

(For JSPS Fellow)

Form B-5

Date (日付)

16/10/2017 (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): Deschoenmaeker (ID No. P16798)

- Participating school (学校名): Tokai University Shizuoka Senior High-school (東海大学付属静岡翔洋高等学校・中等部)

- Date (実施日時): 14/10/2017 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Cyanobacteria – Organisms from Yesterday, today and tomorrow

(in Japanese)

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

Before the arrival of students, I had the opportunity to discuss with Miss Shinagawa Azusa and her colleagues, and prepare all the materials required for this JSPS dialogue. The lecture started after that Azusa Shinagawa introduced me to the students. At first, I explained the 2 main parts of my talk (A: Japan, Belgium and I; B: Cyanobacteria – organisms from yesterday, today and tomorrow). The first part focused on myself (Who I am?) and my country (Where do I come from?), Belgium, and its culture. I emphasized the similarities between our both countries and the fact that many Japanese people visit Belgium every year. As in Japan, famous monuments, foods (e.g., chocolate and fries) and drinks (e.g., beers) gather people enjoying their life. I tried to explain that, even the distance (almost 10,000 km) we are quite similar. I also spend few seconds on the relationship between Japan and Belgium, which celebrated their 150 years of friendship last year. After that, I explained why I am a scientist and pointed out that curiosity is my motive force to discover our world and the surrounding life. After explaining my relation to Science, I introduced cyanobacteria as key organisms in the history of Earth and in our daily life. Indeed, cyanobacteria have been predicted to appear about 3 billion years ago and enriched the primitive atmosphere with oxygen thanks to their sophisticated metabolism (i.e., photosynthesis). I then explain those organisms display a plethora of applications from medicine fields (e.g., cancer treatment) to domestic life with the production of biofuels. In this context, I explain my previous research and collaboration with the European Space Agency and their project to send

people in space by using cyanobacteria. I exposed the benefits and the present challenges to succeed such kind of projects. To close my lecture, I explain our collaborative work in Japan as a JSPS postdoc and I exposed an easy example of scientific results. Before closing this JSPS dialogue, I invited students to observe cyanobacteria by microscope and to drink a beverage containing a powder of microalgae as I emphasized that some cyanobacteria are edible and constitute an opportunity to fight malnutrition.

After each part, students were invited to react and ask any questions they wanted (in English or in Japanese).

- Language used (使用言語): English (with Japanese translations and explanations when required)

- Lecture format (講演形式): PowerPoint presentation

◆Lecture time (講演時間) ±40 min (分), Q&A time (質疑応答時間) ±15 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, observation of cyanobacteria (microscopes), tasting a beverage containing microalgae

◆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))

Assistance by accompanied person

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

Dr. Nomata Jiro, assistant professor

◆Other noteworthy 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。):

Form B-6

Questionnaire

Please fill out the following questionnaire so that we can take advantage of your impressions in enhancing the JSPS Science Dialogue Program.

1. What prompted you to decide to participate in the "JSPS Science Dialogue" program?

I decided to participate as I already had this experience in Belgium, and I wanted to find the differences between the educational systems between Belgium and Japan. In addition, this kind of events is always welcome to strengthen my experience as a young scientist and my communication skills.

2. To what did you give greatest attention in preparing and giving the lecture?

I gave the most attention to make it understandable for high-school students, who normally don't have a strong experience with science (and limit knowledge of scientific English, which is quite specific).

3. Did you find it difficult to give a lecture in English to Japanese students? Could you give some advice to future lecturers on how to facilitate communication with Japanese students?

The most difficult was the preparation of the lecture itself to make it understandable (see point 2). Giving the lecture has no difficulties as I was accompanied by a native Japanese (Mr. Nomata). However, he explained in Japanese the most advanced part (2 slides about my previous research) right after I did in English. This could ensure that this point has been understood by all of them and they could enjoy how cyanobacteria are helpful for space flight.

4. Could you give your impression with regard to participating in this program?

I enjoyed this lecture as I could compare with what I already did in Belgium. Also, it was nice to exchange with Japanese teachers from high school.

5. Was it meaningful in terms of your fellowship activities?

As a personal point of view, this kind of events helps to make a postdoc with a complete experience.

6. In what ways do you think the students benefited from the program?

I think this can open their mind to what is done abroad. And, this is for sure their first step in the real science with international collaborations.

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7. Could you give some overall advice or comments to future participants in the program?
Think and communicate as simple as it is possible for making yourself clear.