

Form B-5

Date (日付)

\_\_\_\_\_  
(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): Kallumadil Mathew (ID No. P 10772 )

- Participating school (学校名): Tsukukoma Sr. High School

- Date (実施日時): 08/OCT/2011 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Nanotechnology in Cancer Treatment

(in Japanese)

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

**The lecture covered 3 topics: 1. My personal background and description of country 2. My education in science and 3. My research involving the use of nanotechnology to treat cancer. Due to my multi-cultural background the first part was stimulating as students were able to get a good insight into European and Indian culture and lifestyle. I described my heritage from Austria, England and India, quizzed them about the respective celebrities and cuisine and informed them about living in Europe and studying in England and particularly Cambridge University.**

**After a brief academic introduction, I explained magnetic hyperthermia, the underlying technology that can be found in familiar products, such as the induction heating cooker, and how this technology can be utilized to treat cancer. Instead of a pan or a pot, however, this new treatment use nanosized materials, where I showed a number of videos that explain this new and exciting field of science. These metal nanoparticles are injected to the tumour site and then heated with magnetic fields, much like the ones created in an induction heating cooker.**

**Finally, real iron nanoparticles (ferrofluid) that I prepared especially for this session were given to the pupils to play with. This ferrofluid has remarkable educational features that leave anyone who encounters it in awe.**

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 90min (分), Q&A time (質疑応答時間) 30min (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))

FERROFLUID DEMOS, PROJECTOR, BLACKBOARD, VIDEOS

◆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))

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

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

LECTURE WAS (AGAIN) EXTREMELY POSITIVELY RECEIVED (SEE FEEDBACK)

- 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。):