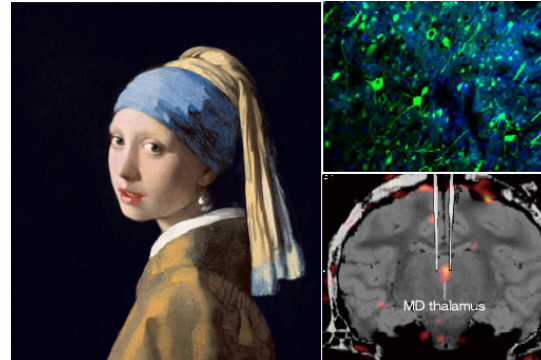


## Neural Circuit for Value Coding and Value-based Decisions

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When looking at a painting, we recognize what is drawn (e.g., a girl and a pearl earring) — and emotional/affective responses (e.g., smiling or crying) and motivation (e.g., desire to approach/touch) are often evoked. As such, Shitsukan perception often accompanies affective responses, valuations and decisions. Why are we so fascinated by specific arts and crafts, placing a high value on them and trying to own them? The answer must be derived in our brain. In the SHITSUKAN project, we were seeking the answer to this question by studying the neural mechanism of affective/motivational responses, especially those underlying neural circuits and value-coding mechanisms. For this purpose, we developed a novel method for dissecting specific neural circuits in behaving monkeys. In this presentation, I will introduce our recent investigation of the role of distinct front-subcortical circuits in value-based decision-making.

### References:

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### Biography:

Takafumi Minamimoto received his PhD in Neuroscience from Osaka University in 2002 and then completed a postdoctoral fellowship in 2008 at the National Institutes of Health, USA. He then joined the National Institute of Radiological Sciences in 2008, where he is currently Group Leader of Systems and Neural Circuit at the Department of Functional Brain Imaging. His primary research interests are neural mechanism of motivation, emotion and decision-making. He is one of the pioneers in applying molecular and imaging technologies to non-human primates to investigate the function of specific neural circuits.