

Form B-5

Date (日付)

5th-October-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): Duncan Sutherland (ID No. P10793)

- Participating school (学校名): Otsunomiya Girls High-School

- Date (実施日時): 28th September 2012 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): The Healthy Intestine and its Friendly Bacteria

健康的な小腸と善玉菌

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

The human gut has about 1 kilogram of friendly bacteria – friendly bacteria are good for human health! Friendly bacteria help us digest food and protect against dangerous bacteria.

The intestine contains food and friendly bacteria - but sometimes dangerous bacteria enter the intestine. Luckily, the immune (body defence) system is very good at finding and killing the dangerous bacteria in the intestine. But how does the immune (body defence) system keep the friendly bacteria in the intestine and kill only the dangerous bacteria? Why do we have only 1 kilogram of friendly bacteria and not much more or much less?

In our research we want to understand how the immune system controls the friendly bacteria. Interestingly, friendly bacteria also control the immune system. Having friendly bacteria in the gut is good for the immune (body defence) system. That is one reason why it is better not to take too many antibiotics – because the antibiotics also remove friendly bacteria!

So, our two main research topics are:

1. How does the immune system control friendly bacteria?
2. How does friendly bacteria control the immune system?

By answering these questions we want to help improve human health around the world.

- Language used (使用言語): English___

- Lecture format (講演形式):

◆Lecture time (講演時間) 50min (分), Q&A time (質疑応答時間) 5 min (分)

◆Lecture style: used powerpoint slides with projector
(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))

◆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 provided by Japanese postdoc from my host laboratory_____

◆Name and title of accompanied person (同行者 職・氏名)
_____Dr. Michio Miyajima 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。):

I had a very valuable experience teaching high-school students about our research because we have few chances for contact with students.

I think this was a good opportunity not only for the students to learn and feel "science" but also for us to transmit and explain our research as plain as possible.

I think these opportunities should be increased to enhance development of human resources in scientific fields.