# Position Open: Postdoctoral Fellow at Hokkaido University Institute for Chemical Reaction Design and Discovery (ICReDD) (JST ERATO "Artificial Intelligence in Chemical Reaction Design and Discovery")

The Institute for Chemical Reaction Design and Discovery (ICReDD), Hokkaido University, as a global research center based on the "World Premier International Research Center Initiative (WPI), supported by Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT)," constructs an international research environment which gathers world-leading researchers and establishes a research environment that integrates computational, information and experimental sciences, in order to establish a new academic field "Chemical Reaction Design and Discovery", to provide substantial knowledge on chemical reactions that efficiently develop chemical reactions and materials for the future necessity, and to sustainably cultivate human resources engaged in the field of "Chemical Reaction Design and Discovery".

We are inviting applications for the position of Postdoctoral Fellow (Nagata group), Institute for Chemical Reaction Design and Discovery, Hokkaido University as follows.

# 1. Name of Recruiting Institution

National University Corporation Hokkaido University

## 2. Position and number of openings

Postdoctoral Fellow, one opening

# 3. Employment Term

From the earliest possible date after April 1, 2023 (negotiable) to March 31st, 2024 (Renewal of appointment may be renewed every fiscal year until March 31, 2025)

### 4. Department

Institute for Chemical Reaction Design and Discovery (ICReDD)

### 5. Location

Sapporo, JAPAN (Hokkaido University)

#### 6. Research Field

Synthetic organic chemistry (development of new chemical reactions using robots designed for organic synthesis)

### 7. Job description

In October 2019, Prof. Satoshi Maeda (Director of Institute for Chemical Reaction Design and Discovery (WPI-ICReDD), Hokkaido University) launched a new research project entitled "Artificial Intelligence in Chemical Reaction Design and Discovery" under a commitment by JST ERATO. In the project, we will create new methodology that predicts innovative chemical reactions by combining technologies of automated reaction path search by Artificial Force Induced Reaction (AFIR) and combinatorial optimization.

The successful candidate will join the group of automated synthesis (Yuuya Nagata, Specially Appointed Associate Professor in ICReDD) to develop the innovative chemical reactions through the combination of theoretical calculations and automated robots specially designed for organic synthesis. In addition, the successful candidate can be allowed to conduct other research activities with up to 20% of the whole research work.

### 8. Qualifications

- (1) PhD degree(s) at the time of appointment
- (2) Outstanding achievements and publications in the research field
- (3) Efficient communication skills in English for research activities
- (4) Ability to conduct research activities effectively in a team
- (5) Knowledges and experiences of organic chemistry (transition-metal-catalyzed reactions, reactions with organocatalysts, photochemical reactions, and so on) are required. It is desirable to have research experience in computational chemistry and cheminformatics.

# 9. Probation Period

The probation period is one month.

# 10. Salary

Annual Salary System

- \*The salary will be determined in accordance with the regulations of Hokkaido University.
- \* Approximately, 4.56 million JPY per year.
- \*No travel expenses will be provided for the assignment or resignation.

## 11. Working Form

Discretionary labor system for professional work

- \*The standard working hours for a day is deemed as 7 hours and 45 minutes.
- \*The leaves will be granted in accordance with the University's rules and regulations.

### 12. Health Insurance and Pension

The Ministry of Education, Culture, Sports, Science and Technology Mutual Aid Association Services including Health Insurance, Employee Pension, Workers' Accident Compensation Insurance and Employment Insurance

## 13. Measures to Prevent Second-hand Smoke

Smoking in designated areas only

# 14. Application Materials

(1) Curriculum Vitae

Free format with an attached profile photo of the applicant, the following information should be included: Name, current address, telephone number and Email address, Date of Birth, academic history, degree(s), license, career history, awards, membership of organizations etc.

\*Applicant who has been employed by Hokkaido University from April 1, 2013 (any position, including Part-time Lecturer, Teaching Assistant, Teaching Fellow, Research Assistant and Short-term Support Assistant, etc.) should provide full details of your employment history.

- (2) List of research activities, including original scientific papers (each graphical abstract should be embedded in the list), book chapters, other publications, presentations in scientific meetings, awards, and other relevant activities. (Free format)
- (3) Summary of past and current research (two A4 page or less)
- (4) Statement of proposal for your future research in this project (two A4 page or less)
- (5) Statement of future prospects of your career path after the end of this project (one A4 page or less)
- (6) A list of two references (including the names, phone numbers and e-mail addresses)

## 15. Application Deadline

Until the position is filled.

## 16. Application Submission

Files including the documents above should be sent to the following e-mail address:

E-mail: recruit AT icredd.hokudai.ac.jp

\*Change AT into @ when sending an e-mail.

\*Please put "Application for Postdoctoral Fellow in ICReDD (Nagata group)" in the subject box.

\*Personal information will be exclusively used for the screening.

## 17. Inquiries

Specially Appointed Associate Prof. Yuuya Nagata

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

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\*Change AT into @ when sending an e-mail.

# 18. Others

- At Hokkaido University, we actively promote both education and research while fostering diverse human resources and gender-equality. Therefore, we explicitly invite women qualified in this research field to apply.
- · As a measure to increase the percentage of female researchers at the University in accordance with Article 8 of the Act on Securing, Etc. of Equal Opportunity and Treatment between Men and Women in Employment, priority will be given to women if they are recognized as having the same competence required for the job based on a fair evaluation.
- The Office of Diversity, Equity, and Inclusion of Hokkaido University is working to promote a research environment in which diverse human resources can play an active role, focusing on human resource development for female researchers and support for balancing research activities and family life. For more information, please visit the Office of Diversity, Equity, and Inclusion website at the following URL. https://www.dei.hokudai.ac.jp/en/