

2024 年 5 月 9 日

## サイエンス・ダイアログ 実施報告書

- 学校名・実施責任者氏名: 奈良県立青翔高等学校・青翔中学校 谷垣 徹
- 講師氏名: Dr. Rizki Tsari ANDRIANI
- 講義補助者氏名: 水谷 夏希 氏
- 実施日時: 2024 年 5 月 9 日 (木) 15:30 ~ 17:30
- 参加生徒: 1 年生 7 人、 2 年生 9 人、 3 年生 2 人 (合計 18 人)  
備考: 理数科の生徒
- 講義題目: 光活性型アミノ酸を用いた GABA・グリシン受容体の脂質による制御機構の解明
- 講義概要:
  - 講師による自己紹介とクイズ(出身国、研究者としての経歴等)
  - 研究者を志すきっかけ
  - 研究テーマに関する英語での講義
  - 質疑応答
- 講義形式:  
☒ 対面 ・ ☐ オンライン (どちらか選択ください。)
  - 講義時間 80 分 質疑応答時間 10 分
  - 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 実験・実習: 無し
  - 事前学習  
☒ 有 ・ ☐ 無 (どちらかに○をしてください。)  
使用教材 教員が作成したプリント(研究要旨(英語・日本語)、語彙リスト、参考動画)
- その他特筆すべき事項:

講師の先生は、事前のメールでの連絡、資料提供から、非常に丁寧に対応してくださりました。出身国の紹介、研究者としての経歴、研究概要のレクチャー、いずれにおいても、生徒の興味を引くよう工夫してお話してくださり、本当にありがとうございました。以前は同様の講義を中学生対象にされたこともあるとのことで、日本の生徒たちの理解度合いを良くご理解いただいたうえでご準備いただいていると感じました。参加した生徒たちも大変喜び、熱心に学んでいました。

Form B-2  
(FY2024)  
Must be typed

Date (日付)  
20/05/2024 (Date/Month/Year: 日/月/年)

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

- Fellow's name (講師氏名): Rizki Tsari Andriani (ID No. P22384)

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

Dr. Natsuki Mizutani

- Participating school (学校名): Nara Prefectural Seisho Junior and Senior High School

- Date (実施日時): 08/05/2024 (Date/Month/Year: 日/月/年)

- Lecture title (講義題目):

JSPS Science Dialogue: Science and Research

- 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) 60 min (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))

Used projector and also slide media containing self-made video

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

To meet the school's requirements, like last time, I divided the lecture into four sections: (1) Self-introduction, (2) Introduction about my home country (Indonesia), (3) Insights into my journey towards becoming a scientist (including motivations for pursuing this career and conducting research abroad), and (4) Introduction to my research.

In the initial part, I presented an overview of my background, detailing my education and briefly discussing my experience in a one-year student exchange program during my undergraduate studies. In the second section, I introduced Indonesia, including my hometown (Bandung), and arranged some quizzes about the country for the ice-breaking session. To motivate their participation, I provided Indonesian souvenirs to students who courageously answered the questions.

In the third section, I recounted my personal journey that led me to pursue a career in science with the aim of inspiring students who share an interest in science and aspire to become scientists themselves. Additionally, I outlined specific factors that drive my research pursuits abroad, some of which are particularly relevant to individuals from developing countries. This was done to provide students with insights into situational disparities and offer perspective on the

varying motivations for research, especially in different global contexts.

Finally, I presented my research project. This part of the lecture covered introductions to scientific concepts such as excitatory and inhibitory neurotransmission, ligand-receptor interaction, neurotransmitters, and ligand-gated ion channels. I added more concepts and details because this time the audiences are highschool students. The aim was to provide students with a comprehensive understanding of the background that underlies our research direction and its future potential. In some parts, the lecture required more complex scientific terms, my colleague, who accompanied me, assisted by providing an extra explanation in Japanese and this makes the students understand better. Moreover, I elaborated on the methodologies employed in my research through additional concept introductions. To enhance comprehension, two videos were showcased, illustrating the laboratory work conducted and the outcomes obtained from these experiments.

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

We were warmly welcomed by the highschool principal, the staff and the students. Before the ice-breaking session, the students are rather shy but gradually they enthusiastically engaged in the lecture, showcasing more active participation. Q&A session was done privately as students come to me in groups or individually to thank me directly for the lecture or to ask questions. Moreover, I deeply appreciate the students' courage in which getting better gradually towards the end of the lecture. One of the things that touch me deeply was that one student came to tell me that he was inspired by my lecture and would consider being a scientist for his future. Hearing such remarks from the students warms my heart.

- Impressions and comments from the lecture assistant (講義補助者の方から、本プログラムに対する意見・感想等がありましたら、お願いいたします。):





## JSPS Science Dialogue

Rizki Taari Andrian  
JSPS Postdoctoral Research Fellow  
Integrative Physiology, Graduate School of Medicine, Osaka University  
(大阪大学 大学院医学系研究科 統合生理学教室)

Nara Prefectural Seisho Junior and Senior High School  
May 9th 2023