

# JASON BONDOC ALIPIO

## Curriculum Vitae

✉ jalipio@mgh.harvard.edu

☎ (909) 319-9390

🌐 Jason Alipio

🐦 @Jason\_Alipio

🌐 Jason Alipio

### EDUCATION

2016-2021 Ph.D. Neuroscience, University of Maryland School of Medicine, Baltimore MD (UMSOM)

2014-2016 B.A. Biological Psychology, California State University, San Bernardino CA (CSUSB)

### RESEARCH EXPERIENCE

2022-Present Postdoctoral Fellow

Harvard Stem Cell Institute, Massachusetts General Hospital Center for Regenerative Medicine

*Principal Investigator:* Amar Sahay, Ph.D.

*Research Focus:* Investigating hippocampal circuit and plasticity mechanisms in memory processing in health and disease.

2018-2021 Graduate Research Assistant, Neuroscience, Graduate Program in Life Sciences

University of Maryland School of Medicine, Department of Anatomy and Neurobiology

*Principal Investigator:* Asaf Keller, Ph.D.

*Research Focus:* Investigating neurobiological mechanisms that control the perceptions of touch and pain using cellular, network, computational, and behavioral correlates of neuronal processing.

2017-2018 Graduate Research Assistant, Neuroscience, Graduate Program in Life Sciences

University of Maryland School of Medicine

*Rotation Labs:* Brian N. Mathur, Ph.D.; Mervyn J. Monteiro, Ph.D.; Meaghan C. Creed, Ph.D.

2014-2016 Undergraduate Research Assistant, Department of Psychology

California State University, San Bernardino

*Principal Investigator:* Sergio D. Iñiguez, Ph.D.

*Research Focus:* Investigating the influence of stress and psychotropic drug exposure on developmental neurobiological mechanisms and behavioral outcomes in animal models of psychiatric disorders.

2014-2015 Undergraduate Research Assistant, Department of Psychology

California State University, San Bernardino

*Principal Investigator:* Christina M. Hassija, Ph.D.

*Research Focus:* Investigating trauma and resiliency associated with posttraumatic stress disorder, general anxiety, depression, and substance abuse disorder.

2015-2016 Research Scholar, Department of Psychology

NIH, Research Initiative for Scientific Enhancement (RISE)

California State University, San Bernardino

*Program Director:* Cynthia A. Crawford, Ph.D.

*Program Objective:* The RISE program provides research opportunities to minority students seeking a Ph.D. in health-related fields, such as funding for research and travel to scientific conferences.

Summer 2015 Research Scholar, Summer Program for Undergraduate Research: Life and Biomedical Science

University of California, Los Angeles

*Principal Investigator:* David L. Glanzman, Ph.D.

*Program Directors:* Gregory S. Payne, Ph.D., Jeffrey Goldman, Ph.D.

*Program Objective:* A ten-week summer program that includes seminars, workshops, and activities designed to prepare, encourage, and support the pursuit of graduate school and careers in research.

Summer 2014 Research Scholar, Office of Student Research Summer Research Program


California State University, San Bernardino

*Principal Investigator:* Christina M. Hassija, Ph.D.

*Program Directors:* Jeffrey M. Thompson, Ph.D., Francisca M. Beer, Ph.D.

*Program Objective:* A ten-week summer research program that includes seminars, workshops, and funding to complete an independent research project.

## **PUBLICATIONS**

 Citations = 269    **h-index** = 5    **i10-index** = 4

1. **Alipio JB**, Riggs LM, Plank M, Keller A. Environmental enrichment mitigates the long-lasting sequelae of perinatal fentanyl exposure (2022). *The Journal of Neuroscience* PMID:
2. Xue B, **Alipio JB**, Kao JP-Y, Kanold PO. Perinatal opioid exposure results in persistent hypo-connectivity of excitatory circuits and reduced population correlations in primary auditory cortex (2022). *The Journal of Neuroscience* PMID:
3. Calarco CA, Fox ME, Terheyden SV, Turner MD, **Alipio JB**, Chandra R, Lobo MK. Mitochondria-related nuclear gene expression in reward related brain regions and blood mitochondrial copy number after developmental fentanyl exposure in adolescent male and female C57BL/6 mice (2021). *Frontiers in Psychiatry* PMID: 34867530
4. **Alipio JB**, Haga C, Fox ME, Arakawa K, Balaji R, Cramer N, Lobo MK, Keller A. Perinatal fentanyl exposure leads to long-lasting impairments in somatosensory circuit function and behavior (2021). *The Journal of Neuroscience* PMID: 33468568
5. **Alipio JB**, Brockett AT, Fox ME, Tennyson SS, deBettencourt CA, El-Metwally D, Francis NA, Kanold PO, Lobo MK, Roesch MR, Keller A. Enduring consequences of perinatal fentanyl exposure in mice (2020). *Addiction Biology* PMID: 32187805
6. Roberts AC, Alzagatiti JB, Ly DT, Chornak J, Ma Y, Razee A, Zavradyan G, Khan U, Lewis J, Natarajan A, Baibussinov A, Emtage J, Komaranchath M, Richards J, Hoang M, **Alipio JB**, Laurent E, Kumar A, Campbell CS, Stark R, Carmona J, Husain J, Buck R, Jafarpour A, Garcia M, Mendoza S, Sandoval G, Agundez B, Fink A, Deutsch E, Hernandez SC, Arisaka K, Glanzman DL. Induction of short-term sensitization by an aversive chemical stimulus in zebrafish larvae (2020). *eNeuro* PMID: 33004417
7. Flores-Ramirez FJ, Parise LF, **Alipio JB**, Garcia-Carachure I, Castillo SA, Rodriguez M, Themman A, Lira O, Preciado-Piña J, Iñiguez SD. Adolescent fluoxetine history impairs spatial memory in adult male, but not female, C57BL/6 mice (2019). *Journal of Affective Disorders* PMID: 30807936
8. Tooley J, Marconi L, **Alipio JB**, Matikainen B, Georgiou P, Kravitz AV, Creed MC. Glutamatergic ventral pallidal neurons modulate activity of the habenula-tegmental circuitry and constrain reward seeking (2018). *Biological Psychiatry* PMID: 29452828
9. Iñiguez SD, Flores-Ramirez FJ, Riggs LM, **Alipio JB**, Garcia-Carachure I, Hernandez MA, Sanchez DO, Lobo MK, Serrano PA, Braren SH, Castillo SA. Vicarious social defeat stress induces depression-related outcomes in female mice (2018). *Biological Psychiatry* PMID: 28888327
10. Iñiguez SD, Aubry A, Riggs LM, **Alipio JB**, Zanca RM, Flores Ramirez FJ, Hernandez MA, Nieto SJ, Musheyev D, Serrano PA. Social defeat stress induces depression-like behavior and alters spine morphology in the hippocampus of adolescent male c57BL/6 mice (2016). *Neurobiology of Stress* PMID: 27981196

## **RESEARCH & TRAINING FELLOWSHIPS**

- |           |   |
|-----------|---|
| 2021-2022 | Ruth L. Kirschstein National Research Service Award (NRSA) F31-DA051113, NIH National Institute of Drug Abuse (NIDA), <b>\$76,792</b>   |
| 2018-2021 | Research Diversity Supplement NS99245, NIH National Institute of Neurological Disorders and Stroke (NINDS), <b>\$84,000</b>   |
| 2016-2017 | Meyerhoff Graduate Fellowship Program UMBC/UMB, Initiative for Maximizing Student Development R25-GM055036, NIH National Institute of General Medical Sciences (NIGMS), <b>\$28,000</b>     |
| 2015-2016 | California State University San Bernardino, Research Initiative for Scientific Enhancement (RISE) R25-GM100829, NIH National Institute of General Medical Sciences (NIGMS), <b>\$16,140</b> |

- 2015 Summer Research Fellowship, University of California Los Angeles (UCLA), Summer Programs for Undergraduate Research: Life and Biomedical Science (SPUR-LABS), **\$5,150**
- 2014 Summer Research Fellowship, CSUSB Office of Student Research (OSR), **\$3,500**
- 2014, 15, 16 Student Research Grant (3), CSUSB Associated Students Incorporated (ASI), **\$3,000**
- 2012-2016 Post 9/11 GI Bill, United States Department of Veterans Affairs, **\$100,000**

### **HONORS AND AWARDS**

- 2021 Graduate Program in Life Sciences, Ph.D. Thesis Award, UMSOM, **\$1000**
- 2020 Travel Award, Gordon Research Conference (GRC) Thalamocortical Interactions, Ventura, CA, **\$800**
- 2018 Mentor Certificate of Appreciation, Gifted and Talented Intern Mentor Program, Long Reach High School, Howard County, MD
- 2016 Outstanding Undergraduate Student Award, College of Social and Behavioral Sciences, CSUSB
- 2015 Office of the President Congratulatory Letter, Council on Undergraduate Research Posters on the Hill, CSUSB
- 2015 Oral Presentation First Place Awardee, 29<sup>th</sup> Annual California State University Student Research Competition
- 2015 Dean's Honors Thesis Award, College of Social and Behavioral Sciences, CSUSB
- 2015 Outstanding Undergraduate Research Award, Psychology Department, CSUSB
- 2015, 2016 Travel Award (2), California State University Program for Education and Research in Biotechnology (CSUPERB), Orange County, CA, **\$3,000**
- 2015 Travel Grant, California State University San Bernardino, Associated Students Incorporated (ASI) Council on Undergraduate Research Posters on the Hill, Washington, DC, **\$1,000**
- 2015 Travel Award, Annual Biomedical Research Conference for Minority Students (ABRCMS), Undergraduate Ambassador Program, Seattle, WA, **\$1,500**
- 2015 Travel Award, International Behavioral Neuroscience Society (IBNS), Victoria BC, **\$1,055**
- 2014 Travel Award, Annual Biomedical Research Conference for Minority Students (ABRCMS), Austin, TX, **\$1,500**
- 2014 Office of the President Congratulatory Letter of Achievement, 4.0 GPA, CSUSB
- 2014-2016 Dean's Honors List, 3.5 – 4.0 GPA, CSUSB
- 2014 Psychology Department Honors Program, CSUSB

### **ORAL PRESENTATIONS**

Restoration of perinatal fentanyl-induced deficits. *Baltimore Brain Series, hosted by NIH National Institute on Drug Abuse (NIDA), University of Maryland, and Johns Hopkins University.* May 2021, virtual meeting

Enduring consequences of perinatal fentanyl exposure. *University of Maryland School of Medicine/University of Maryland College Park, Meyerhoff Monthly Meeting*. Dec 2020, virtual meeting

Fluoxetine exposure during adolescence disrupts spatial memory performance in adulthood. *International Behavioral Neuroscience Society*. Jun 2015, Victoria BC, Canada

Fluoxetine exposure during adolescence, but not adulthood, disrupts spatial memory performance later in life. Office of Student Research. *Student Research Symposium: Meeting of the Minds*. Student Honoree Keynote Speaker. May 2015, San Bernardino, CA.

Fluoxetine exposure during adolescence disrupts spatial memory performance in adulthood. *California State University Student Research Competition*. Apr 2015, San Bernardino, CA. (1<sup>st</sup> Place Awardee).

Fluoxetine exposure during adolescence, but not adulthood, disrupts spatial memory performance later in life. *Western Psychological Association*. Apr 2015, Las Vegas, NV.

Fluoxetine exposure during adolescence disrupts spatial memory performance in adulthood. *California State University San Bernardino Student Research Competition*. Feb 2015, San Bernardino, CA. (1<sup>st</sup> Place Awardee).

The influence of emotion regulation on posttraumatic cognitions and symptoms of posttraumatic stress disorder on survivors of sexual assault. *Office of Student Research Summer Research Conference*. Aug 2014, San Bernardino, CA.

## **POSTER PRESENTATIONS**

**Alipio JB**, Riggs LM, Haga C, Fox ME, Arakawa K, Balaji R, Plank M, Cramer N, Lobo MK, Keller A. Environmental enrichment restores the long-lasting sequelae of perinatal fentanyl exposure. *Society for Neuroscience*, Oct 2021, Chicago, IL.

**Alipio JB**, Li Y, Haga CW, Balaji R, Fox ME, El-Metwally D, Lobo MK, Picciotto MR, Keller A. Perinatal exposure to drugs of abuse causes permanent aberrations in somatosensory circuits. *Gordon Research Conference on Thalamocortical Interaction*, Feb 2020, Ventura, CA.

**Alipio JB**, Li Y, Haga CW, Balaji R, Fox ME, El-Metwally D, Lobo MK, Picciotto MR, Keller A. Perinatal exposure to drugs of abuse causes permanent aberrations in somatosensory circuits. *Society for Neuroscience*, Oct 2019, Chicago, IL.

**Alipio JB**, Li Y, Haga CW, Balaji R, Fox ME, El-Metwally D, Lobo MK, Picciotto MR, Keller A. Perinatal exposure to drugs of abuse causes permanent aberrations in somatosensory circuits. *Greater Baltimore Society for Neuroscience Chapter*, Sep 2019, Baltimore, MD.

**Alipio JB**, Li Y, Keller A. Perinatal exposure to opioids causes deficits in somatosensory circuits. *Training Program in Integrative Membrane Biology Annual Retreat*, May 2019, Baltimore, MD.

**Alipio JB**, Tooley J, Marconi L, Matikainen B, Georgiou P, Kravitz AV, Creed MC. Glutamatergic ventral pallidal neurons modulate activity of the habenula-tegmental circuitry and constrain reward seeking. *Graduate Student Association, 40<sup>th</sup> Annual Graduate Research Conference*, Mar 2018, Baltimore, MD.

**Alipio JB**, Riggs LM, & Iñiguez SD. Fluoxetine exposure during adolescence, in female C57bl/6 mice, does not influence spatial memory performance in adulthood. *Society for Neuroscience*, Nov 2016, San Diego, CA.

Riggs LM, **Alipio JB**, Garcia I, Zavala AR, & Iñiguez SD. Ketamine exposure during adolescence increases sensitivity to reward-related stimuli in adulthood. *International Behavioral Neuroscience Society*, Jun 2016, Budapest, Hungary.

**Alipio JB** & Iñiguez SD. Enduring Effects of Fluoxetine on Spatial Memory Performance in Male C57BL/6 Mice. *California State University Program for Education and Research in Biotechnology*, Glenn Nagel Undergraduate Research Award Finalist. Jan 2016, Orange County, CA.

Riggs LM, **Alipio JB**, Gonzalez C, & Iñiguez SD. Witnessing social defeat stress induces a depression-like phenotype in female c57BL/6 mice. *California State University Program for Education and Research in Biotechnology*. Jan 2016, Orange County, CA.

Iñiguez SD, Riggs LM, Flores-Ramirez FJ, **Alipio JB**, & Lobo MK. Witnessing social defeat stress induces a depression-like phenotype in female c57BL/6 mice. *American College of Neuropsychopharmacology*. Dec 2015, Hollywood, FL.

Hoang M, **Alipio JB**, Laurent ES, Wang P, Chornak J, Choe RC, Alzagatiti JB, Roberts AC, & Glanzman DL. Larval zebrafish as a model system for learning and memory. *Annual Biomedical Research Conference for Minority Students*. Nov 2015, Seattle, WA.

**Alipio JB**, Riggs LM, Alcantara LF, & Iñiguez SD (Oct 2015). Enduring effects of fluoxetine on spatial memory performance in adolescent and adult male c57BL/6 mice. *Society for Neuroscience*, Oct 2015, Chicago, IL.

Riggs LM, **Alipio JB**, Hernandez MA, Shawhan KL, Cruz B, Sanchez DO, Zavala AR, & Iñiguez SD. Ketamine exposure during adolescence increases sensitivity to reward-related stimuli in adulthood. *Society for Neuroscience*, Oct 2015, Chicago, IL.

Flores-Ramirez FJ, Riggs LM, **Alipio JB**, Hernandez MA, Cruz B, Braren SH, Serrano PA, & Iñiguez SD (Oct 2015). Witnessing social defeat stress mediates a depression-like phenotype in female c57BL/6. *Society for Neuroscience*, Oct 2015, Chicago, IL.

**Alipio JB**, Laurent ES, Hoang M, Choe RC, Alzagatiti JB, Roberts AC, & Glanzman DL. Learning and memory in larval zebrafish. University of California Los Angeles, *Summer Programs for Undergraduate Research: Life and Biomedical Science Summer Presentations*. Aug 2015, Los Angeles, CA

**Alipio JB**, Cruz B, Shawhan KL, Riggs LM, & Iñiguez SD (Jun 2015). Fluoxetine exposure during adolescence disrupts spatial memory performance in adulthood. *International Behavioral Neuroscience Society*, Jun 2015 British Columbia, Canada

Riggs LM, **Alipio JB**, Hernandez MA, Flores-Ramirez FJ, & Iñiguez SD. Witness defeat: A novel animal model of vicarious stress-induced depression in female c57BL/6 mice. *International Behavioral Neuroscience Society*. Jun 2015, British Columbia, Canada

**Alipio JB**, Aguilar M, Sechang S, & Hassija CM. Emotion regulation strategies mediate the relationship between posttraumatic cognitions and symptoms of PTSD and depression among sexual assault survivors. *Western Psychological Association*. Apr 2015, Las Vegas, NV.

Hernandez MA, **Alipio JB**, Cruz B, Shawhan K, Flores F, Zavala AR, & Iñiguez SD. Long-term functional consequences of ketamine exposure during adolescence. *Western Psychological Association*. Apr 2015, Las Vegas, NV.

Aguilar M, Sechang S, **Alipio JB**, & Hassija CM. The influence of coping strategies in the relationship between self-blame and PTSD and depressive symptom severity among survivors of sexual assault. *Western Psychological Association*. Apr 2015, Las Vegas, NV.

Sechang S, **Alipio JB**, Aguilar M, & Hassija CM. Emotion regulation strategies among sexual assault survivors. *Western Psychological Association*. Apr 2015, Las Vegas, NV.

**Alipio JB** & Iñiguez SD. Fluoxetine exposure during adolescence disrupts spatial memory performance in adulthood. *Council on Undergraduate Research, Posters on the Hill*. Apr 2015, Washington, DC.

Hernandez MA, **Alipio JB**, Cruz B, Iñiguez, SD. Ketamine exposure during adolescence alters responses to mood-related stimuli in adulthood. *California State University Program for Education and Research in Biotechnology Symposium*. Jan 2015, Santa Clara, CA.

Iñiguez SD, Riggs LM, **Alipio JB**, Hernandez MA, & Cruz B. Ketamine reverses stress-induced depression-like behavior in adolescent c57bl/6 male mice. *American College of Neuropsychopharmacology*, Dec 2014, Phoenix, AZ.

Riggs LM, Shawhan KL, Cao V, **Alipio JB**, & Iñiguez SD. Ketamine reverses social defeat stress-induced depression-like behavior in adolescent mice. *Society for Neuroscience*, Nov 2014, Washington, DC.

**Alipio JB** & Iñiguez SD. Fluoxetine (Prozac) exposure during adolescence disrupts memory performance in adulthood. *Annual Biomedical Research Conference for Minority Students*, Nov 2014, San Antonio, TX. (Poster Presentation Awardee).

Hernandez MA, **Alipio JB**, Cruz B, Shawhan KL, Flores-Ramirez FJ, Zavala AR, & Iñiguez SD. Long-term functional consequences of ketamine exposure during adolescence in c57bl/6 mice. *Annual Biomedical Research Conference for Minority Students*, Nov 2014, San Antonio, TX

### **SERVICE ACTIVITY**

#### **Mentorship/One-on-One Training:**

2021	Rebecca Lorsung	UMSOM	<i>ex vivo</i> slice electrophysiology
2021	Sara Keefer, Ph.D.	UMSOM	<i>ex vivo</i> slice electrophysiology
2021	Urja Kuppa	Long Reach HS	statistics, electrophysiology analysis
2020	Jewel White	UMSOM	Program in Neuroscience Big/Little Mentor Program
2020	Krystal Flores-Felix	UMSOM	<i>ex vivo</i> slice electrophysiology, stereotaxic surgery
2019	Catherine Haga	UMSOM	<i>ex vivo</i> slice electrophysiology
2019	Antonio Figueiredo	UMSOM	Program in Neuroscience Big/Little Mentor Program
2018	Rakshita Balaji	Long Reach HS	<i>in vivo</i> electrocorticogram, stereotaxic surgery

#### **Supervised Ad Hoc Reviewer:**

Frontiers in Pharmacology  
Frontiers in Synaptic Neuroscience  
Stress

#### **Invited Guest Lectures:**

Pursuing Undergraduate & Graduate Education (Feb 2019). STEM Career Day, Coordinator: Emily Rudo, Long Reach High School, Columbia, MD

Pursuing a Graduate Education (Oct 2017). PSYC 597: Psychology Department Honors Seminar, Instructor: Kelly Campbell, Ph.D., California State University, San Bernardino, CA

Molecular Mechanisms of Learning and Memory (Mar 2016). PSYC 442: Behavioral Neuroscience, Instructor: Sergio D. Iñiguez, Ph.D., California State University, San Bernardino, CA

#### **Other:**

*Abstract reviewer* (Oct 2019). Annual Biomedical Research Conference for Minority Students, Coordinator: Mary Carole Jorgensen, University of Maryland, College Park, MD

*Lab Tour Guide* (Oct 2018). Neuroscience Outreach and Volunteer Association (NOVA) Fall Lab Tours, UMSOM, Baltimore, MD

*Design and Statistics Editor* (2015-2016). Psychology Department Student Research Journal, California State University, San Bernardino, CA

*Journal Editor* (2014-2016). Office of Student Research, Journal of Student Research, California State University, San Bernardino, CA

*Student Ambassador* (Nov 2015). Annual Biomedical Research Conference for Minority Students, Seattle, WA

*Teaching Assistant-laboratory section* (Fall 2015). PSYC 433: Advanced Experimental Psychology: Biological, Instructor: Sergio D. Iñiguez, Ph.D., California State University, San Bernardino, CA

### **CERTIFICATIONS**

2020 University of Maryland School of Medicine: COVID-19 Research Safety Training  
2020 University of Maryland School of Medicine: Prescription Drug Abuse Prevention  
2019 Safe Colleges Training: Sexual Harassment Prevention  
2011 Naval Air Systems Command (NAVAIR) AIRSpeed: Theory of Constraints, Lean, and Six Sigma  
2010 Marine Corps Martial Arts Program: Black Belt  
2007 Dept. Homeland Security, FEMA: Emergency Management Training  
2001 Black Belt Instructor: Jeet Kune Do, Wing Chun, Kali/Escrima, Muay Thai, Shoot Wrestling

### **NEWS & MEDIA RECOGNITION**

Maryland Medicine Front Line News, “[Discovery Segment: Opioid Use During Pregnancy](#)” News Anchor Larry Roberts, February 26, 2021

University of Maryland School of Medicine News, “[UM School of Medicine Researchers Find that Misuse of Opioid Drugs During Pregnancy Could Have Lasting Impact on Child’s Development from Infancy Through Teen Years](#)” by Deborah Kotz, February 9, 2021

University of Maryland School of Medicine News, “[University of Maryland School of Medicine Launches Center for Substance Use in Pregnancy](#)” April 16, 2020

UCLA Bioscience, Headlines Interview “[SPUR-LABS Student Spotlight Video - Jason Alipio](#)” by Lemicher E. Mack, October 3, 2015

Reveille Newsletter, Issue 23, California State University San Bernardino, Veterans Success Center, “Jason Alipio, USMC Veteran, Presents His Research on Capitol Hill” by Luca Daley & Marci Daniels, June 11, 2015

Science and the CSU “[Student Researchers Bring Big Ideas](#)” 29<sup>th</sup> Annual Student Research Competition at CSU blog highlight. CSU Public Affairs, June 2, 2015

Campus news announcement, California State University San Bernardino, 4<sup>th</sup> Annual Student Research Symposium. Featuring Keynote Speaker: Dr. Cynthia Crawford and Student Honoree Speaker: Jason Alipio by Danielle White, May 21, 2015

The Sun: Education “[CSUSB student research presentations on Thursday](#)” Highlights of Meeting of the Minds symposium held at CSUSB. Editor Mike Anastasi, May 19, 2015

Featured Stories, Annual Biomedical Research Conference for Minority Students, “[Interview with 2014 ABRCMS Awardee: Jason Alipio](#)” Editors Irene Hulede & Leslie Robinson, January 20, 2015

Monthly Newsletter, California State University San Bernardino, Office of Student Research, “OSR Spotlight” by Danielle White, January 13, 2015

### **PROFESSIONAL MEMBERSHIPS**

Society for Neuroscience (SfN), Student Member  
International Behavioral Neuroscience Society (IBNS), Student Member  
Council on Undergraduate Research (CUR), Student Member

## **REFERENCES**

### **Amar Sahay, Ph.D.**

Associate Professor  
Department of Psychiatry  
Harvard Medical School Harvard Stem Cell Institute  
Massachusetts General Hospital Center for Regenerative Medicine  
Broad Institute of MIT and Harvard  
CPZN 4242, 185 Cambridge Street, Boston, MA 02114  
Phone (617) 643-4371  
Email: [asahay@mgh.harvard.edu](mailto:asahay@mgh.harvard.edu)  
Website: [www.sahaylab.com](http://www.sahaylab.com)

### **Asaf Keller, Ph.D.**

Professor  
Chair of the Department of Anatomy & Neurobiology  
Interim Director of Comparative Medicine and Veterinary Resources  
Department of Anatomy & Neurobiology  
University of Maryland School of Medicine  
655 W. Baltimore Street, Baltimore, MD 21201  
Phone (410) 706-7307  
Email: [akeller@som.umaryland.edu](mailto:akeller@som.umaryland.edu)  
Website: [www.asafkellerlab.org](http://www.asafkellerlab.org)

### **Brian N. Mathur, Ph.D.**

Associate Professor  
Director of Graduate Education  
Department of Pharmacology  
University of Maryland School of Medicine  
655 W. Baltimore Street, Baltimore, MD 21201  
Phone (410) 706-8239  
Email: [bmathur@som.umaryland.edu](mailto:bmathur@som.umaryland.edu)  
Website: [www.mathurlab.org](http://www.mathurlab.org)

### **Mary Kay Lobo, Ph.D.**

Professor  
Department of Anatomy and Neurobiology  
University of Maryland School of Medicine  
655 W. Baltimore Street, Baltimore, MD 21201  
Phone (410) 706-8824  
Email: [mklobo@som.umaryland.edu](mailto:mklobo@som.umaryland.edu)  
Website: [www.lobolab.org](http://www.lobolab.org)

### **Meaghan Creed, Ph.D.**

Assistant Professor  
Department of Anesthesiology, Pain Center  
Washington University School of Medicine  
425 South Euclid Avenue, CSRB 5<sup>th</sup> floor, 5567, St. Louis, MO 63110  
Phone: (314) 747-5754  
Email: [Meaghan.creed@wustl.edu](mailto:Meaghan.creed@wustl.edu)  
Website: [www.creedlab.org](http://www.creedlab.org)