# Chloe E. Page, PhD

#### CONTACT

University of Pittsburgh Department of Neuroscience 415 Langley Hall

Pittsburgh, PA 15260 Phone: 616-570-3844

Email: cep73@pitt.edu | chloeliza.page@gmail.com

www.researchgate.net/profile/Chloe Page

https://chloeliza.github.io/

## **EDUCATION AND TRAINING**

University of Pittsburgh, Pittsburgh PA

Postdoctoral Associate – 2020-present; Dr. Shawn Sorrells Lab

Ohio State University, Columbus OH

Neuroscience Graduate Program – 2014-2019; Dr. Laurence Coutellier Lab

Doctor of Philosophy, Master of Science

Thesis Title: Prefrontal excitatory/inhibitory balance in stress and emotional

disorders: Evidence for over-inhibition

Kalamazoo College, Kalamazoo MI

Bachelor of Arts - 2008-2012

WIL Research, Ashland OH

With Honors on senior research thesis and comprehensive exams

Major: Psychology; Minors: Biology, Theatre; Concentration: Neuroscience

## PROFESSIONAL EXPERIENCE

2020-present	Postdoctoral Associate
	University of Pittsburgh, Pittsburgh PA
2019	Presidential Fellow
	Ohio State University
2016-2018	Graduate Advising Associate
	Ohio State University Neuroscience Undergraduate Advising Office
2015-2016	Graduate Teaching Associate
	Ohio State University College of Arts and Sciences
2014-2015	Graduate Research Associate
	Ohio State University College of Medicine
2013-2014	Report Writer and Data Analyst; Pharmacology and Discovery Services
	WIL Research, Ashland OH
2012-2013	Biologist; Developmental and Reproductive Toxicology

#### PEER-REVIEWED PUBLICATIONS

Complete list of published work in MyBibliography:

https://www.ncbi.nlm.nih.gov/myncbi/chloe.page.1/bibliography/public/

- 1. Sorrells S, Paredes M, Zhang Z, Kang G, Pastor-Alonso O, Biagiotti S, **Page CE**, Sandoval K, Knox A, Connolly A, Huang E, Garcia-Verdugo JM, Oldham M, Yang Z, Álvarez-Buylla A. (2021) Positive controls in adults and children support that very few, if any, new neurons are born in the adult human hippocampus. *Journal of Neuroscience*, 41 (12): 2554-2565. Perspective.
- 2. **Page CE\***, Shepard R\*, Hagerdorn P, Heslin K, Coutellier L. (2019) Prefrontal parvalbumin cells are sensitive to stress and mediate anxiety-related behaviors in female mice. *Scientific Reports*, 9 (1):19772. \*Co-first author
- 3. **Page CE**, Coutellier L. (2019) Prefrontal excitatory/inhibitory balance in stress and emotional disorders: Evidence for over-inhibition. *Neuroscience & Biobehavioral Reviews*, 105: 39-51. Review.
- 4. Joshi A, **Page CE**, Damante M, Dye CN, Haim A, Leuner B, Lenz KM. (2019) Sex differences in the effects of early life stress exposure on mast cells in the developing rat brain. *Hormones and Behavior*, 113: 76-84.
- 5. Aten S, **Page CE**, Kalidindi A, Wheaton K, Niraula A, Godbout J, Hoyt K, Obrietan K. (2018) Data highlighting the expression of two miR-132/212 target genes Sirt1 and Pten after chronic stress. *Data in Brief*, 21: 2323-2329.
- 6. Aten S, **Page CE**, Kalidindi A, Wheaton K, Niraula A, Godbout J, Hoyt K, Obrietan K. (2018) miR-132/212 is induced by stress and its dysregulation triggers anxiety-related behavior. *Neuropharmacology*, 144: 256-270.
- 7. **Page CE**, Coutellier L. (2018) Adolescent stress disrupts the maturation of anxiety-related behaviors and alters the developmental trajectory of the prefrontal cortex in a sex- and age-specific manner. *Neuroscience*, 390: 265-277.
- 8. **Page CE**, Coutellier L. (2018) Reducing inhibition: a promising new strategy for the treatment of schizophrenia. *EBioMedicine*, 35: 25-26. Commentary.
- 9. **Page CE**, Alexander J, Shepard R, Coutellier L. (2018) Npas4 deficiency interacts with adolescent stress to disrupt prefrontal GABAergic maturation and adult cognitive flexibility. *Genes, Brain and Behavior*, e12459.
- 10. Shepard R, **Page CE**, Coutellier L. (2016) Sensitivity of the prefrontal GABAergic system to chronic stress in male and female mice: relevance for sex differences in stress-related disorders. *Neuroscience*, 332: 1-12.
- 11. Hansen K, Sakamoto K, Aten S, Snider KH, Loeser J, Hesse AM, **Page CE**, Pelz C, Arthur JSC, Impey S, Obrietan K. (2016) Targeted deletion of mir-132/-212 impairs memory and alters the hippocampal transcriptome. *Learning & Memory*, 23: 61-71.

#### **BOOK CONTRIBUTIONS**

1. "Data Science and a Paradigm Shift for Psychiatry." *Analytics Interpreted: A Compilation of Perspectives* (published by Women in Analytics, eds. Rehgan Avon and Dave Cherry, 2021).

#### **RESEARCH SUPPORT**

2019	Presidential Fellowship, Ohio State University Graduate School [full tuition,
	stipend, and fees]
2018	Alumni Grant for Graduate Research and Scholarship, Ohio State University
	[\$4,892]

#### **HONORS AND AWARDS**

	7.007.11.20
2019	Voted Neuroscience Program Student Plenary Speaker by fellow students for the
	Interdisciplinary Graduate Programs Life Sciences Symposium
2018	Trainee Professional Development Award, Society for Neuroscience
2018	Explorations in Neuroscience Camp Travel Award
2018	Travel Award to attend the Stress Neurobiology Workshop from the Pan
	American Neuroendocrine Society
2018	Outstanding Poster Presentation Award, Interdisciplinary Graduate Studies
	Life Sciences Symposium, Ohio State University
2018	Travel Award, Ohio State Department of Neuroscience
2018	Honorable mention, Hayes Graduate Research Forum poster presentation
	Council of Graduate Studies, Ohio State University
2018	Corporate sponsorship to attend Women in Analytics conference from the
	Columbus Collaboratory
2017-2019	Graduate Student Conference Presentation Travel Award, Ohio State
	Department of Psychology

#### **PRESENTATIONS**

- 1. **Page CE**, Coutellier L. Prefrontal excitatory/inhibitory balance in stress-induced anxiety: Evidence for over-inhibition. Poster session at: Society for Neuroscience, 2019 October 19-23, Chicago IL. *Presenting author*
- 2. Lemanski E, **Page CE**, Coutellier L. Postnatal prefrontal myelination and associated maturation of social behaviors are regulated by Npas4 in mice. Poster session at: Society for Neuroscience, 2019 October 19-23, Chicago IL. *Presenting author*
- 3. **Page CE**, Shepard R, Hagerdorn P, Heslin K, Coutellier L. DREADD-induced modulation of prefrontal parvalbumin cell activity has sex-specific effects on emotional behaviors. Presentation at: Interdisciplinary Graduate Programs Life Sciences Symposium, 21 May 2019, Columbus OH. *Neuroscience program student plenary speaker*
- 4. **Page CE**. The brain out of balance: How chronic stress leads to anxiety. Presentation at: Randolph-Macon College, Ashland VA, 2019 May 1. *Invited departmental talk*
- 5. **Page CE**, Hagerdorn P, Coutellier L. Effects of chemogenetic inhibition of prefrontal parvalbumin interneurons on emotional and cognitive behaviors following chronic stress exposure. Poster session at: Society for Neuroscience, 2018 November 3-7, San Diego CA. *Presenting author*

- 6. Saulsbery AI, **Page CE**, Nelson LH, Dodson CM, Lenz KM. Early life stress effects on mast cell degranulation and blood-brain barrier function depend on the severity and chronicity of stress. Poster session at: Society for Neuroscience, 2018 November 3-7, San Diego CA. *Non-presenting author*
- 7. **Page CE**, Coutellier L. Adolescent stress disrupts the maturation of anxiety-related behaviors and alters the developmental trajectory of the prefrontal cortex in a sex- and age-specific manner. Poster session at: Stress Neurobiology Workshop, 2018 June 8-11, Banff, Alberta, Canada. *Presenting author and poster teaser session oral presenter*
- 8. Shepard R, **Page CE**, Heslin K, Coutellier L. Modulation of prefrontal parvalbumin interneurons activity by chronic stress causes changes in anxiety-like behaviors in mice. Poster session at: Stress Neurobiology Workshop, 2018 June 8-11, Banff, Alberta, Canada. *Presenting author and poster teaser session oral presenter*
- 9. **Page CE**, Coutellier L. Adolescent stress disrupts the maturation of anxiety-related behaviors and alters the developmental trajectory of the prefrontal cortex in a sex- and age-specific manner. Poster session at: Interdisciplinary Graduate Programs Life Sciences Symposium, 30 May 2018, Columbus OH. *Presenting author*
- 10. **Page CE**, Imwalle S, Coutellier L. Age- and sex-specific effects of adolescent stress on the maturation of the mouse prefrontal cortex: Implications for heterogeneity in affective disorders. Poster session at: Hayes Graduate Research Forum, 2018 March 2, Columbus OH. *Presenting author*
- 11. Shepard R, **Page CE**, Heslin K, Coutellier L. Chronic stress-induced changes in parvalbumin cells of the prefrontal cortex contribute to increased anxiety in a sex-specific manner. Poster session at: Society for Neuroscience, 2017 November 11-15, Washington DC. *Presenting author*
- 12. **Page CE**, Alexander J, Shepard R, Coutellier L. Npas4 deficient mice lack homeostatic resilience against mild stress in adolescence and show impaired cognitive flexibility in adulthood. Poster session at: Society for Neuroscience, 2017 November 11-15, Washington DC. *Presenting author*
- 13. **Page CE**, Alexander J, Shepard R, Coutellier L. Npas4 deficient mice lack homeostatic resilience against mild stress in adolescence and show impaired cognitive flexibility in adulthood. Poster session at: Cell Symposia: Big Questions in Neuroscience, 2017 November 9-10, Arlington VA. *Presenting author and poster teaser session oral presenter*
- 14. **Page CE**, Alexander J, Coutellier L. Npas4-deficient mice lack cellular resilience against mild stress in adolescence and show impaired cognitive flexibility in adulthood. Presentation at: 11<sup>th</sup> International Regional Stress and Behavior Neuroscience and Biopsychiatry Conference (North America), 2017 June 22-24, Miami Beach FL. *Oral presenter*
- 15. **Page CE**, Alexander J, Coutellier L. Npas4-deficient mice lack homeostatic resilience against mild stress in adolescence and show impaired cognitive flexibility in adulthood. Presentation at: Interdisciplinary Graduate Programs Life Sciences Symposium, 2017 May 23, Columbus OH. *Oral presenter*

Chloe E. Page

- 16. Shepard R, Heslin K, **Page CE**, Coutellier L. Sex-specific circuitry regulating anxiety in situations of chronic stress in mice. Poster session at: Organization for the Study of Sex Differences; 2017 May 15-18; Montréal, QC, Canada. *Non-presenting author*
- 17. **Page CE**, Alexander J, Coutellier L. Npas4 deficiency interacts with adolescent stress to impair extradimensional set shifting in adulthood. Poster session at: Institute for Behavioral Medicine Research, Research Day, 2017 April 5, Columbus OH. *Presenting author*
- 18. Shepard R, **Page CE**, Coutellier L. Sensitivity of the prefrontal GABAergic system to chronic stress in male and female mice: relevance for sex differences in stress-related disorders. Poster session at: Neurobiology of Stress Workshop, 2016 April 12-15, Newport Beach CA. *Non-presenting author*

#### **AD HOC REVIEWER**

Research in Veterinary Science, Elsevier

### **PROFESSIONAL MEMBERSHIPS**

2017-2019 Society for Neuroscience

2018 Pan American Neuroendocrine Society

## **TEACHING**

2020	CITRL-certified (Center for Integrating Research, Teaching, and Learning) at the
	Associate level
2020	Assistant Instructor: Developmental Neuroscience
2018	Guest Lecturer: Behavioral Neuroscience
2015-2016	Course Assistant: Neurological Disease, Behavioral Neuroscience, Sensation and
	Perception, Cognitive Neuroscience, Behavioral Genetics

## **UNDERGRADUATE ADVISING AND MENTORSHIP**

2018	Neuroscience major and minor declaration advisor
2017-2018	Website design and maintenance, https://neurosciencemajor.osu.edu
2017-2018	Co-Organizer, Women in Neuroscience
2016, 2017	Seminar Instructor, Life as a Graduate Student
2016	Co-Organizer, Midwest/Great Lakes Undergraduate Research Symposium

#### SERVICE

2020	University Senate committee member, Gender & Racial Equity sub-committee
2020	University Senate committee member, Tenure & Academic Freedom committee
2018	Volunteer, Explorations in Neuroscience summer camp
2017	Panelist, 47 <sup>th</sup> Annual Graduate and Professional Student Recruitment Initiative,
	Office of Diversity and Inclusion
2017	Judge, Undergraduate Fall Research Forum
2016-2018	Alternate Delegate, Council of Graduate Studies Neuroscience Representative

2016-2018	Judge, Denman Undergraduate Research Forum
2016	Judge, Undergraduate Spring Research Expo
2016	Volunteer, Kids' Tech University
2014-2019	Volunteer, Brain Awareness Week
2014-2016	Volunteer, N.E.U.R.O. (Neuroscience Education, Urban and Rural Outreach)
2014	Volunteer, Stonewall Columbus Pride Parade and Festival

## **SOFTWARE PROFICIENCY**

Microsoft Office Suite (Word, Excel, PowerPoint, Outlook) Adobe (Photoshop, Illustrator, Acrobat) Google (Documents, Sheets, Paperpile reference add-on) Reference managers (Mendeley) Data analysis tools (RStudio, Prism, SPSS)

Chloe E. Page