

Institute for Chemical Reaction Design and Discovery (ICReDD),
Creative Research Institution, Hokkaido University
FY2020 MANABIYA (ACADEMIC) Second Call Application Guidelines

The Institute for Chemical Reaction Design and Discovery (ICReDD) at the Creative Research Institution at Hokkaido University was selected as one of the research centers of the World Premier International Research Center Initiative (WPI) in 2018 and upon selection entered its 10-year period of research.

At ICReDD, we use the “Artificial Force Induced Reaction” method (The AFIR method),” developed by the Center Director, Professor Satoshi Maeda, as our core technology in order to accelerate the efficient development of new chemical reactions for a prosperous and sustainable future for humanity. To achieve this goal, ICReDD aims to establish a new academic field called “Chemical Reaction Design and Discovery (CReDD),” which integrates computational science, information science, and experimental science.

In addition, we have established the "MANABIYA system" (*manabiya* is an old Japanese word for “school”), a strategic framework that enables us to develop an international collaborative research environment and foster highly skilled world-class researchers, which will help us build collaborative relationships with research centers in Japan and overseas. With the MANABIYA system, we aim to form a huge network of hundreds of researchers, from the world's top researchers to early-career young researchers, in 10 years.

What is the MANABIYA system?

Young researchers and graduate level students from domestic and overseas research centers and universities are invited to stay at ICReDD for 2 weeks (minimum) to 3 months (maximum). The purpose of this system is to help the researchers acquire techniques for developing new chemical reactions. In the course of their study, they are also expected to discover new research seeds, while ICReDD is responsible for training the researchers. In the future, we aim to establish a brain circulation society where the researchers use and spread the techniques, they have acquired at ICReDD. In 10 years, this will be a huge network with many researchers from all over the world, which will contribute to further develop the new academic field CReDD.

In the fiscal year of 2020, ICReDD calls for applications for MANABIYA (ACADEMIC) in order to help researchers and graduate-level students acquire the techniques unique to ICReDD to develop new chemical reactions. Please carefully read the information below and confirm the details of the application procedure before applying.

1 Period of Study

The minimum period is 2 weeks and the maximum 3 months from January 1, 2021 to March 31, 2021.

2 Application Procedures

2.1 Qualifications

Researchers who belong to domestic and overseas universities or equivalent (e.g. graduate students), or researchers who belong to national, public, or private research institutes are eligible to apply, regardless of their nationality.

2.2 The number of participants to be accepted

Around 20 people

2.3 Location

Institute for Chemical Reaction Design and Discovery (ICReDD), Hokkaido University

Address: Kita 21, Nishi 10, Kita-ku, Sapporo, Hokkaido, 001-0021,
JAPAN

Building: Creative Research Institution

2.4 Supervisor

Please refer to the website below when selecting your preferred supervisor.

<https://www.icredd.hokudai.ac.jp/ja/manabiya/manabiya-topics>

2.5 Deadline and Submission

Please fill out the Application Form (Form 1) and email it as an attachment in a Word format by November 30 (Mon), 2020 (Japanese Standard Time) to the following e-mail address:

➤ Submission and inquiries

Research Strategy Unit, Administrative Office of ICReDD

Email: manabiya@icredd.hokudai.ac.jp

Attn: Kaori Ishikura (Ms.) and Mayu Horii (Ms.)

3 Selection and Notifications

Researchers will be selected based on an evaluation of their application document by the ICReDD Steering Committee. The results (provisional decision) will be sent to the applicants by the Center Director in December 2020.

4 Financial Support for Travel and Accommodation

The successful applicants (hereinafter referred to as the “MANABIYA researchers”) will be provided with travel expenses (round trip) in accordance with the Hokkaido University Travel Expenses Rules, and accommodation expenses according to the length of stay. The maximum amount of payment for travel and accommodation expenses shall be

500,000 yen. The following are examples of approximate amounts of financial support for different lengths of stay.

Examples:

Length of Stay	Approx. amount of financial support (500,000 yen maximum)
2 weeks	Total amount of round-trip travel expenses + accommodation expenses (70,000 yen)
1 month	Total amount of round-trip travel expenses + accommodation expenses (150,000 yen)
1 and a half months	Total amount of round-trip travel expenses + accommodation expenses (220,000 yen)
2 months	Total amount of round-trip travel expenses + accommodation expenses (300,000 yen)
2 and a half months	Total amount of round-trip travel expenses + accommodation expenses (370,000 yen)
3 months	Total amount of round-trip travel expenses + accommodation expenses (450,000 yen)

MANABIYA researchers from overseas are eligible to apply for the Hokkaido University foreign scholar accommodations, if there is availability.

<https://www.global.hokudai.ac.jp/university-life/housing/researchers-accommodation/>

If there is no availability, please use private accommodations.

5 Expense and Report

5.1 Expense

ICReDD will bear the cost of teaching materials, quantum chemical calculation software and analytical equipment, reagents and materials, and utilities used by MANABIYA researchers. The researchers are responsible for the other expenses (including food, commute, and other living expenses). All MANABIYA researchers are required to purchase accident insurance at their own expense depending on the length of their stay.

5.2 Obligations of Confidentiality

MANABIYA researchers must maintain the confidentiality of all research information acquired other than the techniques learned at MANABIYA (ACADEMIC). Therefore, upon acceptance into the program, you will be asked to sign a "Pledge of Confidentiality".

5.3 Submission of Report

All MANABIYA researchers who have completed their study are required to submit a “MANABIYA (ACADEMIC) Achievement Report” (Form 2). Please note that the report may be published as an ICRéDD progress report to MEXT (Ministry of Education, Culture, Sports, Science and Technology).

5.4 Due Date and Email Address for Submission

Please email the report form as an attachment in a Word format to the following e-mail address:

➤ Submission and inquiries

Research Strategy Unit, Administrative Office of ICRéDD

Email: manabiya@icredd.hokudai.ac.jp

Attn: Kaori Ishikura (Ms.) and Mayu Horii (Ms.)

➤ Due date

One month from one day after the end of the researcher's stay

5.5 Issuance of MANABIYA (ACADEMIC) Certificate

The MANABIYA (ACADEMIC) certificate will be issued to MANABIYA researchers as proof of completion of their study once ICRéDD receives their report.

5.6 Publication of Research Achievements

If MANABIYA researchers wish to publish research results using the techniques they acquired at ICRéDD in academic papers etc., please clearly state in the publication that the techniques acquired at ICRéDD have been used. An example of acknowledgments is shown below.

Example of Acknowledgements

In this study, “*your name*” used “*the techniques*” learned at the Institute for Chemical Reaction Design and Discovery (ICReDD), Hokkaido University, which was established by World Premier International Research Initiative (WPI), MEXT, Japan.

➤ Please change “your name” and “the techniques” as appropriate.