

Collaboration Programs with Overseas Institutions

NIBB-Center for Organismal Studies (COS), Heidelberg, Germany

NIBB-COS international collaboration research project focusing on the mechanisms and evolution of light sensing in cnidarians

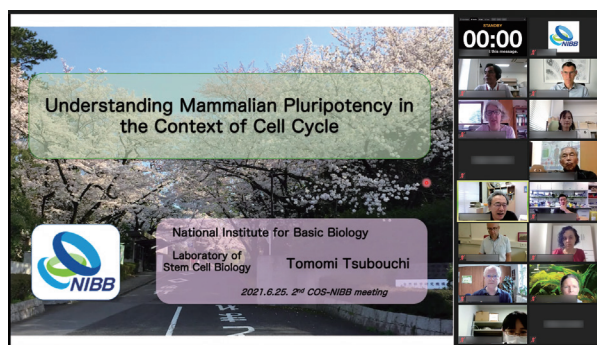
NIBB and COS Heidelberg started an international collaborative research project focusing on the mechanism and evolution of light sensing in cnidarians. This project was financially supported by the NINS. In this collaborative research project, a new emerging model organism, sea anemone (*Aiptasia* sp.), was used. Professor Annika Guse, who has been conducting research analyzing the mechanisms and evolution of light sensing in sea anemones at COS Heidelberg, joined the “Open Laboratory” established in NIBB. In October 2020, a post-doc researcher, Dr. Mariko Kishimoto who received PhD degree in NIBB, joined this research project and has been conducting research using molecular biological and molecular genetic approaches. More detail are provided on the page of the collaborative research project (p. 75).

The meeting for NIBB-COS Heidelberg International Collaborations

Lecture series #2 “Stem Cell”

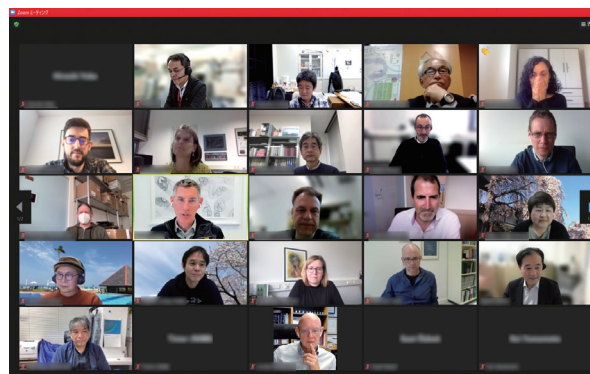
Lecture series #3 “Cell Signaling / Cell Biology”

The meeting for NIBB-COS Heidelberg International Collaborations was organized in conjunction with COS Heidelberg in Germany. During the Lecture Series held in this program, two researchers from both institutes gave a presentation on the specific theme. In the 2nd meeting held on June 25, 2021, the lecture series theme was “Stem Cell”. Dr. Tomomi Tsubouchi from the Laboratory of Stem Cell Biology and Dr. Sergio P. Acebrón from COS Heidelberg talked about their research projects. Thirty-nine members from NIBB and 33 from COS Heidelberg (both totals included post-docs and students) participated in this event. The theme of the 3rd meeting held on March 31, 2022, was “Cell Signaling / Cell Biology”. Dr. Kazuhiro Aoki from the Division of Quantitative Biology and Dr. Gislene Pereira from COS Heidelberg gave their presentations to 36 NIBB members and 26 COS members. During both events, lively discussions took place.



Lecture by Tomomi Tsubouchi (NIBB) in the 2nd meeting.

We also organized the social meetup events in the meetings and used the video chat tool, Spatial Chat, as an online meeting platform to facilitate it. Principal investigators, researchers, and students from both institutes were thus able to meet and have lively exchanges. By manipulating the specially assigned icon given to each of them, participants were able to freely join any discussions they chose to partake in with no limitations on the number of people involved. Consequently, the event was highly praised.



Group discussion after the lectures in the 3rd meeting.

In these meetings, several discussions on new collaborative research were put forward, and as a result, ties between NIBB and COS seemed to have deepened. Some participants suggested that the exchange of young researchers and students from both institutes would be considered and that a poster session would be held at the meeting. In light of these comments, we are considering holding an online poster session for the next meeting.

NIBB-Princeton University, USA

Collaborative activities between NIBB and Princeton University are conducted under the support of the International Research Collaboration Center (IRCC) of the National Institutes of Natural Sciences (NINS), based on the academic exchange agreement between the NINS and Princeton University. In FY2020, Dr. Ellen Reed, an IRCC's specially appointed research staff and postdoctoral research fellow of Princeton University, promoted a collaborative research project with Professor Kazuhiro Aoki of NIBB and Professor Jared Toettcher of Princeton University on "Dissolving biomolecular condensates using optical or chemical recruitment of soluble proteins" at Princeton University. In FY2021, due to the COVID-19 situation, it was difficult to travel between NIBB and Princeton University. However, collaborative research activities were conducted using online communication tools and we agreed that Dr. Reed would visit NIBB and carry out the collaboration in Prof. Aoki's laboratory in the next year.