

(For JSPS Fellow)

Form B-5

Date (日付)

26/09/2017 (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): CARMEAN Christopher (ID No. P16418)

- Participating school (学校名): Akashikita SHS

- Date (実施日時): 26/09/2017 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): Chronic Arsenic Exposure Impairs Pancreatic Beta-Cell Function
(in Japanese) ヒ素の長期曝露による膵β細胞機能障害

- Lecture summary (講演概要): Please summary your lecture 200-500 words.

I spent the first 15-20 minutes of the lecture discussing my path from the US to Japan, starting with my high school interests. I described my exploration of other careers and work experiences along the way. We had a brief question and answer session about my personal history. Then, I discussed glucose homeostasis. In this section, I explained the normal ways that the body controls blood sugar levels, and then I went into basic details about how diabetes occurs and what happens to blood sugar and circulating insulin during diabetes, contrasting it with those in healthy adults. I then continued with some additional background information covering arsenic as a natural contaminant of water in many locations throughout the world, water born diseases brought about by drinking untreated surface water, and some clinical studies conducted by other researchers that link chronic arsenic exposure to diabetes. Then, I discussed some specific data from my research. In the course of describing these data I tried to place everything in the context of the scientific method and provide an orientation relating the research to solving the human problems that we had observed. I tried to connect the use of cell lines and animal models to the original human diseases as well, though I placed less emphasis on this. Finally, I concluded with an explanation of why I love science and why I think it's a great career.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 75 min (分), Q&A time (質疑応答時間) 20 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 a projector and Microsoft PowerPoint slides.

◆Interpretation (ex.: assistance by accompanied person, provided Japanese explanation by yourself) (通訳 (例: 同行者によるサポート、講師本人による日本語説明))

_____ Ito-sensei, an instructor at the school, translated for me _____

◆Name and title of accompanied person (同行者 職・氏名)

_____ I was not accompanied by someone from my laboratory _____

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

- Impressions and opinions from accompanied person (同行者の方から、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。):