

(For JSPS Fellow)

Form B-5

Date (日付)

(Date/Month/Year: 28 日/11 月/2016 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): Christopher West \_\_\_\_\_ (ID No. P16036)
- Participating school (学校名): Aichi Prefectural Kasugai Senior High School \_\_\_\_\_
- Date (実施日時): 28 日/11 月/2016 年
- Lecture title (講演題目): (in English) Exploring Excited States

(in Japanese) 励起状態を探る

- Lecture summary (講演概要): Please summary your lecture 200-500 words.  
 Following a brief introduction to the UK (and a defence of its culinary traditions), the students were introduced to the idea of white light as a continuum of photons of many different wavelengths. Colours are produced by light of certain wavelengths being absorbed by molecules and so being removed from the continuum. The energy from the absorbed photons is used to promote an electron into a different orbital, which produces an excited state. Excited states are used in many different processes, such as photosynthesis. However, if the molecule keeps absorbing photons, it will take in too much energy and fall apart. Therefore, the molecule must have a way to lose this energy. Numerous mechanisms exist for this purpose. In order to understand these processes, we want to measure the lifetime of the excited states – the excited state dynamics. Our research focusses on using time-resolved photoelectron spectroscopy to determine these lifetimes. A case study on the model chromophore of the green fluorescent protein was presented as an example.

- Language used (使用言語): English \_\_\_\_\_
- Lecture format (講演形式):
  - ◆Lecture time (講演時間) 45 min (分), Q&A time (質疑応答時間) 5 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 \_\_\_\_\_
  - ◆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))  
 Interpretation and elaboration by accompanying person \_\_\_\_\_

Must be typed

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

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

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- 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。):