

Form B-5

Date (日付)

(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): Mourad BENOUSSAAD (ID No. P10815)
- Participating school (学校名): Gunma Prefectural Takasaki Girls' High School
- Date (実施日時): 06/09/2011 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): (in English) Musculoskeletal system in generation of human motion
(in Japanese) 人間の運動の世代の筋骨格系

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

In human, the central nervous system (SNC) controls the movement of the body and other vital functions as well. The movement of the body is performed by activating the appropriate muscles, which act on the skeletal. This whole biological system is commonly called the musculoskeletal system.

Several recent and interesting researches try to understand and explain how the control of movement is performed. In our research, we investigate the interaction between the commands sent from the central nervous system and the generated movement, made by the activated muscles.

For this, we use a model, which is a set of mathematical equations, to simulate the behavior of the human body, but also to estimate its parameters, which are difficult or impossible to get with other ways. These researches have several applications, like the simulation and the artificial control of the body, the estimation of performances and the medical diagnostics.

- Language used (使用言語): English (assisted by Japanese translator)
- Lecture format (講演形式):
 - ◆Lecture time (講演時間) 80 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))
projector with power point presentation, some pictures and videos are included
 - ◆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))
assisted by Japanese translator, colleague from my laboratory
 - ◆Name and title of accompanied person (同行者 職・氏名)

Kanade Kubota (M.Sc, The University of Tokyo)

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

- 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。):