Syamil Muharror Ahsanul Husna

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EDUCATION

Master of Science in Chemistry

Tohoku University, Sendai, Japan

The International Graduate Program for Advanced Science (IGPAS) Program. Graduate School of Science, Department of Chemistry. (PI: Kiyoto Kamagata). US GPA: 4.00/4.00

Bachelor of Science in Chemistry

Oct. 2019 - Sep. 2023

Expected Graduation: Sep. 2025

Tohoku University, Sendai, Japan

Advanced Molecular Chemistry (AMC) Program. School of Science, Department of Chemistry. Undergraduate thesis: Elucidating fusion dynamics of FUS droplets using optical tweezers and fluorescence microscopy. (PI: Kiyoto Kamagata). US GPA: 3.50/4.00

RESEARCH EXPERIENCES

Dec. 2021 – Sep. 2023 Undergraduate Research

Takahashi Laboratory, Tohoku University, Sendai, Japan

Single molecular study of biomolecular condensates of DNA-binding protein such as p53 and FUS by using optical tweezers. Kickstarted the project by building the optical tweezers and created experiment protocols to elucidate the coalescence process of target protein droplets. The data analysis was done by developing Python algorithm along with scripts for the image processing software ImageJ.

May – Sep. 2021 Nagatsugi Laboratory, Tohoku University, Sendai, Japan

Development of unnatural base pairs with selective and stable base pairing. Performed 30 organic chemistry synthesis to test new reaction schemes to obtain two new UBPs under various conditions, including anhydrous, oxygen-sensitive, and dealt with organometallic reagents and hazards (especially Sonogashira reaction).

HONORS & GRANTS

Nov. 2023 **Student Presentation Award**

The 61st Annual Meeting of the Biophysical Society of Japan in Nagoya, Japan.

Oct. 2023 – Mar. 2025 MEXT (SGU) Scholarship

Recipient of government annual scholarship for master's covering tuition, entrance fee, and living stipend.

Oct. 2019 – Sep. 2023 MEXT Scholarship for Undergraduates

Recipient of the four years undergraduate government scholarship selected through competitive university entrance screening that covers the tuition, entrance fee, living stipend, and a round-trip plane ticket.

ORAL PRESENTATION

Nov. 2023

Syamil MA Husna, Atsumi Hando, Saori Kanbayashi, Kiyoto Kamagata, "Elucidating fusion dynamics of FUS droplets using optical tweezers and fluorescence microscopy. The 61st Annual Meeting of the Biophysical Society of Japan in Nagoya, Japan.

TEACHING EXPERIENCES

Jul. 2022 – Jan. 2024 English Student Supporter | Miyagi Sendai Daisan High School

Assisting students in improving their communication and research presentation skills in English.

Apr. 2021 – Apr. 2022 Chemistry Tutor Volunteer (Remote) | Ajak Gerak

Taught high school level chemistry in Indonesia.

LEADERSHIP POSITIONS

President | Tohoku University Foreign Student Association (TUFSA) | Sendai, Japan Apr. 2023 – Apr. 2024

> Led the organizational reform of the international student association which had been inactive for three years due to the pandemic by rebuilding it from the ground up.

Responsibilities include managing events, advertising, and contacting sponsors.

Jun. 2023 – Nov. 2023 Leader | Tohoku University International Festival (TUIF) | Sendai, Japan

> Led and coordinated the committee for the biggest international festival in Tohoku region, sold out 1000 tickets to 1500 participants. Responsible for managing the whole

committee to bring success to the festival.

Jul. 2021 – Jul. 2022 Internal Affairs Div. Leader | Indonesian Student Association in Sendai (PPI

Sendai) | Sendai, Japan

Organize bimonthly events for Indonesian students living in Sendai.

WORK EXPERIENCES

Administrative Assistant | GLC, Tohoku University | Sendai, Japan Apr. 2023 - Present

Part-time staff at the Global Learning Center in Tohoku University. Trilingual staff

supporting international students adapting to life in Sendai.

Oct. 2021 - Present Quality Assurance Specialist | ASA Digital | Sendai, Japan

> Test website functionality, identify issues and collaborate with the development team to resolve them. Developed automation codes using Selenium (Python) to increase work

efficiency. (Commission based)

SKILLS & TECHNIQUES

Fluorescent microscopy Programming language: Python Machine/Software:

> Selenium (Python) Confocal microscopy R (Programming Language)

DIC Microscopy

Optical tweezers

Laboratory skills: Organic synthesis Igor Pro

> Cell experiments ChemOffice CAS-SciFinder Protein experiments Single-molecule experiments Adobe Illustrator

LANGUAGES

English (IELTS Band 8.0), Japanese (JLPT N2), and Indonesian (Native)