to do research in 3rd year.

AKTER: Compared with the situation in my country, the research environment is outstandingly rich in opportunities. The people in the office also are very kind and make it easy to work and study here. When I first arrived in Japan, I was able to take a crash course in Japanese that proved particularly useful.

OHNO: We've worked hard to make students from abroad feel welcome, so we're glad to have our efforts recognized. A first among Japanese universities, we have also established a joint PhD degree program with the University of Adelaide in Australia*2 last year, and are in the process of further efforts to create a



add another program with Lund University of Sweden.

Widespread Use of English to Open Our University to the Global Community

OHNO: At our institute, we make sure that all press releases are issued simultaneously in Japanese and English to better stress our global presence. In April of next year, we plan to make the Graduate School of Medicine website available all in Japanese and English. What else should we be doing to make our programs more appealing to the world as a whole?

GRIESING: The signs on campus should be in English, too. There are still too many that are only in Japanese.

OHNO: You're absolutely right, there are still many signs and documents on campus that need to be made available in English. All lectures in the master's program are given in English. This is probably a very progressive stance for a Japanese university. However, only a third of lectures in the PhD program have been rendered into English. When a Japanese student learns a novel research field through a lecture, he/she will be able to acquire sufficient knowledge only when a lecture is given in Japanese. We have to make more on an effort.

AKTER: In the "Distinctive educational program," each student is required to take 20 or more course-hours in four or more disciplines, but only two of those courses are available in English. This creates a high hurdle for foreign students. One solution would be to change the requirements so that foreign students only need to take two courses, or to increase the availability of classes given in English for some the courses. We would appreciate these kinds of initiatives.

LIN: For example, even if the lecture is in Japanese, if the lecturer could just prepare the slides in English, we would find it so much easier to understand the lecture.

OHNO: I see. You're absolutely right. I will take your opinions into consideration and discuss this issue.

GRIESING: I believe this is an issue common at all Japanese

world-class educational environment. Other colleges around Japan do offer a double-diploma program, but students cannot receive degrees from both colleges unless they study 4 years at each university or a total of 8 years overall. However, with our joint PhD degree program, students will be able to earn a degree from both colleges in just 4 years which of course has many advantages. We now plan to

colleges, but Japanese students seem to lose all interest in studying the moment they get into a college. In Germany, only 60% of students can graduate from medical school, so everyone studies desperately hard. Many Japanese students will not even attempt to use English, so it would be good if they tried harder to communicate with foreign students in English.

OHNO: I think it's too easy for them to live without ever having to speak anything except Japanese, and this is probably what keeps them from making any effort to do otherwise. Japan has a unique culture but unfortunately, most Japanese live isolated from the rest of the world without ever realizing this. Japanese students need to interact with students from other countries in order to recognize these differences and to expand their global horizons.

Striving Towards a Better Future as a Researcher and as a Physician

OHNO: In closing, please tell us your goals for the future.

LIN: I will be returning to China and my goal is to become a good doctor. In my country, we do not necessary distinguish between medical researchers and clinicians, so I am hoping to continue to do both.

GRIESING: For the time being, I'll continue my research here in Japan, but I hope to eventually become a researcher back in Germany. My goal is to save cancer patients all around the world.

AKTER: I also hope to continue doing research. My achievements in auditory nerve research will not only benefit those with diseases of the ear, but should be applicable to other neural diseases as well.

OHNO: As for myself, I dream of further advancing medical research in Japan. While researchers in the US can focus completely on their research, here in Japan, academics are forced to deal with a great number of sundry and trivial tasks unrelated to research. Researchers are not given enough time to dedicate to research and education. If we change this state of affairs and work to incorporate more of the good research practices of the US and Europe, I am certain Japan's research capacity will increase multifold. I hope to see our graduate school spearhead Nagoya University's leap into this future as it undergoes even further evolutions.

