（For JSPS Fellow）

Form B-5

Date（日付）
11 / 09 / 2011 （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） Elly (Petronella Helena) van Riet （ID No. P 10515）

- Participating school（学校名）: Kofu Minami High School, Kofu, Yamanashi

- Date （実施日時）: 11 / 09 / 2012 （Date/Month/Year:日/月/年）

- Lecture title（講演題目）: Improving influenza vaccines
インフルエンザワクチンの改良を目指して

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

In case of an infection a battle between the pathogen and the host`s immune cells will take place. In the case of influenza, if the virus wins the battle, the infected human will die. If the human wins the battle, the virus will be killed and, importantly the immune system will remember the virus for a very long time, making sure that next time the virus infects the human again, the immune system knows exactly what to do and can quickly kill the virus.

In case of vaccination, there is no fight for life and death, but it is a way of teaching the immune system how the virus looks like and to induce memory. Thus if the virus infects you after a vaccination, your army (immune system) is prepared and can easier win the fight. In childhood you get many vaccinations, and often you are protected for life. So why, if we have this memory, we make new vaccines every year for influenza?
Influenza is very smart and can change the way it looks very quickly, so if you are infected in one year, the next year the appearance of the virus can have changed so much, that your immune system cannot recognize that it is the same virus. Now people are trying to improve influenza vaccines, to try and teach your immune system also about how the virus could possibly change and be prepared for those viruses that changed their appearance.

After vaccination, the amount of antibodies, that are a part of your immune defence, are measured to check whether the influenza vaccination was successful. The amount of antibody produced can be determined by a technique called ELISA. After the lecture the students performed a slightly adjusted ELISA (since a normal one will take several hours), and got to see how results look like and how they are analysed.

- Language used（使用言語）: English for the lecture, the experimental protocol was translated in Japanese (as a hand-out) and my colleague also answered some of the questions in Japanese, after the presentations or during the experiment if it was difficult for the students to understand my answer (in English).

- Lecture format（講演形式）:

◆Lecture time（講演時間）120（分）, Q&A time（質疑応答時間） 20（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））

I used a projector for the presentation about the Netherlands (25 min) and my research (30 min). After each presentation there was time for questions. Then the students performed the experiment, which in total took about 1 hour, during the experiment also questions could be asked.

◆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 accompanying person.

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

Researcher, Tadaki Suzuki, MD, PhD

◆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。）:

今回の講義では同行者という事でしたが、実習のお手伝いや日本語での補足説明を通して、生徒の皆様と対話し、我々の研究の何が大事で何が面白いかという事を少しでも伝える事ができればと思い参加させていただきました。

当日は、JSPS フェローのエリーさんの綿密な準備によって、研究の面白さの一端を伝える事が出来たと思います。このような機会を設けていただき、大変有り難うございました。