

(For JSPS Fellow)

Form B-2  
(FY2018)

Date (日付)

18/11/27 (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): Hasan Mohammad Mahadi (ID No. P18097 )
- Participating school (学校名): Tokushima Prefectural Jonan High School
- Date (実施日時): 2018/11/21 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): Faint electric treatment based cytoplasmic drug delivery system
- Name and title of your accompanying person (講義補助者 職・氏名)  
Kentaro Kogure (Professor)
- Lecture format (講演形式):  
◆Lecture time (講演時間) around 40 min (分), Q&A time (質疑応答時間) around 60 min (分)  
◆Lecture style (ex.: used projector, conducted experiments)  
(講演方法 (例: プロジェクター使用による講演、実験・実習の有無など))  
Used projector
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

It was a great experience to participate Science Dialogue Program. My lecture for this program was divided into two parts. First part was an introduction to my country, Bangladesh. Here, I explained regarding the geography, population, language, brief history, religious diversity, cultural activities, foods, seasonal views, and famous tourist destinations of Bangladesh. I also introduced some Bangladeshi scientists with their inventions, Nobel laureates, top research and educational institutions in Bangladesh, my educational background, and ambitions. In second part of lecture, I talked about faint electric treatment based cytoplasmic drug delivery system. Here, I focused on cytoplasmic delivery of nucleic acid medicine small interfering RNA (siRNA). To make easier to understand, I explained about cell, intracellular organelle and genetic materials of cell, and how cell performs its biological functions. Then, I explained regarding the mRNA as the potential target for the treatment of several diseases. Following this, I introduced siRNA as a nucleic acid medicine that can inhibit target mRNA expression in cells by inducing RNA interference (RNAi) mechanism. Next, I described about barriers and difficulties of naked siRNA delivery into the cytoplasm of cells, and some conventional delivery systems with their limitations. Finally, I explained faint electric treatment (fET) technology, its application process, and how it induces cytoplasmic delivery of siRNA. During the Q & A session, students asked me many questions. Therefore, I am confident that students understood and enjoyed my lecture.

- Overall advice or comments to future participants in the program (今後の講師へのアドバイス):  
Please perform your presentation slowly. If possible, please communicate with school staffs to confirm about their plan in advance.
  
- Other noteworthy information (その他特筆すべき事項):  
Staffs of Tokushima Prefectural Jonan High School were very cordial and students were very curious. I would like to thanks to all stuffs and students. I am grateful to my accompanying person Professor Kentaro Kogure for his time and co-operation.
  
- 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。)  
Professor Kogure think that my lecture was good and enjoyable.