

(For JSPS Fellow)

Form B-5

Date (日付) 2/3/2017
(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): Chowdhury Nusrat Fatema (ID No. P 15420)
- Participating school(学校名): Akita Prefectural Yokote Seiryō Gakuin Senior High School
- Date (実施日時): 14/02/2017 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): Evaluation of tumor hypoxia and proliferation after radiotherapy in human head and neck cancer using FMISO and FLT PET
- Name and title of your company(同行者職・氏名)
Professor Yoshimasa Kitagawa
- Lecture format (講演形式): English
- ◆Lecture time (講演時間) 90 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))
PowerPoint presentation through a projector and expanded the concepts on a blackboard
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

My lecture was intended to make the students aware about the scientific career in general and give a generalized overview of my research field. The lecture was split in three main topics. Firstly, I introduced myself and my country, Bangladesh. The lecture explored history, geography, cultural background, lifestyle, famous places, currency, food, festival, educational system of Bangladesh and we made some comparison with Japan. This part seemed very interesting for the students. They were curious and asked several questions. Secondly, I spoke about my educational background and story/ motives for undertaking a career in research. I also spoke about my host institute Hokkaido University and the necessity of learning English language for communication in scientific community. Finally, I explained detail my research work. In this part, during my presentation I tried to involve the students actively to ask them several questions which they replied.

Cancer is a disease involving abnormal growth of cells in the parts of the body. Cancer treatment may include chemotherapy, radiation therapy, and/or surgery. In Japan, out of total cancer patients, approximately 1-2% is oral cancer, but in other Asian countries this rate is very high around 20-30%. Therefore early evaluation of cancer using modern diagnostic facilities has

a dramatic impact on patient's mortality rate. Recently PET (Positron Emission Tomography) scan is the most useful tools for early cancer detection. In head and neck cancer, radiation therapy is an important treatment option than surgery due to its complicated anatomy. Tumor hypoxia and proliferation are important factors that adversely affect radiotherapy outcome. Thus in our study we used FMISO and FLT radiotracer to evaluate the tumor hypoxia and proliferation after radiotherapy in human head and neck cancer.

At the end, we wrap up our lecture with a question-answer session and had a good discussion. The lecture was a great success in my opinion. The students at Yokote Seiryō Gakuin Senior High School demonstrated a high level of English understanding and speaking. Even more so, I was very impressed by their interest in the lecture and their desire to ask questions. I sincerely hope that the students could enjoy the lecture and maybe get interest in science and research. As a foreigner, I felt very welcome and I hope the students have someday the opportunity to visit other countries, including Bangladesh.

-Overall advice or comments to future participants in the program (今後の講師へのアドバイス):

1. Make the presentation simple and easy to understand.
2. Use easy English for the students.
3. Involve the students actively with the presentation with different activities like, Q-A session or experiments.

- Other noteworthy information (その他特筆すべき事項):

Students were briefed on the main concepts in English and also in Japanese by my professor. Also the students were briefed on the scientific background and the medical terms of my research by their science teacher days before I arrived.

- Impressions and opinions from a company (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。)

Chowdhury Nusrat Fatema の指導者の北川善政です。この度はサイエンスダイアログに参加させていただきありがとうございました。この度、横手清陵学院高等学校で講義をさせていただくという貴重な機会をいただきました。皆様熱心に聞いてくださり活発な討論もできてとても有意義な楽しい講義となりました。英語やサイエンスを学ぶ事の重要性楽しさを分かっていただけばうれしいです。将来優秀な研究者が育ってくれることを期待しています。関係者の方々に感謝申し上げます。

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