

JENNIFER JAHNCKE

📍 Portland, OR

🎓 EDUCATION

- Present
|
2018
- **Oregon Health & Science University**
PhD in Neuroscience 📍 Portland, OR
 - Advisor: Kevin M. Wright, PhD, Vollum Institute, OHSU
- 2014
|
2010
- **University of California, Davis**
BS in Psychology, Minor in Neuroscience 📍 Davis, CA
 - Genetics study abroad program in Cambridge, UK and Stockholm, Sweden (Summer 2012)
 - **Selected Courses**
 - Programming for Biology, CSHL, 2022, Cold Spring Harbor, NY
 - Biostatistics, OHSU, 2020, Portland, OR
 - Data Visualization, OHSU, 2020, Portland, OR
 - Practice and Ethics of Science, OHSU, 2018, Portland, OR
 - Light and Fluorescence Microscopy, UC Davis, 2017, Davis, CA

💻 RESEARCH EXPERIENCE

- Present
|
2018
- **Graduate Student Researcher**
Neuroscience Graduate Program, OHSU 📍 Portland, OR
 - Functional characterization of the scaffolding protein Dystroglycan at inhibitory synapses across the brain in mouse models of dystroglycanopathy.
 - Identified novel interacting partners of Dystroglycan in the central nervous system.
 - Use of R, Python, and Igor to automate data analysis.
- 2018
|
2014
- **Staff Research Associate**
Zito & Fioravante Labs, UC Davis 📍 Davis, CA
 - Characterization of genetically encoded fluorescent glutamate sensors using 2-photon glutamate uncaging on dendritic spines in CA1 of the hippocampus.
 - Elucidation of a novel protein signaling cascade in non-ionotropic NMDA receptor mediated LTD.
- 2014
|
2011
- **Undergraduate Research Assistant**
Trimmer & Trainor Labs, UC Davis 📍 Davis, CA
 - Independent project: Profiling expression and localization of Kv2.1 & Kv2.2 voltage gated potassium channels in the developing rat hippocampus.
 - Assisted in a study investigating the role of D1 dopamine receptors in social withdrawal behavior associated with anxiety and depression.
 - Assisted in a project investigating kappa opioid receptors as a mechanism for behavioral differences between the sexes in response to stress.

CONTACT INFO

✉ jahncke@ohsu.edu
☎ +1 925-895-2421
🔗 jennifer-jahncke.netlify.app
🌐 github.com/jnjahncke
🆔 0000-0003-2319-6109

SKILLS

🔗 R, Python, Bash, Git

📊 Statistical analysis

🔬 IHC + Microscopy

⚡ Slice electrophysiology

🧪 Biochemistry

🐭 Mouse genetics

Extended skills: genetic manipulation (in mouse), immunohistochemistry, confocal microscopy, electrophysiology, biochemistry, immunoprecipitation, SDS-PAGE, western blot, virus design, intracerebroventricular virus injection, primer design, PCR, 2-photon microscopy, glutamate uncaging, organotypic slice culture, biolistic transfection, genetically encoded fluorescent biosensors, experimental design, data analysis, figure design, Adobe Photoshop, Adobe Illustrator, R, Python, Bash, Git

REFERENCES

Kevin M. Wright, PhD
📍 Vollum Institute, OHSU
✉ wrightke@ohsu.edu

Eric Schnell, MD, PhD
📍 Anesthesiology and Perioperative Medicine, School of Medicine, OHSU
✉ schneler@ohsu.edu

Karen Zito, PhD
📍 Center for Neuroscience, UC Davis
✉ kzito@ucdavis.edu

This resume was made with the R package [pagedown](#).

Last updated on 2023-03-29.



TEACHING EXPERIENCE

- 2021 • **OHSU NGP Bootcamp: Patch Clamp Electrophysiology**
Hands on patch clamp instruction. 📍 Portland, OR
- 2020, 2019 • **Graduate Level TA Positions**
Biostatistics (CONJ 620) Winter 2020, OHSU 📍 Portland, OR
Cellular Neurophysiology (NEUS 624) Fall 2019, OHSU
- 2018 • **MBL Neurobiology, Imaging Section**
Teaching assistant at the Marine Biological Laboratory Neurobiology Course for the imaging section.
📍 Woods Hole, MA



PUBLICATIONS

- 2023 • **An adhesion signaling axis regulates the establishment of the cortical glial scaffold.**
Wong W, Estep JA, Treptow AM, Rajabli N, **Jahncke JN**, Ubina T, Wright KM, Riccomagno MM. bioRxiv 24 March 2023; <https://doi.org/10.1101/2022.08.02.502565>
- 2023 • **Inhibitory CCK+ basket synapse defects in mouse models of dystroglycanopathy.**
Jahncke JN, Miller DS, Krush M, Schnell E, Wright KW. bioRxiv 28 February 2023; doi: <https://doi.org/10.1101/2022.01.26.477791>
- 2023 • **The many roles of dystroglycan in nervous system development and function.**
Jahncke JN, Wright KW. Developmental Dynamics. 2023; 252(1): 61-80. doi: [10.1002/dvdy.516](https://doi.org/10.1002/dvdy.516)
- 2022 • **Shared and Distinct Functional Effects of Patient-Specific Tbr1 Mutations on Cortical Development.**
Co M, Barnard RA, **Jahncke JN**, Grindstaff S, Fedorov LM, Adey AC, Wright KM, O'Roak BJ. Journal of Neuroscience 14 September 2022, 42 (37) 7166-7181; doi: [10.1523/JNEUROSCI.0409-22.2022](https://doi.org/10.1523/JNEUROSCI.0409-22.2022)
- 2020 • **Molecular Mechanisms of Non-ionotropic NMDA Receptor Signaling in Dendritic Spine Shrinkage.**
Stein IS, Park DK, Flores JC, **Jahncke JN**, Zito K. Journal of Neuroscience 22 April 2020, JN-RM-0046-20; doi: [10.1523/JNEUROSCI.0046-20.2020](https://doi.org/10.1523/JNEUROSCI.0046-20.2020)
- 2017 • **A Dual Role for the RhoGEF Ephexin5 in Regulation of Dendritic Spine Outgrowth.**
Hamilton AM, Lambert JT, Parajuli LK, Vivas O, Park DK, Stein IS, **Jahncke JN**, Greenberg ME, Margolis SS, Zito K. Molecular and Cellular Neuroscience 80 (2017): 66-7 doi: [10.1016/j.mcn.2017.02.001](https://doi.org/10.1016/j.mcn.2017.02.001)



TALKS

- 2023 • **Inhibitory Basket Synapse Formation in Mouse Models of Dystroglycanopathy**
Vollum Works In Progress 📍 Portland, OR
- 2021 • **A functional role for Dystroglycan at inhibitory cerebellar synapses**
Vollum Works In Progress 📍 Virtual

HONORS

- 2020-2023 Ruth L. Kirschstein National Research Service Award
- 2020 NSF GRFP Honorable Mention
- ARCS Foundation Scholar
- Phi Beta Kappa

- 2020 ● **Dystroglycan: a scaffold for inhibitory synapses in cerebellar cortex**
Vollum Works In Progress 📍 Virtual

ABSTRACTS

- 2022 ● **Dystroglycan is necessary for the formation of functional inhibitory CCK+/CB1R+ basket synapses in hippocampus.**
Jahncke JN, Miller DS, Schnell E, Wright KM. CSHL Molecular Mechanisms of Neuronal Connectivity 📍 Cold Spring Harbor, NY
- 2020 ● **Purkinje cell Dystroglycan may promote the function of inhibitory basket synapses in cerebellar cortex.**
Jahncke JN, Schnell E, Wright KM. CSHL Molecular Mechanisms of Neuronal Connectivity 📍 Cold Spring Harbor, NY
- 2019 ● **Non ionotropic NMDA receptor signaling mechanisms driving dendritic spine plasticity.**
Stein IS, Park DK, Jahncke JN, Zito K. Society for Neuroscience 📍 Chicago, IL
- 2018 ● **Genetically-encoded glutamate sensors for monitoring large populations of individual synapses in vivo.**
Mizuno GO, Dong C, Jahncke JN, Natan R, Papadopoulos S, Jaffe D, Lambert JT, Ji N, Zito K, Tian . Fourth Annual Brain Initiative Investigators Meeting 📍 Bethesda, MD

VOLUNTEER & MENTORSHIP EXPERIENCE

- Present | 2020 ● **Alliance for Visible Diversity (AVDS)**
Communications Committee Member 📍 Portland, OR
- 2022 | 2019 ● **OHSU Graduate School Organization (GSO) Peer Mentoring Program**
Peer Mentor 📍 Portland, OR
- 2020 | 2019 ● **Women In Science PDX (WIS)**
STEMpowerment Committee Member 📍 Portland, OR
- 2019 | 2018 ● **NGP Alumni Invite Committee**
Committee Member 📍 Portland, OR
- 2018 | 2015 ● **Brain Awareness Week - Davis Chapter**
Event Organizer, Volunteer 📍 Davis, CA
- 2015 ● **UC Davis Neurobiology, Physiology, & Behavior Club**
Guest Speaker 📍 Davis, CA
- 2018 | 2014 ● **Undergraduate Researcher Mentor**
Mentored two undergraduates in the lab setting, overseeing their independent research projects and providing support through poster presentations, fellowship applications, and career development. 📍 Davis, CA