

(For JSPS Fellow)

Form B-2
(FY2018)

Date (日付)
17/12/2018 (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): Petya Stoykova (ID No. 17748)
- Participating school (学校名): Shiga Prefectural Hikone Higashi High School
- Date (実施日時): 13/12/2018 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): Monitoring of organic pollutants in agricultural field using transgenic plants
- Name and title of your accompanying person (講義補助者 職・氏名)
Kentaro Fujita, Master student
- Lecture format (講演形式):
 - ◆Lecture time (講演時間) 60 min (分), Q&A time (質疑応答時間) 15-20 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 laptop and projector
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

Before starting the presentation I and my accompanying person were allowed to visit the Biology classes of the students and had an overview of their current experiments which they explained to us and asked for recommendations.

I initiated my presentation with information about my home country and myself, also making parallel between Bulgaria and Japan on some indicators which I considered might be of interest to the students.

I proceeded with providing general explanation on the topics within my research area, mainly organic pollutants, such as persistent organic pollutants (POPs) and environmental contamination, trying to clarify these issues not only for the sake of the lecture, but also because POPs are of a real concern worldwide, and in Japan as well. Then, I discussed the methods for detection of POPs – common generally used method, and alternative bioassays using living organisms as is in our case. Genetically modified plants are another hot topic, widely discussed and controversial part of our day life that is of major importance and one should be aware of what this exactly means. Therefore, I explained in detail the process of development, application and useful traits of GM crops that are already on the market, and then more specifically clarified the monitoring GM plants

I work with in Japan and the way their recombinant genes function in order to be applicable to detect organic pollutants.

Finally, after providing general knowledge necessary to comprehend the purpose and mechanism of our work, I focused on one of our experiments for detection of POPs in laboratory conditions and elucidated it in detail to make it easy for high-school students to understand it and to interpret the results.

- Overall advice or comments to future participants in the program (今後の講師へのアドバイス):

I would recommend to the JSPS fellows participating in the Science dialog program to do their best to explain first the idea, the reason and applicability and final purpose of their research, because in this way high-school students receive general and important knowledge which they can use in creating their own experiments during education, or become interested in, for a future orientation, selection of an appropriate university or Master course program, etc. Also, during the presentation it is better to speak slower and use simple words.

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

In my opinion it would be helpful if the JSPS fellow sends its presentation together with some additional materials (a glossary of the terms used in the lecture) in advance and lets the high-school students read them first.

- 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。)

It was very useful that I arrived at the high-school with one of my colleagues who helped in the most difficult parts of the presentation with explanation in Japanese and with interpretation of some of the students' questions.