

(For JSPS Fellow)

Form B-5

Date (日付)

16/10/2013 (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): Viskam Wiewardana (ID No. P 12412)
- Participating school (学校名): Hyogo Prefectural Ashiya International Secondary School
- Date (実施日時): 10/10/2013 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): (in English) Dendritic cell based cancer immunotherapy
(in Japanese) 樹状細胞によるがん免疫療法
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

My name is Viskam Wijewardana and I am a research fellow at the Professor Toshio Inaba's laboratory at the Osaka Prefecture University. My lecture is divided into two parts: first, I will introduce myself and my country and in the second part I will talk about my research in cancer. I come from Sri Lanka, a tropical island in the Indian Ocean. Sri Lanka is a very famous tourist destination with many attractions such as elephants. Sri Lanka and Japan has a long history of friendship. I was attracted to science since I was in the elementary school and that passion led me to become a scientist. I was first trained as a veterinarian in Sri Lanka and then came to Japan 10 years ago to carry out my doctoral studies. After graduating, I went to United States to do further research in immunology. However, I returned to Japan again as a JSPS research fellow last year since I am fascinated by Japanese culture and science.

My research area is cancer immunotherapy. Cancer is a very important disease since it is the number one killer in Japan and many other countries. Also, prevalence of cancer is increasing. Traditional therapies such as surgery, chemotherapy or radiotherapy have not been successful at achieving a complete recovery in many cancers. Furthermore, these therapies have toxic effects. Therefore, we have to think in a novel way about treating cancer. One possible way is harnessing patients own immune system to fight cancer. Among the cells in the immune system, dendritic cells (DCs) play a very important role in inducing immunity against cancer. DCs educate immune system on the dangerous pathogens and foreign cells that is harmful to body. Also, DCs activate other immune cells. However, in cancer patients DCs become invalid. Because of this a proper immunity against cancer cannot be mounted. We have found a method to overcome this problem by generating strong DCs. We use these DCs to treat cancer and have achieved very good results in dog cancer patients.

- Language used (使用言語): **English with some translation in Japanese**

- Lecture format (講演形式):

◆Lecture time (講演時間) 45 min (分), Q&A time (質疑応答時間) 15 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 using computer and 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))

Interpretation by Dr. Kikuya Sugiura

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

Dr. Kikuya Sugiura- Associate Professor

◆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。):

がありましたら、お願いいたします。): 特にありません