

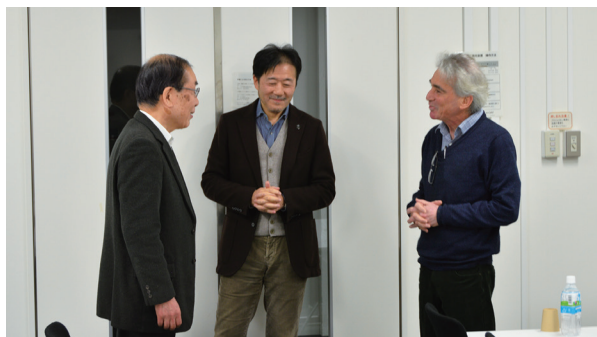
## Collaboration Programs with Overseas Institutions

### NIBB-Princeton University Collaboration

#### *Professor Michael Levine's visit to NIBB*

Professor Michael Levine, the Director of the Lewis-Sigler Institute for Integrative Genomics and professor from the Department of Molecular Biology at Princeton University, visited NIBB from January 15th to 16th 2019 to deliver a seminar and to meet with NIBB researchers. Prof. Levine's visit was supported by NINS's International Research Collaboration Center (IRCC) program to promote international academic exchange between NINS and Princeton University.

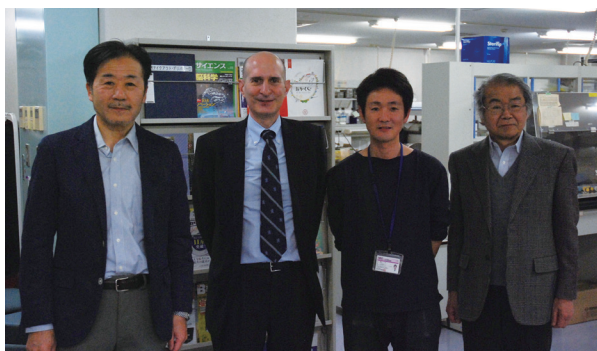
Prof. Levine gave a special seminar entitled "Single Cell Resolution of Animal Development" to NIBB researchers. In addition, Prof. Levine had discussions with several NIBB researchers and toured NIBB facilities to observe next-generation sequencers and a light-sheet microscope that has been newly developed at NIBB.



#### *Mr. Dean Edelman's visit to NIBB*

Mr. Dean Edelman, the manager of the Office of Corporate Engagement and Foundation Relations at Princeton University, visited NIBB on April 1st 2019. Mr. Edelman's visit was supported by the international academic exchange program between NINS and Princeton University.

Mr. Edelman visited three laboratories affiliated with the NINS's Division of Quantitative and Imaging Biology, International Research Collaboration Center (IRCC-QIB) which are the laboratories administered by Prof. Ryota Iino (IMS), Prof. Kazuhiro Aoki (Division of Quantitative Biology, NIBB) and Prof. Naoto Ueno (Division of Morphogenesis, NIBB). After brief introductions of their respective fields of research, Mr. Edelman discussed future collaborative/cooperative projects between NINS and Princeton University in the field of life science field.



### NIBB-EMBL Collaboration

#### *EMBL and the National Institutes of Natural Sciences renew their research exchange agreement.*

Since 2005, NIBB has taken a leading role in the academic exchange and collaborative research programs forged between EMBL and the National Institutes of Natural Sciences (NINS), under the auspices of the academic exchange agreement. It has also promoted personal and technological exchanges through symposia, exchanges between researchers and graduate students, as well as the introduction of experimental equipment.

NIBB Director General, Dr. Kiyokazu Agata, and Vice-Director General, Dr. Naoto Ueno, visited EMBL to meet the Director General of EMBL, Dr. Edith Heard from July 1st through 2nd, 2019. The purpose of their visit was to bring a letter renewing the academic exchange agreement between the two institutes signed by Akio Komori, the President of the National Institutes of Natural Sciences. Upon this agreement being signed by Dr. Heard, they exchanged views on international cooperation, collaborative research and the exchange of individuals between the two institutes.



#### *Dr. Ewan Birney's visit to NIBB*

Dr. Ewan Birney, the Director of EMBL-EBI and the senior scientist in charge of research at that institute, visited NIBB on August 21st 2019 to deliver a seminar as well as to meet with NIBB researchers. Dr. Birney gave a special seminar titled "Outbred Genetics in Medaka Fish and Humans - Bringing Models and Medicine Together" to NIBB researchers, and had discussions with the NIBB Director General, Dr. Kiyokazu Agata, to promote an international collaboration between NIBB and EMBL-EBI.



## NIBB-COS Collaboration

### *Prof. Jan Lohmann's visit to NIBB*

Starting from 2019FY, NIBB will be entering into an international research collaboration program with the Centre for Organismal Studies (COS) Heidelberg aimed at understanding the adaptation strategies of organisms to environments. Prior to its commencement, the Director of COS, Prof. Jan Lohmann visited NIBB from May 21st through 22nd, 2019 to discuss upcoming international collaborative research projects and international cooperation between both institutes with NIBB Director General, Dr. Kiyokazu Agata, and Vice-Director General, Dr. Naoto Ueno.

Prof. Lohmann introduced COS and presented his research entitled 'Signal Integration in Plant Stem Cells' to NIBB researchers and graduate students. In addition, he toured the NIBB facilities while exchanging opinions with fellow researchers. This in turn contributed to a closer relationship between our institutions.



### *Dr. Alexis Meizel's visit to NIBB*

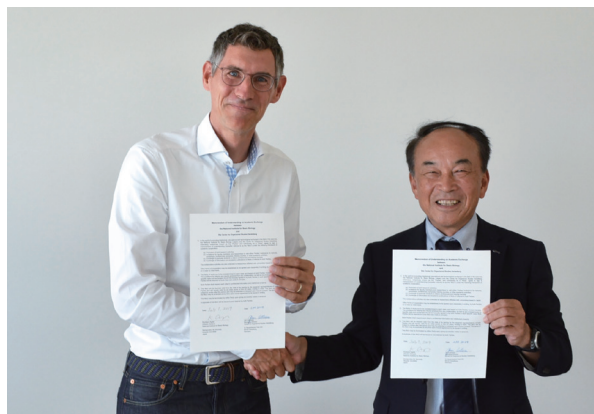
Dr. Alexis Meizel from COS Heidelberg visited NIBB on May 30th, 2019 during his research posting at Nagoya University. He had a discussion on collaborative research projects using the IR-LEGO system with Associated Prof. Yasuhiro Kamei and Dr. Joe Sakamoto (NIBB Research Fellow) at the Spectrography and Bioimaging Facility.



### *NIBB signs academic exchange agreement with COS Heidelberg, Germany*

NIBB has signed an academic exchange agreement with COS Heidelberg, Germany. NIBB and COS Heidelberg have conducted collaborative research in several research fields using small fish, cnidarians, plants and microscopies. In addition to this, researchers and graduate students from both institutes have previously visited the other for the purposes of this collaboration.

NIBB Director General, Dr. Kiyokazu Agata, and Vice-Director General, Dr. Naoto Ueno, visited COS Heidelberg from July 1st through 2nd, 2019 to sign an agreement facilitating academic exchange between the institutes. They also used this opportunity to present their research projects during seminars for COS researchers and students, as well as to exchange ideas concerning future collaborative/cooperative programs with COS PIs including the COS Managing Director, Prof. Dr. Jan Lohmann.



### *Dr. Annika Guse's visit to NIBB*

NIBB will undertake an international research collaborative program with COS Heidelberg aimed at understanding the adaptation strategies of organisms to environments. In this program, researchers who belong to NIBB and COS Heidelberg will start a collaborative research program focusing on the mechanisms and evolution of light sensing in cnidarians. Dr. Annika Guse, who is currently analyzing the mechanisms and evolution of light sensing in cnidarians, visited NIBB from September 8th through 9th, 2019 regarding this.

On this occasion, she gave a presentation entitled Molecular Mechanisms of Coral-Algal Endosymbiosis, and was able to strengthen her relationship with multiple NIBB researchers via academic discussion.

