

## Curriculum Vitae

**AnnaLin M Woo**

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### EDUCATION

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<b>University of Virginia</b> Ph.D. in Neuroscience Neuroscience Graduate Program in the School of Medicine Transferred from School of Neuroscience at Virginia Tech	Charlottesville, VA <i>Current</i>   2021
<b>University of Virginia</b> M.S. in Biological and Physical Science	Charlottesville, VA August 2024
<b>Virginia Polytechnic Institute and State University</b> B.S. Experimental Neuroscience B.S. Psychology	Blacksburg, VA <i>Spring 2018</i> <i>Spring 2018</i>

### RESEARCH EXPERIENCE

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Research Project: Extracellular matrix in epilepsy and health Advisor: Harald Sontheimer, Ph.D. Neuroscience Department, University of Virginia	Charlottesville, VA <i>2018 – Current</i>
Research Project: EAAT transporters in cysteine/glutamate transporter SXC Undergraduate research with Stephanie Robert, Ph.D., M.D. Virginia Tech Carilion Research Center, Virginia Tech	Roanoke, VA <i>2017–2018</i>
Research Team: R.E.A.A.C.T. (Recovery Effort After Adult & Child Trauma) Advisor: Russell Jones, Ph.D. Team leader Psychology Department, Virginia Tech	Blacksburg, VA <i>2016–2018</i> <i>2017–2018</i>

### TEACHING AND MENTORING EXPERIENCE

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<b>High school science outreach event, UVA School of Medicine</b>	<i>November 2024</i>
<b>Brain Awareness Outreach</b> Classroom visits to local elementary, middle, and high schools	Charlottesville, VA <i>Spring-Summer 2024</i>
<b>Undergraduate student mentoring</b> Mentoring 1 student throughout the semester culminating in final project Mentored 2 students throughout the semester, 10-12 hours per week	Charlottesville, VA <i>Spring 2023</i> <i>Fall 2022</i>
<b>Scientist AMA outreach to middle school science classes</b> Organized and ran a full day of online “ask me anything” interviews with 10 scientists for 5 science classes of 6 <sup>th</sup> and 7 <sup>th</sup> graders at Berkeley Middle School	Williamsburg, VA <i>November 2019</i>
<b>Community outreach to local area high school</b> Individual brain dissection lab for college prep student	Christiansburg, VA <i>May 2019</i>

<b>Graduate Teaching Assistant</b> , Introduction to Neuroscience Lab 8 hours per week of student interaction, 10-20 hours per week grading	Blacksburg, VA <i>Spring 2019</i>
<b>Undergraduate Teaching Assistant</b> , Introduction to Neuroscience Lab School of Neuroscience, Virginia Tech	Blacksburg, VA <i>Fall 2017</i>

## LEADERSHIP AND VOLUNTEER EXPERIENCE

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<b>Webmaster and media work at Epilepsy Foundation of Virginia</b> Create and collaborate on newsletters, booklets, resources, and guides for clients Maintain and develop website, help handle and promote events	<i>June 2024 – current</i>
<b>Virginia Piedmont Regional Science Fair Judge</b>	<i>March 23, 2024</i>
<b>NGP Seminar Committee</b> Contacted nominated speakers, organized seminar program, created weekly flyers	<i>2023 – 2024</i>
<b>Founding member of Neuroscience Graduate Program DEI Committee</b>	<i>2022 – current</i>
<b>Scientista, Virginia Tech Chapter</b> Founding member and codirector	Blacksburg, VA <i>2020 – 2021</i>
<b>Virginia Science Festival Volunteer</b> (Blacksburg, VA)	<i>Oct 2020, Nov 2017, Oct 2015</i>
<b>Founding member of the School of Neuroscience DEI Committee</b>	<i>2020-2021</i>
<b>Neuroscience Postdoctoral and Graduate Student Association</b> Graduate student member Founding member and chair of Diversity & Inclusion Committee Chair of Resource Committee Events Coordinator	Blacksburg, VA <i>2019 – 2021</i> <i>2021</i> <i>2019 – 2020</i> <i>2020 – 2021</i>
<b>MCB Graduate Program Recruitment Organizer</b>	<i>2018, 2019</i>
<b>Gamma Beta Phi National Service and Honor Society</b> President, Virginia Tech Chapter Vice President, Virginia Tech Chapter	Blacksburg, VA <i>2017 – 2018</i> <i>2016 - 2017</i>

## PUBLICATIONS

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**Woo, A.M.**, Fleischel, E.J., Patel, D.C., Sontheimer, H. Contribution of perineuronal nets to hyperexcitability in pilocarpine-induced status epilepticus. *Epilepsia* (2024). Under review.

Tewari, B.P., **Woo, A.M.**, Prim, C.E. *et al.* Astrocytes require perineuronal nets to maintain synaptic homeostasis in mice. *Nat Neurosci* 27, 1475–1488 (2024). <https://doi.org/10.1038/s41593-024-01714-3>

**Woo A.M.** and Sontheimer H. Interactions between astrocytes and extracellular matrix structures contribute to neuroinflammation-associated epilepsy pathology. *Front. Mol. Med.* 3:1198021 (2023). doi: 10.3389/fmmed.2023.1198021

Mills, W.A., **Woo, A.M.**, Jiang, S. *et al.* Astrocyte plasticity in mice ensures continued endfoot coverage of cerebral blood vessels following injury and declines with age. *Nat Commun* 13, 1794 (2022). <https://doi.org/10.1038/s41467-022-29475-2>

## POSTERS AND ORAL PRESENTATIONS

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**Woo, A.M.**, Patel, D.C., Tewari, B.P., Sontheimer, H. *Pilocarpine-induced status epilepticus leads to de novo perineuronal nets and altered excitability of CA1 neurons*. Poster presented at Mechanisms of Epilepsy and Neuronal Synchronization Gordon Research Conference; 18-23 August 2024; Waterville, NH.

**Woo, A.M.**, Patel, D.C., Tewari, B.P., Sontheimer, H. *Extracellular matrix coverage is associated with CA1 interneuron changes in a mouse model of temporal lobe epilepsy*. Poster presented at Society for Neuroscience Meeting; 11-15 November 2023; Washington, DC.

**Woo, A.M.**, Patel, D.C., Tewari, B.P., Sontheimer, H. *Changes in extracellular matrix coverage lead to functional alterations in CA1 interneurons in a mouse model of temporal lobe epilepsy*. Poster presented in absentia at American Society for Neurochemistry Meeting; 18 March 2023; Lexington, KY.

"Changes in extracellular matrix lead to functional alterations in CA1 interneurons in a mouse model of temporal lobe epilepsy." Oral presentation for BIG Research In Progress Seminars; 28 November 2022; Charlottesville, VA.

**Woo, A.M.**, Patel, D.C., Tewari, B.P., Sontheimer, H. *Changes in extracellular matrix coverage lead to functional alterations in CA1 interneurons in a mouse model of temporal lobe epilepsy*. Poster presented at Society for Neuroscience Meeting; 11-16 November 2022; San Diego, CA.

**Woo, A.M.**, Patel, D.C., Tewari, B.P., Sontheimer, H. *Characterization of Perineuronal Nets in Human and Murine Temporal Lobe Epilepsy with Functional Alterations in CA1 Interneurons*. Poster presented at Precision Neuroscience Meeting; 25-26 May 2022; Roanoke, VA.

**Woo, A.M.**, Patel, D.C., Tewari, B.P., Sontheimer, H. *Characterization of Perineuronal Nets in Human and Murine Temporal Lobe Epilepsy with Functional Alterations in CA1 Interneurons*. Poster presented at CVCSN Annual Meeting; 23 April 2022; Charlottesville, VA.

**Woo, A.M.**, Patel, D.C., Tewari, B.P., Sontheimer, H. *Characterization of Perineuronal Nets in Human and Murine Temporal Lobe Epilepsy with Functional Alterations in CA1 Interneurons*. Poster presented at American Society for Neurochemistry Annual Meeting; 11-14 April 2022; Roanoke, VA.

"Astrocyte and Extracellular Matrix Interactions in Health and Epilepsy Pathology." Oral presentation for BIG Research In Progress Seminars; 7 March 2022; Charlottesville, VA.

"Investigating the role of perineuronal nets in human epilepsy: Glu and Glia." Oral presentation for Molecular and Cellular Biology (MCB) Summer Seminars; 25 June 2021; Blacksburg, VA.

"Investigating perineuronal nets in murine and human epilepsy." Oral presentation for Molecular and Cellular Biology Summer Seminars; 25 June 2020; Blacksburg, VA.

**Woo, A.M.**, Tewari, B.P., Browning, J., Sontheimer, H. *Quantitative assessment of perineuronal nets in human temporal lobe epilepsy*. Poster presented at Virginia Tech School of Neuroscience Annual Symposium; 16 August 2019; Blacksburg, VA.

**Woo, A.M.**, Robert, S.M., Sontheimer, H. *Glutathione and EAAT Function in Glioblastoma Multiforme Xenolines Expressing System XC*. Poster presented at School of Neuroscience Research Exhibit; 27 April 2018; Blacksburg, VA.

Tankersley, A.P., Sullivan, C.P., **Woo, A.**, Wong, S., Wusik, M., Jones, R.T. *Perceived Family Support as a Unique Protective Factor among Firefighters*. Poster presented at The International Society for Traumatic Stress Studies 33rd Annual Meeting; 2017 November 9-11; Chicago, IL.

## **CONFERENCES AND MEMBERSHIPS**

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Graduate student member of the Society for Neuroscience (SfN) *2022-current*

Graduate student member of the American Society for Neurochemistry (ASN) *2022-2024*

Mechanisms of Epilepsy and Neuronal Synchronization, Gordon Research Conference; 18-23 August 2024; Waterville, NH.

Society for Neuroscience Annual Meeting; 11-15 November 2023; Washington, DC.

Society for Neuroscience Annual Meeting; 11-16 November 2022; San Diego, CA.

Precision Neuroscience Annual Meeting; 25-26 May 2022; Roanoke, VA.

Central Virginia Chapter of SfN (CVCSN) Annual Meeting; 23 April 2022; Charlottesville, VA.

ASN Annual Meeting; 11-14 April 2022; Roanoke, VA.

CVCSN Annual Meeting; 26-27 March 2021; virtual conference.

Virginia Tech School of Neuroscience Annual Symposium; 16 August 2019; Blacksburg, VA.

6th International Conference on Glial Biology in Medicine, Virginia Tech; October 14-16, 2018.