Our species is exposed to the threat of emerging infectious diseases. Many of these emerging infectious diseases have their origins in the tropics. AIDS and West Nile fever are endemic diseases of African origin. Many strains of multi-drug-resistant tuberculosis have also spread from developing countries located largely in the tropics. SARS is obviously no exception. Such emerging infectious diseases propagate globally in short periods of time, causing much human and economic damage. In our contemporary society in which economic activity takes place on a global scale, no country is able to contain these diseases at the country border. It is the duty of the state to protect its citizens from such threats. The Ministry of Education’s program to form centers of research into emerging and re-emerging infectious diseases constitutes a direct response to such threats, and the Nagasaki University Institute of Tropical Medicine is playing a key role in this effort. Nagasaki University has incorporated into its medium term goals developing the function of training physicians specializing in tropical medicine to counter the national threat posed by tropical infectious diseases, drawing on its long record of achievement and history of work overseas.

The United Kingdom has a tradition of education in tropical medicine tracing back over 100 years, a consequence of its extensive colonial empire. Over the past years not a few Japanese physicians have studied at the school of tropical medicine at the University of Liverpool and University of London to obtain Diploma of Tropical Medicine and Hygiene (DTM&H) and master’s degrees in Tropical Medicine.

Nagasaki University has established as its
mission a master’s degree program in tropical medicine, in order to meet the demands by Japanese physicians wanting to work in the fields of tropical medicine and international health, and in order for the university to function within a greater framework of nation’s crisis management against infectious diseases.

What sort of personnel is the university seeking to train? First of all, the university will train specialists capable of providing medical care grounded in a comprehensive outlook encompassing the epidemiology, diagnosis, treatment and prevention of tropical infectious diseases. Second, the university will endow these specialists with the capabilities to identify new challenges, and gather and analyze requisite information in the practice of tropical medicine and international health.

What sort of educational program has the university established in order to achieve these goals? The program divides the educational period into two semesters, the first from April to August and the second from the third week of September to February, and seeks to achieve the first goal in the first semester and the second goal in the second semester. In addition to integrated coursework, exercises and case studies in tropical medicine with a focus on infectious diseases, the first-semester instruction consists primarily of basic practical training in the underlying clinical microbiology and molecular epidemiology. The first-semester students also receive instruction in international health and tropical public health, including basic epidemiology and statistics. This coursework is covered in the 4 months from April through July. The university seeks to round out the curriculum by supplementing its in-house teaching staff with external lecturers in Japan as well as specialists from the University of Liverpool and London School of Tropical Medicine and Hygiene. As a master’s degree in tropical medicine should be internationally accepted, the final exam for completing the course is modeled on the DTM&H that serves as the clinical accreditation in tropical medicine in the United Kingdom.

In August the students move on to engage in 2 to 4 weeks of overseas clinical training in tropical medicine at the Thai Ministry of Health and its affiliated hospitals. For the Japanese students this will be their first experience of clinical tropical medicine in the field, and while international students from developing countries may be practitioners of tropical medicine with clinical experience, differences in diagnosis and management from their home countries will nevertheless provide them considerable stimulus, as will such areas as the differences in disorders and in differential diagnosis. Over these 5 months, the students will attain 30 credits, which in Japan generally require 2 years of training in a master’s degree program.

While only knowledge can make things visible, knowledge alone does not equip one to identify new problems and respond to unforeseen contingencies. It is therefore essential for students to master, by practicing the methods of research, how to define a problem, review the literature, select appropriate methodology and analyze and interpret their results. To this end the students are assigned to different laboratories and study groups within the Institute of Tropical Medicine to work on their master’s theses for 6 months. Students present their master’s theses to a review committee comprised of their fellow students and teaching staff, where they are required to respond adequately to rigorous questioning and comments.

All first-semester coursework and all second-semester preparation and presentation of the master’s thesis are conducted in the English language. This is because English is the de facto lingua franca in the practice of tropical medicine in the field. The teaching staff of this master’s program consists of 11 professors at Institute of Tropical Medicine and 1 professor at School of Medicine, each of whom is acknowledged as a specialist in the field of tropical medicine.