

(For JSPS Fellow)

Form B-2  
(FY2018)

Date (日付) 19/06/2018

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(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): Godwin U. Ebiloma (ID No. P17420)
- Participating school (学校名): Fukui Prefectural Wakasa High School (Fukui)
- Date (実施日時): 19/06/2018 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): Revealing the invisible world: The journey from Protein to crystals
- Name and title of your accompanying person (講義補助者 職・氏名)  
Natsumi Arai (Miss)
- Lecture format (講演形式):
  - ◆Lecture time (講演時間) 1 hour min (分), Q&A time (質疑応答時間)      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))  
Used projector, pictures, demonstrated experiments

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

The lecture began with a detailed introduction of myself to the students. It was then followed by a lecture about Nigeria. The students were then introduced to my previous research, which bothers on Malaria, Leishmania, and Trypanosomiasis. I took time to explain what these diseases are, their causative organism, vector, mode of transmission, epidemiology, treatment, and prevention. I also took time to briefly explain what kind of research I have done on these parasites. This was followed by discussing the process of drug discovery against parasitic diseases. We discussed targeted and non-targeted based approach of drug discovery. The students were introduced to how to target an enzyme with inhibitor for the purpose of drug discovery. This section of the lecture introduced the students to the lecture theme, and my present research in Kyoto, which I simply titled "Revealing the invisible world: The journey from protein to crystals". We looked at what proteins (enzymes) are i.e. they do most of the work in our cells and are required for the structure, function, and regulation of the body's tissues and organs. Their structure including primary, secondary, tertiary, and quaternary structures. We also discussed a practical way to make protein crystals and study them (Crystallization and X-ray data collection), and why we need to first crystallize proteins before shining x-rays on them and study them.

Our conclusion was that "Protein crystallization and X-ray analysis help us to know the molecular basis of life! Also help us to design and discover new drugs for the treatment of diseases".

Parting word: Science as an adventure is fun! fun!! fun!!!..... Therefore, enjoy it!

Must be typed

- Overall advice or comments to future participants in the program (今後の講師へのアドバイス):  
Use more pictures (photos, videos etc.); a picture has no language! Send a summary of your presentation and other relevant materials to students and facilitator ahead of your presentation.

- Other noteworthy information (その他特筆すべき事項):  
It was fun all the way. Just enjoy it.

- Impressions and comments from the accompanying person (講義補助者の方から、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。)