

(For JSPS Fellow)

Form B-5

Date (日付)

19/06/2012 (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): Christopher John Hipolito (ID No. P11344)

- Participating school (学校名): Tsuru High School

- Date (実施日時): 18/06/2012 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Using "in vitro" selection for cyclic peptide inhibitors of multidrug transporters

(in Japanese)

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

The talk had 4 major parts with Q&A after each part:

(1) Introduction to Canada

I showed pictures of Canada and presented some facts about the climate and my previous university. I also showed how Japanese culture has influences Canada and my decision to come here.

(2) Introduction to the science

I showed the goal of my science, which is drug discovery. These drugs could be used to treat common and potentially life-threatening ailments. I opened this section with the use of lego as a building material not originally meant for repair or any sort of practical use. However, people have found novel and even practical uses for Lego. I used that as an analogy for our natural building material of amino acids and peptides. Just as Lego evolve with the inclusion of smaller, more interesting pieces for older, more capable children, our translation system was augmented with new, more interesting chemically-syntesized amino acids.

(3) The technology used

I showed how we took the simple concepts of manipulating biomolecular building blocks to create potential drugs. Using the biological system of translation, which they were learning that day, I showed how we identify potential drug candidates. I showed how *in vitro* selection can be performed on a time scale of a few days or weeks. I finished with some data showing how my selected peptides do their intended function by making bacteria unable to pump out drugs.

(4) Conclusion

I gave my own thoughts and advice on how they should think about their studies and science. Also, I encouraged them to work hard on their English because it could open up many opportunities for them.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 90 min (分), Q&A time (質疑応答時間) 10 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, used Lego and iPad

◆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)

Kenichiro Ito, DC1 student

◆Other note worthy information (その他特筆すべき事項):

I would be happy to participate in another Science Dialogue in the future

- 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。):

Ito-san was really impressed by the questions asked by the students. The questions were very insightful and would be not uncommon in a large international conference. It showed that they not only understood the material presented, but also implications and nuances of the topics that I did not have time to elaborate on.