

(For JSPS Fellow)

Form B-5

Date (日付)

9 December 2014 (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): Nikita Loik (ID No. P14065)

- Participating school (学校名): Yamanashi Prefecture Tsuru High School

- Date (実施日時): 5 December 2014 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Inhibition of Oxygen Sensors

(in Japanese)

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

Introductory part involved

Introductory part involved discussion of peculiarities of life and education in Russia and the UK.

The aim of this part was to establish interaction with the audience.

During the scientific part of the talk the problems of partial hypoxia and ways to address it were discussed. First the relevance of the oxygen for living organisms was explained. The examples of full-body hypoxia resulting from changing the altitude were discussed. The example of treating tuberculosis with high altitudes earlier in the history was discussed and illustrated with the recent animation by Studio Ghibli 'The Wind Rises'. Afterwards partial hypoxia was explained using the example of stroke. The mechanism of hypoxic response to the full-body hypoxia was explained on molecular level. The mechanisms of stimulating hypoxic response were discussed in details. It was shown how in my work I attempt to develop inhibitors of oxygen sensors using peptide-library screening techniques. To facilitate the explanation the evolution of species on the molecular level was introduced.

The in total took 2 hours with 2 10-minute breaks for questions, time for questions was allowed after the lecture as well.

- Language used (使用言語): English

- 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))

projector, model demonstration

◆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))

assistance was provided by accompanying person

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

Kohsuke Nishio (2<sup>nd</sup> year PhD student, Department of Chemistry, University of Tokyo)

◆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。):