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（For JSPS Fellow）

Form B-5

Date（日付）
12/02/2013 （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）: Thanyaluck Phitak （ID No. P12097）

- Participating school（学校名）: Shizuoka Kita School

- Date （実施日時）: 04／02／2013 （Date/Month/Year:日/月/年）

- Lecture title（講演題目）: （in English） Carbohydrate Research

（in Japanese） 糖質学

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

First part: Introduction of Thailand

Second part: Biochemistry

Biochemistry is a subject which studies about structure, properties and metabolism of molecules in living organisms. The smallest living unit of organism is cell. Cell is made of many biomolecules gather together and organisms are alive because of the interactions molecules inside. Thus to understand how organisms make of and how they work, it is important to understand each molecule inside organisms. The main molecules which make of organisms are water, lipid, protein (nucleotide) and carbohydrate.

Third part: carbohydrate research

Carbohydrate is the one important molecule. Without carbohydrate, organism will not exist. Thus, understanding of how carbohydrate works in organisms is important. Carbohydrate has many functions in organisms including source of energy, form structural component of cell/tissue and also it is communicator between cell and others molecule or cells. The carbohydrate research started around 50 years ago. In my laboratory, we are also studying about carbohydrate in organism. We focus on one kind of carbohydrate, sialic acid, which is an essential carbohydrate for organism. Experimentally, lack of this sugar results in embryonic lethal in mouse. So our goal is to understand how sialic acid works in organism and why lack of this carbohydrate lead to embryonic lethal.

Biochemistry is a large subject, studies about molecules in organisms. Carbohydrate is an important molecule in organism. Lack of this molecule, organism will not exist. Thus it is important to study how carbohydrates work. In organisms there are huge numbers of carbohydrates, so far we cannot understand everything about carbohydrate. So answer of carbohydrate still need to study by new generation of scientists.

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- Language used（使用言語）: English/Japanese

- Lecture format（講演形式）:

◆Lecture time（講演時間） 70 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））

presentation using 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））

interpreted some parts which student could not understand by interpreter

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

Dr. Estelle Garenaux

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

ー

- 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。）:

It was a really interesting experience to assist Dr Thanyaluck Phitak as a translator. Since I myself am a foreigner, I was simply glad to enter for the first time a Japanese high school, and to get in touch with young motivated students. Then it was really a challenge and a great opportunity to translate, and try to put complicated scientific concepts into simple Japanese words to be understood easily. I was asked to summarize what had been said three or four times during the speech, gave some keywords in Japanese to help understanding, translated some points that seems really difficult to understand by students.

I was really surprised to see that students were really serious about this seminar, they studied some special English vocabulary and some even prepared questions in English. It was really good to be able to interact with such motivated young people. It was also good to make them understand that communication in a foreign language does not mean obligatory having a perfect accent or a perfect grammar, it means sharing with people in front of you, being able to express your thoughts and listen to your interlocutor. I hope I will be given the opportunity to do this again.