

(For JSPS Fellow)

Form B-5

Date (日付)

2011.11.16 (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): (ID No. P10064) James Cannon

- Participating school (学校名): Shizuoka North High School

- Date (実施日時): (Date/Month/Year: 日/月/年) 11/11/2011

- Lecture title (講演題目): (in English) Nanotechnology: from single molecules to the world at large

(in Japanese)

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

In the lecture I focused on three different areas. Firstly I described my research, both in terms of the overall motivation and importance of the research, as well as the details of the work that I do using simulations. I based this part of the talk on two specific areas of my research; namely water osmosis and hydrogen storage. This allowed me to discuss a range of different motivations, aims and technologies connected to the research. In the case of osmosis this included the unusual nature of water and its importance in the world and life, as well as carbon nanotubes and their use in this context. In the case of hydrogen storage this included themes such as pollution and again, the application of carbon nanotubes in this respect. The second part of the lecture concerned life as a researcher in general, explaining to the students what the advantages of being researcher are, what traits help to be a scientist, and what type of life they could expect should they decide to pursue a career in this direction. Finally I talked about life in the UK and made some comparisons with Japan, focussing in particular on themes such as geography, the nature of the population and food. This was particularly timely, since the students were due to make a trip to the UK for studying English during the next week.

- Language used (使用言語): English

- Lecture format (講演形式): Lecture, questions

Lecture time (講演時間) 60 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))

Projector, blackboard, some experimental demonstration

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))

Assisted by an accompanying person _____

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

Mr. Takuma Shiga _____

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。):

本プログラムに参加する前は、講演後の質疑・応答が十分にあるのか？また高校生がどのように反応してくれるのか？に対して少し不安な部分がありました。静岡北高校の先生方も、この点に留意して下さり、事前に James 博士が発表される内容を学生に通知した上で、質問内容を考え、講演当日に質問があるように準備して頂きました。

講演後は、始めこそは質問に躊躇するような様子を見せておりましたが、段々と自発的な質問が増え、最終的には、多くの生徒が質問に来られました。これは我々や高校の先生方も予期を上回る好評ぶりでした。さらに、連絡先を交換し、メールベースで色々と質問をしたいという要望もありました。

私個人の意見ですが、高校生が実際に各機関の現役研究者と直接ディスカッションできる良い機会が本事業によって得られることは大変重要だと思います。今後はこれに加えて、講演後の定期的な連絡のやり取り等々も本事業でフォローしていただければと思います。