

(For JSPS Fellow)

Form B-5

Date (日付)

17/02/2014 (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): Panagiota Tsounapi (ID No. P13102)
- Participating school (学校名): Hamada High School
- Date (実施日時): 06/02/2014 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): (in English) Male Reproductive System & Male Infertility
(in Japanese) 男性生殖器系と男性不妊
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

In my lecture I included some details about my background and some information about my country. Following that I explained how I became interested in Science since young age and how decided to study Biology. Next was to make students understand the reasons why English language is important in Science, why Science is important in our life, and which are the essential tools for a Scientist. Finishing the general information section I focused on my research interest, which is Life, and further Reproduction. So in order to have a human life born we need the male factor and the female factor. We need a spermatozoon which is the reproductive cell of the male and an oocyte which is the reproductive cell of the female. But there are times that we do not have the optimal conditions so that the spermatozoon can normally fertilize the oocyte. This is my research focus; the male factor of infertility. Continuing, I presented to the students the characteristics of the normal sperm according to the WHO (such as number of total or motile spermatozoa, viabilitiy, morphology, etc). Following that we focused on the morphology of the human spermatozoon, the functions of each part of this cell, and then explain how the spermatozoa are produced through a procedure which is called spermatogenesis. Afterwards I provided them some useful information about human spermatozoa, such as their size, how fast they can swim, how long they can live, how they can get directions to the oocyte once entered the female reproductive tract, etc. After that we discussed about infertility in the world. If there is really a problem of infertility and provide data with the world map showing countries by fertility rate. Following that I showed how the number of spermatozoa has decreased through the decades and which are the candidate factors responsible for this decline. One of these factors is oxidative stress which became part of my research interest. I have investigate some pathological conditions which through the oxidative stress affect the functions of the testis, which is the organ which produces spermatozoa, and try to find methods to ameliorate the oxidative stress in order to recover the testicular function. At the end I presented some pictures with graphs and

histological data from my published work so far, so the students can visualise what I was referring to.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 55 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 slides, used a 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))

provided Japanese explanation when needed by myself

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

◆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。):