

様式 A-1

2026 年 7 月 6 日

サイエンス・ダイアログ 実施報告書

1. 学校名: 愛知県立瑞陵高等学校
2. 講師氏名: Dr. Sreynich PRING
3. 講義補助者氏名: 芦田 晃
4. 実施日時: 2026 年 6 月 30 日 (火) 13:15 ~ 15:05
5. 参加生徒: 理数科 2 年生 39 人 (合計 39 人)
備考: (例: 理数科の生徒)
6. 講義題目: Research theme "Plant disease resistance" "How do plant cells induce disease resistance"
7. 講義概要: 母国の紹介、現在までのキャリア形成、研究内容
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 50 分 質疑応答時間 50 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)
プロジェクタ使用による講義
3) 事前学習
☒有 ・ ☐無 (どちらか選択ください。)
使用教材: 講師から事前に送ってもらった講義要旨の講読
9. その他特筆すべき事項:
とても熱心に講義をしていただきました。母国での高校時代の話から、日本の支援を受けて大学→大学院と進んで勉強を続けてこられた過程など、他国の教育の状況なども知ることができました。また、質疑応答では生徒の様々な質問にも丁寧にお答えいただき、とてもよい時間となりました。また講義補助者の芦田さんから、研究内容に関わる学術的な部分の解説など、細かい点で助けていただきました。ありがとうございました。

Form B-2

Date (日付) 14/06/2026

(Date/Month/Year: 日/月/年)

Must be typed

Activity Report -Science Dialogue Program-

(サイエンス・ダイアログ 実施報告書)

1. Fellow's name (講師氏名): PRING Sreynich (ID No. P25426)
2. Name and title of the lecture assistant (講義補助者の職・氏名) Mr. Ashida Akira
3. Participating school (学校名): Zuiryo High School
4. Date (実施日時): 30 June 2026 (Date/Month/Year: 日/月/年)
5. 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) around 80 min (分), Q&A time (質疑応答時間) around 25 min (分)
 - ◆ Lecture style (e.g., 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))
6. Lecture title (講義題目):

How do plant cell induces disease resistance

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

The lecture began with an introduction to my home country, Cambodia. I introduced several aspects of Cambodian culture, including traditional dance, Khmer cuisine, and the world-famous UNESCO World Heritage Site, Angkor Wat. I then shared my academic background and international work experience. I also explained why I became interested in agricultural science and plant research.

To encourage student participation, I asked several introductory questions, such as: What do you know about plants? How do plants grow? How do they sense and respond to their surrounding environment? How do they protect themselves from pathogen attacks?

Afterward, I introduced the main topic of my research: how plant cells perceive pathogens, activate their immune systems, and defend themselves against infection. I explained that plants can recognize small molecules released by pathogens before or during infection. These molecules are known as pathogen- or microbe-associated molecular patterns, or MAMPs.

During infection, plant cells may also become damaged and release molecules such as oligosaccharides. These damage signals are called damage-associated molecular patterns, or

DAMPs. Both MAMPs and DAMPs are important molecules that can activate plant immune responses after they are recognized by receptors located on the plasma membrane of plant cells.

My research focuses on how plant cells recognize DAMPs and how this recognition induces immune responses and enhances disease resistance. I also presented some of my laboratory and greenhouse experimental results and explained how the experiments were conducted.

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

This program was one of the most meaningful experiences I have had in Japan. As it was my first time giving a lecture to high school students, I was very happy to interact with such friendly and enthusiastic students. I believe this program is an excellent opportunity for young students to meet kind of real researchers and learn about advanced scientific topics. I sincerely hope that the program will continue and expand in the future.

9. 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。):

