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| Course Number | 07010 |
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2007 「The International Priority Graduate Programs (PGP)」

~Advanced Graduate Courses for International Students~

【1. Profile of the University】

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| ①University Department | Nagasaki University Graduate School of Biomedical Sciences | | |
| ②President | SAITO Hiroshi | | |
| ③Address (Headquarters) | 1-12-4 Sakamoto, Nagasaki, 852-8523 Japan | | |
| ④Contact | Division | International Student Exchange Division | |
| | Contact person's Name | NAKAO Takahiro | e-mail t-nakao@nagasaki-u.ac.jp |
| | TEL/FAX Number | TEL: +81-95-819-2124 / FAX: +81-95-819-2125 | |
| ⑤Web-Address | http://www.nagasaki-u.ac.jp/ | | |
| ⑥Enrollment (only GraduateSchool) | 122 (include MEXT's Scholarship Students:66) | | |

【2. Outline of the Course】

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| ①Course | Postgraduate Programs in Topical Medicine |
| ②Degree | Master's course (1 year) + Doctoral course (3 years) |
| ③Form | Implemented by a single university |
| ④Graduate Course, Department | Graduate School of Biomedical Sciences |
| | (Address) 1-12-4 Sakamoto, Nagasaki, 852-8523 Japan |
| ⑤Collaboration (Universities, Graduate courses, Departments) | Graduate School of Biomedical Sciences Department of Infection Research |
| ⑥Quota | Total 16 (Master's course 12, Doctoral course 4) (include MEXT's Scholarship Students: Master's course 2, Doctoral course 1) (include Japanese : 4) |
| ⑦Faculties | 21 (Fulltime:15 Fulltime(other department):6 Parttime:0) |
| ⑧Representative of the Course | Job Title: Head of Nagasaki University Graduate School of Biomedical Sciences |
| | Name: TOMONAGA Masao |

【3. Contents of the Course】

○ Background

Since the late 20' s century, we have been facing a threat of emerging and re-emerging infectious diseases and the most incidences have occurred in the tropical and developing environments. The importance of tropical infectious diseases such as AIDS, SARS, West Nile Fever etc, has been emphasized in developed countries as they readily cross country' s borders in the current economically globalized society. The most effective measures that Universities in Japan can contribute to the resolutions of such global issues is to develop highly professional human resources who will have knowledge in the field of tropical medicine and skills to identify and solve these problems. It is particularly effective if people deriving from tropical and developing countries are cultivated, as it will help to establish the human-network and to conduct corroborative research and control programs with Japanese Universities.

Nagasaki University, especially the Institute of Tropical Medicine, has made significant achievements in basic research, field research and infection control programs in tropical developing countries. It has also experience with having trained over 150 tropical medicine experts, of whom 75% were from tropical and developing countries. In April 2006, it started the first ever one-year master course in Japan, which is specifically focused on tropical infectious diseases (the Master of Tropical Medicine, MTM) and has the aim of training professionals to develop abilities to detect and solve medical and health problems by providing opportunities to medical doctors to learn a broad range of knowledge and skills from basic sciences to applied sciences in tropical medicine.

○ Contents and Characteristics of the Course

The MTM course consists of lectures (20 credits), practicals (8 credits), and training (2 credits) and the students are required to produce a research proposal and to submit dissertation. This program will select a Ph.D. candidate from MTM graduates and provide further three-year advanced training. The latest curriculum of the MTM is described in the home-page. <<http://nile.tm.nagasaki-u.ac.jp/mtm/>>

The lectures and practicals are divided into two subjects: Clinical Tropical Medicine and Tropical Public Health. In the Clinical Tropical Medicine, the curriculum is designed to teach tropical infectious diseases in accordance with major clinical symptoms and presentations such as systemic febrile diseases, central nervous system diseases, respiratory diseases, gastrointestinal diseases, liver-bile duct disease, lymphatic-soft tissue disease. Professors of each sub-field of heminthology, protozoology, bacteriology, virology will be responsible for lecturing diseases relevant to each clinical symptoms and presentations. Furthermore, professors of clinical medicine will provide practice using clinical cases of tropical infectious diseases in the style of PBL. In the Tropical Public Health, the curriculum is designed to provide lectures and practicals, which are relevant to actual setting of clinical and public health in the tropical and developing environments, including epidemiology, biostatistics, and medical entomology.

In the laboratory training, the students will learn identification of various infectious pathogens. In the oversea training, the students will spend the first two weeks in Bangkok based in the Thai National Institute of Health to visit actual research fields and clinics and hospitals in Thailand and have practice in clinical cases of tropical infectious diseases and outbreak investigation. In the latter two weeks, the students will directly see patients with tropical infectious diseases either in Chaing-Mai University Hospital in Thailand, Cho-Rai Hospital in Vietnam or in San Lazaro Hospital in the Philippines and produce case reports.

In the doctoral course at the Department of Infection Research, earning 16 credits as a major from the areas of bacterial infection, medical protozoology, molecular virology, parasitism and parasite behavior, pathology of infectious disease, host-defense biochemistry, immunogenetics, clinical tropical medicine, social and environmental medicine, eco-epidemiology and epidemiological informatics in tropical medicine, vector ecology and environment according to the field of study, 8 credit as a minor from all the courses at the Graduate School of Biomedical Sciences, and 1 credit in tropical medicine and international health (common course) are required.

○ **Education and Teaching System (Supervision of Dissertation)**

This course is consist of 21 members of teaching staff of Nagasaki University Graduate School of Biomedical Sciences and the Institute of Tropical Medicine. The lectures and practicals of clinical tropical medicine will be provided by prominent professors and lecturers with sufficient research experiences and publications in the field of virology, bacteriology, protozoology, helminthology, and clinical medicine, immunology and biochemistry. The lectures and practicals of tropical public health will be provide by prominent professors and lecturers with sufficient research experience and publication in the field of epidemiology, biostatistics, entomology, zoology. For oversea training, a teaching staff with sufficient experience in clinical tropical medicine will accompany the students.

○ **Language Used** English

○ **Recruiting, Target Countries, Selection Method**

1. Eligible students:

The MTM will admit 2 and 10 students as a MEXT's scholarship student and privately funded students respectively. Students with JICA scholarship are classified as privately funded. Requirements for application are 1) to have a degree in medicine and at least two years of clinical experience or recent professional experience in relevant discipline, 2) to have a strong motivation in the field of tropical diseases and emerging infectious diseases and have an intention to involve in medical practice or medical research in the tropical and developing environments in the future, 3) to have English communication skill sufficient to complete the course, 4) to full-fill other conditions in accordance of the requirements for foreign students receiving the Japanese Government fellowship.

2. Special Field of Study: Tropical Medicine

3. Target Countries:

This program targets countries in Asia and Africa, especially universities or institutes, with which the Nagasaki University has an academic exchange agreement. Vietnam and Kenya are the most important as the Nagasaki University has established its oversea field laboratories.

4. Selection Processes:

To select candidate students, the special selection committee will be created with the members of professors' committee of the MTM. The committee members will conduct an examination by direct interview in the concerned countries or through internet communication. Together with strict investigation of submitted documents (application form, reference letter, transcript, and proves of clinical experience, and other documents specified by the Nagasaki University), final decision will be made.

○ **Expected career, Expected outcome, Follow-up System.**

Following careers are expected after completion of this program: 1) proceeding to Ph.D. program, 2) becoming a leader in the field of research or public health in universities or research institute in their original countries, 3) working for international governmental organization such as WHO, UNICEF, 4) working as a leader in NGO of health programs and so on.

Graduates from this program are expected to contribute further to research and control program for infectious diseases in the tropical and developing countries. They also facilitate the establishment of human-network of the Nagasaki University with local leaders and collaborative research and control program. Especially if graduates are from the Nagasaki University base in Vietnam and Kenya, the Nagasaki University bases will function as a follow-up system.

○ **Monitor and Evaluation of this Program**

In principle, all lectures will be recorded in electric medium and students' evaluation of all lectures will be accumulated. These will be utilized as self evaluation information to improve the program.