

**Workshop 2009**

**Preparing Future Faculty: An Introduction to Teaching and Writing for Graduate Students (March 18-24, 2010)**

**Session 6. Panel Discussions: International Career Planning for Japanese and Non-Japanese Graduate Students of HU (March 19, 2010)**

**Panelist: Yoshiharu Hashimoto**

## Learning and Teaching Veterinary Medicine in HU, and in European, Asian and African Countries

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One of the most critical questions currently facing veterinary medicine, and in consequence veterinary medical education, is that of how to improve global veterinary public health and veterinary clinics. Any improvements in these areas must take into account the diverse components of global veterinary public health and veterinary clinics, which are related to food production and its safety and security, the well-being and welfare of each animal species, the transmission of disease among and between animals, including companion animals and humans, and the handling of emergency situations that might arise in any of these components.

If global veterinary public health and veterinary clinics are to be improved, change is needed in all segments of veterinary education, and it is the responsibility of veterinary schools throughout the world to recognize and accomplish this mission. Based on this background existing in most developed and developing countries in Europe, Asia and Africa, the author was invited to give veterinary anatomy lectures to veterinary students of the Free University (FU) of Berlin in Germany, Chulalongkorn University in Bangkok, Thailand, Bangladesh Agricultural University in Mymensingh, Bangladesh, and the University of Zambia in Lusaka, Zambia.

The Faculty of Veterinary Medicine at FU Berlin is known as one of the leading veterinary schools in Europe due to its long history and provision of many mandatory

subjects with high quality contents for both veterinary public health and clinics. For professional education of the Doctor *Medizinae Veterinae* (D.M.V.), veterinary students need to study all subjects for 5 years in schools of veterinary medicine in European countries, including Germany, and state examinations are given 5 times, occurring at the end of every 2 semesters, with individual oral examina-



**Fig. 1 Teaching veterinary anatomy in a dissection room at the Faculty of Veterinary Medicine, Free University of Berlin, Germany.**

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tions scheduled by professors for every subject. In the Department of Veterinary Anatomy of FU Berlin, I gave anatomy lectures and joined in its practical work in the winter semester of 1992/92.

In the course on anatomy practices, 180 students in a class learn the fundamental structures of animal species from the viewpoints of osteology, arthrology, myology, splanchnology, angiology, the nervous system, and sense organs of horses, cattle, swine, goats, sheep, dogs, cats, fowls, fish and exotic animals. These anatomy lectures and practical work are conducted in a lecture theater and in a sanitized spacious dissection room equipped with a large number of dissection tables, a water supply and a powerful lighting system. Many plastinated anatomy specimens are provided for the students' reference. This lecture style and the convenient facility system were first created in 1222 at the medical school of Padua, Italy in the Middle Ages, and the system developed to be widely used today in every veterinary school, including Hokkaido University (HU) in Japan.

In modern veterinary medical education, practical work has been developed combined with the idea of enriching the professional education for public health and clinical subjects, considering food safety and new pandemic diseases such as avian influenza, etc., as well. This education system adopted in German veterinary schools, including FU Berlin, has developed into a worldwide model for veterinary medical schools today and for future professional training. In FU Berlin, many kinds of educational materials such as segmented handouts are provided before lectures through their eLearning computer system, and the computer-assisted learning system has become common for post-lecture study in European and American veterinary schools.

In Asian and African countries in past 50 years, there has been a great demand for agricultural production such as cattle meat, milk and eggs due to the drastic expansion of the human population that has occurred in many developing countries as a result of their stabilized political situation and the rapid economic development that occurred after the end of World War II. In these developing countries, many veterinary schools have been founded to provide active veterinarians to control the health of different animal species, which has directly improved the quality of human life in every country.

Thailand is a Buddhist country where many animals,

including companion animals, live together with people. The School of Veterinary Medicine of Chulalongkorn University in Bangkok is the leading veterinary school in the country and provides numerous well-trained veterinarians along with their veterinary public health policy. In the school, some lectures on anatomy are given in English based on the descriptions in an English textbook together with the native Thai language.

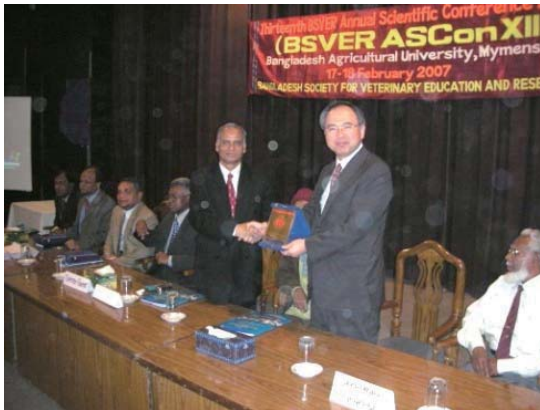


**Fig. 2 Together with veterinary students in a dissection room at the Faculty of Veterinary Medicine, Chulalongkorn University, Bangkok, Thailand.**

The 100 veterinary students in the class mainly came from the city of Bangkok, but others were from the northern and western parts of Thailand, where there are a large number of cattle, water buffaloes, domestic fowls, and farmed fish and shrimp, some of which are mainly exported to other countries, including Japan, under quarantine control by official veterinarians.

Bangladesh is an Asian country that consists of wide areas for agricultural production and is rich in human activity for its development. The veterinary medical school in Bangladesh is in Bangladesh Agricultural University in the city of Mymensingh, 100 km north of the capital city Dhaka. This veterinary school provides veterinarians for veterinary public health control and clinical hospital activity. The facilities of the school are being developed to the standard quality that is found in the neighboring countries and most lectures are given in the native language, Bengali. A high percentage of the professors who belong to the Bangladesh Agricultural University were invited by the Japanese government to complete research work for

their Ph.D. theses in Japanese universities, including HU. Based on the active exchange of mutual communication between the researchers in Bangladesh and Japan, we thus need to further develop the close ties and exchange programs between the two countries for future generations.

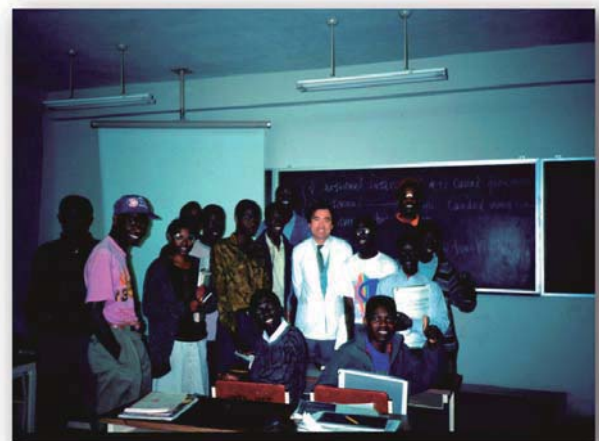


**Fig. 3 At the Scientific Conference of Bangladesh Society for Veterinary Education and Research in Bangladesh Agricultural University, Mymensingh, Bangladesh.**

In Africa, many countries have changed their traditional life style to a modern one, changing their major policies for agriculture and land management by obtaining substantial financial support from outside. A new management style has been introduced for enriched agricultural development, mainly new cultivation of plants and dairy farms for cattle, and the raising of swine, domestic fowl, and fish, as well as crocodiles for handbag production. These animals need to be controlled by veterinarians to maintain their health condition, activities of reproduction and to prevent infections. Most African countries have extremely long territorial borders with neighboring countries, and it is possible for transmissible viral diseases to expand across the borders easily. There are many viral infectious diseases in Africa. For example, bluetongue disease and foot and mouth disease of ruminants, including sheep, goats and cattle, are highly contagious and sometimes fatal viral diseases of cloven-hoofed animals. They are caused by viruses with extremely strong transmissible activities for domestic and wild animals. West Nile fever, which is a bird-derived mosquito-borne virus that can cause frequent human encephalitis (inflammation

of the brain) or meningitis (inflammation of the lining of the brain and spinal cord), is another problem. To prevent infectious diseases in Africa, the Japanese government has planned and organized official development assistance in Zambia, helping to found a new faculty of veterinary medicine in the University of Zambia (UNZA) in southern Africa (the country produces a large amount of high quality copper ore, and it is exported to industrial countries, including Japan, as an indispensable material for the production of many kinds of electronic machines).

In the Faculty of Veterinary Medicine in UNZA, the curriculum structure is almost identical to that in veterinary schools in the UK; however, the curriculum procedure in the preclinical course is similar to the style provided in HU. I gave 51 lectures and supervised practical work in veterinary anatomy to a total of 15 students in a class, in addition to examinations and a tutorial seminar during my stay in Zambia.



**Fig. 4 Together with veterinary students in the Faculty of Veterinary Medicine, University of Zambia, Zambia.**

Due to the national economical conditions during my stay, a shortage of dissection materials was encountered in some practical work because of the inadequate financial situation in UNZA. This poor financial situation needs to be improved for there to be better educational conditions.

For further individual international career plan development for graduate students in HU, who are originally endowed with great abilities and many possibilities, students need to concentrate on what personally interests them. In

my own case, I tried to achieve my goal by seeking and applying for scholarships in my graduate student days, looking for institutes for visitation and research stays, and tried to learn non-Japanese styles of research and teaching veterinary anatomy of higher quality consistent with the level adopted in major universities around the world.

Based on my personal experiences in European, Asian and African countries, the most interesting and important thing is to communicate with many persons. Therefore I recommend you to always make efforts to meet many persons and make good friends for your professional career in your future life.