

Form B-5

Date (日付)

15 Jan 2014 (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): Magda Matouskova (ID No. P13753)

- Participating school (学校名): Kariya High School

- Date (実施日時): 11 Jan, 2014 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Koala retrovirus

(in Japanese) コアラレトロウイルス

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

My host made some introduction about viruses in Japanese.

Then I introduced myself and explained that I am staying for one year in Japan thanks to the support of JSPS. Then I introduced my home country, Czech Republic. I spoke about language, history, culture and I was comparing Czech and Japan. I also mentioned famous Czech scientists.

Next I presented my motivation why I decided to be a scientist. I made an introduction into molecular biology, described various elements in our genome, and explained what endogenous retrovirus.

I presented that retroviruses are viruses that enter the host cell and then incorporate into the host DNA. They become part of cellular DNA and look like a normal host gene. Then it can start to replicate and produce many viral particles or it can wait invisible in the DNA and wait until the conditions are convenient. The most famous retrovirus is HIV causing AIDS. Endogenous retroviruses are traces of old retroviral infections. In past the retrovirus infected the germ cells (sperms or egg) and then it became part of the genome of the host children and of the genome all future generations. Eight percent of human genome is formed by the rests of endogenous retroviruses.

Finally, I explained why I study the koala endogenous retroviruses. Koala retroviruses became endogenous rather recently and it is not present in all koalas. Understanding retrovirus endogenisation is very important for understanding the genome evolution. Also some of koala retroviruses cause diseases and endanger koalas and we would like to help koalas to survive, particularly to koalas in Japanese ZOOS.

In the end I asked the students some questions to make them think about the topic in details and to find out if they understood. With help of my host they understood everything and they answered even rather complicated questions.

After the lecture students asked many questions about retroviruses and evolution.

- Language used (使用言語): English _____

- Lecture format (講演形式):

◆Lecture time (講演時間) 120min (分), Q&A time (質疑応答時間) 60 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 _____

◆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)

_____ Associate Professor, Takayuki Miyazawa _____

◆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。):

大変楽しく授業をすることができました。また、熱心な学生の前で発表することはたいへん刺激になりました。

このプログラム(サイエンスダイアログ事業)は、高校と大学双方にとってメリットがあると思います。

また、高校生の勉学へのモチベーションを高めるには、研究者の夢を見せることが重要だと思います。

できれば、私たち側(大学側)からも売り込みに行きたいのですが、それができないのが残念でなりません。

大学やJSPSの海外ポスドクの側から、どのようなプレゼンテーションができるかどうかあらかじめ登録し、そこから高校が選ぶ形式にしては如何でしょうか？