Form 1-5-2

Japan-US Brain Research Cooperation Program
The Dispatch of Joint Researcher Report in 2006 fiscal year

[field: 4]

1. Affiliation/ Title/ Name:
   ATR Cognitive Information Science Labs.
   Researcher
   Norberto Eiji Nawa

2. The Project Title:
   Responses to receipt and omission of rewards in social situations in adolescents and adults.

3. U.S. Investigator's Name, Title, and Affiliation:
   Section on Development and Affective Neuroscience, Mood and Anxiety Disorders Program, National Institute of Mental Health (NIMH), National Institutes of Health (NIH)
   Monique Ernst, M.D., Ph.D.

4. The Term of Research: From Y.2006 M. 9 D. 15 To Y. 2006 M. 12 D. 22 (3 months)

5. The Abstract, the Result and the Significance of Research(300 Words):

   First, I would like to express my deepest gratitude to the Japan-US Brain Research Cooperation Program for giving me the opportunity to visit Dr. Monique Ernst at the Section on Development and Affective Neuroscience (SDAN), NIMH/NIH. SDAN pursues the understanding of the relationships among brain development and emotion regulation, and how they relate to behavioral changes that occur during the development of children and adolescents. In order to achieve that, a wide array of techniques - from functional MRI to genetic screening – is applied in a variety of patient populations. I was very much impressed by the lively lab environment, by the scale of the projects conducted by the Section, and by the way "team-work" is effectively implemented. Indeed, apart from the research itself, this was a great opportunity to learn also about research management. It was also a great chance to interact with Dr. Daniel S. Pine, Dr. Eric E. Nelson, other post-docs and research staff, in very enlightening discussions.

   The aim of our joint project is to understand the mechanisms involved in the processing of rewards in social situations, and for that purpose, develop a new experimental paradigm. The presence of "social others" is known to affect decision making processes and the assessment of emotions, but so far, most paradigms have enforced a clear-cut modality in the social interaction, e.g., competitive or cooperative. Differently, we are focusing in simpler settings that allow us to investigate more fundamental effects due to the presence of a social other. Our previous results showed that distinct brain areas are recruited at decision time when the same task is performed concurrently with another or alone. During my stay, we focused on developing paradigms to investigate responses to receipt and omission of rewards. This project is planned to continue in the future. Also, I was given the chance to get involved in other of their studies, which we plan to collaborate until they are completed.

6. The Others (Practical Issues, Special Mention Matters):
   None.