

## Report on The 7th Hokkaido University Cross-Departmental Symposium

Oct. 4th (Mon), 2021  
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### ■ Conference name

The "Hokkaido University Cross-Departmental Symposium" promotes interactions among young researchers at Hokkaido University

### ■ Date and Time

Date: Oct. 1st (Fri), 2021

Time: 9:00~18:00

### ■ Venue

On-line: WebEx(oral), Remo(poster)

### ■ Organizer, Supervision, Cosponsorship, and Sponsorship

**Organizer** : The Promotion Project for Young Investigators at Hokkaido University

**Supervision** : Institute for Genetic Medicine, Research Institute for Electronic Science, Hokkaido University

**Cosponsorship(33 Departments)**: Faculty of Fisheries Sciences, Faculty of Environmental Earth Science, Faculty of Science, Faculty of Pharmaceutical Sciences, Research Faculty of Agriculture, Faculty of Advanced Life Science, Graduate School of Law, Faculty of Education Faculty of Health Sciences, Faculty of Engineering, Faculty of Medicine, Faculty of Dental Medicine, Faculty of Veterinary Medicine, Faculty of Humanities and Human Sciences, Faculty of Information Science and Technology, Hokkaido University Hospital, Institute of Low Temperature Science, Institute for Catalysis, Central Institute of Isotope Science, Research Center for Integrated Quantum Electronics, Slavic-Eurasian Research Center, Information Initiative Center, Arctic Research Center, Research Center for Zoonosis Control, Field Science Center for Northern Biosphere, Graduate School of Life Science, Graduate School of Chemical Sciences and Engineering, Graduate School of Biomedical Science and Engineering,

Hokkaido University Museum, Institute for Chemical Reaction Design and Discovery (ICReDD), Education and Research Center for Mathematical and Data Science, Research Development Section, Institute for the Promotion of Business-Regional Collaboration  
**Sponsorship(9 sponsors):** Hokkaido University, Joint Usage/Research Center (Ministry of Education, Culture, Sports, Science and Technology-Japan), Support and Enhancement Project on Mathematics and Data Science Education (Ministry of Education, Culture, Sports, Science and Technology-Japan), Hokkaido University Photo Excitenics Research Center, Hokkaido government Board of Education, Sapporo City Board of Education, Hokkaido Association of High School Science Teachers (HAST) , The Hokkaido Youth Foundation for Science and Cultur, Japan Agency for Medical Research and Development(AMED)

## ■ Contents

The purpose of the "Hokkaido University Cross-Departmental Symposium " is to promote exchanges among young researchers and the creation of fusion research within Hokkaido University.

From this year, the symposium has been organized as a project to enhance the functions of Hokkaido University, " Young Researcher Development with a Core of Cross-disciplinary Research Center to Create New Academic Fields".

## ■ Special lecture

Prof. Tasuku HONJO (University of Kyoto, 2018 Nobel Laureate in Physiology or Medicine)

「がん免疫治療の新展開」 (Japanese Oral Presentation)

## ■ Winners of ICReDD-related faculty

## The Hokkaido University Research Encouragement Award 2021

- ・ Sunao SHOJI, Gold prize 「緑色発光希土類錯体の透明化と植物成長に与える影響の評価」
- ・ Yuichi KITAGAWA, Silver prize 「発光性錯体の社会実装に向けて:計算科学と実験科学の連携による高輝度希土類発光体の開発」
- ・ Yohei SHIMIZU, Bronze prize 「実験－計算－構造解析で挑む酵素模倣型高機能触媒の開発」

## Best Poster Presentation Award (24 posters/ 112 posters)

- ・ Hiroki HAYASHI, 「量子化学計算を指針とするジフルオロカルベンを伴う三成分環化反応の開発」
- ・ Takeshi IWASA, 「双極子近似を超えた光学応答理論開発と光 STM-TERS への応用」

## ■ Presentations of ICRéDD-related faculty

### Ambitious Tenure Track Session 1(Oral presentation)

- ・ Koji KUBOTA, o\_01 「物理的な力を駆動力とする有機合成反応の開発」

## The Hokkaido University Research Encouragement Award 2020 Winners

(Poster presentation)

・ Sunao SHOJI, G\_1 「赤色発光希土類錯体を用いた透明な波長変換資材による植物育成」

General Poster Session(Poster presentation)

・ Hiroki HAYASHI, P\_1 「量子化学計算を指針とするジフルオロカルベンを伴う三成分環化反応の開発」

・ Yutaka NAGAHATA, P\_2 「漸近トラジェクトリから相空間の反応経路を求める」

・ Takeshi IWASA, P\_3 「双極子近似を超えた光学応答理論開発と光 STM-TERS への応用」

## The Hokkaido University Research Encouragement Award 2021 Applicants Poster Session(Poster presentation)

・ Yohei SHIMIZU, K\_8 「実験－計算－構造解析で挑む酵素模倣型高機能触媒の開発」

・ Yuichi KITAGAWA, K\_20 「発光性錯体の社会実装に向けて:計算科学と実験科学の連携による高輝度希土類発光体の開発」

・ Sunao SHOJI, K\_24 「緑色発光希土類錯体の透明化と植物成長に与える影響の評価」

General Oral Session Material Sciences and Chemistry 2(Oral presentation)

• Andrey Lyalin, o\_29 「Theoretical modeling of 2D borophene layers on metal supports」