

## **Sarah E. Latchney, Ph.D.**

Assistant Professor, Biology and Neuroscience  
St. Mary's College of Maryland  
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### **EDUCATION**

- 2006 – 2012      **Ph.D., Toxicology**  
University of Rochester Medical Center, Rochester, New York  
Department of Environmental Medicine, Thesis Advisor: Lisa A. Opanashuk, Ph.D.
- 2002 – 2006      **B.S., Biology**  
St. Lawrence University, Canton, New York  
Honors conferred in Biology, Phi Beta Kappa, *Magna Cum Laude*

### **EMPLOYMENT**

- 2019 – present      **Assistant Professor, Biology and Neuroscience**  
St. Mary's College of Maryland, St. Mary's City, Maryland
- 2016 – 2019      **Postdoctoral Fellow – Institutional Research and Career Development Award**  
University of Rochester Medical Center, Rochester, New York  
Department of Neuroscience, Advisor: Ania K. Majewska, Ph.D.
- 2015 – 2016      **Medical Writer**  
DAVA Oncology, Dallas, Texas
- 2012 – 2015      **Postdoctoral Fellow**  
University of Texas Southwestern Medical Center, Dallas, Texas  
Department of Psychiatry, Advisor: Amelia J. Eisch, Ph.D.

### **TEACHING EXPERIENCE**

#### **St. Mary's College of Maryland (current) – Courses for the Biology and Neuroscience Programs**

BIOL 105: Principles of Biology 1 (14 sections, fall 2019 – fall 2023)  
BIOL 105L: Principles of Biology 1 Laboratory (6 sections, fall 2019 – fall 2023)  
BIOL 109: Biology Emerging Scholars Program (5 sections, fall 2019 – fall 2023)  
BIOL 380: Special Topics in Biology – Neurotoxicology (1 section, fall 2022)  
BIOL 387: Sensory Biology with Laboratory (1 section, spring 2024)  
BIOL 419: Neurobiology with Laboratory (4 sections, spring 2020 – spring 2024)  
NEUR 201: Introduction to the Neurosciences (3 sections, spring 2020 – spring 2022)  
NEUR 301/303: Seminar/Advanced Seminar in the Neurosciences (5 sections, spring 2020 – spring 2022)

#### **Prior to St. Mary's College of Maryland**

IND 417: Workshop in Scientific Communications (3 sections, spring 2017 – spring 2019; University of Rochester)  
PH 203W: Principles of Toxicology (1 section, spring 2019; University of Rochester)  
BIOL 127L: General Biology Laboratory (1 section, fall 2018; St. John Fisher College)  
MEDS 485: Readings in Neurotoxicology (1 section, spring 2018; Rochester Institute of Technology)

### **PEER-REVIEWED PUBLICATIONS**

**NCBI Bibliography:** <https://www.ncbi.nlm.nih.gov/myncbi/16okgU69SJQkc/bibliography/public/>  
**ORCID ID:** <https://orcid.org/0000-0002-4070-1165>

24. **Latchney SE**, Cadney MD, Hopkins A, Garland T. Maternal upbringing and selective breeding for voluntary exercise behavior modify patterns of DNA methylation and expression of genes in the mouse brain. Genes, Brain and Behavior. 2023. PMID: 37519068.
23. **Latchney SE**, Cadney MD, Hopkins A, Garland T. DNA methylation analysis of imprinted genes in the cortex and hippocampus of cross-fostered mice selectively bred for increased voluntary wheel-running. Behavior Genetics. 2022. PMID: 35988119. PMC: 9463359
22. Lowery RL\*, **Latchney SE\***, Peer RP, Lamantia CE, Lordy KA, Opanashuk LA, McCall M, Majewska AK. Gestational and lactational exposure to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin primes cortical microglia to tissue injury. Brain, Behavior, and Immunity. 2022. PMID: 35065196. PMC: 9007156.  
**\* Authors contributed equally to this work.**
21. Murthy GG, Prideaux MA, Armstrong M, Kenney HM, **Latchney SE**, Susiarjo M, Murphy SP. Characterization of the temporal, cell-specific and interferon-inducible patterns of indoleamine 2,3-dioxygenase 1 (IDO1) expression in the human placenta across gestation. Placenta. 2021. PMID: 34619429.
20. **Latchney SE\***, Majewska AK. Persistent organic pollutants at the synapse: Shared phenotypes and converging mechanisms of developmental neurotoxicity. Developmental Neurobiology. 2021. PMID: 33851516. PMC: 8364477. **\* Top cited article among work published between January 2021 and December 2022.**
19. Lowery RL, **Latchney SE**, Peer RP, Lamantia CE, Opanashuk LA, McCall MN, Majewska AK. Acute 2,3,7,8-tetrachlorodibenzo-*p*-dioxin exposure in adult mice does not alter the morphology or inflammatory response of cortical microglia. Neuroscience Letters. 2020. PMID: 33227371. PMC: 7779719.
18. Ortega SB, Torres VO, **Latchney SE**, Whoolery CW, Noorbhai IZ, Poinsette K, Selvaraj UM, Benson MA, Meeuwissen AJ, Plautz EJ, Kong X, Ramirez DMO, Ajay AD, Meeks JP, Goldberg MP, Monson N, Eisch AJ, Stowe AM. B cells migrate into remote brain areas and support neurogenesis and functional recovery after focal stroke in mice. Proceedings of the National Academy of Sciences. 2020. PMID: 32051245. PMC: 7060723.
17. Bulin SE, Simmons SJ, Richardson D, **Latchney SE**, Deutsch H, Yun S, Eisch AJ. Indices of dentate gyrus neurogenesis are unaffected immediately after or following withdrawal from morphine self-administration compared to saline self-administering control male rats. Behavioural Brain Research. 2019. PMID: 31870778. PMC: 7036141.
16. Frisch BJ, Hoffman CM, **Latchney SE**, LaMere MW, Myers JR, Ashton JM, Li AJ, Saunders J, Palis J, Perkins A, McCabe A, Smith JNP, McGrath KE, Rivera-Escalera F, McDavid A, Liesveld J, Korshunov, Elliott MR, MacNamara KC, Becker MW, Calvi LM. Aged marrow macrophages expand platelet-biased hematopoietic stem cells via Interleukin1B. Journal of Clinical Investigation Insight. 2019. PMID: 30998506. PMC: 6542605.
15. Spinelli P, **Latchney SE**, Reed JM, Fields A, Baier BS, Lu X, McCall MN, Murphy SP, Mak W, Susiarjo M. Identification of a novel *Ido1* imprinted locus and its potential epigenetic role in pregnancy loss. Human Molecular Genetics. 2019. PMID: 30403776. PMC: 6360327.
14. **Latchney SE**, Fields AM, Susiarjo M. Linking inter-individual variability to endocrine disruptors: Insights for epigenetic inheritance. Invited Review. Mammalian Genome. 2018. PMID: 29218402. PMC: 5849504.
13. **Latchney SE**, Calvi LM. The aging hematopoietic stem cell niche: Phenotypic and functional changes and mechanisms that contribute to hematopoietic aging. Invited Review. Seminars in Hematology. 2017. PMID: 28088984. PMC: 5244432.

12. Petrik D, **Latchney SE**, Masiulis I, Yun S, Zhang Z, Wu JI, Eisch AJ. Chromatin remodeling factor Brg1 supports the maintenance but restricts the lifespan of adult neural stem cells. Stem Cells. 2015. PMID: 26418130. PMC: 4713255.
  11. **Latchney SE**, Jiang Y, Petrik D, Hsieh J, Eisch AJ. Inducible deletion of Mef2a, c, and d from nestin-expressing stem cells and progeny impairs adult hippocampal neurogenesis *in vivo*. FASEB Journal. 2015. PMID: 26286136. PMC: 4653059.
  10. **Latchney SE**, Jaramillo TC, Rivera PD, Eisch AJ, Powell CM. Chronic P7C3 treatment restores hippocampal neurogenesis in the Ts65Dn mouse model of Down syndrome. Neuroscience Letters. 2015. PMID: 25668489. PMC: 4363293.
  9. Rivera PD, Raghavan RK, Yun S, **Latchney SE**, McGovern MK, Garcia EF, Birnbaum SG, Eisch AJ. Retrieval of morphine-associated context induces cFos in dentate gyrus neurons. Hippocampus. 2014. PMID: PMC: 4368452.
  8. **Latchney SE**, Rivera PD, Nelson G, Eisch AJ. The effects of spaceflight on mouse olfactory bulb volume, neurogenesis, and cell death indicates the protective effect of novel environment. Journal of Applied Physiology. 2014. PMID: 24744382. PMC: 4152162.
  7. **Latchney SE**, Masiulis I, Zaccaria KJ, Lagace DC, Powell CM, McCasland JS, Eisch AJ. Developmental and adult GAP-43 deficiency in mice dynamically alters hippocampal neurogenesis and mossy fiber volume. Developmental Neuroscience. 2013. PMID: 24576816. PMC: 4035301.
  6. Petrik D, Yun S, **Latchney SE**, Kamrudin S, LeBlanc JA, Bibb JA, Eisch AJ. Early postnatal *in vivo* gliogenesis from nestin-lineage progenitors requires Cdk5. PLoS ONE. 2013. PMID: 23991155. PMC: 3753242.
  5. **Latchney SE**, Eisch AJ. Therapeutic application of neural stem cells and adult neurogenesis for neurodegenerative disorders: regeneration and beyond. Invited Review. European Journal of Neurodegenerative Diseases. 2012. PMID: 25729743. PMC: 4340249.
  4. **Latchney SE\***, Hein AM, O'Banion MK, DiCicco-Bloom E, Opanashuk LA. Deletion or activation of the aryl hydrocarbon receptor alters adult hippocampal neurogenesis and contextual fear memory. Journal of Neurochemistry. 2012. PMID: 23240617. PMC: 4540228.
- \*Submitted image chosen as a cover photo for the issue (Vol 125, Issue 3).**
3. Doran TM, Anderson EA, **Latchney SE**, Opanashuk LA, Nilsson BL. An azobenzene photoswitch sheds light on turn nucleation in amyloid- $\beta$  self-assembly. Journal of American Chemical Society: Chemical Neuroscience. 2012. PMID: 22860190. PMC: 3369795.
  2. Doran TM, Anderson EA, **Latchney SE**, Opanashuk LA, Nilsson BL. Turn nucleation perturbs amyloid- $\beta$  self-assembly and cytotoxicity. Journal of Molecular Biology. 2012. PMID: 22326870. PMC: 4654632.
  1. **Latchney SE**, Lioy DT, Henry EC, Gasiewicz TA, Strathmann FG, Mayer-Pröschel M, Opanashuk LA. Neural precursor cell proliferation is disrupted through activation of the aryl hydrocarbon receptor by 2,3,7,8-tetrachlorodibenzo-*p*-dioxin. Stem Cells and Development. 2011. PMID: 20486776. PMC: 3128757.

#### **INVITED PRESENTATIONS, POSTERS, SYMPOSIA, AND WORKSHOPS**

27. *Research Presentation*, HHMI-supported Neuroscience Diversity Ambassador Seminar Series, Department of Neuroscience, UT Southwestern Medical Center. Dallas, Texas. March 2023.
26. *Research Presentation*, Neuroscience Program, Bucknell University. Lewisburg, Pennsylvania. March 2023.

25. *Workshop Facilitator* (in collaboration with the Allen Institute for Cell Science and the Allen Institute for Brain Science), Open Data and Tools in Education, American Society for Cell Biology Conference, Washington, D.C., December 2022.
24. *Research Presentation*, Rochester Institute of Technology-Research Initiative for Scientific Enhancement (RIT-RISE) Scientist-in-Training Series. Rochester Institute of Technology, Rochester, New York. February 2021.
23. *Research Presentation*, Department of Psychology and Neuroscience, Baylor University. Waco, Texas. September 2020.
22. *Research Presentation*, Chesapeake Biological Laboratory. Solomons, Maryland, December 2019.
21. *Research Seminar*, World of Wonder in Science Seminar Series, National Technical Institute for the Deaf/ Rochester Institute of Technology, Rochester, New York, January 2018.
20. *Guest Lecturer*, Issues in Health, Science, and Technology, Rochester Institute of Technology (RIT), Rochester, New York, October 2017.
19. *Workshop Facilitator*, Best Practices for Mentoring and Supporting Deaf and Hard-of-Hearing Scientists in the Biomedical Workforce. Institutional Research and Academic Career Development Award Meeting. Birmingham, Alabama, June 2017.
18. *Workshop Facilitator*, Rochester Summer Research Training Institute. University of Rochester, Rochester, New York, June 2017.
17. *Research Presentation*, Society for Neuroscience Conference, Chicago, Illinois, October 2015.
16. *Poster Presentation*, Society for Neuroscience Conference, Washington, D.C., November 2014.
15. *Participant*, Broadening the Representation of Academic Investigators in NeuroScience (BRAINS) Symposium. University of Washington, Seattle, Washington, September 2014.
14. *Research Presentation*, Adult Neurogenesis Keystone Symposia. Stockholm, Sweden, May 2014.
13. *Poster Presentation*, Society for Neuroscience Conference, San Diego, California, November 2013.
12. *Poster Presentation*, Society for Neuroscience Conference, New Orleans, Louisiana, October 2012.
11. *Poster Presentation*, Society of Toxicology Conference, Washington, D.C., March 2011.
10. *Research Presentation*, Cancer, Genetics, and Signaling Symposium. National Cancer Institute, Frederick, Maryland, October 2010.
9. *Poster Presentation*, NIH Graduate Student Research Festival, National Institutes of Health, Bethesda, Maryland, October 2010.
8. *Poster Presentation*, American Society for Neurochemistry Conference, Santa Fe, New Mexico, March 2010.
7. *Research Presentation*, International Neurotoxicology Association Conference, Jerusalem, Israel, June 2009.
6. *Research Presentation*, Society of Toxicology Conference, Baltimore, Maryland, March 2009.

5. *Poster Presentation*, International Neurotoxicology Conference, Rochester, New York, October 2008.
4. *Research Presentation*, Bristol-Myers Squibb, Syracuse, New York, September 2008.
3. *Poster Presentation*, Association for Chemoreception Sciences Conference, Sarasota, Florida, April 2006.
2. *Poster Presentation*, Graduate Education in the Biomedical Sciences (GEBS) Summer Scholars Program, University of Rochester, August 2005.
1. *Poster Presentation*, Graduate Education in the Biomedical Sciences (GEBS) Summer Scholars Program, University of Rochester, August 2004.

#### **AWARDS, GRANTS, AND RECOGNITIONS**

27. *Recipient, Haliaeetus leucocephalus* Professorship, St. Mary's College of Maryland, 2023 – 2025
26. *Recipient, Faculty Development Grants* (4 total), Provost's Office, St. Mary's College of Maryland, 2019 – 2022
25. *Featured Neuroscientist*, "Open datasets can support virtual science education," Allen Institute for Brain Science, September 2020 (<https://alleninstitute.org/news-press/articles/open-datasets-can-support-virtual-science-education>)
24. *Recipient, MacGregor Award*, recognition for best toxicology presentation, Toxicology Ph.D. Program, University of Rochester, New York, 2018
23. *Recipient, Santa Fe Science Writing Workshop*, selected participant, Santa Fe, New Mexico, 2017
22. *Recipient, Travel Award*, Remodeling the Hematopoietic Bone Marrow Niche, NIDDK-sponsored workshop, National Institutes of Health (NIH), Washington, D.C., 2017
21. *Trainee, National Institute of General Medical Sciences (NIGMS) Institutional Research and Academic Career Development Award*, 2016 – 2019
20. *Recipient, Travel Award*, International Society for Neurochemistry-American Society for Neurochemistry (ISN-ASN) Joint Biennial Meeting, Cairns, Australia, 2015
19. *Recipient, Travel Award*, International Brain Research Organization (IBRO) World Congress of Neuroscience Meeting, Rio de Janeiro, Brazil, 2015
18. *Trainee, National Institute on Drug Abuse (NIDA) Research Supplement to Promote Diversity in Health-Related Research* (Parent Grant: Opiates and Adult Neurogenesis), 2014 – 2016
17. *Trainee, National Institute of Drug Abuse (NIDA) Institutional Research Training Grant*, Basic Science Training Program, 2014 – 2016
16. *Recipient, Anuradha Rao Memorial Award*, Society for Neuroscience (SFN) Meeting, Washington, D.C., 2014
15. *Member, Neuroscience Scholars Program*, Society for Neuroscience (SFN) Diversity in Neuroscience, 2013
14. *Recipient, Harold Hodge Award*, outstanding toxicology graduate thesis, University of Rochester, Rochester, New York, 2012

13. *Recipient, Vincent du Vigneaud Award*, excellence in graduate study, University of Rochester, Rochester, New York, 2012
12. *Recipient, Second Place Pre-Doctoral Award*, neurotoxicology specialty section poster competition, Society of Toxicology (SOT) Meeting, Washington, D.C., 2011
11. *Recipient, Travel Award*, International Neurotoxicology Association (INA) Meeting, Jerusalem, Israel, 2009
10. *Recipient, First Place Pre-Doctoral Award*, International Neurotoxicology Association (INA) Meeting, Rochester, New York, 2008
9. *Recipient, Bristol-Myers Squibb Company Award*, meritorious research in toxicology, University of Rochester, Rochester, New York, 2008
8. *Recipient, Graduate Student Society Merit Award*, University of Rochester, Rochester, New York, 2008
7. *Trainee, National Institute of Environmental Health Sciences (NIEHS) Institutional Research Training Grant*, Basic Science Training Program, 2007 – 2010
6. *Recipient, Kodak Toxicology Scholar Award*, recognition of promise for exceptional accomplishment in graduate study, University of Rochester, Rochester, New York, 2007
5. *Honors in Biology*, St. Lawrence University, Canton, New York, 2006
4. *Magna Cum Laude*, St. Lawrence University, Canton, New York, 2006
3. *Student Inductee, Phi Beta Kappa*, St. Lawrence University, Canton, New York, 2006
2. *Summer Scholar, Graduate Education in the Biomedical Sciences*, University of Rochester, Rochester, New York, Summer of 2005
1. *Summer Scholar, Graduate Education in the Biomedical Sciences*, University of Rochester, Rochester, New York, Summer of 2004

#### **HONORS THESIS SUPERVISION (“St. Mary’s Projects”), 2019 – 2024 (21 total)**

*\* A full list of student names and project titles is available upon request.*

#### **PROFESSIONAL SERVICE**

##### ***St. Mary’s College of Maryland***

Fall 2023 – Spring 2025	Faculty Senate, Vice President
Fall 2023 – Spring 2025	Academic Planning Committee, At-Large Member
Summer 2023	Seahawk Undergraduate Research Fellowship (SURF), Co-Director
Summer 2023	Tenure-Track STEM Librarian Faculty Search Committee
Fall 2022 – Spring 2023	Faculty Senate, At-Large Representative
July 2022, 2023	DeSousa-Brent Scholars Program LIGHT Week, Course Instructor
2021 – Present	Nu Rho Psi National Honor Society in Neuroscience, Faculty Advisor
2021 – 2024	Academic Judicial Board, North Division Representative
2021 – 2023	Policy Equity Review Committee, IDEAA Initiative
Fall 2021	Biology Tenure-Track Assistant Professor Faculty Search Committee
March 2021	Admissions’ Faculty Fridays: Learning in the Lab and Beyond, Participant
Fall 2020	Biology Tenure-Track Assistant Professor Faculty Search Committee

2020 – Present	Institutional Animal Care and Use Committee, Member
May 2020	Public and Environmental Health Inquiry Pathway, Workshop Participant
February 2020	Relay for Life, Volunteer
Spring 2020	Biology Visiting Assistant Professor Faculty Search Committee
Spring Semesters, 2020 – 2022	Southern Maryland Jr Science and Humanities Symposium, Reviewer
Spring Semesters, 2020 – Present	Admissions' Admitted Seahawk Days, Volunteer
Fall Semesters, 2019 – Present	Admissions' Open Houses, Volunteer
2019 – Present	Neuroscience Program Steering Committee, Member

#### ***Local and National Service***

Spring 2023 – Present	Advisory Committee, Accessible and Inclusive Biomedical Informatics and Data Science (AIBIDS) Program, Gallaudet University and University of Pittsburgh
March 2022	Academic Program Review, Biology Program School of Science, Technology, Accessibility, Mathematics, and Public Health, Gallaudet University, Washington, D.C.
2020 – 2023	Del Monte Institute for Neuroscience Diversity Commission, University of Rochester, Rochester, New York
2020 – 2023	Rochester Postdoctoral Partnership Oversight Committee, University of Rochester, Rochester, New York
Fall 2020	St. Mary's County Health Department COVID-19 wastewater laboratory testing, St. Mary's County, Maryland

#### **AD-HOC REVIEWER FOR SCHOLARLY JOURNALS**

*Biological Psychiatry, Brain Sciences, Clinical and Translational Medicine, Endocrinology, Environmental Health Perspectives, European Journal of Neuroscience, Frontiers in Endocrinology, Journal of Comparative Neurology, Medicina (Genetics), Physiology & Behavior, PLoS Genetics, Science, Synapse, Toxics*

#### **PROFESSIONAL AFFILIATIONS (active)**

2020 – present	Faculty for Undergraduate Neuroscience (FUN)
2014 – present	Broadening the Representation of Academic Investigators in NeuroScience (BRAINS)
2012 – present	Society for Neuroscience (SfN)
2007 – present	Society of Toxicology (SOT; Full member)