

(For JSPS Fellow)

Form B-5

Date (日付)

(10/07/2015: 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): Denis Matrov _____ (ID No. P 14766)

- Participating school (学校名): Meito Senior High School (Nagoya-city, Aichi) _____

- Date (実施日時) : 8/07/2015
(Date/Month/Year: 日/月/年)

- Lecture title (講演題目): (in English) Attention, spatial hemineglect, and Estonia
(in Japanese)

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

First I explained that attention is a specific physiological process that limits what information we perceive and allows us to concentrate only on some of the stimuli that reaches our senses. Because attention is functionally separate from sensory perception, there also exist disorders of attention. Spatial hemineglect is quite common disorder of attention. I explained the nature of that disorder and showed a couple of videos with patients. People suffering from hemineglect have a selective attention bias towards one side of their perceptual space and ignore the other side. This can be easily tested by showing stimuli on both sides of the perceptual space to the patient, but there are also deficits in the sense of its own body in affected space. I then explained that in humans brain stroke is the usual cause of the disorder and showed video demonstrating the mechanism of stroke. I then explained that because stroke happens due the lack of blood flow, the affected region in the brain is rather large and therefore we still do not know the precise neural mechanisms causing hemineglect in humans. Therefore we need to work with animals where we can experimentally manipulate the neural networks. I then explained why marmosets were chosen as model animals and provided a brief overview how can we manipulate their cortical activity by introduction of external genes via the use of viral vectors. I briefly explained the idea behind my experiments and demonstrated some preliminary results.

The last part of my talk was dedicated to presenting my country: Estonia. I began with introducing its location on the world map and its geography. I then introduced its biggest cities and showed pictures of some tourist attractions. I also illustrated some common foods, famous Estonian people and recommended a couple of Estonian movies to watch. I concluded my talk by presenting achievements of Estonian IT companies.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 43 min (分), Q&A time (質疑応答時間) 3 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))

I have used a projector and showed some videos

◆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))

I have send the main scientific terms in advance to my host biology teacher Makoto Arimoto so she was able translate and distribute them

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

My host at the Meito school was Dr. Makoto Arimoto, I did not need a person from NIPS to accompany me, as Nagoya is nearby and easy to visit.

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

I think everything went well. The presentation I gave can be accessed here:

<https://www.dropbox.com/sh/cpch7j6f4xnx2ax/AACzSo6FpnQ14ajN-GqUauvfa?dl=0>

- 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。):