

様式 A-1  
(FY2023)

2024 年 2 月 10 日

## サイエンス・ダイアログ 実施報告書

1. 学校名・実施責任者氏名: 四天王寺高等学校中学校 土田真貴子
2. 講師氏名: Dr. Syeda Rubaiya NASRIN
3. 講義補助者氏名: \_\_\_\_\_
4. 実施日時: 2024 年 2 月 2 日 (金) 15 : 30 ~ 17 : 30
5. 参加生徒: 中 1 年生 4 人、 中 2 年生 7 人、 中 3 年生 11 人、  
高 1 年生 17 人、 高 2 年生 5 人 (合計 44 人)  
備考: 自然科学部天文物理班 ・ 生物班 の生徒
6. 講義題目: 微小管のメカノトランスダクション機能に関する包括的な理解
7. 講義概要: 1. 講師自身について 2. 講師の母国バングラデシュについて  
3. 研究者になった動機、なぜ海外で研究を行うことにしたのか 4. 自身の研究について
8. 講義形式:  
☒ 対面 ・ ☐ オンライン (どちらか選択ください。)  
1) 講義時間 60 分 質疑応答時間 30 分  
2) 講義方法 (例: プロジェクター使用による講義、実験・実習の有無など)  
プロジェクター使用による講義  
3) 事前学習  
有 ・ ☒ (どちらかに○をしてください。)  
使用教材 \_\_\_\_\_
9. その他特筆すべき事項:  
多くの写真や図、動画を入れたスライドが素晴らしかった。  
わかりやすい英語で、難しい内容には例えを入れたり理解度を確認したりしながら、伝えてくださった。  
研究者としての姿勢や、同じ女性として中高生の教育に貢献したいという気持ちが伝わる素晴らしい講義で、  
とても有難かった。  
質疑応答でも、生徒たちの多岐にわたる質問に、ひとつひとつ丁寧に答えてくださった。

**Form B-2**  
**(FY2023)**  
**Must be typed**

Date (日付)  
05/02/2024 (Date/Month/Year: 日/月/年)

**Activity Report -Science Dialogue Program-**  
(サイエンス・ダイアログ事業 実施報告書)

- Fellow's name (講師氏名): Syeda Rubaiya NASRIN (ID No. P22050 )

- Name and title of the accompanying person (講義補助者の職・氏名)

None

- Participating school (学校名): Shitennoji Junior and Senior High School

- Date (実施日時): 02/02/2024 (Date/Month/Year: 日/月/年)

- Lecture title (講義題目):

SCIENCE DIALOGUE on Rubaiya's Research Achievements

- Lecture format (講義形式):

◆ ☒ Onsite ・ ☐ Online (Please choose one.)(対面 ・ オンライン)((どちらか選択ください。))

◆ Lecture time (講義時間) 60min (分), Q&A time (質疑応答時間) 30 min (分)

◆ Lecture style (ex.: used projector, conducted experiments)

(講義方法 (例: プロジェクター使用による講義、実験・実習の有無など))

Powerpoint presentation using a projector.

- Lecture summary (講義概要): Please summarize your lecture within 200-500 words.

[Introduction]

When I first got the documents confirming my fellowship in 2022 as a JSPS Postdoctoral fellow among many papers I saw a vibrant flyer that was about the event "Science Dialogue" and stated only the phrase "young international researchers introduce Japanese students to the realm of science." I got indulged in my new position and honestly did not look more into it until the JSPS office contacted me in October 2023 with an invitation to talk to Shitennoji High School students. The prospect of engaging with young minds and sharing my journey as a researcher, or rather, a scientist, captivated me. My enthusiasm soared even higher upon learning that the students were all girls. Without hesitation, I accepted the invitation and began preparing my lecture with input from the school's teachers.

[Participants]

About 40 students of the seventh through twelfth grades aged between 11 to 14 years old attended my lecture. They were members of the Astronomy and Physics Club and Biology Club.

[Before the lecture]

A student from the school emailed informing me about the place to meet, where Kajimoto Sensei would meet to escort me to the school on the day of the lecture. She could readily recognize me which she said because of my traditional Bangladeshi wear. The famous Shitennoji temple was full of tourists and visitors at that time and the school appeared lively with young students swarming around. I arrived earlier than the scheduled time so I had a chance to meet the President of the school, Nakagawa Sensei, and the former president, Inaba Sensei. I was taken to the lecture room which was a big room with a projector and two large screens.

[Lecture]

Students started coming in and before time the room was full of students with eager faces and curious eyes. My lecture mostly covered how I established myself as a researcher in science. I talked about my background and culture. I explained what motivated me into science. Using real-life examples I explained the scientific research I am doing in the Active Matter Lab of Kyoto University. Experimentals, results, and discussion- this is how we present our scientific data in the scientific community but for the young high school students I broke every part of science and tried relating them with our life experiences. I explained the effect of mechanical deformation of the tracks of intracellular transport, microtubules, on the transport of cargo by molecular motor proteins. The students appeared thoroughly interested in my lecture, they even laughed at some points with me. I finished my talk by highlighting how important is for the girls to join the scientific community and what they can do if they want to become scientists.

[QA session]

I was in awe looking at the depth of the questions the students asked. They inquired not only about my research and interests but also sought guidance for their future career aspirations.

[Conclusion]

The day ended with a delightful memory of taking photographs with the students under the *Torii* gate of the Shitennoji temple. Some students came with me to the subway station to say their goodbyes. The parting words of Madoka-chan, a participant in my lecture, lingered in my mind: "See you later at a conference!" Her statement felt like a compliment, making me realize that I may have inspired her to pursue science and achieve her aspiration of becoming a "scientist."

◆Other noteworthy information (その他特筆すべき事項):

The students were impressively good in English. This helped communicate. Their English teacher was also at the lecture in case the students required assistance in speaking English.

- Impressions and comments from the accompanying person (講義補助者の方から、本事業に対する意見・感想等がありましたら、お願いいたします。):