

Andrea F Jones, Ph.D.

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Education

Tulane University PhD, Aging Studies	New Orleans, LA June 2016
Indiana University BA, Psychology, High Honors	South Bend, IN May 2010
Holy Cross College AA, Liberal Arts	Notre Dame, IN May 1996

Research Experience

Louisiana State University Health Sciences Center Nicholas Gilpin, Ph.D.- P.I. Postdoctoral Fellow- NIAAA T32- Biomedical Alcohol Research Training Grant	New Orleans, LA June 2021-present
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The goal of my research is to determine how the MC4R changes with chronic pain. I am interested in sex- and age-specific differences in the way the MC4R functions within brain circuits associated with chronic inflammatory pain. Additionally, I am interested in the role of alcohol use disorder in the transition from acute to chronic pain

Indiana University School of Medicine Patrick Sheets Ph.D.- P.I. Postdoctoral Appointee	Indianapolis, IN January 2017-May 2021
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Investigating the neural circuits underlying acute and chronic pain with an emphasis on the role of GABAergic interneurons in the medial prefrontal cortex. Additionally, examining sex-specific differences in functioning of these neurons in chronic pain states and the role of anxiety and cognition on these differences.

Tulane University

New Orleans, LA

Paul J. Colombo Ph.D.- P.I.

May 2012-June 2016

Investigated the role of the inflammation-related transcription factor NFκB in spatial memory across the lifespan in rats

Determined effect of induced gut inflammation on spatial memory in young and aged mice

Utilized human subject's dataset to determine if psychosocial variables mediate cognitive decline in older adults with inflammatory conditions

Indiana University

South Bend, IN

Research Assistant

2009-2011

Cognitive Aging Laboratory- Matthew Costello P.I.

Investigated the role of age on processing speed and memory in humans

Investigated the impact of sleep on memory in older humans

Developed measures to use for the examination of wisdom and processing speed in older and younger human subjects

Suicide Research Team- Daniel DeBrule P.I.

Investigated the associations between exposure to suicide and knowledge of, and attitudes toward, suicide in young adults

Investigated the relationship between symptoms of ADHD and suicide risk in young adults

Awards**Greater Indiana Society for Neuroscience****2019**

Postdoctoral poster award

Indiana University South Bend**2010**

Excellence in Psychology

Haines Research Award

Excellence in Service to Psychology

Grants

**Conference Fund- Indiana University Purdue University Indianapolis
2019**

From the Office of Academic Affairs- Awarded matching funds for the first annual Stark Summer Science Symposium.

**Indiana University South Bend
2010**

Summer SMART grant fellowship for Interactions between, exposure to and knowledge of suicide

Skills and Techniques

Whole cell patch clamp electrophysiology, stereotaxic surgeries for injecting retrograde tracers and viral vectors, vibratome slicing, small animal surgery including spared-nerve injury model and plantar incision model utilizing isoflurane

Extensive behavioral assay skills- rodent handling, testing on water and land-based tasks, food restricting, pain assessment, colony monitoring, breeding and rodent ordering

Extensive biochemical assay skills- making solutions, gel electrophoresis, western blotting, protein assays, microdissection for hippocampus, striatum and prefrontal cortex, subcellular fractionation

Transcardial perfusion utilizing ketamine/xylazine and immunohistochemistry

Extensive computer-based skills- programming using E-prime, figure creation using Adobe Illustrator, data analysis using Excel, SPSS, Prism and Matlab, database management

Extensive laboratory management skills- ordering, inspections, safety and regulation compliance, mentoring students, working with vendors, staff and administration. Managing complex breeding strategies, rodent colony, lab personnel documents and internal and external inspections. Work with IACUC, IRB and IBC. Maintaining drug and euthanasia logs. Training staff and students

Training- in Lab Safety, BSL2 Safety, Laser Safety, Working with Bloodborne Pathogens, Working with IACUC, Working with Mice, Aseptic Surgical

Practices, Reducing Pain and Distress in Mice, HIPAA Standards and Security, and CITI Training for Humans and Rodents.

Project management- coordination, oversight and completion of multiple simultaneously occurring projects including collaborations with other labs

Writing skills including, grants, manuscripts and IRB and IACUC protocols

Human subjects skills- testing on E-prime base, paper and pencil, and oral cognitive tasks, developing and administering questionnaires

Extensive statistical analysis experience including, SPSS, GraphPad Prism, GPower, Matlab and some experience with SAS.

10+ years of data analysis, compilation and presentation to diverse audiences

Selected Publications and Presentations

Jones, A.F. (April 2021). Invited lecture. *Greater Indiana Society for Neuroscience Annual Symposium. Original invite April 2020- Postponed due to COVID-19.*

Jones, A.F. & Sheets, P.L. (2020). Sex-specific disruption of distinct mPFC inhibitory neurons in spared-nerve injury model of neuropathic pain. *Cell Reports*, 31(10). DOI:<https://doi.org/10.1016/j.celrep.2020.107729>

Jones, A.F. & Sheets, P.L. (2019). Somatostatin-expressing and parvalbumin-expressing GABAergic neurons in the medial prefrontal cortex are differentially altered in a mouse model of chronic pain. **Poster presentation at:** *Greater Indiana Society for Neuroscience Annual Symposium.*

Jones, A.F. & Sheets, P.L. (2018). Neuropathic pain has differential effects on intrinsic excitability of Somatostatin-expressing and Parvalbumin-expressing GABAergic neurons in the medial prefrontal cortex. **Poster Presentation at:** *The 17th World Congress on Pain*, Boston, MA

Jones, A.F. & Sheets, P.L. (2018). Sensitization of layer 5 corticostriatal neurons in an acute incision pain model. **Poster Presentation at:** *Greater Indiana Society for Neuroscience Annual Symposium.*

Jones, A.F. & Colombo, P.J. (in preparation). Basal levels of Nuclear Factor- κ B in subcellular fractions of hippocampal cells are associated with spatial memory formation across the lifespan

Kathirvelu, B., Jones, A.F. & Colombo, P.J. (in preparation). Overexpression of CREB in the hippocampus improves spatial memory in young, but not middle-aged rats.

Jones, A.F., Pilgeram, N.P. & Colombo, P.J. (2015). Increased basal levels of NF κ Bp65 in the nucleus of hippocampal cells is related to maintenance of hippocampal-dependent spatial memory in aged rats. **Poster Presentation** at: *45th Society for Neuroscience meeting, Chicago, IL*

Non-human Models of Aging (2014) Invited Lecture at Indiana University South Bend

Manning, L., Costello, M.C., Rakiewicz, S., Jones, A. & DeBrule, D. (2013). Narrating experience: Qualitative and Quantitative factors in the relationship between aging and wisdom. **Poster Presentation** at: *66th Gerontological Society of America meeting, New Orleans, LA*

Costello, M.C., Manning, L., Hillaker, A., Ratiwicz, S., Anastasio, M., Jones, A., & DeBrule, D. (2012). Narrating wisdom: Exploring the link between generalized slowing and wisdom in aging. **Poster Presentation** at: *65th Gerontological Society of America meeting, San Diego, CA*

Jones, A., Rice, J., O'Malley, K. & Gustat, J. (2012). Consumption of fresh fruit and vegetables among older adults in New Orleans. **Paper Presentation** at: *140th American Public Health Association, San Francisco, CA*

Jones, A. & DeBrule, D. (2011). Symptoms of ADHD, coping skills and reasons for living. **Paper Presentation** at: *44th American Association of Suicidology meeting, Portland, OR*

Jones, A., Drapeau, C. & DeBrule, D. (2011). Interactions between exposure to, attitudes toward and knowledge of suicide. **Poster Presentation** at: *44th American Association of Suicidology meeting, Portland, OR*

Teaching Experience

Instructor (2014)

People Program, New Orleans, LA

Taught Successful Aging classes to older adults at People Program. Included topics on how to maintain cognition, socialization, physical health and spirituality during aging. Also covered the benefits that older adults bring to society.

Co-taught Aging in the Arts. Covered the representation of older adults in film, music and art and the contributions of older adults to these genres.

Instructor (2009-2011)

Indiana University South Bend

Smart Learning Strategies- Lecture on topics related to time management, memory, test taking, learning strategies; graded assignments

Teaching Assistant (2009-2011)

Indiana University South Bend

Cognitive Psychology, Suicide and Depression, Abnormal Psychology, Methods of Experimental Psychology, Introductory Psychology, Social Justice- Graded exams and assignments, hosted review sessions, tutored students, guest lectured, graded blogs (for Social Justice), held in-person and on-line hours (Introductory Psychology online course)

Mentoring

Tulane University

Mentored 5 undergraduate and 2 Master's student while in the Colombo Lab.

Hannah Gilder- Tulane University B.S. Neuroscience; Mayo Clinic M.D.;

Currently: Mayo Clinic, Neurosurgical Resident

Sam Lipman- Tulane University B.S. & M.S. Neuroscience; *Currently:*

Associate at Avalere Health

Natalie Pilgeram- Tulane University B.S. Neuroscience and Cognitive

Studies; *Currently:* PhD student in Neuroscience and Animal Behavior at

Emory University

Silas Buck- Tulane University B.S. Neuroscience; *Currently:* PhD student in Neuroscience at University of Pittsburgh

Tyler Simons- Tulane University B.S. & M.S.; *Currently:* Attending medical school at Louisiana University School of Medicine

Manuela Gaviria- Tulane University B.S. PreMedicine & M.S.

Neuroscience; *Currently:* M.D./M.S. student at Tulane University School of Medicine and in the United States Air Force Health Professionals Scholarship Program

Professional Affiliations

Trainee member of International Association for the Study of Pain (IASP)

Trainee member of The Society for Neuroscience (SfN)

Member of the Association for the Advancement of Science (AAS)

Additional Scholarship Activities

Founding member and Seminar Series Liaison for the Stark Postdoctoral Association (2018-present)- involves coordinating activities and events such as speaking engagements, and the annual Stark Summer Science Symposium. Working with a diverse group of people including postdoctoral fellow, students, administrative personnel, lab associates, faculty and staff. Conducting survey research to determine interest in activities. Arranging activities for trainees including grant writing clubs, conflict-resolution seminars and monthly social engagements. Hosting invited speakers including arranging speaking itinerary, faculty and student meetings and meals as well as drafting speaker introduction. The position requires impeccable attention to detail and time management skills as well as the ability to work well with others and demonstrate tact and professionalism at all times.

Invited abstract referee (2016)- Biological Sciences Division, 69th
Gerontological Society of America meeting

Reviewer of record for an article submitted to the Scandinavian Journal of Rheumatology

Co-reviewer for articles submitted to: Hippocampus, Neurobiology of Aging and The Journal of Pain

Psi Chi Treasurer (2009-2010)- Indiana University South Bend Chapter

Senior editor (2010)- Indiana University South Bend Undergraduate Research Journal