

(For JSPS Fellow)

Form B-5

Date (日付)

10OCT2014 (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): Jonas Schluter (ID No. PE14002)

- Participating school (学校名): Gunma Prefectural Takasaki Girls' High School (Takasaki-city, Gunma)

- Date (実施日時): 3 OCT 2014 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) An introduction to the evolution of cooperation – Understanding evolution in bacteria is important for human health.

(in Japanese) 協力の進化入門—微生物の進化と我々の健康の深い関係

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

I first presented where I am from, my home country Germany and it's school system, then my path through higher education that allowed me to live in many different countries and meet people from all over the world. This was intended to emphasize the importance of learning English and make students excited in visiting the world. During the second hour I gave an introduction into the mechanisms of evolution, introducing some key challenges that we can tackle using theory, for example the problem of evolving cooperation when cheaters can lead to the break down of cooperative systems. Then I more specifically presented a real world example of such a dilemma for the evolution of cooperation: the apparent mutualism between human hosts and microbes in the gut. I briefly explained the computer model I created and showed one key result. This has then led to the conclusion of my presentation where we interactively discussed the philosophy of science (i.e. falsifiability) and students were very interested to learn that we can usually never prove a theory in science but instead work by disproving previous theories. This has captured the attention not only of those students interested in science but also some that were generally more curious about other subject. It was nice to be able to teach this fundamental concept of science to students as I would have wished to be taught such things by real scientists during my time in high school.

- Language used (使用言語): English, with occasional Japanese translations of key terminologies.

- Lecture format (講演形式):

◆Lecture time (講演時間) 2 x 45 min (分), Q&A time (質疑応答時間) 15 and 30 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))

projector, modern presentation tools (prezi)

- ◆ 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))

Dr Hisashi Ohtsuki accompanied me and helped translate some key concepts

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

Dr Hisashi Ohtsuki

- ◆ 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。):

I highly appreciate this occasion, because students open up their eyes to the world and to advanced sciences. Lecturers also benefit through communication with interested students. It was indeed fun. A key to success is to adjust English level properly; if lecturer's English is too difficult/fast, few students would understand, but if lecturer's English is too easy, students would find it boring.