KYLIE B. MCPHERSON

Education:

Neuroscience PhD 06/2016 – 10/2021
The Vollum Institute – Neuroscience Graduate Program
Oregon Health & Science University
Department of Neurological Surgery
Lab of Dr. Susan Ingram
Portland, OR

Bachelor of Arts, Biochemistry 08/2009 – 05/2013
Occidental College, Los Angeles, CA

Research Positions Held:

2017 – 2021	Graduate student thesis work, Susan Ingram Lab, OHSU-SoM
2017	Graduate student rotation, Tianyi Mao Lab, The Vollum Institute
2016	Graduate student rotation, John Williams Lab, The Vollum Institute
2014 – 2015	Post Baccalaureate Fellow, Behavioral Neuroscience Branch, Neuronal Ensembles in Drug Addiction Section, IRP/NIDA/NIH, Baltimore, MD
2012 – 2013	Undergraduate Researcher, Biochemistry Department, Occidental College, Los Angeles, CA
2011 – 2012	Clinical Research Intern, Movement Disorders Department, Cedars Sinai Medical Center, Los Angeles, CA
2011	Richter International Research Scholar (UK), Occidental College

Major Academic & Scientific Awards:

2021	Successfully defended dissertation
2021 – 2022	Lacroute Fellowship (The Vollum Institute)
2019 – 2021	Neuroscience Scholars Program— Fellow (Society for Neuroscience)
2019 – 2020	Nicholas L. Tartar Research Fellowship (Oregon Health & Science University)
2018 – 2019	Research Leadership Scholar (Oregon Health & Science University)
2018	Advanced to Candidacy (The Vollum Institute)
2017 – 2019	Neuroscience Scholars Program— Associate (Society for Neuroscience)
2017 – 2019	Student Achievement Award (Neuroscience Graduate Program)
2017 – 2022	National Science Foundation Graduate Research Fellowship (funding completed August 31st, 2020)
2016	Oregon Promising Scholars Award (Oregon Health & Science University)
2014 – 2015	Post-baccalaureate Intramural Research Training Award Fellowship (NIH/NIDA)
2011	Richter International Research Scholar (Occidental College)

Conference-Associated Awards:

2019	Travel award to International Narcotics Research Conference (New York City, NY)
2018	Travel award to International Narcotics Research Conference (San Diego, CA)
2017	Travel award to International Narcotics Research Conference (Chicago, IL)
2015	Outstanding Poster Award – NIH Post-Bac Poster Day (Bethesda, MD)
2014	Outstanding Poster Award – NIH Post-Bac Poster Day (Bethesda, MD)
2011	International Research Travel Award to attend 5th International Dystonia Symposium (Barcelona, Spain)

Publications:

1. **McPherson, K. B.**, Bouchet, C. A., Ingram, S. L., (06/2021) Physiologically distinct neurons within the ventrolateral periaqueductal gray are not defined by mu-opioid receptor expression but are differentially activated by persistent inflammation. BioRxiv.
2. Bouchet, C. A., **McPherson, K. B.**, Li, M. H., Traynor, J. R., Ingram, S. L., RGS-insensitive mice define roles of mu opioid receptor (MOR)-Gαo and Gαi subunit coupling in inhibition of presynaptic GABA release. In Press, *Molecular Pharmacology*.
3. **McPherson, K. B.**, Leff, E. R., Lowe, J., Li, M., Traynor, J. R., Ingram, S. L. (08/2018). Regulators of G protein signaling (RGS) proteins promote receptor coupling to G protein coupled inwardly rectifying potassium (GIRK) channels. *The Journal of Neuroscience 38 (41), 8737- 8744*
4. Whitaker, L. R., Warren, B. L., Venniro, M., Harte, T. C., **McPherson, K. B.**, Beidel, J., Bossert, J. M., Shaham, Y., Bonci, A., Hope, B.T. (08/2017). Bidirectional modulation of intrinsic excitability in rat prelimbic cortex neuronal ensembles and non-ensembles following operant learning. *The Journal of Neuroscience*. 3761-16.
5. Whitaker, L. R., de Oliveira, P. E. C., **McPherson, K. B.**, Fallon, R. V., Planeta, C. S., Bonci, A., and Hope, B. T. (08/2016). Associative Learning Drives the Formation of Silent Synapses in Neuronal Ensembles of the Nucleus Accumbens. *Biological Psychiatry. 80(3), 246-256.*
6. Warren, B. L., Mendoza, M. P., Cruz, F. C., Leao, R. M., Caprioli, D., Rubio, F. J., Whitaker, L. R., **McPherson, K. B.**, Bossert, J. M., Shaham, Y. and Hope, B. T. (06/2016). Distinct Fos-Expressing Neuronal Ensembles in the Ventromedial Prefrontal Cortex Mediate Food Reward and Extinction Memories. *The Journal of Neuroscience*, 36(25), 6691-6703.
7. Rubio, F. J., Liu, Q. R., Li, X., Cruz, F.C., Leão, R. M., Warren, B. L., Kambhampati, S., Babin, K. R., **McPherson, K. B.**, Cimbro, R., Bossert, J. M., Shaham, Y., and Hope, B. T. (04/2015). Context-induced reinstatement of methamphetamine seeking is associated with unique molecular alterations in Fos-expressing dorsolateral striatum neurons. *The Journal of Neuroscience*, 35(14), 5625-5639.

Invited Talks:

2021 "Physiological heterogeneity and opioid receptor regulation within the ventrolateral periaqueductal gray provides a framework to better understand descending pain modulation", Dissertation Defense, The Vollum Institute, Oregon Health & Science University

2021 "The impact of persistent inflammation on Phasic neurons in the vlPAG", job talk for Melis Lab, virtual presentation

2021 "The impact of persistent inflammation on Phasic neurons in the vlPAG", Vollum Institute, Work in Progress Series, Portland, OR

2020 "Changes in intrinsic properties of vlPAG neurons after chronic pain", International Narcotics Research Conference, Virtual Meeting

2020 "Changes in intrinsic properties of vlPAG neurons after chronic pain", Vollum Institute, Work in Progress Series, Portland, OR

2018 "Diverse cell types within the vlPAG exhibit unique adaptations to intrinsic properties after inflammatory pain" Opioid Circuitry, Hot Topic, International Narcotics Research Conference, San Diego, CA

2017 "Agonist functional selectivity determined by RGS proteins." Young Investigator Symposium, Hot Topic, International Narcotics Research Conference, Chicago, IL

2015 "Neuronal ensemble refinement in food self-administration acquisition," NIDA Intramural Research Program, Baltimore, MD

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Teaching and Mentorship:

2019 – 2021	Contributed to training and mentorship of more junior graduate students (ie: helping learning to conduct electrophysiology recordings, writing, fellowship application, presentation and networking preparation)
2019 – 2021	Online one-on-one mentorship with several trainees interested in obtaining post-bac or graduate school positions as well as fellowships.
2018	Teaching Assistant for the course on Cellular Neurophysiology (The Vollum Institute)