

**Position Open: Postdoctoral fellow at Hokkaido University
Institute for Chemical Reaction Design and Discovery (ICReDD)**

The Institute for Chemical Reaction Design and Discovery (ICReDD), Hokkaido University, as a global research center based on the "World Top Level Research Center Program (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 (Varnek 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

1 year from the starting date

(Appointment may be renewed every fiscal year in view of the circumstances (hiring expense etc.) and could be extended up to March 31, 2028.)

4. Desired Starting Date

the earliest date after August 1, 2026 (negotiable)

5. Department

(Just after hiring) Institute for Chemical Reaction Design and Discovery

(Scope of change) No change expected.

6. Location

Sapporo (Hokkaido University), JAPAN

7. Research Field

Chemoinformatics (Machine Learning Force Fields)

8. Job description

(Just after hiring) Understanding and discovering novel reactions through reactivity prediction is a key research area at ICReDD. Prof. Varnek's group deals with development of new methodology of computer-aided synthesis planning using Artificial Intelligence tools. Particular attention will be paid to the extension of the SynPlanner tool for retrosynthesis developed in the group.

In this context, the candidate will have the opportunity to work on the following research topics:

(1) Extension of SynPlanner to new types of reactions (mechanochemistry, green chemistry, etc).
(2) Development of a methodology and related tools for forward synthesis, building reaction pathways between available starting material and target molecule.

(Scope of change) No change expected.

9. Qualifications

- (1) PhD at the time of appointment
- (2) Outstanding achievements and publications in the research field
- (3) Strong motivation for the research themes of ICReDD
- (4) Efficient communication skills in English for research activities
- (5) Ability to conduct research activities effectively in collaborations
- (6) Proficiency in both Machine Learning and Organic Chemistry is preferred
- (7) Familiarity with Linux environments and basic skills in software programming (Python, web-based

interfaces) are required

10. Probation Period

The probation period is one month.

11. Salary

Annual Salary System

* The salary will be determined in accordance with the regulations of Hokkaido University.

* No travel expenses will be provided for the assignment or resignation.

12. Working Form

Discretionary labor system for professional work(*) based on the employee's agreement or Fixed working hours system

* 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.

13. 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

14. Measures to Prevent Second-hand Smoke

Smoking in designated areas only

15. 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, book chapters, other publications, presentations in scientific meetings, awards, and other relevant activities.

(3) List of major publications (at most three)

* the following information should be included: summary, role, number of citations

(4) Summary of past and current research (One A4 page or less)

(5) Statement of proposal for your future research (One A4 page or less)

(6) A list of two references (including the names, phone numbers and e-mail addresses)

16. Application Deadline

March 31, 2026 (JST): Recruitment ends as soon as the employee is decided.

*The deadline must be strictly observed.

17. Application Submission

Combine all the documents above into one PDF file and send 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 (Varnek group)" in the subject box.

* Personal information will be exclusively used for the screening.

18. Inquiries

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