

# Curriculum Vitae

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## **Sara E. Berger, Ph.D. Candidate, B.A.**

Northwestern University  
Feinberg School of Medicine  
Interdepartmental Neuroscience (NUIN) Ph.D. Program  
Department of Physiology  
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### **AREAS OF INTEREST**

neuroimaging of different chronic pain populations; cognitive changes and deficits in relation to pain chronification; combining animal model data with human data to develop new target analgesics/treatments; bioethical issues regarding pain research and treatment/viewing of chronic pain patients; critical disability theory with regards to chronic pain and other neurological differences and pathologies; overlaps of and interactions between “pain” and “pleasure”; intersections of addiction, impulsivity, and chronic pain (in animal models, human populations, society, and modern-day ethics)

### **EDUCATION**

2010 – Present      Northwestern University  
Chicago, IL 60611  
Ph.D. Candidate, Interdepartmental Neuroscience Program  
Feinberg School of Medicine, Physiology Department  
Advisor: Dr. A. Vania Apkarian  
GPA: 3.97  
Qualifying Exam: Passed, September 2012

2006-2010      Macalester College  
St. Paul, MN 55105  
B.A. (with Honors) May 2010; Magna Cum Laude  
Honor’s thesis title: *Deconstructing Traditional Viewpoints:  
Intersections of Neuroscience and Critical Disability Theory  
in the Exploration of Autism and Autistic Sexuality*

Major: Neuroscience Studies  
Concentration: Psychology  
Advisor: Eric P. Wiertelak

Minor: Women, Gender, and Sexuality Studies (WGSS)

Concentrations: LGBT and Queer Studies

**RESEARCH EXPERIENCE**

- 06/2011 – present Graduate (Ph.D) Student  
Northwestern University  
Department of Physiology  
Dr. A.V. Apkarian, supervisor and dissertation advisor
- 03/2011 – 06/2011 Laboratory Rotation  
Northwestern University  
Department of Neurology  
Dr. Jay Gottfried, supervisor
- 01/2011 – 03/2011 Laboratory Rotation  
Northwestern University  
Department of Psychiatry  
Dr. Lei Wang, supervisor
- 06/2010 – 12/2010 Laboratory Rotation  
Northwestern University  
Department of Physiology  
Dr. A. V. Apkarian, supervisor
- 08/2009 – 05/2010 Senior Undergraduate Honors Research/Thesis  
Macalester College  
Neuroscience/Psychology & WGSS Departments  
Dr. Eric P. Wiertelak & Dr. Corie Hammers, co-advisors  
Dr. Joan Ostrove, committee member/mentor
- 01/2009 – 05/2009 Directed Research Project  
Macalester College  
Neuroscience/Psychology Department  
Dr. Jeremy L. Loebach & Dr. Eric P. Wiertelak, co-advisors
- 06/2008- 05/2010 Research Assistant, Lab Coordinator, & Lab Supervisor  
Macalester College  
Neuroscience/Psychology Department  
Dr. Eric P. Wiertelak, supervisor
- 01/2008 – 05/2008 Research Assistant  
Macalester College  
Department of WGSS  
Dr. Scott Morganson, advisor

## RESEARCH SKILLS

Techniques: animal behavioral testing in a variety of models and experimental designs, animal surgery and injections, (f)MRI in humans, psychophysical testing in animals and humans, EEG/ERP data collection in humans, GSR data collection in humans, cognitive task paradigms, survey/questionnaire design, ethnographic interviewing, gel electrophoresis, basic histology, pharmacological testing in animals

Computer: QuickTime Editing Software, Final Cut Pro, Presentation, SPSS, FSL, Analyze, Statistica, Sigma Plot, STATA, StatPlus, Matlab, Photoshop, Microsoft Office, LabView, Linux

## TEACHING EXPERIENCE

Teaching Assistant: Fundamentals of Cognitive & Behavioral Neuroscience (Graduate) 03/2012 – 05/2012 Department of Neuroscience Northwestern University

Teaching Assistant: Fundamentals of Sensory & Motor Systems Neuroscience (Graduate) 01/2012 – 03/2012 Department of Neuroscience Northwestern University

Teaching Assistant: Behavioral Neuroscience (Undergraduate) 01/2010 – 05/2010 Neuroscience/Psychology Dept. Macalester College

Teaching Assistant: Brain, Mind, & Behavior (Undergraduate) 08/2009 – 12/2009 Neuroscience/Psychology Dept. Macalester College

Teaching Assistant: Exploring Sensation & Perception (Undergraduate) 01/2009 – 05/2009 Neuroscience/Psychology Dept. Macalester College

## HONORS AND AWARDS

T32 NS047987 – NUIN Training Program on Human Cognition, Fall 2012 - present

Honors in Neuroscience and Psychology, Spring 2010  
WGSS Senior Award for Outstanding Scholarship, Spring 2010  
Honorable Mention for the NSF GRFP, Spring 2010

Macalester College Travel Grant, Fall 2009  
Nominated for the German Graduate Schools of Neuroscience Award, Fall 2009  
Macalester January Travel Grant for Research Abroad, Winter 2009  
Student-Faculty Collaboration Fellowship, supported by NCCAM, Summer 2008  
Nu Rho Psi Honor Society, inducted Spring 2008  
COLAGE Scholarship, 2007-2008  
The Margaret Weyerhaeuser-Driscoll Scholarship, 2006-2010  
Holl Scholarship, 2006-2010  
PFUND Scholarship, 2006-2007  
Tesoro Scholarship, 2006-2010  
Mid-Dakota Utility (MDU) Scholarship, 2006  
National Honor Society, 2002-2006

### TALKS AND PRESENTATIONS

**Berger, S.E.** (2010, May). *Deconstructing Traditional Viewpoints: Intersections of Neuroscience and Critical Disability Theory in the Exploration of Autism and Autistic Sexuality*. Talk given for public honors thesis defense. Macalester College, St. Paul, MN.

**Berger, S.E.**, Loebach, J.L., & Wiertelak, E.P. (2010, May). *I Feel Your Pain: Exploring the role of the human mirror neuron system and its extensions in the observation of nociception*. Talk given at the annual Midbrains Conference. St. Olaf College, Northfield, MN.

**Berger, S.E.** (2010, May). *Intersections of the Fornix and Feminism – Envisioning A Feminist Neuroscience*. Talk given for public presentation of WGSS senior seminar projects. Macalester College, St. Paul, MN.

### POSTER PRESENTATIONS

**Berger, S.E.**, Baliki, M.N., Baria, A.T., Parks, E.L., Torbey, S., Herrmann, K.M., Schnizter, T.J., and Apkarian, A.V. (2012, October). *Changes in Perception of Risk and Valuation of Monetary Rewards With Transition From Acute to Chronic Back Pain*. Presented at the annual meeting of the Society for Neuroscience, New Orleans, LA.

Farmer, M.A., **Berger, S.E.**, Mansour, A., Ellingson, B., Landis, J., Schaeffer, A.J., Mayer, E., and Apkarian, A.V. (2012, October). *White matter abnormalities associated with visceral pain: Preliminary data from the multidisciplinary approach to the study of chronic pelvic pain (mapp) network*. Presented at the annual meeting of the Society for Neuroscience, New Orleans, LA.

Baliki, M.N., Mansour, A., Baria, A.T., Huang, L., **Berger, S.E.**, Fields, H.L., & Apkarian, A.V. (2012, October). *Accumbens subdivisions differentiate salience and valence signals of pain and pleasure*. Presented at the annual meeting of the Society for Neuroscience, New Orleans, LA.

Barter, JB, **Berger, S.E.**, & Wiertelak, E.P. (2009, October). *Nucleus accumbens  $\mu$ -opioid-mediated boost in food consumption is attenuated by D1-like dopamine antagonism*. Presented at the annual meeting of the Society for Neuroscience, Chicago, IL.

**Berger, S.E.**, Loebach, J.L., & Wiertelak, E.P. (2009, October). *I Feel Your Pain: Exploring the role of the human mirror neuron system and its extensions in the observation of nociception*. Presented at the Faculty for Undergraduate Neuroscience Conference (held during the annual meeting of the Society for Neuroscience), Chicago, IL.

Tisel, S.M, **Berger, S.E.**, & Wiertelak, E.P. (2009, May). *Behavioral Expression of Neuroplastic Changes Incurred by Nociceptive Experience and Blocked by Scopalamine on Two Day Repeat Formalin Essay*. Presented at the annual Midbrains Conference. Macalester College, St. Paul, MN.

**Berger, S.E.** & Wiertelak, E.P. (2008, August). *The effects of altering the parameters in the current forced-swim test: Toward a more humane animal model of depression*. Presented at the Student-Faculty Collaboration Research Symposium.

#### **PROFESSIONAL MEMBERSHIPS**

Society for Neuroscience (SfN), student member (2009 to present)

#### **GRADUATE CAMPUS MEMBERSHIPS**

NU Bioethics Journal Club Committee (present)

Chicago Out Network, member (2011 to present)

NUIN Student-Sponsored Seminar Series, member (2010 to 2012)

#### **VOLUNTEER/COMMUNITY ACTIVITIES (NEUROSCIENCE-RELATED ONLY)**

NU Bioethics Symposium Planning Committee – student member/organizer (2012)

Brain Awareness Week - volunteer/local committee member (2008 to present)

Community Science Education Mural – painter (2010)

Nu Rho Psi Honor Society, Twin Cities Chapter – President (2009-2010)

Red Door Pediatric Therapy – intern (2008)

Autism Speaks Conferences, ND Chapter – volunteer (2008)

Minnesota Psychological Undergraduate Conference – volunteer (2007-2010)

Autism Society – Summer Camp Counselor and Personal Care Assistant (2007-2008)

Midbrains Neuroscience Conference – volunteer (2006-2010)

Minnesota Kid's Judge Neuroscience Fair – volunteer/organizer (2006-2010)