

# **Outline of the program**

University of Chile and TMDU Joint Degree Doctoral Program  
in Medical Sciences with mention of a medical specialty

## **Human Resource Development Goals**

This program aims to form highly advanced professionals and leaders with highly professional experience and skills in clinical medicine, well versed in medical research, all with a global perspective. We will improve human resources specifically as follows.

(1) Human resources who possess the required technical skills to be recognized as a clinical expert in the fields of upper gastrointestinal surgery and gastroenterological surgery, including advanced training in colorectal surgery, gastroenterology, endoscopy, and advanced use of advanced diagnostic equipment.

(2) Human resources who possess academic knowledge in the fields of pathology, molecular biology, genetics, epidemiology, public health, clinical research, and biostatistics.

(3) Human resources who possess a high potential to become an independent basic-clinical researcher in the fields of esophageal, stomach and colorectal cancer (gastrointestinal oncology); with the capacity to become a leader of national/international clinical research projects upon completion of course.

## **Diploma Policy**

The Program confers the degree of Doctor of Philosophy on students who attain the required credits, pass the dissertation defense and final examinations and can do all of the following.

- (1) Practice highly advanced medical surgery using the latest medical diagnostic equipment and therapeutic instruments in gastrointestinal surgery.
- (2) Acquire cutting-edge medical techniques using upper gastrointestinal endoscopy and be able to practice advanced internal medicine.
- (3) Acquire the experience and skills necessary to lead medical teams in clinical practice.
- (4) Conduct research activities, which are backed up by academic knowledge, to obtain superior results from one's research and disseminate it through publication.
- (5) Have an expert grasp, through international research experience, of current conditions in the research environment and the associated research methods, and a grasp of related research problems, so that one is able to display the leadership and management capabilities needed for the research process.
- (6) Unify research results independently and disseminate them internationally by acquiring skills for future planning through debate, summarizing, conference presentation, and thesis examination.
- (7) Obtain a certificate in a medical specialty in Chile, for Chilean students who have a medical license in their country.

## Curriculum Policy

The curriculum has been designed based on the following policies in order to create an environment in which students can acquire the knowledge, skills, experience and leadership abilities necessary to obtain a degree and become a highly specialized medical professional.

- (1) Establish general, basic and advanced subjects as a scientific foundation of medicine to foster professionals with high ability to carry out research, in-depth specialized knowledge, thinking skills and standards of ethics required by researchers, who can make a global contribution. “Initial Research Training” is a compulsory subject for learning what is necessary for starting research, and the other subjects to be taken by students will be determined by the Academic Committee in consideration of orientation toward a specific area of educational experience as well as clinical training, scientific interest and admission examination results.
- (2) Establish supervisor-guided “Research Subjects” in each specialized field in Japan and Chile as compulsory subjects to enable students to determine new problems regarding various phenomena targeted by research by themselves, conduct scientific analysis on these problems, propose solutions based on scientific data and implement them, and evaluate the results. Two research subjects will be provided, one regarding basic medicine and the other clinical research.
- (3) Establish “Seminar” in the presentation style as a compulsory subject to enable students to acquire the ability to help each other improve their abilities by discovering problems, acquiring problem solving ability as well as that to evaluate each other. Another aim is to foster persons who have various leadership abilities, who are capable of dealing with problems appropriately and promptly as team leaders not only in research but also in educational activities.
- (4) Establish the 3 subjects of “Upper Digestive Surgery”, “Colorectal Surgery” and “Gastroenterology” so that students can acquire the essential knowledge, skills, experience and leadership required of highly specialized medical professionals. These subjects will have basic and advanced contents, and also include clinical training, and will be established in TMDU and UCh separately.
- (5) Establish “Thesis” as compulsory subject for the provision of special guidance by TMDU and UCh faculty members in writing dissertations. Dissertations should be prepared in the thesis format, which has high international applicability.
- (6) Evaluate student academic performance based on formative and summative criteria, as described in the syllabus, in order to achieve educational goals.
- (7) Evaluate thesis/dissertation strictly based on diploma policy, and conduct thesis/dissertation defense and final examination appropriately.

## **Admission Policy**

### 《What We Expect of Our Students》

This Program offers upper gastrointestinal surgery, colorectal surgery and gastroenterology courses. It aims to foster highly skilled experts who possess a wealth of experience in clinical practice, and are also leaders who are well versed in medical research and have a profound knowledge and global perspective. Qualified applicants who meet any of the following criteria are therefore highly encouraged to apply for our program.

- 1) Eager to acquire the required technical skills to be recognized as a clinical expert in the area of upper gastrointestinal surgery, which includes advanced training in gastrointestinal surgery and digestive diseases using endoscopy and advanced diagnostic equipment, colorectal surgery, and gastroenterology.
- 2) Eager to gain academic knowledge in the areas of pathology, molecular biology, genetics, epidemiology, community hygiene, clinical research and biostatistics.
- 3) Eager to possess expertise in basic research and clinical research that can be applied in the areas of esophageal cancer, stomach cancer and colorectal cancer, as well as capability to be a leader in national/international clinical research projects.

### 《Basic Entrance Examination Policies》

Applicants are evaluated in a comprehensive manner through a written examination to appraise basic knowledge and essay ability required for research in specialized fields and an oral examination and application document to assess aptitude and motivation.

## **Standard Number of Years Required for Completion and Conferral of Academic Degree**

Five years are normally required to completion. A degree of “Doctor of Philosophy in Medical sciences” will be awarded to students who attain the required credits and pass the thesis defense.