2023 Yokohama City University Fellowship for Innovative Students with Data Thinking

# **Research Presentation**

# DATE : Feb. 15, 2024 (Thu) TIME : 13:00 to 17:00 VENUE : Online (Zoom) and Minatomirai Satellite Campus

\*You may choose whether you will attend virtually (via Zoom) or physically at the Minatomirai Satellite Campus.

# **DETAILS** (Presentations in English : Simultaneous interpretation in Japanese)

[PART 1] Students selected in 2023 (Research presentation: 7min Q&A: 3min)

\*Doctoral Program 1st year, Doctoral Program 2nd year, Graduate School of Medicine Doctoral Program 2nd year

- 1. Career transitions and learning in the profession: a survey study of Y-city childcare professionals.
- 2. Study of optical blinking phenomena on nitride semiconductors.
- 3. Elucidation of the mechanism of bacterial biotransformation of high-molecular-weight petroleum hydrocarbons for the development of new petroleum energy resource utilization methods.
- 4. Comparative Analysis of Site-Specific N-glycosylation of LAMP1 from Breast Cancer Tissues.
- 5. Development of highly functionalized PROTAC by external stimulation.
- 6. Towards establishing new therapeutics targeting tumor-associated macrophages in pancreatic cancer.
- 7. Bayesian method for comparing F1 scores in the absence of a gold standard.
- 8. Role of Med26 in assembly of the Mediator RNA Polymerase II holoenzyme complex.
- 9. The unique allosteric properties of crocodilian haemoglobins revealed by cryo-EM.

#### [PART 2] Students selected in 2022(Research presentation: 7min Q&A: 3min)

\*Doctoral Program 2nd year ,Graduate School of Medicine Doctoral Program 3rd year

1. A Study on the Overseas Outflow of Chinese Rural Labor Force in the Post COVID-19 Era : A Case Study of Labour Migrants from Rural China to Japan

- 2. Household Consumption Behavior: Analysis using data on healthcare
- 3. Development of structural analysis methods for oxidation products of monoterpenes using advanced mass spectrometry
- 4. GalNAc-conjugated helical peptides as hepatocyte-selective carriers

5. A proteomic approach to identify critical cell quality attributes for the manufacturing of human induced pluripotent stem cell-derived cardiomyocytes

**Application Form** 



6. Analysis of the functions of cell adhesion molecules with glycans during maturation of iPSC-derived hepatocytes.

7. A study on interpretability of machine learning models.

8. Ambulance Demand in Yokohama City Using Spatio-Temporal Dynamic Prediction

[Discussions] By Students selected in 2023 (40min)

Theme: Unleashing the Power of Data Science: Harnessing the Potential of Data-Driven Research

[Social gathering]

Social gathering with participating companies and students/faculties

17 students selected for the Yokohama City University Fellowship for Innovative Students with Data Thinking will present their research results in English. \*Japanese simultaneous interpretation available

The Ministry of Education, Culture, Sports, Science and Technology (MEXT) is concerned about the decline of the doctoral program enrollment rate and of scientific and technological competency in the near future. For that reason, MEXT has launched the "University Fellowship Creation Project for the Creation of Science and Technology Innovation".



Yokohama City University was selected for this project in a bottom-up approach, and has lauched the "Fellowship for Innovative Students with Data Thinking "."Innovative Students" are expected to have the knowledge and skills to solve social issues based on data analysis. They cooperate with others beyond the walls of faculties, while contributing to creating new values for the greater future of society.

## Yokohama City University (YCU)

# Fellowship for Innovative Students with Data Thinking

#### Program Name

Fellowship for Innovative Students with Data Thinking

#### • Eligibility: 8 students/Grade (Support up to 3 years)

- Be enrolled in one of YCU's 6 Graduate School's doctoral programs
- Research theme must be "health and social research", and research method must be "data thinking".
- Research has the potential to bring new value to society and induce innovation.

Collaboration between 6 graduate schools Research has a humanities-integrated element and an interdisciplinary element.

\* Not eligible: experienced working adults, other benefit recipients, government-sponsored international students.

### Main Support

- Livelihood support(1.8 million yen/year), Research support (200,000 yen/year)
- Improvement of research ability and Career path support(implementation of lectures, internships, joint research)
- Securing career paths (new role creation, exchange meetings, internship development)
- Implementation of joint research presentation

\*Participation in internships, support courses, research presentations, etc. is compulsory.