

(For JSPS Fellow)

Form B-5

Date (日付)

24 Jan 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): KULKEAW KASEM (ID No. P12083)
- Participating school (学校名): Kumamoto Daini High School
- Date (実施日時): 17 January 2013 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): (in English) Life organisms as tools for biomedical research
(in Japanese) 医学生物学研究のツールとしての生命体
- Lecture summary (講演概要): Please summary your lecture 200-500 words.
 Research is a process to find problem-based answer. Biomedical research is conducted to aid and support the body of knowledge and solve the problem in the field of medicine. Aims of biomedical research are (1) to develop new treatments and (2) to evaluate new treatments for both safety and efficacy. Biomedical research involves biology, biochemistry, microbiology, physiology, oncology and clinical research. In the process of biomedical research, it starts from the problem in human disease. Researchers have to ask diseases-related questions and design experiment to get the answers. Biomedical research is classified into basic research and applied research. For basic research, several life organisms have been utilized as model such as zebrafish and mouse. My field of biomedical research focuses on erythropoiesis, a process of erythrocyte production. We explained origin of erythrocyte, a cell carrying oxygen. Impairment in this process results in anemia, which is worldwide problem now a day. We established a novel anemic model in zebrafish by cold exposure. We gave examples how to use zebrafish for erythropoiesis such as dissection, detection of zebrafish erythrocytes, flow cytometry and transplantation. We also gave examples of experiments conducted in mouse embryo and adult. Our cold-exposed zebrafish model will be utilized for identification of novel molecules regulating erythropoiesis.
- 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))
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))

Japanese explanation by accompanied person

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

Dr. Tomoko Inoue, JSPS Research Fellow

◆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。):