

# Egle Cekanaviciute

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## EDUCATION

**PhD in Neurosciences, Stanford University** September 2008 – April 2014

Title of dissertation: “How do astrocytes regulate neuroinflammation? Astrocytic TGF $\beta$  signaling limits inflammation and neuronal damage in models of stroke and infection.” Dissertation defended on October 21<sup>st</sup>, 2013. GPA: 3.90.

**BA magna cum laude in Neurobiology, Harvard University** September 2003 – June 2007

Citation in Spanish. GPA: 3.73.

## RESEARCH EXPERIENCE

**PhD student, Neurosciences Program** September 2008 – April 2014

PhD Advisor: Dr. Marion S. Buckwalter  
Stanford University, Stanford, CA

Discovered that transforming growth factor-beta (TGF $\beta$ ) signaling in astrocytes is essential for limiting the immune response to stroke and to brain infection with parasite *Toxoplasma gondii* to prevent excessive neuronal damage.

**Research Assistant** January 2004 – June 2007

PI: Dr. Venkatesh N. Murthy  
Harvard University, Cambridge, MA

Designed and conducted experiments on the functions of voltage-gated sodium channel Nav1.2 in determining dendritic outgrowth and synaptic strength of rat hippocampal neurons.

## PUBLICATIONS

**Cekanaviciute, E.**, Dietrich, H.K., Axtell, R.C., Williams, A.M., Egusquiza, R., Wai, K.M., Koshy, A.A. and Buckwalter, M.S. TGF $\beta$  signals through astrocytes to limit neuroinflammation and reduce neuronal damage during CNS *Toxoplasma* infection. Under revision for *Journal of Immunology*.

**Cekanaviciute, E.**, Fathali, N., Doyle, K.P., Williams, A.M., Han, J. and Buckwalter, M.S. Astrocytic transforming growth factor-beta signaling reduces subacute neuroinflammation and neuronal damage after stroke. Under review at *Glia*.

Johansson, J.U., Pradhan, S., Lokteva, L.A., Woodling, N.S., Ko, N., Brown, H.D., Wang, Q., Loh, C., **Cekanaviciute, E.**, Buckwalter, M., Manning-Bog, A.B. and Andreasson, K.I. (2013). Suppression of inflammation with conditional deletion of the prostaglandin E2 EP2 receptor in macrophages and brain microglia. *Journal of Neuroscience*, 33(40).

Han, J., Pollak, J., Yang, T., Siddiqui, M.R., Doyle, K.P., Taravosh-Lahn, K., **Cekanaviciute, E.**, Han, A., Goodman, J.Z., Jones, B., Jing, D., Massa, S.M., Longo, F.M. and Buckwalter, M.S. (2012). Delayed administration of a small molecule TrkB ligand promotes recovery after hypoxic-ischemic stroke. *Stroke*, 43(7).

Doyle, K.P., **Cekanaviciute, E.**, Mamer, L.E. and Buckwalter, M.S. (2010). TGF $\beta$  signaling in the brain increases with aging and signals to astrocytes and innate immune cells in the weeks after stroke. *Journal of Neuroinflammation*, 7(62).

### ORAL PRESENTATIONS

**Cekanaviciute, E.** Astrocytic TGF $\beta$  signaling limits inflammation and neuronal damage after injury. Stanford Neurosciences Program Annual Retreat. Watsonville, CA, May 2013.

**Cekanaviciute, E.** Astrocytic TGF $\beta$  signaling limits the inflammatory response to cerebral infection with *Toxoplasma gondii*. Stanford Institute for Immunity, Transplantation and Infection Annual Meeting. Stanford, CA, May 2012.

**Cekanaviciute, E.** Astrocytic TGF $\beta$  signaling limits stroke size and improves recovery after stroke. Stanford Institute for Neuro-Innovation and Translational Neurosciences Annual Meeting. Watsonville, CA, October 2011.

### SELECTED POSTER PRESENTATIONS

**Cekanaviciute, E.**, Dietrich, H.K., Axtell, R.C., Williams, A.M., Egusquiza, R., Wai, K.M., Koshy, A.A. and Buckwalter, M.S. Astrocytic TGF $\beta$  signaling limits neuroinflammation and reduces neuronal damage during CNS *Toxoplasma* infection. Submitted for *The American Society for Neurochemistry 45<sup>th</sup> Annual Meeting*. Long Beach, CA, March 2014.

**Cekanaviciute, E.**, Fathali, N., Han, J., Doyle, K.P. and Buckwalter, M.S. Astrocytic TGF $\beta$  signaling limits neuroinflammation and improves outcomes during the subacute period after stroke. *Gordon Research Conference. Glial Biology: Functional Interactions among Glia & Neurons*. Ventura, CA, March 2013.

**Cekanaviciute, E.**, Dietrich, H.K., Axtell, R.C., Steinman, L., Boothroyd, J.C., Koshy, A.A. and Buckwalter, M.S. Astrocytic TGF $\beta$  signaling fine-tunes the brain's immune response to *Toxoplasma gondii*. *Gordon Research Conference. Glial Biology: Functional Interactions among Glia & Neurons*. Ventura, CA, March 2013.

**Cekanaviciute, E.**, Fathali, N., Han, J., Doyle, K.P. and Buckwalter, M.S. Astrocytic TGF $\beta$  signaling limits the spread of immune response and improves functional outcome after stroke. *The 42<sup>nd</sup> Annual Meeting of The Society for Neuroscience*. New Orleans, LA, October 2012.

**Cekanaviciute, E.**, Fathali, N., Han, J., Doyle, K.P. and Buckwalter, M.S. Astrocytic TGF $\beta$  signaling reins in the immune response and improves functional outcome after stroke. *The American Society for Neurochemistry 43<sup>rd</sup> Annual Meeting*. Baltimore, MD, March 2012.

**Cekanaviciute, E.**, Doyle, K.P. and Buckwalter, M.S. Astrocytic TGF $\beta$  signaling modulates the macrophage response to stroke. *Keystone Symposium for Molecular and Cellular Biology. TGF-beta in Immune Responses: From Bench to Bedside*. Snowbird, UT, January 2011.

**Cekanaviciute, E.**, Doyle, K.P. and Buckwalter, M.S. Astrocytic TGF $\beta$  signaling regulates the macrophage response to stroke. *The 40<sup>th</sup> Annual Meeting of The Society for Neuroscience*. San Diego, CA, November 2010.

## TEACHING AND COMMUNITY OUTREACH EXPERIENCE

**Lecturer, Bioinformatics** January 2013 – June 2013  
**San Jose State University (SJSU)**

Taught the course in a team with SJSU professor Dr. Sami Khuri. Gave lectures, prepared and led hands-on exercises, held office hours.

**Instructor, The Molecular Basis of Neurological Disorders** January 2011 – April 2013  
**Stanford University**

In a team with 1-2 graduate students, taught the course for 3 consecutive years. Designed curriculum, gave lectures, led discussions of primary research articles, organized guest lectures by Stanford faculty members.

**Head Teaching Assistant, Molecular and Cellular Neurobiology** September – December 2010  
**Stanford University**

Administered a large mixed undergraduate/graduate level course, supervised five undergraduate teaching assistants, led graduate student discussions, prepared and graded exams.

**Leader, Stanford Brain Day** November 2011 – March 2013

Coordinated the Stanford Neurosciences community outreach program, which introduces brain anatomy to 7<sup>th</sup> grade students in middle schools of Palo Alto and East Palo Alto.

**President, Stanford Science Bus** April 2010 – April 2011

Organized an after-school program to teach hands-on science 2<sup>nd</sup>-5<sup>th</sup> grade students at the East Palo Alto Charter School. Coordinated ~25 instructors involved in preparing two classes a week and quarterly field trips.

## FELLOWSHIPS AND AWARDS

American Heart Association Predoctoral Fellowship (11PRE6970002)	June 2011 – July 2013
Society for Neuroscience Graduate Student Travel Award	October 2012
Stanford University Biosciences Service Award for Community Outreach	May 2012
Stanford Graduate Fellowship	September 2008 – June 2011
Harvard Benjamin A. Trustman Traveling Fellowship	June 2007 – September 2008
Howard Hughes Medical Institute Scholarship for Laboratory Research	January 2004 – June 2007

**IMMIGRATION STATUS:** U.S. permanent resident (green card holder).

## REFERENCES:

1. Dr. Marion S. Buckwalter  
PhD Advisor, Stanford University  
[marion.buckwalter@stanford.edu](mailto:marion.buckwalter@stanford.edu), (650) 724-9098
2. Dr. Tony Wyss-Coray  
PhD Thesis Committee Member, Stanford University  
[twc@stanford.edu](mailto:twc@stanford.edu), (650) 852-3220
3. Dr. Ben A. Barres  
PhD Thesis Committee Member, Stanford University  
[barres@stanford.edu](mailto:barres@stanford.edu), (650) 723-3231