

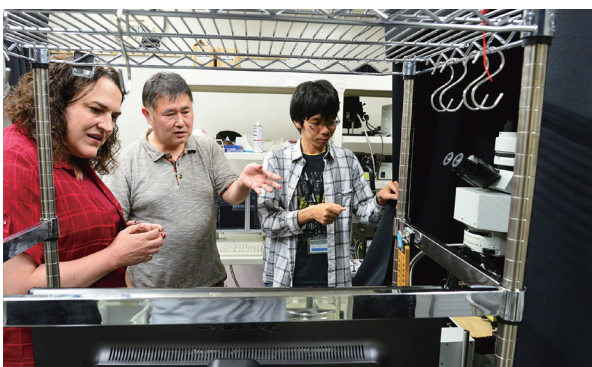
NIBB-Princeton University Collaboration

Associate Professor Rebecca D. Burdine's visit to NIBB

Associate Professor Rebecca D. Burdine from the Department of Molecular Biology at Princeton University, visited NIBB on June 11th 2018 to conduct a seminar and to meet with NIBB researchers.

Prof. Burdine has been conducting an international joint research project in collaboration with the Division of Morphogenesis at NIBB, and which has been financially supported by NINS. In this capacity, she conducted an exclusive seminar titled "New Roles for Motile Cilia in Development and Disease" for NIBB researchers during her stay in Okazaki. She also had a meeting with the members of the Division of Morphogenesis to discuss the future of the abovementioned joint research project.

In addition to this, Prof. Burdine discussed research with other NIBB researchers and toured the Laboratory of Spatiotemporal Regulation to observe a light-sheet laser scanned microscope.



The 10th NIBB International Practical Course

"Genome Editing and Imaging of Fish and Amphibians"

September 20 (Thu) – 29 (Sat), 2018

- Participants: 9 (1 from the UK, Colombia, Nepal, Korea, China, Taiwan respectively, and 3 Japan)
- Venue: National Institute for Basic Biology, Okazaki, Japan
- Seminar Speakers:
 - Dr. Lazaro Centanin (Heidelberg Univ., Germany)
 - Dr. Shoji Fukamachi (Japan Women's Univ.)
 - Dr. Pung-Pung Hwang (Academia Sinica, Taiwan)
 - Dr. Takeshi Igawa (Hiroshima Univ.)
 - Dr. Asano Ishikawa (National Institute of Genetics)
 - Dr. Shinya Komoto (OIST)
 - Dr. Haruki Ochi (Yamagata Univ.)
 - Dr. Takuji Sugiura (IMP, Austria)
 - Dr. Hitoshi Yokoyama (Hirosaki Univ.)
- Lecturers:
 - Dr. Yoriko Ando (Nagoya Univ.)
 - Dr. Satoshi Ansai (NIBB)
 - Dr. Shoji Fukamachi (Japan Women's Univ.)
 - Dr. Toshinori Hayashi (Tottori Univ./iNewt)
 - Dr. Aiko Kawasumi (RIKEN BDR)
 - Dr. Yasuhiro Kamei (NIBB/ABiS)
 - Dr. Shigenori Nonaka (NIBB/ABiS)
 - Dr. Kiyoshi Naruse (NIBB/NBRP-Medaka/IBBP)
 - Dr. Hajime Ogino (Hiroshima Univ./NBRP-Xenopus)
 - Dr. Ken-ichi T. Suzuki (Hiroshima Univ./NIBB/iNewt)
- Course Staff:
 - Dr. Ying-Jey Guh (Nagoya Univ.), Ms. Maki Kondo (NIBB), Ms. Megumi Matsuo (Japan Women's Univ.), Mr. Yu Murakami (Kyoto Univ.), Ms. Misako Saida (NIBB), Dr. Joe Sakamaoto (NIBB), Ms. Nanoka Suzuki (Hiroshima Univ.), Dr. Atsushi Taniguchi (NIBB/ABiS), Dr. Yuka Taniguchi-Sugiura (IMP, Austria)
- Contents of the course:
 - Husbandry (Lectures and Experiments Using Medaka, *Xenopus* and Iberian Ribbed Newt)
 - Genome Editing (Lectures and Experiments Using Medaka, *Xenopus* and Iberian Ribbed Newt)
 - Molecular Works for Genome Editing (Lectures)
 - Microinjection (Lectures and Experiments Using Medaka, *Xenopus* and Iberian Ribbed Newt)
 - Regeneration Experiments (Lectures and Demonstrations Using Amphibians)
 - Cryopreservation/Artificial Insemination (Lectures and Experiments Using Medaka and *Xenopus*)
 - Imaging: Light-Sheet Microscope/Laser Confocal Microscope (Lectures and Experiments Using Medaka and *Xenopus*)
 - In vivo Cell Manipulation (IR-LEGO) (Lectures and Experiments Using Medaka and *Xenopus*)
 - Behavioral Assay (Lectures and Experiments Using Medaka)

The 10th NIBB International Practical Course was held from 20th to 29th September, 2018. The title of the course was “Genome Editing and Imaging of Fish and Amphibians”, and as such medaka, *Xenopus* and Iberian ribbed newt were used during this course. The course itself contained segments concerning “Gene knock-out and knock-in by the CRISPR-Cas9 method”, “Imaging analysis using a light-sheet microscope and a confocal microscope”, “Gene expression induction using the IR-LEGO system”, “Cryopreservation of medaka sperm” and “Optomotor response analysis of medaka using large spectrograph and data analysis of the response” among others. 10 open seminars by invited speakers from Japan and abroad were also held. Dr. Pung-Pung Hwang (Institute of Cellular and Organismic Biology (ICOS), Academia Sinica, Taiwan), Dr. Lazaro Centanin (Centre for Organismal Studies, University of Heidelberg, Germany) and Dr. Takuji Sugiura (Research Institute of Molecular Pathology, Austria) were invited to lecture, and they conducted both seminars and course lectures.

The 11th NIBB International Practical Course co-organized by NIBB and Academia Sinica will be held in Taipei, Taiwan in 2020. To discuss several matters related to the next course, six researchers including Dr. Hwang visited NIBB from ICOS during the course. They visited several laboratories and facilities during their visit and presented their research during the NIBB Special Seminar.

Moving into the future, we hope that the NIBB International Practical Course will be an opportunity to start as well as advance international collaborations and cooperation at various levels.

On behalf of the organizers

Kiyoshi Naruse (NIBB)

Hajime Ogino (Amphibian Research Center, Hiroshima University)

