

Form B-2  
(FY2022)  
Must be typed

Date (日付) 20 / 10 / 2022  
\_\_\_\_\_  
(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): Issara KAWEEWAN (ID No. P21095 )
- Name and title of the lecture assistant (講義補助者の職・氏名)  
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- Participating school (学校名): Shizuoka Prefectural Mishimakita Senior High School
- Date (実施日時): 19 / 10 / 2022 (Date/Month/Year: 日/月/年)
- Lecture title (講義題目):  
Microorganisms in our daily life
- 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))  
Projector, Poster
- Lecture summary (講義概要): Please summarize your lecture within 200-500 words.

The contents of my lecture include personal introduction, my background, my home country (Thailand), my academic history, my interest, introduction to Microbiology, Microbiology in everyday life, importance of microorganisms, my research in Japan, my passion and future plan. The living things on earth can be classified into 2 groups, the visible things and the invisible things. Two-thirds of life on earth is the invisible things called 'Microorganisms' or 'Microbes'. Microbes are living organisms that are too small to be seen without a microscope. They include bacteria, virus, fungi, archaea, protozoa and algae. Microbes can be found everywhere on earth such as soil, water, air, plant, rock, glacier and volcano. Some microbes live in our bodies. Some are dangerous, but most are useful. Some bacteria and virus cause infectious diseases. However, the good microbes help digest foods and protect us from pathogens. Some foods are made by microbes. Yeast named *Saccharomyces cerevisiae* is used for making bread, beer and wine. Lactic acid bacteria are used for making cheese, yogurt and probiotic milk. Acetic acid bacteria are used for making cider and vinegar. There are many Japanese fermented foods. Shoyu and

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Miso are made by fermentation of mold named *Aspergillus oryzae*, also known as Koji, yeast, and lactic acid bacteria. Natto is made by mixing soybean with bacteria named *Bacillus subtilis*. Microbes are important sources of antibiotics. The first antibiotic, Penicillin, was discovered from fungi named *Penicillium* sp. Several antibiotics, such as streptomycin, vancomycin and tetracycline, were discovered from soil bacteria named *Streptomyces* sp. Therefore, study of microbes is very important. A scientist who studies microbes called Microbiologist. Microbiologist focus on the identification of microbes in order to understand their characteristics, to prevent, diagnose and treat infectious diseases.

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

- Impressions and comments from the lecture assistant (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。):