

## CURRICULUM VITAE

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## EDUCATION

### **Baylor College of Medicine**

Houston, Texas  
**Ph.D.**, Neuroscience, 2008 (Advisor: Dr. John H. R. Maunsell)

### **Seoul National University**

Seoul, Korea  
**M.A.**, Psychology, 2002 (Advisor: Dr. Choongkil Lee)  
**B.A.**, Psychology, 2000  
**B.S.**, Physics Education, 1998

## RESEARCH EXPERIENCE

### **Postdoctoral Fellow**, Duke University Medical Center/Howard Hughes Medical Institute, **2012 – 2015**

The relations between local field potentials, neuronal activities in area MT and pursuit eye movements  
Advisor: Dr. Stephen G. Lisberger, Department of Neurobiology

### **Postdoctoral Fellow**, University of California, San Francisco/Howard Hughes Medical Institute, **2009 – 2012**

The relations between local field potentials, neuronal activities in area MT and pursuit eye movements  
Advisor: Dr. Stephen G. Lisberger, Department of Physiology

### **Postdoctoral Fellow**, Harvard Medical School, **2008 – 2009**

Effects of attention on the visual responses of neurons in area MT  
Advisor: Dr. John H. R. Maunsell, Department of Neurobiology

### **Research Assistant (Doctoral research)**, Harvard Medical School, **2006 – 2008**

Effects of attention on the visual responses of neurons in area MT  
Advisor: Dr. John H. R. Maunsell, Department of Neurobiology

### **Doctoral Research**, Baylor College of Medicine, **2003 – 2008**

Effects of attention on the visual responses of neurons in area MT  
Advisor: Dr. John H. R. Maunsell, Department of Neuroscience

### **Masters Research**, Seoul National University, **2000 – 2002**

Changes of functional connectivity between neurons in superior colliculus of behaving cat  
Advisor: Dr. Choongkil Lee, Department of Psychology

## PUBLICATIONS

**Joonyeol Lee** and Stephen G. Lisberger (2013) Gamma synchrony predicts neuron–neuron correlations and correlations with motor behavior in extrastriate visual area MT. *Journal of Neuroscience*, 33, 19677-19688.

\***Joonyeol Lee**, \*Jin Yang, and Stephen G. Lisberger (2013) Control of the gain of visual-motor transmission occurs in visual coordinates for smooth pursuit eye movements. *Journal of Neuroscience*, 33, 9420-9430.

\*Jin Yang, \***Joonyeol Lee**, and Stephen G. Lisberger (2012) The interaction of Bayesian priors and sensory data and its neural circuit implementation in visually guided movement. *Journal of Neuroscience*, 32, 17632–17645.

\*Equal contribution

**Joonyeol Lee** and John H. R. Maunsell (2010) The effect of attention on neuronal responses to high and low contrast stimuli. *Journal of Neurophysiology*, 104, 960-971.

**Joonyeol Lee** and John H. R. Maunsell (2010) Attentional modulation of MT neurons with single or multiple stimuli in their receptive fields. *Journal of Neuroscience*, 30, 3058-3066.

**Joonyeol Lee** and John H. R. Maunsell (2009) A normalization model of attentional modulation of single unit responses. *PLoS ONE*, 4(2), e4651.

**Joonyeol Lee**, Tori Williford, and John H. R. Maunsell (2007) Spatial attention and the latency of neuronal responses in Macaque area V4. *Journal of Neuroscience*, 27, 9632-9637.

Junghyun Park, **Joonyeol Lee**, and Choongkil Lee (2001) Non-veridical visual motion perception immediately after saccades. *Vision Research*, 41, 3751-3761.

## MANUSCRIPTS UNDER REVIEW

**Joonyeol Lee**, Mati Joshua, Javier F. Medina, and Stephen G. Lisberger (under review) Signal, noise, and variation in neural and sensory-motor latency.

## ABSTRACTS AND PRESENTATIONS

Joonyeol Lee, Jin Yang, and Stephen G. Lisberger (2014) Relationship between neural latencies in area MT and behavioral latencies of smooth pursuit eye movements in monkeys. *Society for Neuroscience Abstract* 625.02/DD29

Joonyeol Lee, Mati Joshua, Javier F. Medina, David Schoppik, and Stephen G. Lisberger (2013) Evolution of response latency through the sensory-motor circuit for smooth pursuit eye movement. *Society for Neuroscience Abstract* 363.12/AAA7

Joonyeol Lee and Stephen G. Lisberger (2012) Properties of the noise correlation between single unit activity in area MT and smooth pursuit eye movements. *Society for Neuroscience Abstract* 374.03/OO7

Jin Yang, Joonyeol Lee, and Stephen G. Lisberger (2011) A neurally-plausible implementation of Bayesian behavior in the initiation of smooth pursuit eye movements. *Society for Neuroscience Abstract* 176.09/MM9

Jin Yang, Joonyeol Lee, and Stephen G. Lisberger (2011) A neurally-plausible implementation of Bayesian behavior in the initiation of smooth pursuit. *COSYNE Abstract* I-84

Joonyeol Lee and John H. R. Maunsell (2008) Attention acts through a normalization mechanism to modulate the responses of neurons in visual cortex. *Society for Neuroscience Abstract* 464.9

Joonyeol Lee and John H. R. Maunsell (2007) Attentional modulation of neuronal responses to multiple stimuli in area MT. *Society for Neuroscience Abstract* 527.7

### **Journal Reviewer (Ad Hoc)**

Journal of Neuroscience

Journal of Neurophysiology

Vision Research

Cerebral Cortex