

Katherine E. Parra

Behavioral Neuroscience, University at Albany
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EDUCATION

GRADUATION

Albany, NY	University of Albany, State University of New York, Department of Psychology Ph.D. in Behavioral Neuroscience	1/2024
Philadelphia	University of Pennsylvania, College of Arts and Sciences Bachelor of Arts in Psychology; Minor in Hispanic Studies	5/2014
Barcelona, Spain	Universidad de Barcelona, School of Psychology	Fall, 2012

RESEARCH EXPERIENCE

- 06/20 – Present **University at Albany, State University of New York, Albany, NY**
Graduate Research Assistant in the Zuloaga Lab—PhD Student, Behavioral Neuroscience
- Pursuing research into the relationship between the HPA axis and postpartum behavioral changes under the guidance of Dr. Damian Zuloaga.
 - Identifying the hormonal, contextual, and/or neurological causes of the colocalization of corticotropin releasing factor receptor 1 (CRFR1) and oxytocin neurons in brain regions of postpartum mice such as the paraventricular nucleus and the supraoptic nucleus.
 - Analyzing patterns of oxytocin release after an acute stressor in postpartum mice using radioimmunoassay.
 - Using laboratory techniques like immunohistochemistry, polymerase chain reaction, and fluorescent microscopy to identify patterns in CRFR1 fluctuations in postpartum mice.
- 08/18 – 06/20 **University at Albany, State University of New York, Albany, NY**
Graduate Research Assistant in the Workman Lab—PhD Student, Behavioral Neuroscience
- Conducted research investigating neurological changes during the span of the maternal experience including pregnancy, lactation, and offspring rearing under Dr. Joanna L. Workman.
 - Performed multiple behavioral assays including forced swim test, open field test, sucrose preference test, and restraint stress to assess depression- and anxiety-like behavior in rats for multiple studies investigating postpartum depression in a rodent model.
 - Utilized immunohistochemistry to label several aspects of neuronal changes like cell proliferation, differentiation, and survival in the various brain regions of rats.
 - Mentored and taught undergraduate research assistants conducting independent research projects.
- 06/16 – 07/18 **Memorial Sloan Kettering Cancer Center, New York, NY**
Research Study Assistant II, Department of Epidemiology & Biostatistics
- Screened electronic medical records to identify potentially eligible patients for the IMAGING and Epidemiology (IMAGINE) Study who will later be recruited in person, via mail or via email.
 - Consented patients undergoing breast MRIs at the Breast and Imaging Center.
 - Administered an epidemiological questionnaire to recruited patients about their relevant medical and family history.
 - Managed a secure database via REDCap to track patient progress within the study.
- 01/14 – 05/14 **Penn Laboratory for Experimental Evolutionary Psychology, University of Pennsylvania, Philadelphia, PA**
Research Mentee of Dr. Coren Apicella
- Conducted preliminary research on the interaction of testosterone, power poses, and money-based decision making in males.
 - Composed a research paper with the guidance of Dr. Coren Apicella fulfilling the psychology major requirement.

- 05/12 –11/13 **Smell and Taste Center**, Hospital at the University of Pennsylvania, Philadelphia, PA
Research Assistant
- Created a database of previous and current test results from patients with smell and/or taste dysfunctions.
 - Administered smell and taste tests to patients including the UPSIT, Whole Mouth Taste Suprathreshold Test, and the Lingual Mapping Test, and compared results to find correlations.
 - Collaborated with other research assistants to improve tests and patient questionnaires.
- 05/12 – 08/12 **Mood and Anxiety Research Program**, University of Pennsylvania, Philadelphia, PA
Research Assistant
- Assisted the research coordinators in organizing and preparing patient information and retrieving lab materials for clinical studies involving pharmaceutical and behavioral treatment of depression, bipolar disorder, and GAD.
 - Answered phone calls from prospective clinical trial subjects and administered an eligibility assessment.

TEACHING EXPERIENCE

- Fall, '23 – Sp', '24 **Lecturer, Neuroscience of Parenthood (18 students)**
Department of Psychology, Skidmore College
- Created a course focusing on the neurobiological underpinnings of parenting phenomena.
 - Lectured weekly in a discussion-based format to engage and challenge thinking about parenthood.
- Fall, '22 - Sp', '23 **Instructor, Introduction to Psychology (208 students)**
Department of Psychology, University at Albany
- Taught a survey of foundational psychology that covers topics ranging from neuroscience, social psychology, psychopathology, personality, and cognitive psychology.
 - Lectured twice weekly utilizing discussion-based learning that prompts students to probe their own thinking before and after a lecture.
- Fall, '21 **Instructor, Advanced Behavioral Neuroscience (35 students)**
Department of Psychology, University at Albany
- Taught advanced topics in behavioral neuroscience in a 15-week undergraduate course.
 - Lectured twice weekly in material that emphasized physiological and biological bases of behavior.
 - Guided students through reviewing challenging scientific articles.
 - Assisted the class with writing skills in the form of bi-monthly short essays which were reviewed for content and for scientific writing.
- Summer, '21 **Instructor, Introduction to Behavioral Neuroscience (30 students)**
Department of Psychology, University at Albany
- Created materials for a condensed, six-week asynchronous version of this course.
 - Gave specific feedback on iterative writing assignments for the benefit of students' writing skills.
 - Recorded lectures covering content for the course.
- Spring, '19 - '22 **Teaching Assistant, Department of Psychology, University at Albany**
Introduction to Psychopharmacology
- Spring, '22 *Introduction to Psychology*
- Spring, '21 *Introduction to Psychopharmacology*
- Fall, '20 *Introduction to Behavioral Neuroscience*
- Spring, '20 *Introduction to Psychology*
- Fall, '19 *Stress, Brain, and Behavior*
- Spring, '19 *Computing and Information Literacy in Psychology*
- Fall, '19 *Advanced Behavioral Neuroscience*
- Spring, '19 *Introduction to Behavioral Neuroscience*

MENTORSHIP AND WORK EXPERIENCE

- 08/18 – Present **Workman and Zuloaga Laboratories**, Albany, NY
Graduate Mentor
- Mentors multiple undergraduate research assistants every semester through teaching them neuroscience lab techniques, guiding them through various projects for senior theses, honors theses, and course

credit.

06/21 – 08/21 **College Science & Technology Entry Program (C-STEP)**, Albany, NY

06/22 – 08/22 *Mentor*

- Mentors several undergraduate students from underrepresented groups in STEM by teaching them lab techniques, helping them work through data collection and analysis, and assisting them in preparing and presenting their research for a conference.

09/20 – Present **Psychology Undergraduate Mentoring Program (PUMP)**, Albany, NY

Mentor

- Mentors two undergraduate students who are interested in neuroscience by helping them with graduate school applications, networking, guiding them through their final years in college, and answering any questions they may have about the field.

07/19 – 03/20 **Science & Technology Entry Program (STEP)**, Albany, NY

Mentor

- Mentored several high school students by teaching them lab techniques, helping them understand the science behind them, and giving them hands-on research experience.

11/14 – 05/15 **Encore Community Services**, New York, NY

Volunteer and Friendly Visiting Coordinator

- Recruited, trained, and placed volunteers for the senior center, meal delivery, and the Friendly Visiting program.
- Managed the Friendly Visiting program, which gives isolated and homebound seniors a weekly volunteer companion with whom they build a lasting friendship.

LEADERSHIP POSITIONS

09/21 – Present **Graduate Student Employees Union (GSEU)** – Union representing the graduate student employees at University at Albany

Department Mobilizer

- Encourages graduate students in the psychology department to join the GSEU to bolster union membership.
- Assists in campaigns to increase graduate student employee wages and decrease tuition fees.

07/20 – Present **Women in Neuroscience (WiN)** – Organization for women to seek guidance, mentorship, and support within the field of neuroscience

Communication Committee Chair

- Organizes and hosts open-access webinars highlighting leading women neuroscientists as well as professional development forums for various milestones in a neuroscience career.
- Co-manages several social media accounts to encourage outreach and engagement among women neuroscientists celebrating their accomplishments, highlighting relevant issues in the community, and crowdsourcing support.

PUBLICATIONS

De Guzman, R. M., Rosinger, Z. J., Rybka, K. A., Jacobskind, J. S., Thrasher, C. A., Caballero, A. L., Sturm, K. L., Sharif, M. S., Abbas, M. S., **Parra, K. E.**, Zuloaga, K. L., Justice, N. J., and Zuloaga, D. G. (2023) Changes in corticotropin releasing factor receptor type 1, co-expression with tyrosine hydroxylase and oxytocin neurons, and anxiety-like behaviors across the postpartum period in mice. *Neuroendocrinology*.

Lin, J. M., Mitchell, T. A., Rothstein, M., Pehl, A., Taroc, E. Z. M., Katreddi, R. R., **Parra, K. E.**, Zuloaga, D. G., Simoes-Costa, M., and Forni, P. E. (2022). Sociosexual behavior requires both activating and repressive roles of Tfap2e/AP-2ε in vomeronasal sensory neurons. *bioRxiv*. DOI: 10.1101/2022.01.14.476379

De Guzman, R. M., Rosinger, Z. J., **Parra, K. E.**, Jacobskind, J. S., Justice, N. J., and Zuloaga, D. G. (2021). Alterations in corticotropin-releasing factor receptor type 1 in the preoptic area and hypothalamus in mice during the postpartum period. *Hormones and Behavior*. DOI: 10.1016/j.yhbeh.2021.105044

CONFERENCE PRESENTATIONS

Society for Behavioral Neuroendocrinology. Poster presented: **K.E. Parra**, R.M De Guzman, J.J. Lafrican, K.A. Rybka, J.M. Ladison, A.V. Della Posta, A.E. Neuwirth, L.S. Chait, Ugartemendia Ugalde, N. Justice, and D.G. Zuloaga (2023). *Implications of increased expression of CRF receptors in oxytocin neurons across the postpartum period in mice*. June 2023, Tours, France.

Society for Neuroscience 2022. Poster presented: **K.E. Parra**, R.M De Guzman, J.J. Lafrican, K.A. Rybka, Della Posta, A. V., Ugartemendia Ugalde, N. Justice, and D.G. Zuloaga (2022). *Postpartum-induced alterations in colocalization of CRF receptors 1 and 2 with oxytocin neurons*. November 2022, San Diego, CA.

Society for Behavioral Neuroendocrinology. Poster presented: **K.E. Parra**, R.M De Guzman, J.J. Lafrican, K.A. Rybka, M. Sharif, L. Ugartemendia Ugalde, N. Justice, and D.G. Zuloaga (2022). *Oxytocin neurons express corticotropin-releasing factor receptor 1 in female mice after parturition*. June 2022, Atlanta, GA.

Society for Neuroscience 2021 (Virtual). Poster presented: **K.E. Parra**, R.M. De Guzman, Z.J. Rosinger, J.S. Jacobskind, K.A. Rybka, M. Sharif, L. Ugartemendia Ugalde, N. Justice, and D.G. Zuloaga (2021). *Dynamic changes in expression of corticotropin-releasing factor receptor 1 within oxytocin neurons of postpartum mice*. November 2021, Virtual.

University at Albany Life Sciences Research Symposium. Poster presented: **K.E. Parra**, A. Betit, R.M. De Guzman, and J.L. Workman (2019). *The postpartum period confers resistance to oxytocin receptor antagonism effects on stress-related behavior in rats*. November 2019, Albany, NY.

Society for Neuroscience Hudson Berkshire Local Chapter Meeting. Poster presented: **K.E. Parra**, A. Betit, R.M. De Guzman, and J.L. Workman (2019). *The postpartum period confers resistance to oxytocin receptor antagonism effects on stress-related behavior in rats*. September 2019, Albany, NY.

Society for Behavioral Neuroendocrinology 23rd Annual Meeting. Poster presented: J. L. Workman, **K.E. Parra**, J. Medina, A. Betit, R.M. De Guzman (2019). *Oxytocin antagonism increases depression-like behavior in nulliparous but not postpartum rats*. June 2019, Bloomington, Indiana.

PROFESSIONAL MEMBERSHIPS

2021 – Present	Society for Neuroscience (SfN)
2021 – Present	Society for Behavioral Neuroendocrinology (SBN)
2020 – Present	Women in Neuroscience

AWARDS AND FELLOWSHIPS

2022	Professional Development Fund Awardee — <i>UAlbany Graduate Student Employee Union</i>
2022	Travel Award Recipient — <i>Society for Behavioral Neuroendocrinology</i>
2020 – Present	Neuroscience Scholars Program Associate — <i>Society for Neuroscience</i>
2018 – Present	Carson Carr Graduate Diversity Fellow

SKILLS

Languages: Fluent in English; highly proficient in Spanish.

Technical: Proficient in Microsoft Office Suite, R, SPSS, Graphpad Prism, and Statistica.

Laboratory: Capable in mouse orchidectomy, thelectomy, stereotax, injections, cardiac perfusions, polymerase chain reaction (PCR), fluorescent and non-fluorescent immunohistochemistry, microscopy, and radioimmunoassay.