

(For JSPS Fellow)

Form B-5

Date (日付)

6/11/2014 (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): Mong Sing LAI (ID No. P13511 )- Participating school (学校名): Aichi Prefectural Zuiryo High School- Date (実施日時): 5/11/2014 (Date/Month/Year: 日/月/年)- Lecture title (講演題目): (in English) Mechanisms Controlling Genome Integrity(in Japanese) ゲノム安定化維持の機構

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

The genome of a cell is continuously challenged by DNA damage from both internal and external sources. Internal sources of DNA damage occur as the byproducts of normal cellular metabolism or DNA replication, while external sources of DNA damage include ultraviolet radiation from the sun and toxic environmental chemicals. Failure to correct DNA damage can cause cell death and lead to cancer and other diseases. The good news is that organisms have evolutionarily developed a genome protection mechanism, called "checkpoint", which detects the problems and co-ordinate a global response to protect genome integrity. In the lecture, I discussed about (1) the cell cycle machinery and checkpoint control of the cell cycle, (2) defective DNA damage responses and checkpoint-related syndromes, (3) my research focuses on how checkpoint maintains genome integrity. I also gave a presentation about my home country Malaysia, my motives for becoming a scientist, and my research experiences in different countries. Finally, I conducted a short workshop session that allowed the students to discuss a topic in groups and made short presentations in English.

- Language used (使用言語): English and Japanese

- Lecture format (講演形式):

◆Lecture time (講演時間) 95 min (分), Q&A time (質疑応答時間) 5 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 projector and conducted workshop

◆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))

Provided Japanese explanation by myself

Must be typed

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

None

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

None

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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。):