

(For JSPS Fellow)

Form B-5

Date (日付)

18/11/2013 (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): JONGKEES, Seino (ID No. P13026 )
- Participating school (学校名): Jr & Sr High School at Komaba, University of Tsukuba
- Date (実施日時): 16/11/2013 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): (in English) Panning for gold: Selection of catalytic peptides using the RaPID system  
(in Japanese) (No title used, not applicable)

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

Lecture divided into two parts, one on myself and my country and a second on working as a scientist and my work specifically. The first section, on New Zealand and my education, started with some more interactive slides, pointing out some similarities between New Zealand and Japan. The similarity between Mt. Fuji in Japan and Mt. Taranaki in New Zealand was used as a joking test of students ability to recognise a national symbol of their country, intending to 'break the ice' and make students more comfortable speaking up during the lecture. This was followed by a second slide with a similar aim, talking about New Zealand place names and the similarities in pronunciation of New Zealand's second official language, Maori, and Japanese. Following this, the talk proceeded to cover some history of New Zealand, both on a human and geographical time scale, to introduce the unique flora and fauna of New Zealand, and talk briefly about the main population centres and lifestyle in New Zealand. This then lead into a few slides outlining my educational history, and the strengths and weaknesses of the educational institutions I have attended.

Following a short break, with a quiz format to again encourage students to speak up and interact, the second part of the talk focussed on science. Initially some general points about science and the lifestyle of a scientist were covered, before moving into some details about the work done by my host laboratory, and what I personally intend to do here. As it was difficult to gauge the level of science education and interest beforehand, these last few points were covered in fairly light detail, trying to give an overview of our work and goals without overwhelming the students. The talk covered the basics of protein translation, cell-free protein expression, the use of non-natural amino-acids in such a system, and selection of active peptides by an RNA-tag system, using an analogy to panning for gold. A few representative results were shown for context, with a focus on the concepts rather than the details, and an outline of how I plan to adapt such a system to select

for catalytically-active peptides. The talk concluded with a slide containing three suggestions for improving the students' English language ability, focusing on spoken English, attempting to provide another perspective on English study, and language acquisition in general.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 80 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 projector, short quiz as a break in the middle, interactive as much as possible

◆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))

Accompanied by colleague, who had previously attended the same school, but no Japanese explanations required as English level was very good. Provided assistance in encouraging students to participate, especially in question session when students were initially shy. Host teacher also provided support in this area.

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

Mr. TSUNODA, Shotaro (角田 翔太郎), Masters course student

◆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 think this program is a very good opportunity for the high school students to communicate with people in English, who generally have very little chance to do so. One thing I noticed was that it will be helpful for students if there is a casual "communication" time for 10 to 20 minutes after the lecture. It should be much easier for them to say something in English compared to Q&A time.