

(For JSPS Fellow)

Form B-5

Date (日付)

21st November 2016

(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): Appeltant Ruth (ID No. P15402)
- Participating school (学校名): Seishingakuen High School/Junior High School
- Date(実施日時): 29th October 2016 (Date/Month/Year:日/月/年)
- Lecture title (講演題目): (in English) In vitro fertilization and vitrification of porcine oocytes
(in Japanese) ブタ卵の体外受精とガラス化冷却保存

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

I am from Belgium, a little country in Western Europe. I will be happy to tell you about my country. Besides showing you some entertaining facts about my homeland, I want to explain how I decided to become a scientist in reproductive biology.

As a student of veterinarian medicine, I have chosen to specialize in pigs, poultry and rabbits. In Belgium, I was selected for a grant on fundamental research on in vitro fertilization. This research brought me in contact with NARO in Tsukuba. The researchers there are specialists in in vitro fertilization and cryopreservation of porcine oocytes. So, what does that mean?

In vitro fertilization (IVF) is a process in which an egg is fertilized by sperm outside the body: in vitro ("in glass"). We are working with porcine oocytes (= eggs) because the pig is a model for various medical areas in human.

For many reasons we would like to freeze the oocytes when they are still immature. Oocyte cryopreservation (egg freezing) is a process in which oocytes are extracted, frozen and stored. Later, when we want to use the oocytes, they can be thawed, fertilized in vitro, the embryos (fertilized oocyte which is developing) can be transferred to the uterus and a living pig can be born.

If you are interested in becoming a researcher in biology or medical topics about in vitro fertilization, you are more than welcome!

- 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) 30 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))

Interactive power point presentation

- ◆ 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))

Assistance by accompanied person

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

Senior researcher Dr. Kikuchi Kazuhiro

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

Afterwards the students formulated also written questions and remarks that were sent to us by email. We were very happy with their enthusiasm!

- 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。):

この度は、本人ならびに私に対しましてたいへん貴重な機会を賜り感謝申し上げます。私共の研究内容というよりも自然科学全般について、将来有望な高校生に紹介する機会はあまりないと思います。近年、自然科学離れが進んでいると報告されており、私共も一人でも多くの若い方に、興味をもっていただくことが大切だと思っております。たとえば、ノーベル賞受賞についてその内容を報道等により知っていただくことも大切ですが、お互いの顔が見えるこのようなセミナーを通して、自然科学に触れていただきたいと思っています。このような機会を今後も継続しいただきたく、またさらに内容を膨らせていろいろな活動をプロモーションしていただければ幸いです。今後ともよろしく御願いたします。