

様式 A-1
(FY2024)

令和6年7月17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: 学校法人池田学園 池田高等学校 小田 紘史
2. 講師氏名: Dr. Ghoson DABA (Ms.)
3. 講義補助者氏名: 寶珠山 花歩(当日、体調不良のため欠席)
4. 実施日時: 令和6年 7 月 17日 (水) 10:40 ~ 12:25
5. 参加生徒: 高校2年生 32人、 高校1年生 13人、 中学3年生 8人 (合計 53人)
備考: 高校2年生は理系クラスの生徒、高1・中3は希望者
6. 講義題目: バクテリシオンの機能改変による菌種特異的抗菌ペプチドの創出
7. 講義概要: 出身国の紹介、自身の研究内容に関する講義等
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 80 分 質疑応答時間 20 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 ・ ☐ 無 (どちらかに○をしてください。)
使用教材 講師が事前に作成したアブストラクト
9. その他特筆すべき事項:
 - ・講義補助の方は、当日体調不良のため欠席されました。
 - ・公共交通機関(バス)減便のため、適切な時間のバスがおらず、公用車にて送迎を行いました。

Form B-2
(FY2024)
Must be typed

Date (日付)
18/07/2024 (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): Ghoson Mosbah Abdelkarem Daba (ID No. P23386)

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

Ms. Kaho Houshuyama

- Participating school (学校名): Ikedagakuen Ikeda junior-senior high school

- Date (実施日時): 17/07/2024 (Date/Month/Year: 日/月/年)

- Lecture title (講義題目):

Applications of science in our daily life: Importance of useful bacteria, probiotics and their role as natural preservatives

- 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) 75 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

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

Lecture started with self-introduction and general information about my country, Egypt. Then, discussing importance of learning English followed by showing how being interested in science has led to achieving my goal. Additionally, explaining how science encourages us to study our surroundings, find ways to get benefit from them, serves humanity and helps in understanding what happen around us. For example, understanding why foods spoilage happen and how to prevent it. Explaining how there are many organisms that can't be seen by naked eye which are called microorganisms such as bacteria. Bacteria can be harmful and cause food spoilage and diseases. Also, bacteria can be useful because they produce useful products such as antibiotics. Here, the lecture focused on useful bacteria and their applications in our daily life.

Food spoilage happens due to the growth of harmful microorganisms that's why food and dairy products companies add chemicals to food to prevent its spoilage. These chemicals are known as preservatives and have many harmful effects. Nowadays, consumers become aware of these harmful effect and demand for natural alternatives to preserve food. Many safe and useful bacteria can kill other harmful bacteria through producing special compounds known as bacteriocins. Bacteriocins are natural harmless to human and it is hard on harmful microorganisms to develop resistance against them. So these useful bacteria or their bacteriocins can be used as natural food preservatives. Now, we can see in the market many of the products preserved using these natural preservatives. On the other hand, our gut carry different types of bacteria and the balance between them contributes in our health or sickness. Some of these bacteria (known as probiotics) have beneficial effect on our health. Hence, many food and dairy products companies have introduced these probiotics bacteria to many products you can know see and buy in the market. It's wonderful how we can employ science for the serve of humanity. The lecture was ended by giving advices about how to achieve your goal to be a scientist and the importance of learning English and computer skills.

◆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。):

Not applicable.



SCIENCE
DIALOGUE 2

ありがとうございます

Thanks for your attention

Questions are welcome

Dr. Ghoson Daba
JSPS fellow
Graduate school of Bioresource and Bioenvironmental Sciences,
Kyushu University,
Fukuoka, Japan.

JSPS

池田 宇園