

(For JSPS Fellow)

Form B-5

Date (日付)

31/01/2017 (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): Robert A. Nawrocki (ID No. P15062)

- Participating school (学校名): Sakura High School (Chiba)

- Date (実施日時): 17/01/2017 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Organic bio-electronics for healthcare applications

(in Japanese) ヒト、補綴(義手など)、およびロボットへの応用に向けた有機エレクトロニクスによる電子人工皮膚

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

Lecture had three parts. (1) Background on researcher's country of origin (Poland: culture, language, food, population, history, geography, famous people, etc.). (2) Introduction to science and engineering; what is science, difference between science and engineering, past and future achievements). (3) Researcher's research: Organic bio-electronic skin. Specific topics included: introduction to organic electronics (OE), benefits of OE (low cost, large area fabrication, physical flexibility, bio compatibility), scientific achievements of researcher's group (2 μm thick organic transistors, organic solar cells, organic light emitting diodes) and his own (300 nm thick electronic skin, fit with organic transistors and touch sensors), and his research interests and goals (health care application of bioelectronics, including monitoring of EMG (electromyogram) and ECG (electrocardiogram) signals).

Students and the staff showed great interest in the presentation. It appeared that most of the students were very shy and subsequently did not ask many questions during the lecture. However, after the lecture many of the students lined up to ask specific questions individually. Those individual questions ranged from fairly technical ("what kind of electronics can you make", "what kind of benefits can your research have") to non-technical ("what's your favorite Japanese food").

- Language used (使用言語): English (with few explanations in Japanese, by school staff)

- 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))

Power point (projector) presentation with some tangible examples (flexible electronics)

- ◆ 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))

none

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

none

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

Japanese students need to be encouraged not to be afraid of asking questions

- 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。):

Good presentation with many questions from students after the official lecture finished.