

(For JSPS Fellow)

Form B-5

Date (日付)

11/11/2011 (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): Rando TUVIKENE (ID No. P10715)
- Participating school (学校名): Junior High and Senior High School at Komaba
- Date (実施日時): 5/11/2011 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): (in English) Polysaccharides from seaweeds
(in Japanese) 海藻由来の多糖類
- Lecture summary (講演概要): Please summary your lecture 200-500 words.

First part of the lecture introduced Estonia, its nature, people living-style and main attractions. Many photos were used to illustrate the topic. For better understanding comparative style was often used (i.e. comparing Estonia and Japan). The second part gave an overview of the life of a scientist and tried to answer the following questions: why it is good to be a scientist and how to become a scientist. During this part I also showed some short movies of the chemistry experiments I had filmed previously for university students. The third part of the lecture was about seaweeds and introduced large sugar molecules deriving from these plants. Different types of natural polysaccharides were described, shapes of macromolecules and the gel network formation processes were illustrated. For easy understanding, many animations, pictures and schemes were used. The main classes of polysaccharides occurring in seaweeds (agars, carrageenans and alginates) were introduced, their chemical differences, properties, historical uses and economic importance were discussed. The properties of these polysaccharides were illustrated by presenting the viscous solutions and gels of the polymers. Also the main polysaccharide isolation procedures were described and a short discussion was dedicated to the possibilities of chemical modification of these natural substances.

- 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) 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 with projector, showed polysaccharide gel samples

◆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 by colleague

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

Ms. Ayaka SHINSHO

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

None

- 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。): 興味深く話を聞く生徒たちを見て、科学に興味を持つ中高生が、世界で活躍する若い研究者と触れ合えるのは大変貴重な機会であることを、実感致しました。また、生徒たちが進路や国際交流について考えるきっかけとして、非常に有効なものであると思いました。高校に限らず、(通訳付で)小学生や大学の学部生対象の企画があっても面白いのではないかと思います。