

# Curriculum Vitae

## Behrad Noudoost, MD, PhD

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### Positions and Employment

2013- present      Assistant Professor  
Department of Cell Biology and Neuroscience (CBN)  
Montana State University (MSU)

2010- 2013      Research Associate  
Howard Hughes Medical Institute & Department of Neurobiology  
Stanford University, Stanford CA  
Supervisor: Professor Tirin Moore

2006- 2010      Postdoctoral Fellow  
Department of Neurobiology, Stanford University, Stanford CA  
Supervisor: Professor Tirin Moore

2002-2006      Graduate Student  
Institute for Research in Fundamental Sciences, Tehran, Iran  
Supervisor: Professor Hossein Esteky

### Education

2006- 2010      Postdoctoral Fellow  
Department of Neurobiology, Stanford University, Stanford CA

2002-2006      Ph.D. Cognitive Neuroscience  
Institute for Research in Fundamental Sciences, Tehran, Iran

1994-2002      Doctor of Medicine (M.D.)  
Isfahan University of Medical Sciences, Isfahan, Iran

### Honors and Awards

2014      MSU President's Research Award

2011      Finalist, Sammy Kuo Prize in Neuroscience, Stanford University

2006      International Brain Research Organization (IBRO) Research Fellowship

2006      Travel Award, European Conference of Visual Perception

2006      Travel Award, Japan Neuroscience Society

## **Grant History**

Agency: **National Institute of Health- R01 NEI**

Status: Funded (#1R01EY026924)

Title: Understanding the prefrontal mechanisms involved in the enhancement and maintenance of visual signals

PI: Behrad Noudoost

Total Fund: \$1,800,000

Project Period: 08/01/16- 07/31/21

Agency: **National Science Foundation- BCS**

Status: Funded (#BCS14322)

Title: Determining the neurons and neuromodulatory pathways underlying the prefrontal control of visual signals

PI: Behrad Noudoost

Total Fund: \$435,996

Project Period: 08/15/14- 07/31/17

Agency: **Whitehall Foundation**

Status: Funded (#2014-05-18)

Title: Prefrontal contributions to synchronous and correlated activity within visual cortex

PI: Behrad Noudoost

Total Fund: \$225,000

Project Period: 06/01/14- 05/31/17

Agency: **National Science Foundation**

Status: Funded (#1632738)

Title: RII Track-2 FEC: Neural basis of attention

PI: Peter Tse (Co-PIs: Behrad Noudoost and 13 colleagues)

Total Fund: \$6,000,000

Project Period: 09/01/2016- 08/31/2020

Agency: **National Institute of Health- R01 NEI**

Status: Pending

Title: Extrastriate mechanisms of visual stability during eye movements

PI: Behrad Noudoost (Co-PI: Neda Nategh)

Total Fund: \$1,800,000

Project Period: 09/01/2016- 08/31/2021

Agency: **Shire Pharmaceuticals**

Status: Pending

Title: Understanding the neural and behavioral mechanisms for cognitive improvements by psychostimulant drugs; phase I: behavioral mechanisms.

PI: Behrad Noudoost

## Publications

1. Merrikhi Y, Clark K, Albarran E, Parsa M, Zirnsak M, Moore T, Noudoost B. Spatial working memory alters the efficacy of input to visual cortex. **Nat Comm** 2017; 8:15041.
2. Noudoost B, Nategh N, Clark KL, Esteky H. Stimulus context alters neural representations of faces in inferotemporal cortex. **J Neurophys** 2016; 117: 336-34.
3. Clark KL, Squire RF, Merrikhi Y, Noudoost B. Visual attention: Linking prefrontal sources to neuronal and behavioral correlates. **Prog Neurobiol** 2015; 132: 59-80.
4. Hu M, Clark KL, Gong X, Noudoost B, Li M, Moore T, Liang H. Copula regression analysis of simultaneously recorded frontal eye field and inferotemporal spiking activity during object-based working memory. **J Neurosci** 2015; 35(23): 8745-57.
5. Clark KL, Noudoost B. The role of prefrontal catecholamines in attention and working memory. **Front Neural Circuits** 2014; 8: 8-33.
6. Zirnsak M, Steinmetz NA, Noudoost B, Xu K, Moore T. Visual space is compressed in prefrontal cortex before eye movements. **Nature** 2014; 507: 504-7.
7. Clark KL, Noudoost B, Moore T. Persistent spatial information in the frontal eye field during object-based short-term memory does not contribute to task performance. **J Cogn Neurosci** 2014; 26(6): 1292-9.
8. Noudoost B, Clark KL, Moore T. A distinct contribution of the frontal eye field to the visual representation of saccadic targets. **J Neurosci** 2014; 34:3678-98.
9. Squire RF, Noudoost B, Schafer RJ, Moore T. Prefrontal contributions to visual selective attention. **Ann Rev Neurosci** 2013; 36:451-66.
10. Soltani A, Noudoost B, Moore T. Dissociable dopaminergic control of saccadic target selection and its implications for reward modulation. **Proc Natl Acad Sci** 2013; 110: 3579-84.
11. Noudoost B, Esteky H. Neuronal correlates of view representation revealed by face view aftereffect. **J Neurosci** 2013; 33: 5761-72.
12. Noudoost B, Moore T. Parietal and prefrontal neurons driven to distraction. **Nature Neurosci: News & Views** 2013; 16(1): 8-9.
13. Clark KL, Noudoost B, Moore T. Persistent spatial information in the frontal eye field during object-based short-term memory. **J Neurosci** 2012; 32(32):10907-14.
14. Noudoost B, Moore T. The role of neuromodulators in selective visual attention. **Trends Cogn Sci** 2011; 15: 585-591.
15. Noudoost B, Moore T. Control of visual cortical signals by prefrontal dopamine. **Nature** 2011; 474(7351): 372-375. [Recommended by Faculty of 1000 Biology]

16. Noudoost B, Moore T. A reliable microinjectrode system for use in behaving monkeys. **J Neurosci Methods** 2011; 194(2): 218-223.
17. Noudoost B, Chang MC, Steinmetz NA, Moore T. Top-down control of visual attention. **Curr Opin Neurobiol** 2010; 20(2): 183-190.
18. Nilipour R, Saber GT, Noudoost B. Different profiles of verbal and nonverbal auditory impairment in cortical and subcortical lesions. **Basic and Clinical Neuroscience** 2010; 1(4): 14:24.
19. Noudoost B, Afraz SR, Vaziri-Pashkam M, Esteky H. Visual spatial integrity in the absence of splenium. **Brain Res** 2006; 1076(1): 177-186.
20. Noudoost B, Adibi M, Moeeny A, Esteky H. Configural and analytical processing of familiar and unfamiliar objects. **Brain Res Cogn Brain Res** 2005; 24(3): 436-441.
21. Nilipour R, Clarke S, Noudoost B, Saber GT, Najlerahim A. Response time as an index for selective auditory cognitive deficits. **Acta Neurobiol Exp** 2004; 64(2): 163-170.

### **Book Chapters**

1. Noudoost B, Albarran E, Moore T. Neural signatures, circuitry, and modulators of visual selective attention. **The Cognitive Neurosciences-Fifth Edition**, edited by Michael Gazzaniga and George Mangun, The MIT Press, 2014.
2. Clark KL, Noudoost B, Schafer RJ, Moore T. Neuronal mechanisms of attentional control: Frontal cortex. **Handbook of Attention**, edited by Sabine Kastner and Anna Nobre, Oxford, 2014.
3. Moore T, Schafer RJ, Noudoost B. Circuits of visual attention. **Primate Neuroethology**, edited by Michael Platt and Asif Ghazanfar, Elsevier, 2010.
4. Moore T, Noudoost B. Sensorimotor integration: Attention, premotor theory of. **The New Encyclopedia of Neuroscience**, edited by Larry Squire *et al*, Elsevier, 2008.

### **Selected Invited Talks**

2013	Princeton University
2013	Riken Brain Science Institute
2013	Montana State University
2014	University of California, Santa Barbara
2016	Carnegie Mellon University
2016	University of Utah
2016	Albert Einstein Institution
2017	Yale University

2017 Johns Hopkins University  
2017 Drexel University

### **Teaching**

2013	IPM-GRAD	Attention and eye movements	Lecturer
2013	Seminar592	Topics in Neuroscience	Instructor
2014	WWAMI532	Nervous system	Guest Lecturer
2014	Seminar592	Topics in Neuroscience	Instructor
2014	BioH313	Neurophysiology	Guest Lecturer
2014	IPM-GRAD	Attention and eye movements	Lecturer
2015	BioH425	Sensory Neurophysiology	Lecturer
2015	Seminar592	Topics in Neuroscience	Instructor
2015	BioH313	Neurophysiology	Lecturer & Organizer
2016	BioH425	Sensory Neurophysiology	Lecturer
2016	BioH313	Neurophysiology	Lecturer

### **Professional Service**

2014 - present Graduate program coordinator, MSU CBN  
2013- present Seminar organizer, MSU CBN  
2014 - 2016 Member of the IACUC, MSU  
2015 Member of the faculty search committee, MSU CBN

### **Training and educational roles since joining MSU**

Graduate advisor of three students and co-advisor of three students  
Undergraduate advisor of two students  
PhD committee member of five students  
Graduate representative of two students