The NIBB Internship program

The NIBB Internship program, started in 2009, is a hands-on learning course for overseas students designed to give high-quality experience in real world research and focused education of biology. At the same time, this program aims to internationalize the graduate students of SOKENDAI (Graduate University for Advanced Studies), giving them the opportunity to get to know students and interns with various cultural customs. Another goal of the program is to build connections through providing education to the people who will form the core of international research networks in the future.

To participate in this program, applicants who would like to experience research at NIBB must supply the name of the lab they would like to visit as well as their reasons for choosing it, and a letter of recommendation. Based on this information applicants are chosen to spend set periods of time participating in specific research activities in the lab they applied for. Round trip airfare and housing expenses are provided by the NIBB Internship Program.

In FY 2014 there were 12 applicants, out of which seven interns were selected. These interns were from universities located in 4 countries (India, China, Hungary, and Germany) and spent periods ranging from one to twelve weeks experiencing life as a member of a research team.

Report from a participant
Dilukshi Chinthani Perera
Shanghai Jiao Tong University, China

I was an intern student at Professor Minoru Tanaka's lab from 4th of August 2014 to 15th of August 2014. My main area of study was Gonadal sex differentiation in Medaka by observing Germ cells.

Germ cells are a type of biological cell that involves reproduction. In many animals the germ cells originate in the primitive streak and migrate via the gut of the embryo to the developing gonads. There, they undergo cell division of two types, mitosis and meiosis, followed by cellular differentiation into mature gametes, either eggs or sperm.

Germ cells play an essential role in Sex differentiation in Medaka. They are required for ovarian formation and also Germ cell deficient gonads develop a testis-like structure.

In medaka the sex-determining gene *dmY/dmrt1y* has been identified. My studies were mainly focused on Genotypic Sex Determination (GSD), and two important genes *SDiG* and *figla*. At the beginning of the experiment I had to dissect Medaka larva to extract gonads which was a very interesting activity. I enjoyed collecting fish eggs at Myodaiji. Performing micro surgery was where I used my skills as a medical student who had assisted in surgery at a hospital. It was also an opportunity to exchange knowledge with the PhD students at the lab. Therefore, my overall experience was invaluable. I certainly had a very useful time with Professor Tanaka and his team.