

(For JSPS Fellow)

Form B-5

Date (日付)

9/March/2018 (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): Javier Andres Montenegro Gonzalez (ID No. P16392)

- Participating school (学校名): Kyuyo High School, Okinawa, Japan

- Date (実施日時): 21 / February / 2018 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) The evolution of complex traits

(in Japanese) 複雑形質の進化

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

The lecture was divided primarily into three section; 1) information about my home country and city, 2) explained what it means to be an international scientist, and 3) gave a brief introduction about one of my currently undergoing research projects. Initially I showed to the students where my country is located and how the tropical weather is different from japan's weather; pointing out how this affects the kind of food available. I explained the culture of my city inside a historical context starting with the European colonization and finishing with the republic of Colombia as we know it now.

Later on, the lecture focus on my academic background, explaining clearly why and how I got to become an international scientist. I particularly pointed out why the scientific knowledge is important for humanity and how our scientific discoveries are more than our self, they belong to the collective knowledge and legacy of human kind. I continued my lecture explaining my current research. In very simple words how the evolution can generate adaptive trait like in the case of the peppered moth coloration pre- and post-industrial revolution. Latter the presentation focused in understanding what complex trait are and why there origins have been for long a matter of debate in the theory of evolution using examples as the echolocation in bats, antipredator strategies in turtles, reproduction in surinam frogs and flying in birds. I did an in depth explanation on how several components that are indispensable for flying were already existent before flying appear and how there could have been potentially coopted into flying to give origin to this complex adaptation. Finally I presented my current case of study "Pelvic fin brooding in *Oryzias*" and why this could potentially be an important model case to study the origin and evolution of the complex trait.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 50 min (分), Q&A time (質疑応答時間) 20 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))

Cathedra stile using 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))

The school professors provided me with help when it was necessary.

◆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。):

They were very helpful, and made easier for me to clarifying complex concepts.