

(For JSPS Fellow)

Form B-5

Date (日付)

04 / 02 / 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): Lisa Maudsdotter (ID No. P13755 )

- Participating school (学校名): Niigata Prefectural Takada High School

-Date(実施日): 28 / 01 / 2014 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Interplay between bacteria and human cells

(in Japanese) 細菌とヒト細胞の相互作用

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

*Our body is colonized by many thousand bacterial species. In fact, the body consists of 10 times as many bacterial cells as human cells. The bacteria of our body are important in for example food digestion, development and by protecting against infections. In recent years new discoveries have shown that bacteria affect more functions in our body than we previously imagined. However, how the body's bacteria protect against infections (and how they affect other body functions) is still largely unknown.*

*I work with bacteria called lactobacilli. Lactobacilli are yoghurt-bacteria, but are also common in the body. I study the interplay between lactobacilli, another bacteria called group A streptococci and human cells. Group A streptococci are bacteria that we often carry without being sick, but in rare cases it happens that streptococci reach deeper tissues in the body and then cause severe disease. Group A streptococci have the ability to kill human cells. I found that when adding lactobacilli together with streptococci to human cell-cultures, the human cells survived better. I also found that when lactobacilli were present, streptococci could not bind as good to human cells.*

*Thus, different bacteria affect each other and which bacteria we carry may affect how sensitive we are to infections.*

- 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))

Powerpoint presentation and discussion exercise

◆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)

Assoc. Prof. Kazuya Morikawa

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

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- 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。):