Benedict J. Kolber, Ph.D.

Curriculum Vitae (1/2025)
Associate Professor
University of Texas at Dallas
Department of Neuroscience
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Educational History:

Doctor of Philosophy, November 2008, Washington University in St. Louis, St. Louis, MO 63130, Program in Neuroscience, Division of Biomedical and Biological Sciences, Department of Pediatrics

Supervisor: Professor of Pediatrics Louis Muglia, M.D. Ph.D.

Dissertation: *The role of limbic glucocorticoid receptors and corticotropin-releasing hormone in the modulation of normal and pathological stress adaptation.*

- National Institutes of Health (NIH) NRSA-Kirschstein F31 Individual Fellowship

Bachelor of Science, May 2003, University of Dayton, Dayton, OH 45469, Double major in Biology and Psychology, Minor in Chemistry, Graduated Summa Cum Laude (GPA 4.0)

Employment History – Principal Positions:

Program co-Director, Maximizing Access to Research Careers (MARC) NIH T34 Program, 6/2023 – Present, University of Texas at Dallas, Richardson, TX 75080

Program co-Director, Enhancing Neuroscience Undergraduate Research Experience (ENSURE) Program, 10/2021 – Present, University of Texas at Dallas, Richardson, TX 75080

Program Director, Systems and Cellular Neuroscience Track in Cognition and Neuroscience PhD Program, 8/2021 – Present, University of Texas at Dallas, Richardson, TX 75080

Associate Professor, Department of Neuroscience, 8/2020 – Present, University of Texas at Dallas, Richardson, TX 75080

Associate Professor, Department of Biological Sciences, 7/2018 – 7/2020, Duquesne University, Pittsburgh, PA, 15282

Assistant Professor, Department of Biological Sciences, 12/2011 – 7/2018, Duquesne University, Pittsburgh, PA, 15282

NIH NRSA-Kirschstein F32 Post-Doctoral Research Fellow, 12/2009 – 11/2011, Washington University in St. Louis, Washington University Pain Center, St. Louis, MO 63130

Supervisor: Dr. Seymour and Rose T. Brown Professor of Anesthesiology Robert Gereau IV, Ph.D

Instructor, Neuroscience Program and Department of Biology, 6/2009 – 11/2011, Washington University in St. Louis, St. Louis, MO 63130

Post-Doctoral Research Associate, 11/2008 – 12/2009, Washington University in St. Louis, Washington University Pain Center, St. Louis, MO 63130

Supervisor: Dr. Seymour and Rose T. Brown Professor of Anesthesiology Robert Gereau IV, Ph.D

Graduate Student Instructor, Program in Neuroscience, 8/2007 – 11/2007, Washington University in St. Louis, St. Louis, MO 63130

Graduate Student Teaching Assistant, Program in Neuroscience, Department of Biology, 8/2005 – 12/2005, Washington University in St. Louis, St. Louis, MO 63130

Graduate Student Research Assistant, Program in Neuroscience, Department of Pediatrics, 8/2003 – 11/2008, Washington University in St. Louis, St. Louis, MO 63130

Employment History – Concurrent Temporary or Visiting Appointments:

Core Faculty, Center for Advanced Pain Studies, 8/2020 – Present, University of Texas at Dallas, Richardson, TX 75080

Adjunct Associate Professor, Department of Neurobiology, 7/2019 – Present, University of Pittsburgh School of Medicine, Pittsburgh, PA 15260

Core Faculty, University of Pittsburgh Center for Pain Research, 2/2019 – 8/2020, University of Pittsburgh School of Medicine, Pittsburgh, PA 15260

Affiliated Faculty, University of Pittsburgh Center for Pain Research, 1/2018 – 1/2019, University of Pittsburgh School of Medicine, Pittsburgh, PA 15260

Research and Education Coordinator, Chronic Pain Research Consortium, 12/2012 – 8/2020, Duquesne University, Pittsburgh, PA, 15282

Professional Recognitions and Honors:

Study Awards and Citations

Lucille P. Markey Special Emphasis Pathway in Human Pathobiology Fellow, 2004 – 2005, Washington University in St. Louis

Bro. Dean Leonard Mann Award to the Outstanding Graduate in the School of Arts and Sciences, 2003, University of Dayton

John E. Dlugos, Jr. Memorial Award of Excellence to the Outstanding Senior Major in Biology, 2003, University of Dayton

Leopold W. Like, MD Scholars Award, 2002, University of Dayton

Pat Gilbert Scholarship, 2000, University of Dayton

Scholars Program, 1999 – 2003, University of Dayton

Dayton Area Academic Scholarship, 1999, City of Dayton, OH

Junior Scholar Biology Award, 1998, Purdue University

Teaching Awards and Citations

Mentoring Active Learning and Teaching (MALT) Award for early career educators, 11/2014, American Society for Cell Biology (included below in "Grants")

Student-Learning Assessment Award for assessment of Department of Biological Sciences Mentoring program, 10/2014, Duquesne University Office of the Provost

National Academies Education Fellow in the Life Sciences, 2012 – 2013, National Academies of Science, Engineering, and Medicine

Graduate School of Arts and Sciences Teaching Citation, 2008, Washington University in St. Louis

Research Awards and Citations

Department of Neuroscience Research Award, 2023, University of Texas at Dallas

Presidential Award for Excellence in Scholarship, 2019, Duquesne University

Bayer School for Natural and Environmental Sciences Award for Excellence in Scholarship, 2019, Duquesne University

Duquesne University Research Hall of Fame Inductee, 2019, Duquesne University

Early Career Reviewer (ECR) Program Inductee, 2016, NIH (included below in "Service")

Scan|Design Foundation by Inger and Jens Bruun Early Career Investigator Award, 2013-2015, International Association for the Study of Pain (IASP) (included below in "Grants")

Ruth L. Kirschstein Postdoctoral NRSA F32 Fellowship, 2/2010 – 11/2011, NIH National Institute of Neurological Disorders and Stroke (NINDS) (included above in "Positions" and below in "Grants")

John Merlie Travel Fellowship, 2009, Washington University in St. Louis

Chapter Graduate Student Travel Award, 2007, Society for Neuroscience

Ruth L. Kirschstein Predoctoral NRSA F31 Fellowship, 7/2006 – 10/2008, NIH National Institute of Mental Health (NIMH) (included below in "Grants")

2002 Undergraduate Summer Research Award, 2002, American Physiological Society

Cordell W. Hull International Fellow Award for social psychology research in Cameroon, Africa, 2002, University of Dayton

Learn, Lead and Serve Award for undergraduate research, 2001, University of Dayton

Service Awards and Citations

2024 Provost's Award for Faculty Excellence in Undergraduate Research Mentoring, 4/2024, University of Texas at Dallas

Nomination (not selected) for the 2024 Advisor of the Year Award for advising the Neuroscience Graduate Student Association, 3/2024, University of Texas at Dallas

Nomination (not selected) for the 2023 Provost's Award for Faculty Excellence in Undergraduate Research Mentoring, 4/2023, University of Texas at Dallas

Nomination (not selected) for the 2023 and 2024 Provost's Award for Faculty Excellence in Graduate Research Mentoring, 2/2023 & 2/2024, University of Texas at Dallas

2019 Outstanding Advisor Award for the Northeastern Region III, 4/2019, Beta Beta Beta National Biology Honors Fraternity

Early Career Mentoring Award – Honorable Mention, 11/2015, Biology Division of the Council of Undergraduate Research (CUR)

Mentor Award for Excellence in Advising Graduate Students from the Department of Biological Sciences, 4/2014, Duquesne University

Professional Memberships:

United States Association for the Study of Pain, since 2021

American Society for Cell Biology, 2014 – 2017

Council on Undergraduate Research, since 2013

International Association for the Study of Pain, since 2013

American Pain Society, 2010 – 2019

Co-Chair of Basic Science Shared Interest Group, 2013 – 2015

Faculty for Undergraduate Neuroscience (FUN), since 2010

National Science Teacher's Association, 2010 – 2013

Society for Neuroscience, since 2004

Omicron Delta Kappa National Leadership Honor Society, 2002

American Physiological Society, 2002-2008; 2012 – Present

Achievements in Original Investigation:

Articles in Refereed Journals

As of January 27, 2025: My publications have been cited 2271 times. It is conventional in my field for the senior researcher (the principal investigator, PI) to be the last author, and the individual doing the bulk of the experimental work to be the first author (or "co-first author" if two individuals contributed equally to the bulk of the work). The senior author is typically distinguished as the "corresponding author" for the manuscript although there can also be "co-corresponding authors" when two senior authors equally contribute to a manuscript. Which individual actually contributes the most of the writing of the manuscript varies. Media coverage, where applicable, is indicated.

[UG] – Undergraduate author mentored; [G] – Graduate author mentored
[PD] – Post-doc author mentored; [C] – Corresponding author

1) Parker SAJ, Hough A, Wright T, Lax N[G], Faruk A, Fofie CK[PD], Simcik RD[UG], Cavanaugh JE, **Kolber BJ**, K Tidgewell (2025). Isolation and bioassay of linear veraguamides from a marine cyanobacterium (Okeania sp.). *Molecules* **2025**, *30*(3), 680. doi: 10.3390/molecules30030680.

2) Krauter K[UG], Reith C[UG], **Kolber BJ**, & R Miller Neilan (2024). Improved efficiency and sensitivity analysis of 3-D agent-based model for pain-related neural activity in the amygdala. *SPORA – A Journal of Mathematics* 10(2024). doi: 10.61403/2473-5493.1094

3) Hong VM[G], Rade AD[UG], Bhaskara A[UG], Yan M, Yousef MS, Martin SF, Liebl DJ, Price TJ, **BJ Kolber[C]** (2024). Loss of sigma-2 receptor/TMEM97 is associated with neuropathic injury-induced depression-like behaviors in female mice. *eNeuro* Neuro 11 (7): 0488-23.2024. doi: 10.1523/ENEURO.0488-23.2024

4) Kalia A, Rosseler C, Granja-Vazquez R, Ahmad A, Pancrazio JJ, Neureiter A, Zhang M, Sauter D, Vetter I, Andersson A, Dussor G, Price TJ, **Kolber BJ**, Truong V, Walsh P, A Lampert[C] (2024). How to differentiate induced pluripotent stem cells into sensory neurons for disease modeling: A functional assessment. *Stem Cell Research and Therapy* 15: 99. doi: 10.1186/s13287-024-03696-2

5) Adams MCB[C], Wandner LD, **BJ Kolber** (2024). Challenges and opportunities for growing and retaining a pain research workforce. *Pain Medicine* 25(5). doi: 10.1093/pm/pnae008 Cover article for issue

6) Yousuf MS, Sahn JJ, Yang H, David ET, Shiers S, Mancilla Moreno M, Iketem J, Royer DM, Garcia CD, Zhang J, Hong VM, Miari SM, Ahmad A, **Kolber BJ**, Liebl DJ, Martin SF, TJ Price[C] (2023). Highly specific σ2R/TMEM97 ligand FEM-1689 alleviates neuropathic pain and inhibits the integrated stress response. *Proceedings of the National Academy of Sciences* 120 (52). doi: 10.1073/pnas.2306090120

7) Miller Neilan R[C*], Reith C, Anandan I[UG], Kraeter K, Allen H, **BJ Kolber[C*]** (2023). Developing a 3-D computational model of neurons in the central amygdala to understand pharmacological targets for pain. *Frontiers in Pain Research* 4. doi: 10.3389/fpain.2023.1183553 *Equal contribution

8) Hough A, Criswell C, Faruk A, Cavanaugh J, **Kolber BJ[C*]**, K Tidgewell[C*] (2023). Barbamide displays affinity for membrane-bound receptors and impacts store-operated calcium entry in mouse sensory neurons. *Marine Drugs* 21(2). doi: 10.3390/md21020110 *Equal contribution

9) Allen HN[G], Chaudhry S, Hong VM[G], Lewter LA[PD], Sinha GP, Carrasquillo Y, Taylor BK, **Kolber BJ[C]**. (2023). A parabrachial-to-amygdala circuit that determines hemispheric lateralization of somatosensory processing. *Biological Psychiatry* 93(4): 370-381. doi: 10.1016/j.biopsych.2022.09.010.

10) Treat A*[PD], Henri V*[UG], Liu J*, Shen J, Gil-Silva M, Morales M[UG], Rade A[UG], Tidgewell K, **Kolber B[C]**, Y Shen[C] (2022). Novel TRPV1 modulators with reduced pungency induce analgesic effects in mice. *ACS Omega* 7, 3, 2929–2946. doi: 10.1021/acsomega.1c05727. *Equal contribution

11) Richter B, Mace Z, Hays ME, Adhikari S, Pham HQ, Sclabassi RJ, **Kolber BJ**, Yerneni SS, Campbell P, Cheng B, Tomycz N, Whiting DM, Le TQ, Nelson TL, S Averick[C] (2021). Development and characterization of novel conductive sensing fibers for in vivo nerve stimulation. *Sensors* 21: 7581. doi: 10.3390/s21227581

12) Kassick, A, Treat A[PD], Tomycz N, Feasel MG, **Kolber BJ**, S Averick[C] (2021). Design, Synthesis, and Biological Evaluation of C6-Difluoromethylenated Epoxymorphinan Mu Opioid Receptor Antagonists. *RSC Medicinal Chemistry* Nov 2;13(2):175-182. doi: 10.1039/D1MD00285F

13) Miller Neilan R[C], Majetic G[UG], Gil-Silva M, Adke AP, Carrasquillo Y, **BJ Kolber[C]** (2021). Agent-based modeling of the central amygdala and pain using cell-type specific physiological parameters. *PLoS Computational Biology* 17(6): e1009097. doi: 10.1371/journal.pcbi.1009097

14) DeLong M, Gil-Silva M, Hong V[G], Babyok O[UG], **BJ Kolber[C]** (2021). Visceral pressure stimulator for exploring hollow organ pain: A pilot study. *Biomedical Engineering Online* 20: 30. doi: 10.1186/s12938-021-00870-y

15) Polaski A[G], Phelps AL, Smith TJ, Helm ER, Morone NE, Szucs KA, Kostek MC, **BJ Kolber[C]** (2021). A randomized controlled pilot of a combined non-pharmacological intervention focused on reducing disability and pain in patients with chronic low back pain. *Pain Medicine* 2021 Feb 23;22(2):444-458. doi: 10.1093/pm/pnaa403

16) Allen H[G], Bobnar H[G], **BJ Kolber[C]** (2021). Left and right hemispheric lateralization of the amygdala in pain. *Progress in Neurobiology* 196 (Jan 2021): 101891. doi: 10.1016/j.pneurobio.2020.101891

17) France C, Ahern G, Averick S, Disney A, Enright H, Esmaeli-Azad B, Federico A, Gerak L, Husbands S, **Kolber BJ**, Lau E, Lao V, Maguire D, Malfatti M, Martinez G, Mayer B, Praventoni M, Sahibzada N, Skolnick P, Snyder E, Tomycz N, Valdez C, J Zapf[C] (2021). Countermeasures for preventing and treating opioid overdose. *Clinical Pharmacology and Therapeutics* 2021 Mar;109(3):578-590. doi: 10.1002/cpt.2098

18) Lewter L[PD], Johnson M[UG], Treat A[PD], Kassick AJ, Averick S, **BJ Kolber[C]** (2020). Slow-sustained delivery of naloxone reduces typical naloxone-induced precipitated opioid withdrawal effects in male morphine-dependent mice. *Journal of Neuroscience Research* 100: 339-352. doi: 10.1002/jnr.24627

19) Koroshetz WJ, Behrman S, Brame, Branchaw JL, Brown E, Clark E, Dockterman D, Elm J, Gay P, Green K, His S, Kaplitt M, **Kolber BJ**, Kolodkin A, Lipscombe D, MacLeod MR, McKinney CC, Munafò M, Oakley B, Olimpo J, du Sert N Raman I, Riley C, Shelton A, Uzzo S, Crawford D, S Silberberg (2020). Research Culture: Framework for advancing rigorous research**.** *eLife* 9: e55915. doi: 10.7554/eLife.55915

20) Polaski AM[G], Phelps AL, Szucs KA, Ramsey AM[UG], Kostek MC, **BJ Kolber[C]** (2019). The dosing of aerobic exercise therapy on experimentally-induced pain in healthy female participants. *Scientific Reports* 9: 14842. doi: 10.1038/s41598-019-51247-0

21) Kassick AJ, Allen HA[G], Yerneni SS, Pary F, Kovaliov M, Cheng C, Pravetoni M, Tomycz ND, Whiting DM, Nelson TL, Feasel M, Campbell PG, **Kolber BJ**, S Averick[C] (2019). Covalent poly(lactic acid) nanoparticles for the sustained delivery of naloxone. *ACS Applied Bio Materials* 2(8): 3418-3428. doi: 10.1021/acsabm.9b00380

22) Tseuguem PP, Ngangoum DAM, Pouadjeu JM, Piégang BN, Sando Z, **Kolber BJ**, Tidgewell KJ, TB Ngueleface[C]. Aqueous and methanol extracts of *Paullinia pinnata L. (Sapindaceae)* improve inflammation, pain and histological features in CFA-induced mono-arthritis: Evidence from in vivo and in vitro studies. *Journal of Ethnopharmacology* 2019 May 23;236:183-195. doi: 10.1016/j.jep.2019.02.048.

23) Polaski AM[G], Phelps AL, Kostek MC, Szucs KA, & **B Kolber[C]** (2019). Exercise-induced hypoalgesia: A meta-analysis of exercise dosing for the treatment of chronic pain. *PLoS ONE* 14(1): e0210418. Doi: 10.1371/journal.pone.0210418.

24) Baktay J[UG], Miller Neilan R[C], Behun M[UG], McQuaid N[UG], & **B Kolber** (2019). Modeling neural behavior and pain during bladder distention using an Agent-based model of the central nucleus of the amygdala. *SPORA: A Journal of Biomathematics* 5(1): 1-13. doi: 10.30707/spora5.1baktay.

25) Lax N[G], Parker SA, Hilton E[UG], Seliman Y[UG], Tidgewell K[C], & **B Kolber[C]** (2018). Cyanobacterial extract with serotonin receptor subtype 7 (5-HT_7R) affinity modulates depression and anxiety-like behavior in mice. *Synapse* Nov;72(11): e22059. doi: 10.1002/syn.22059.

26) Lax N[G], Chen R, Leep S[UG], Ulrich K, Yu L, & **B Kolber[C]** (2017). Polymorphine provides extended analgesic-like effects in mice with spared nerve injury. *Molecular Pain* 13: 1-12. doi: 10.1177/1744806917743479.

27) Sadler KE[G], Gartland N[UG], Cavanaugh J & **BJ Kolber[C]** (2017). Central amygdala activation of extracellular signal-regulated kinase 1 and age-dependent changes in inflammatory pain sensitivity in mice. *Neurobiology of Aging* 56: 100-107. doi: 10.1016/j.neurobiolaging.2017.04.010.

28) **BJ Kolber[C]** (2017). It's what's on the inside that counts: Evidence for intracellular GPCR signaling in inflammatory pain. *PAIN* April 2017 158 (4): 541-542. doi: 10.1097/j.pain.0000000000000843.

29) Sadler KE[G], McQuaid NA[G], Cox AC[UG], Behun MN[UG], Trouten AM[UG] & **BJ Kolber[C]** (2017). Divergent functions of the left and right central amygdala in visceral nociception. *PAIN* April 158(4): 747-759. doi: 10.1097/j.pain.0000000000000830.

30) Kostek M, Polaski A[G], **Kolber B**, Ramsey A[UG], Kranjec A & K Szucs[C] (2016). A Protocol of Manual Tests to Measure Sensation and Pain in Humans. *Journal of Visual Experimentation* (118): e54130. doi: 10.3791/54130.

31) Lax N[G], Morris J & **BJ Kolber[C]** (2017). A partial-flip classroom exercise in a large introductory general biology course increases performance at multiple levels. *Journal of Biological Education* 51 (4): 412-426. doi: 10.1080/00219266.2016.1257503.

32) Long CC[UG], Sadler KE[G] & **BJ Kolber[C]** (2016). Hormonal and molecular effects of restraint stress on formalin-induced pain-like behavior in male and female mice. *Physiology and Behavior* Oct 165: 278-285. doi: 10.1016/j.physbeh.2016.08.009.

33) Wolz MJ[UG], Sadler KE[G], Long CC[UG], Brenner D, Kim BS, Gereau IV RW & **BJ Kolber[C]** (2016). Post-inflammatory hyperpigmentation following human cold pain testing. *PAIN Reports* 1: e569. doi: 10.1097/PR9.0000000000000569.

34) **Kolber BJ[C,*]**, Janjic J, Pollock J & K Tidgewell* (2016). Summer undergraduate research: A new pipeline for pain clinical practice and research. *BMC Medical Education* 2016 May 4 16(1): 135. doi: 10.1186/s12909-016-0648-7. *Equal contribution

35) Lax NC[G], KT Ahmed, Ignatz CM[UG], Spadafora C, **Kolber BJ[C,*]** & KT Tidgewell* (2016). Marine cyanobacteria-derived serotonin receptor 2C active fraction induces behavioral effects in mice. *Pharmaceutical Biology* 2016 Nov;54(11):2723-2731. Epub 2016 May 14 doi: 10.1080/13880209.2016.1181659. *Equal contribution

36) Sadler KE[G] & **BJ Kolber[C]** (2016). Urine trouble: Alterations in brain function associated with bladder pain. *Journal of Urology* Jul;196(1):24-32. doi: 10.1016/j.juro.2015.10.198.

37) **BJ Kolber[C]** (2015). mGluRs from head to toe in pain. Molecular and Cellular Biology in Pain in *Progress in Molecular Biology and Translational Science Series*, 131: 281-324. Elsevier Publishing. doi: 10.1016/bs.pmbts.2014.12.003.

38) Lax NC[G], George DC[UG], Ignatz C[UG], & **BJ Kolber[C]** (2014). The mGluR5 antagonist fenobam induces analgesic conditioned place preference in mice with spared nerve injury. *PLoS One* 2014 Jul 25;9(7):e103524. doi: 10.1371/journal.pone.0103524.

39) Nolan T, Geffert L[G], **Kolber BJ**, Madura J, & Surratt C[C] (2014). Discovery of novel-scaffold monoamine transporter ligands via in silico screening with the S1 pocket of the serotonin transporter. *ACS Chemical Neuroscience* 2014 Sep 17;5(9):784-92. doi: 10.1021/cn500133b.

40) Sadler KE[G], Stratton J[UG], & **BJ Kolber[C]** (2014). Urinary bladder distention evoked visceromotor responses as a model for bladder pain in mice. *Journal of Visual Experimentation* (86), e51413. doi: 10.3791/51413.

41) **Kolber BJ***, Konsolaki M*, Verzi MP, Wagner CR, McCormick JR, & K Schindler* (2014). Sex-specific differences in Meiosis: Real-world applications. *Course Source* 1: 1-6. doi: 10.24918/cs.2014.8. *Contributed equally to manuscript.

42) Sadler KE[G], Stratton J[UG], DeBerry JJ, & **BJ Kolber[C]** (2013). Optimization of a pain model: Effects of body temperature and anesthesia on bladder nociception in mice. *PLoS One* Nov 5;8(11):e79617. doi: 10.1371/journal.pone.0079617.

43) Crock LW**, **Kolber BJ****/[C], Morgan C, Sadler KE[G], Vogt SK, Bruchas MR & RW Gereau IV (2012). Central amygdala mGluR5 in the modulation of visceral pain. *Journal of Neuroscience* Oct 10;32(41):14217-26. doi: 10.1523/JNEUROSCI.1473-12.2012. **Co-first authors

44) Dong H, Murphy K, Meng L, Montalvo-Ortiz J, Zeng Z, **Kolber BJ,** Zhang S, Muglia LJ, Csernansky JG. (2012). Corticotrophin releasing factor accelerates neuropathology and cognitive decline in a mouse model of Alzheimer disease. *Journal of Alzheimers Disease* Jan 1;28(3):579-92. doi: 10.3233/JAD-2011-111328.

45) Montana MC, Conrardy BA, Cavallone LF, **Kolber BJ**, Rao LK, Greco SC & RW Gereau (2011). Metabotropic glutamate receptor 5 antagonism with fenobam: Examination of analgesic tolerance and side effect profile in mice. *Anesthesiology* Epub 2011 Oct 27 2011; Dec;115(6):1239-50. doi: 10.1097/ALN.0b013e318238c051.

46) Arnett MG, **Kolber BJ**, Boyle MP & LJ Muglia (2011). Behavioral insights from mouse models of forebrain- and amygdala-specific glucocorticoid receptor genetic disruption. *Molecular Cellular Endocrinology* Apr 10;336(1-2): 2-5. Epub 2010 Nov 20. doi: 10.1016/j.mce.2010.11.011.

47) Liu Q, Zhang J, Zerbinatti C, Zhan Y, **Kolber BJ**, Herz J, Muglia LJ & G Bu (2011) Lipoprotein receptor LRP1 regulates leptin signaling and energy homeostasis in the adult central nervous system. *PLoS Biology* Jan 11; 9(1):e1000575. doi: 10.1371/journal.pbio.1000575.

48) **Kolber BJ** (2011). Extended problem-based learning improves scientific communication in senior-biology students. *JCST Journal of College Science Teaching* 41(1): 32-39. Article Link

49) Kolber BJ, Montana MC, Carrasquillo Y, Xu J, Heinemann SF, Muglia LJ & RW Gereau (2010). Activation of metabotropic glutamate receptor 5 in the amygdala modulates pain-like behavior. *Journal of Neuroscience* 30(24): 8203-8213. doi: 10.1523/JNEUROSCI.1216-10.2010.

50) Kolber BJ, Howell MP, Wieczorek L, Kelley CL, Onwuzurike CC[UG], Nettles SA, Vogt SK & LJ Muglia (2010). Transient early forebrain CRH elevation causes lasting anxiogenic and despair-like changes in mice. *Journal of Neuroscience* 30(7): 2571-2581. doi: 10.1523/JNEUROSCI.4470-09.2010.

51) Kolber BJ & LJ Muglia (2009). Defining brain region-specific glucocorticoid action during stress by conditional gene disruption in mice. *Brain Research* Oct 13;1293:85-90. Epub 2009 Apr 8. doi: 10.1016/j.brainres.2009.03.061; PMID 19361487 / PMCID 2821940

52) Kolber BJ, Roberts MS, Howell MP, Wozniak DF, Sands MS & LJ Muglia (2008). Central amygdala glucocorticoid receptor action promotes fear conditioning through a CRH-dependent network. *Proceedings of the National Academy of Sciences* 105(33): 12004-12009. doi: 10.1073/pnas.0803216105.

53) Kolber BJ, Wieczorek L & LJ Muglia (2008). Hypothalamic-pituitary-adrenal axis dysregulation and behavioral analysis of mouse mutants with altered glucocorticoid or mineralocorticoid receptor function. *Stress* 11(5):321-328. doi: 10.1080/10253890701821081.

54) Boyle MP, **Kolber BJ**, Vogt SK, Wozniak DF & LJ Muglia (2006). Forebrain glucocorticoid receptors modulate anxiety-associated locomotor activation and adrenal responsiveness. *Journal Neuroscience* 26(7): 1971-1978. doi: 10.1523/JNEUROSCI.2173-05.2006.

Articles Appearing as Chapters in Edited Volumes

1) **BJ Kolber** & L Lewter (2020). Chapter 16: Alternative and complementary modulation. In R. E. Sorge (Ed.), Dynamics of Pain. Great River Learning. Textbook Link

2) **BJ Kolber** (2020). "Alumni Voices of the African Immersion Experience – Natural Products Drug Discovery in Cameroon" in Enhancing Global Consciousness on College Campuses and Beyond: Proceedings of the 2020 Global Voices Symposium. Ed. JA Amin; University of Dayton Publishing, Lulu Press: 96-99.

Refereed Conference Publications or Abstracts

As with publications, it is common in my field for the senior researcher (the PI) to be the last author, with a student as first author. Often, the student presents the work, and I encourage and mentor my students to do so. However, it is also common in my field for the PI to present the work of his or her students.

[UG] – Undergraduate mentored; [G] – Graduate mentored; Presenter of data

1) Bhaskara A[UG], Anandan I[UG] & **B Kolber**. (2024). "Investigation in the effects of optogenetic stimulation of PACAP-containing neurons in the central nucleus of the amygdala on nociception in Mice." Poster presentation at the competitive UT Dallas Undergraduate Research Scholar Award (URSA) symposium, April 2024.

2) Sotelo J[UG], Paltian J[G], Lewter L[PD], Tidgewell K & **B Kolber**. (2024) "Unlocking the power of marine cynabacteria: Investigating veraguamide analogs for chronic pain management." Poster presentation at the competitive UT Dallas Undergraduate Research Scholar Award (URSA) symposium, April 2024.

3) Anandan I[UG], Hong V[G], Allen H[PD], Chatterjee U[G], Reith C, Kraeuter K, Neilan R, & **B Kolber**. (2023). "Creating a virtual model of pain-induced behavior: Quantifying cells in the central amygdala that have PKC-δ, SST ,CGRPR, and CGRP." Poster presentation at the competitive UT Dallas Undergraduate Research Scholar Award (URSA) symposium, April 2023.

4) Kraeuter K[UG], **Kolber B**, Neilan R. (2024). "Virtual insights into pain management: A 3-D computational model of pain-related neurons in the amygdala. Oral presentation and poster presentation at the National Conference on Undergraduate Research (NCUR), April 8-10 2024 Long Beach, CA (#505).

5) Sotelo J[UG], Paltian J[G], Lewter L[PD], Anez S, Kellogg J, **B Kolber**. (2024) "Native experience meets modern science: The study of ghost pipe plant in pain management. Poster presentation at the Annual Biomedical Research Conference for Minoritized Students, November 15 2023 Pheonix, AZ
Neuroscience Presentation Award

6) Szucs KA, Polaski A[G], Kostek MC, **Kolber BJ** & A Kranjec (2016). *Dosing Exercise to Treat Pain: A Randomized Human Trial.* Poster Presentation at the 2016 ACRM National Conference, Chicago, IL, Nov 2016. *Archives of Physical Medicine and Rehabilitation,* 97(10), e67.

7) Behun M[UG], McQuaid N[G], Goldschmidt B & **BJ Kolber** (2017). Fabrication of a Timed-Pressure Regulator (TPR) to Enable the Study of Bladder Pain." Poster presentation at the BMES 2017 Annual Meeting in Phoenix, AZ, Oct 14, 2017 (Abstract #3047). Refereed abstract.

8) Sweetnich RR, Polaski AM[G], Kostek MC, **Kolber BJ** & KA Szucs (2015). "A new prescription for pain management in humans: Does exercise dose matter?" Poster presentation at the Mid-Atlantic Regional Chapter of the American College of Sports Medicine 38th Annual Scientific Meeting, Harrisburg, PA, Nov 6-7, 2015. *International Journal of Exercise Science: Conference Proceedings*: Vol. 9: Iss. 4, Article 99. http://digitalcommons.wku.edu/ijesab/vol9/iss4/99

9) **BJ Kolber** (2013). "Lateralization of amygdala function in modulating pain." Competitive peer-reviewed poster presentation at the "Amygdala in Health and Disease" Gordon Conference, July 28-Aug 1, 2013.

10) George DC[UG] & **BJ Kolber** (2012). "Inhibition of metabotropic glutamate receptor 5 reduces on-going spontaneous pain as measured by conditioned place preference in mice." Competitive process, oral presentation at the 2012 Midwest/Great Lakes Undergraduate Research Symposium Wooster, OH, Sept 29, 2012.

Edited but Unrefereed Publications

[G] – Graduate author mentored; [C] – Corresponding author

1) Bobnar H[G], **BJ Kolber[C]** (2020). Preparing optrodes for extracellular recording with optogenetic manipulation of cell-type specific neurons. Published in *The Carrier* newsletter of David Kopf Instruments, 97, Feb 2020.

2) **BJ Kolber[C]** (2018). Best practices in mentoring students: A reflection. *The Flourishing Academic* blog published by Duquesne University Center for Teaching Excellence. Edited by Laurel Willingham-McLain. April 24, 2018 Article Link

3) **BJ Kolber[C]** (2018). Beg, borrow, appeal – Using existing resources to build summer research programs that feed the pipeline of future neuroscientists. Edited by Carlita Favero. *Faculty for Undergraduate Neuroscience (F.U.N.)* Quartley Newsletter January 2018.

4) Sadler KE[G], & **BJ Kolber[C]** (2014). Beyond the Abstract: Optimization of a pain model: Effects of body temperature and anesthesia on bladder nociception in mice. Edited by John Robertson. *UroToday.com* Article Link

5) Sadler KE[G], & **BJ Kolber[C]** (2014). Beyond the Abstract: Urinary bladder distention evoked visceromotor responses as a model for bladder pain in mice Divergent functions of the left and right central amygdala in visceral nociception. Edited by John Robertson. *UroToday.com* Article Link

Unrefereed Abstracts

As with publications, it is common in my field for the senior researcher (the PI) to be the last author, with a student as first author. Often, the student presents the work, and I encourage and mentor my students to do so. However, it is also common in my field for the PI to present the work of his or her students. It is not common in my field for abstracts to be competitively peer-reviewed, although they are usually refereed in some fashion (e.g. check on format, word length, etc). In situations where the poster has won an award (including student travel awards for the abstract), I have indicated as such. In situations of a truly competitive application process, I have indicated as such above in the refereed abstract section.

[UG] – Undergraduate mentored; [G] – Graduate mentored; [PD]- Post-doc mentored
[HS] – High school student mentored; Presenter of data

1) Hong V[G], Rade A[UG], Syed Z[UG], Jaiswal B[UG], Fofie C[PD], Yousuf M, Liebl D, Martin S, Price TJ, & **B Kolber**. (2024). Loss of Sigma-2/TMEM97 is associated with increased mechanical hypersensitivity during the inflammatory pain resolution in both germline and nociceptor specific knockout mice. Poster presented at the 2024 Society for Neuroscience Annual Meeting, November 2024 Chicago, IL (abstract #274.03)

2) Fofie C[PD], Granja-Vazquez R, Biswas S, Truong V, Price TJ, Dussor G, Pancrazio J, & **B Kolber**. (2024). A multifaceted high-content screening platform for analgesic compounds using human induced pluripotent stem cell-derived nociceptors. Poster presented at the 2024 Society for Neuroscience Annual Meeting, November 2024 Chicago, IL (abstract #275.17)

3) Nofal A[G], Perumal C, Anandan I[UG], Kraeuter K, Neilan R & **B Kolber**. (2024). Quantifying pro vs. anti-nociceptive PKC-δ positive neurons in the central nucleus of the amygdala foruse in our web-based virtual model of pain. Poster presented at the 2024 Society for Neuroscience Annual Meeting, November 2024 Chicago, IL (abstract #400.13)

4) Zubab S[UG], Jaiswal B[UG], Hong V[G], Yousef MS, Price T & **B Kolber**. (2024). Exploration of molecular signaling of a pain-related protein using in vitro calcium imaging in wild type and knockout mice. Poster presented at Summer Platform for Undergraduate Research, University of Texas at Dallas, Richardson, TX, Aug 2024 (abstract #36).

5) Bouzar J[UG], Fofie C[PD], Granja-Vazquez R, Tidgewell K, & **B Kolber**. (2024). Screening novel analgesics using human induced pluripotent stem cell-derived nociceptors. Poster presented at Summer Platform for Undergraduate Research, University of Texas at Dallas, Richardson, TX, Aug 2024 (abstract #37).

6) Jaiswal B[UG], Syed Z[UG], Hong V[G], Yousef MS, Price T & **B Kolber**. (2024). Investigation of store operated calcium entry signaling response associated with pain-linked protein, Sigma-2 receptor/TMEM97, via calcium-dependent fluorescent imaging of GCaMP6f vs Fluo-4 dye. Poster presented at Summer Platform for Undergraduate Research, University of Texas at Dallas, Richardson, TX, Aug 2024 (abstract #69).

7) Khan M[UG], Basu U, Akter Z, Lewter L[PD], Zimmern P, De Nisco N & **B Kolber**. (2024). Investigating the effects of a mouse model of urinary tract infection on bladder pain. Poster presented at Summer Platform for Undergraduate Research, University of Texas at Dallas, Richardson, TX, Aug 2024 (abstract #130).

8) Simcik R[UG], Fofie C[PD], Tidgewellk & **B Kolber**. (2024). Cytotoxicity evaluation of analgesic lead compounds isolated from marine cyanobacteria. Poster presented at Summer Platform for Undergraduate Research, University of Texas at Dallas, Richardson, TX, Aug 2024 (abstract #209).
SPUR Poster Award $200

9) Tack S[UG], Yousuf S, Sotelo J[UG], Tidgewell K & **B Kolber**. (2024). Analyzing the integrated stress response in primary mouse dorsal root gaglia after treatment of cells with cyanobacterial metabolites. Poster presented at Summer Platform for Undergraduate Research, University of Texas at Dallas, Richardson, TX, Aug 2024 (abstract #212).
SPUR Poster Award $200

10) Nunez M[UG], Paul B[PD], & **B Kolber**. (2024). Testing the role of brainstem calcitonin gene related peptide in left vs. right brain. Poster presented at Summer Platform for Undergraduate Research, University of Texas at Dallas, Richardson, TX, Aug 2024 (abstract #232).

11) Lewter, L[PD], Chatterjee U[G], Pham P[G], Nofal A[G], Khan M[UG], & **B Kolber**. (2024). "Assessing the role of amygdala calcitonin gene-related peptide receptors (CGRP-Rs) on the development of chronic bladder pain." IASP 2024 World Congress on Pain. Amsterdam, NL, Aug 2024.

3rd Place Poster Award – Abdominal and Pelvic Pain Special Interest Group (SIG) - $100 Cash Prize

12) Lewter, L[PD], Chatterjee U[G], Pham P[G], Nofal A[G], Khan M[UG], & **B Kolber**. (2024). Assessing the role of amygdala calcitonin gene-related peptide receptors (CGRP-Rs) on the development of chronic bladder pain. STEMNoire Conference. Washington, DC, June 2024.

1st Place Poster Award

13) Lewter, L[PD], Chatterjee U[G], Pham P[G], Nofal A[G], Khan M[UG], & **B Kolber**. (2024). "Assessing the role of amygdala calcitonin gene-related peptide receptors (CGRP-Rs) on the development of persistent bladder pain." NIH Pain Consortium Symposium. Bethesda, MD, May 2024.

14) Lewter L[PD], Chatterjee U[G], Pham P[G], Khan M[UG], Nofal A, & **B Kolber**. (2024). "Assessing the role of amygdala calcitonin gene-related peptide (CGRP) receptors on the development of persistent bladder pain" Poster presentation at the United States Association for the Study of Pain annual meeting, Seattle, WS, April 14-17, 2024.

Best Poster Presentation – Pre-clinical Advanced Degree Category - $200

15) Hong V[G], Rade A[UG], Syed Z[UG], Yousuf M, Liebl D, Martin S, Price T & **B Kolber**. (2024). "Increased mechanical hypersensitivity resulting from the loss of sigma-2 receptor/TMEM97 expression in both germline and nociceptor-specific context." Poster presentation at the United States Association for the Study of Pain annual meeting, Seattle, WS, April 14-17, 2024.

16) **Kolber B**, Hong V[G], Hough A, Sotelo J[UG], Paltian J[G], DeWeese C, Choudhary C, & K Tidgewell. (2024). "Validating and targeting the Sigma-2/TMEM97 receptor for the treatment of chronic pain. Poster presentation at the 2024 Helping to End Addiction Long-term (HEAL) Annual Meeting, Bethsda, MD, February 7-8, 2024.

17) Lewter L[PD], Chatterjee U[G], Schmitz E[UG], Nofal A & **B Kolber**. (2023). "The contribution of amygdala calcitonin gene-related peptide (CGRP) receptors on the development of persistent bladder pain." Poster presentation at the Annual Society for Neuroscience Meeting, Washington DC, November 15, 2023 (Abstract PSTR477.14).

18) Hong V[G], Rade A[UG], Yan M, Ehsan TA[UG], Yousef MS, Liebl DJ, Martin SF, Price TJ, & **B Kolber**. (2023). "The loss of sigma-2 receptor/TMEM97 prevents the development of prolonged neuropathic pain-induced depression in mice." Poster presentation at the Annual Society for Neuroscience Meeting, Washington DC, November 13, 2023 (Abstract PSTR097.07).

19) Yousef MS, Sahn JJ, Yang H, David E, Shiers S, Royer D, Garcia C, Zhang J, Hong V[UG], Ahmad A, **Kolber B**, Liebl D, Martin S, & T Price. (2023). "Targeting the sigma-2 receptor/TMEM97 for treating neuropathic pain." Poster presentation at the Annual Society for Neuroscience Meeting, Washington DC, November 13, 2023 (Abstract PSTR139.01).

20) Paltian P[G], Da Fonseca CAR, Wille APB, Prado VC, Alves D, Cruz L, Luchese C, **Kolber B** & EA Wilhelm. (2023). "Sex-dependent effects of maternal separation and social isolation on paclitaxel-induced nociceptive behavior in adult mice: Exploring the therapeutic strategy of 4-PSQ-loaded polymeric nanocapsules." Poster presentation at the Annual Society for Neuroscience Meeting, November 15, 2023 (Abstract PSTR477.02).

SFN Travel Award $1000 (listed in grants too)

21) Rade A[UG], Hong V[G], Drewniak K[UG], Yousef MS, Liebl D, Price T & **B Kolber**. (2023). "Sigma-2 receptor/TMEM97 modulates modality dependent anxiety and depressive behavior independent of cognitive interference." Poster presented at Summer Platform for Undergraduate Research, University of Texas at Dallas, Richardson, TX, July 2023 (abstract #194).

BBS SPUR Poster Award $100

22) Drewniak K[UG], Trail A[G], Rade A[UG] & **B Kolber**. (2023). "An Examination of Visceral Pain-Like Symptoms Across Ages, Sexes, and Bladder Injury." Poster presented at Summer Platform for Undergraduate Research, University of Texas at Dallas, Richardson, TX, July 2023 (abstract #113).

BBS SPUR Poster Award $100

23) Mohammed W[UG], Pham P[G], & **B Kolber**. (2023). "Optimizing western blotting techniques using homogenized brain tissue." Poster presented at Summer Platform for Undergraduate Research, University of Texas at Dallas, Richardson, TX, July 2023 (abstract #100).

24) Sotelo J[UG], Paltian J[G], Lewter L[PD], Anez SG, Kellogg J & **B Kolber**. (2023). "Harnessing the Hidden Potential: Exploring Solutions from Nature to Combat Chronic Pain." Poster presented at Summer Platform for Undergraduate Research, University of Texas at Dallas, Richardson, TX, July 2023 (abstract #18).
ENSURE Program SPUR Poster Award $100

25) Anandan I[UG], Hong V[G], Allen H[G], Reith C[UG], Kraeuter K[UG], Neilan R, & **B Kolber**. (2023) "Stimulating Pain Induced Brain Transmissions Virtually: Using Protein Cell Markers as Anatomical References for a 3D Computational Model." Poster presented at Summer Platform for Undergraduate Research, University of Texas at Dallas, Richardson, TX, July 2023 (abstract #199).

26) Hong VM[G], Rade A[UG], Yan M, Yousuf S, Liebl D, Price T, & **B Kolber**. (2023). "Prolonged neuropathic pain-induced depressive behavior is associated with the presence of Sigma-2/TMEM97 in mice." Poster presented at the Gulf Coast Consortia Translational Pain Conference, Houston, TX, May 2023.

27) Anandan I[UG], Hong V[G], Allen H[PD], Chatterjee U[G], Reith C, Kraeuter K, Neilan R, & **B Kolber**. (2023) "Creating a virtual model of pain-induced behavior: Quantifying cells in the central amygdala that have PKC-δ, SST ,CGRPR, and CGRP." Poster presented at the Gulf Coast Consortia Translational Pain Conference, BioScience Research Collaborative Auditorium, Houston, TX, May 2023.
$1000 Larry Callier Neuroscience Travel Award

28) Hong VM[G], Rade A[UG], Ehsan T[UG], Yousuf S, Liebl D, Price T, & **B Kolber**. (2023). "The Role of Sigma-2/TMEM97 in the context of Affective and Pain Behaviors." Poster presented at PURPOSE Meeting. Oxon Hill, MD, April 2023.

29) Lewter L[PD], Chattarjee U[G], Khowash O[G], Schmitz A[UG], & **B Kolber.** (2023). "The influence of CGRP receptors in the development of chronic bladder pain." Poster presented at US Association for the Study of Pain Annual meeting Durham, NC, April 2023.

30) Hong VM[G], Rade A[UG], Ehsan T[UG], Yousuf S, Liebl D, Price T, & **B Kolber**. (2023). "The Role of Sigma-2/TMEM97 in the context of Affective and Pain Behaviors." Poster presented at the US Association for the Study of Pain Annual Meeting Durham, NC, April 2023.

31) Reith C[UG], Kraeuter K[UG], Anandan I[UG], **Kolber B**, & R Miller Neilan. (2023). "3-Dimensional Computational Model of Neural Activity in the Central Nucleus of the Amygdala During Pain." Duquesne University Undergraduate Research and Scholarship Symposium (URSS), April 2023.

32) Reith C[UG], Kraeuter K[UG], Anandan I[UG], **Kolber B**, & R Miller Neilan. (2023). "Developing a 3-Dimensional Computational Model of neurons in the central amygdala to understand pharmacological targets for pain." American Chemical Society Regional Symposium, Duquesne University, April 2023.

33) Anandan I[UG], Hong V[G], Allen H[PD], Chatterjee U[G], Reith C, Kraeuter K, Neilan R, & **B Kolber**. (2023) "Creating a virtual model of pain-induced behavior: Quantifying cells in the central amygdala that have PKC-δ, SST ,CGRPR, and CGRP." Poster presented at the Supporting Outstanding Academic Research (SOAR), University of Texas at Dallas, Richardson, TX, March 2023.

34) Lewter L[PD], & **Kolber B**. (2022) "The role of amygdala CGRPR receptors in the development of persistent bladder pain." The Burroughs Wellcome Fund New Awardee Meeting, Durham, NC, October 2022.

35) Reith C[UG], Neilan R, & **B Kolber**. (2022). "3-Dimensional Agent-based Model of Neural Activity in the Central Nucleus of the Amygdala During Pain." Poster presentation at the Mathematical Association of

America MathFest 2022, August 2022.
Outstanding Poster Award

36) Anandan I[UG], Hong V[G], Allen H[G], Chatterjee U[G], & **B Kolber.** (2022). "Quantifying cells in the central amygdala containing PKC Delta, Somatostatin, and CGRP." Poster presentation at the Summer Platform for Undergraduate Research (SPUR) University of Texas at Dallas, July 2022 (Abstract 21).

37) Bhaskara A[UG], Ploski J, & **B Kolber.** (2022). "Retrograde viral tracing of neural pathways from the central nucleus of the amygdala to various brain regions." Poster presentation at the Summer Platform for Undergraduate Research (SPUR) University of Texas at Dallas, July 2022 (Abstract 116).

38) Hussein M[UG], Morales A[UG], Averick S, & **B Kolber.** (2022). "The efficacy of naloxone nanoparticles in opioid antagonism." Poster presentation at the Summer Platform for Undergraduate Research (SPUR) University of Texas at Dallas, July 2022 (Abstract 117).
CAPS Honors Poster Presentation Award - $200

39) Morales A[UG], Criswell Connor, Nguelefack T, & **B Kolber.** (2022). "Evaluating the Analgesic Potential of a Cameroonian Natural Product." Poster presentation at the Summer Platform for Undergraduate Research (SPUR) University of Texas at Dallas, July 2022 (Abstract 118).
CAPS Honors Poster Presentation Award - $200

40) Avaneesh R[UG], Hong V[G], Liebl D, Yousef S, Price T, & **B Kolber.** (2022). "Assessing affective and cognitive phenotypes in TMEM97 KO mice." Poster presentation at the Summer Platform for Undergraduate Research (SPUR) University of Texas at Dallas, July 2022 (Abstract 119).

41) Widner A[UG], Lewter L[PD], Allen H[G] & **B Kolber.** (2022). "Amygdala calcitonin gene-related peptide signaling heightens pain in chemotherapy-induced peripheral neuropathy." Poster presentation at the Summer Platform for Undergraduate Research (SPUR) University of Texas at Dallas, July 2022 (Abstract 120).
SPUR Poster Presentation Award - $100

42) Reith C[UG], Neilan R, & **B Kolber.** (2022). "Predicting pain using a computational model of neural activity." Poster presentation at the Undergraduate Research Program Symposium Duquesne University, July 2022 (Abstract 127).

43) Lewter L[PD] & **B Kolber.** (2022). "Left and right hemispheric lateralization of the amygdala in pain." Poster presentation at the United States Association of the Study of Pain Annual Meeting in Cincinnati, OH May 2022.

44) Allen H[G] & **B Kolber.** (2021). "CGRP signaling in the left versus right central amygdala has differential effects on bladder pain modulation in female mice." Poster/virtual Oral presentation at the Annual Society for Neuroscience Meeting, November 11, 2021 (Abstract P391.09).

45) Babyok[UG], Allen H[G] & **B Kolber.** (2021). "Investigation into pain-contributing genes in the Central Nucleus of the Amygdala." Poster presentation at the Northeast Regional Tri-Beta Conference, Pittsburgh, PA April 17, 2021 (Abstract #30).
Xi Psi Best Poster Presentation Award

46) Allen H[G] & **B Kolber.** (2021). "Parabrachial CGRP Signaling Contributes to Amygdala Lateralization in the Context of Bladder Pain." Poster presentation and data blitz at the Texas Pain Research Highlights Conference, April 7, 2021 (Virtual).

47) Babyok O[UG], Allen H[G], & **B Kolber.** (2020). "Investigation of Zymosan Induced Bladder Pain in Adult Female Mice." Virtual poster presentation at the 2020 Duquesne University Undergraduate Research and Scholarship Virtual Competition, April-May 2020.

48) Majetic G[UG], Neilan R, Adke A, Carrasquillo y & **B Kolber.** (2020). "Agent-based Modeling of Cell-Type

Specific and Pain-Related Neural Activity in the Amygdala During Neuropathic Pain." Virtual poster presentation at the 2020 Duquesne University Undergraduate Research and Scholarship Virtual Competition, April-May 2020.

Office of Research First Place – Outstanding Poster

49) Allen H[G], Cox A, & **B Kolber.** (2019). "CGRP in the left central amygdal reduces bladder pain in female mice." Poster presentation at the Annual Society for Neuroscience Meeting, Chicago, IL Oct 19-23, 2019 (Abstract #11445-SfN).

50) Pum Tseuguem P, Mouga Ngangoum AD, Tsague Kenfack M, **Kolber BJ**, Tidgewell KJ, & TB Nguelefack (2019). "TNA-alpha, IL-1beta and myeloperoxidase inhibitors contribute to the analgesic and anti-inflammatory curative effects of the aqueous and methanol extracts of *Paullinia pinnata* (Sapindaceae) in mon-arthritis in rats." Poster presentation at the Annual Society for Neuroscience Meeting, Chicago, IL Oct 19-23, 2019 (Abstract #F43).

51) Majetic G[UG], Neilan R, Adke A, Carrasquillo y & **B Kolber.** (2019). "An Agent-Based Model of Pain-Related Neural Activity in the Amygdala." Poster presentation at the 2019 Biomedical Engineering Society (BMES) Annual Meeting in Philadelphia, PA October 19, 2019 (#P-SAT-29).

52) Gladysz G[UG], Al Zadjali A[G], Janecka J M & **BJ Kolber.** (2019). "Utilizing next generation sequencing to sequence and classify marine cyanobacteria for drug discovery." Poster presentation at the Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA July 26, 2019 (#136).

53) George D[UG], Allen H[G], Atherton M & **BJ Kolber.** (2019). "Quantification of CGRP-R in the central amygdala through combined RNAScope and immunohistochemistry." Poster presentation at the Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA July 26, 2019 (#151).

54) Babyok O[UG], Allen H[G], & **BJ Kolber.** (2019). Characterization of zymosan-induced bladder pain in adult female mice. Poster presentation at the Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA July 26, 2019 (#155).

55) Majetic G[UG], Neilan-Miller R, Adke A, Carrasquillo Y & **BJ Kolber.** (2019). "An Agent-Based Model of Pain-Related Neural Activity in the Right Amygdala." Poster presentation at the Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA July 26, 2019 (#154).

56) Polaski A[G], Phelps A, Kostek M, Szucs K, & **BJ Kolber.** (2019). "Dose-related effects of moderate intensity aerobic exercise on sensitivity to experimentally-induced pain in healthy female participants." Poster presentation at the American College of Sports Medicine Annual Conference, Orlando FL, May 2019.

57) Allen H[G], Cox A & **BJ Kolber.** (2019). "CGRP in the left amygdala reduces bladder pain in female mice." Poster presentation at the Duquesne University Graduate Research and Scholarship Symposium, March 15, 2019.

Gumberg Library Award for Graduate Research ($500)

58) Polaski A[G], Phelps A, Kostek M, Szucs K, & **BJ Kolber.** (2019). "Dose-related effects of moderate intensity aerobic exercise on sensitivity to experimentally-induced pain in healthy female participants." Poster presentation at the Duquesne University Graduate Research and Scholarship Symposium, March 15, 2019.

59) Allen H[G], Cox A & **BJ Kolber.** (2018). "Behavioral characterization of cyclophosphamide-induced cystitis in mice." Poster presentation at the Duquesne University Department of Biological Sciences Retreat, August 24, 2018.

Winner Top Poster Award ($250)

60) Polaski A[G], Phelps A, Kostek M, Szucs K & **BJ Kolber.** (2018). "Dose-dependent effect of moderate intensity exercise on sensitivity to pain in humans." Poster presentation at the Duquesne University Department of Biological Sciences Retreat, August 24, 2018.

61) Riskus S[UG], Polaski A, Kostek M & **BJ Kolber.** (2018). "The effects of long-term exercise training on inflammatory pain in mice." Poster presentation at the Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA July 27, 2018 (#142).

62) Zaheer M[UG] & **BJ Kolber.** (2018). "Characterizing the sensory and affective phenotype of kappa opioid receptor knock-in mice in response to chronic variable stress." Poster presentation at the Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA July 27, 2018 (#143).

63) Lopez A[UG], Donkeng J, Nguelefack T & **BJ Kolber.** (2018). "Aqueous extract of *Baillonella toxisperma* with analgesic effects elicits strong calcium responses in mice primary sensory neurons." Poster presentation at the Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA July 27, 2018 (#148).

64) Zaheer M[UG], Weckesser M, Warnick J, Then M, Schottland S, Salenger T, Riskus S, Ojha S, Martinez W, Lopez A, Graves S, Eckhoff E, Clemenza P, Cha E, Cadiz M, Brauckmann A, Baktay J, Casio M, **Kolber B**, Mihailescu R, Tidgewell K & S Woodley (2018). "Community engaged learning in the neurodegenerative undergraduate Research Experience program and the Pain Undergraduate Research Program at Duquesne University." Poster presentation at the Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA July 27, 2018 (#152).

65) Baktay J[UG], Neilan R, Behun M[UG] & **BJ Kolber.** (2018). "A computational model of the central nucleus of the amygdala during bladder pain." Poster presentation at the Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA July 27, 2018 (#149).

66) Baktay J[UG], Neilan R, Behun M[UG] & **BJ Kolber.** (2018). "A computational model of the central nucleus of the amygdala during bladder pain." Poster presentation at the Duquesne University Undergraduate Research and Scholarship Symposium and Research Symposium April 11, 2018 (#153).
Honorable Mention BSNES Poster Award ($100)

67) Riskus S[UG], Polaski A, & **BJ Kolber.** (2018). "Exploration of sex differences in experimentally induced inflammatory muscle pain." Poster presentation at the Duquesne University Undergraduate Research and Scholarship Symposium and Research Symposium April 11, 2018 (#101).

68) Polaski A[G], Phelps A, Kostek M, Szucs K & **BJ Kolber.** (2018). "Dose-dependent effect of moderate intensity exercise on sensitivity to pain in humans." Poster presentation at the Duquesne University Graduate Student Research Symposium March 15, 2018 (#28).

69) Allen H[G], Cox A & **BJ Kolber.** (2018). "Behavioral characterization of cyclophosphamide-induced cystitis in mice." Poster presentation at the Duquesne University Graduate Student Research Symposium March 15, 2018 (#16).

70) Behun M[UG] & **BJ Kolber.** (2017). Fabrication of a Timed-Pressure Regulator (TPR) to Enable the Study of Bladder Pain." Poster presentation at the Icahn School of Medicine at Mount Sinai, NYC, NY, Sept 16, 2017.
Winner of the 2017 Best Neuroscience Poster Award

71) Parker S, **Kolber BJ** & K Tidgewell (2017). "Marine cyanobacteria, a source for lead compounds to treat pain and depression." Poster presentation at the American Society of Pharmacognosy annual meeting Portland, OR, July 30, 2017 (Abstract #P-232).

72) Leep S[UG], Lax N[G], Lei Y, Uhrich K & **BJ Kolber.** (2017). "Investigating the Analgesic Properties of PolyMorphine." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 28, 2017 (Abstract #145).

73) Cox A[UG], Sadler K[G] & **BJ Kolber.** (2017). "Characterizing neurophysiological mechanisms of chronic bladder pain regulation through the central amygdala." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 28, 2017 (Abstract #146).

PURE/NURE Reviewed Abstract Award – Won 2nd place prize for blinded peer-reviewed abstract

74) Zapadka A[UG], Lax N[G], Tidgewell K & **BJ Kolber.** (2017). "Phylogenetic relationships of marine cyanobacteria serving as possible targets for pain and depression." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 28, 2017 (Abstract #148).

75) Behun M[UG], Goldschmidt B & **BJ Kolber.** (2017). "Fabrication of a Timed-Pressure Regulator to Enable the Study of Bladder Pain." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 28, 2017 (Abstract #150).

76) Baktay J, Neilan R, Behun M[UG] & **BJ Kolber.** (2017). "A Computational Model of the Central Nucleus of the Amygdala during Bladder Pain." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 28, 2017 (Abstract #156).

77) Sadler K[G], Behun MN[UG], McQuaid NA, Neilan R & **BJ Kolber.** (2017). "Asymmetric nociceptive properties of the left and right central amygdala." Poster Presentation at the American Pain Society National Conference, Pittsburgh, PA, May 2017 (Abstract #108). *The Journal of Pain*, Vol. 18, Issue 4, S4.

78) Lax NC[G], Hilton EJ[UG], Ahmed T, Tidgewell KT & **BJ Kolber.** (2017). "Understanding the role of serotonin receptor subtype 7 (5-HT7) in comorbid pain and depression using novel compounds derived from marine cyanobacteria." Poster Presentation at the American Pain Society National Conference, Pittsburgh, PA, May 2017 (Abstract #165). *The Journal of Pain*, Vol. 18, Issue 4, S17.

79) Zapadka A[UG], Seliman Y[UG], Hilton E[UG], Lax NC[G], Tidgewell KT & **BJ Kolber.** (2017). "Phylogenetic Relationships of Cyanobacteria serving as Possible Targets for Pain." Poster Presentation at the American Pain Society National Conference, Pittsburgh, PA, May 2017 (Abstract #164). *The Journal of Pain*, Vol. 18, Issue 4, S17.

Best in Show: Basic Science Poster Award

80) Polaski AM[G], Kostek MC, Szucs KA & **BJ Kolber.** (2017). "Dose-dependent effect of walking exercise on pressure pain in humans." Poster Presentation at the American Pain Society National Conference, Pittsburgh, PA, May 2017 (Abstract #454). *The Journal of Pain*, Vol. 18, Issue 4, S87.

81) Parker S, **Kolber BJ** & K Tidgewell (2017). **"**Screening extracts of marine cyanobacteria for lead compounds to treat pain." Poster Presentation at the American Pain Society National Conference, Pittsburgh, PA, May 2017 (Abstract #163). *The Journal of Pain*, Vol. 18, Issue 4, S17.

82) Behun M[UG], McQuaid NA[G], & **BJ Kolber.** (2017). "Approaching neuroscience using an engineering view." Poster presentation at the Duquesne University Undergraduate Research and Scholarship Symposium (URSS), April 2017 (Abstract 7). Poster presentation at the University of Pittsburgh BioE Day, April 2017.

URSS – Phi Kappa Phi National Honors Society Outstanding Research Award ($500)
Pitt BioE Day – First Prize in the Undergraduate Category ($200)

83) Cox A[UG], Lax N[G], Welsh W, Peng Y & **BJ Kolber.** (2017). "A Comparative Study of Two Analgesic Compounds, Fenobam Sulfate and Fenobam Free Base, Using a Model of Inflammatory Nociception." Poster presentation at the Duquesne University Undergraduate Research and Scholarship Symposium, April 2017 (Abstract 17).

URSS – Office of Research for Outstanding Poster Award ($125)

84) Cox A[UG], Lax N[G], Welsh W, Peng Y & **BJ Kolber.** (2017). "A Comparative Study of Two Analgesic Compounds, Fenobam Sulfate and Fenobam Free Base, Using a Model of Inflammatory Nociception." Poster presentation at the American Physiological Society Experimental Biology Meeting, Chicago, IL April 2017 (#D23 812.8).

85) Hilton E[UG], Staub C, Lax N[G], **Kolber BJ** & K Tidgewell (2017). "Discovery of a poly-halogenated compound from a Curacaon cyanobacteria." Poster presentation at the Duquesne University Undergraduate Research and Scholarship Symposium, April 2017 (Abstract #43).

86) Sadler K[G] & **B Kolber.** (2016). Divergent roles of the left and right central amygdala in visceral pain modulation. Poster presentation at New Frontiers of Pain Research in the 21st Century meeting at The University of Alabama at Birmingham, Birmingham, AL, Oct 14-15, 2016.
Travel Award from the University of Birmingham ($1000)

87) **Kolber BJ**, Sadler K[G] & N McQuaid[G] (2016). "Functional differences between left and right cerebral hemisphere control of bladder pain." Poster presentation at the IASP World Congress, Yokohama, Japan, Sept 28, 2016 (PW0399).

88) Behun M[UG], McQuaid N[G] & **BJ Kolber.** (2016). "Recording Neuronal Responses to Bladder Pain in the Central Nucleus of the Amygdala." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 29, 2016.

89) Cox A[UG], Sadler K[G] & **BJ Kolber.** (2016). "Exploring clinically observed sex differences of bladder nociception in a mouse model." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 29, 2016.

90) Sadler K[G] & **BJ Kolber.** (2016). "Asymmetric modulation of bladder pain by the left and right central amygdala." Poster presentation at the American Pain Society Annual Meeting in Austin, TX, May 11-14, 2016 (Abstract #375). *The Journal of Pain*, Vol. 17, Issue 4, S68–S69.

91) **BJ Kolber** & K Tidgewell (2016). "The Pain Undergraduate Research Experience (PURE): an innovative pipeline for future pain scientists and clinicians." Poster presentation at the American Pain Society Annual Meeting in Austin, TX, May 11-14, 2016 (Abstract #257). *The Journal of Pain*, Vol. 17, Issue 4, S40.

92) **BJ Kolber**, Wolz M[UG] & K Sadler[G] (2016). "Failure to translate: unexpected side effects discovered when adapting the mouse cold plantar assay for use in healthy human volunteers." Poster presentation at the American Pain Society Annual Meeting in Austin, TX, May 11-14, 2016 (Abstract #347). *The Journal of Pain*, Vol. 17, Issue 4, S62.

93) Cox A[UG], Sadler K[G] & **BJ Kolber.** (2016). "Modeling chronic bladder pain in male and female mice: Exploring the chronicity of repeated cyclophosphamide injections." Poster presentation at the Duquesne University Undergraduate Research and Scholarship Symposium, Duquesne University April 6, 2016 (Abstract #65).
Outstanding Scholarship Award from the Provost ($250)
Honorable Mention BSNES Poster Award ($100)

94) Hilton E[UG], Tidgewell K & **BJ Kolber.** (2016). "Investigation of a cyanobacterial collection from Curacao for CNS activity." Poster for presentation at the Experimental Biology ASPET 2016 meeting in San Diego, April 4, 2016 (Abstract # 763).

95) Sadler K[G], Cavanaugh J & **BJ Kolber.** (2016). "Central amygdala expression of metabotropic glutamate receptor 5 (mGluR5) linked to age-dependent changes in pain plasticity." Poster presentation at 10th Annual Research Day on Aging at University of Pittsburgh, Pittsburgh, PA, March 31, 2016.

96) Wolyniak MJ, Prunuske AJ, Adler JJ, Crowe AJ, Keller LC, **Kolber BJ**, Leland BA, Schreiner SM, Whatley Z & SM Wick (2015). "Spreading Vision and Change through faculty mentorship: The ASCB Mentoring in Active Learning and Teaching (MALT) program." Poster presentation at the American Society of Cell Biology in San Diego, CA, Dec 12-16, 2015.

97) McQuaid N[G] & **BJ Kolber.** (2015). "Extracellular recording of bladder pain neurons in the amygdala." Poster presentation at the Duquesne University Graduate Student Research Symposium Nov 6, 2015.

98) Sadler K[G], Trouten A[UG] & **BJ Kolber.** (2015). "Asymmetrical involvement of the left and right central amygdala in bladder pain." Poster presentation at the Duquesne University Graduate Student Research Symposium Nov 6, 2015.
Poster won Bayer School Award for Top Poster ($300)

99) Lax N[G], Ignatz C[UG], Hilton E[UG], Ahmed T, Tidgewell K & **BJ Kolber.** (2015). "Understanding the role of serotonin receptor subtypes 7 and 2C (5-HT7/2C) in comorbid pain and depression using novel compounds derived from marine cyanobacteria." Poster presentation at the Duquesne University Graduate Student Research Symposium Nov 6, 2015.

100) Polaski A[G], Kostek MC, **Kolber BJ** & KA Szucs (2015). "Effect of exercise dosing on pain in healthy human subjects." Poster presentation at the Duquesne University Graduate Student Research Symposium Nov 6, 2015.

101) Lax N[G], Ignatz C[UG], Hilton E[UG], Ahmed T, Tidgewell K & **BJ Kolber.** (2015). "Understanding the role of serotonin receptor subtypes 7 and 2C (5-HT7/2C) in comorbid pain and depression using novel compounds derived from marine cyanobacteria." Poster presentation at the Annual Society for Neuroscience Meeting, Chicago, IL Oct 17-21, 2015 (Abstract #635.21).

102) Sadler K[G], Trouten A[UG] & **BJ Kolber.** (2015). "Asymmetrical involvement of the left and right central amygdala in bladder pain." Poster presentation at the Annual Society for Neuroscience Meeting, Chicago, IL Oct 17-21, 2015 (Abstract #238.12).

103) Long C[UG], Sadler K & **BJ Kolber.** (2015). "Analysis of Sex-Based Differences in a Mouse Model of Stress-Induced Analgesia." Poster presentation at the Annual Society for Neuroscience Meeting, Faculty for Neuroscience Poster Session, Chicago, IL Oct 17-21, 2015.

104) Polaski A[G], Ramsey A[UG], Szucs KA, Kostek MC & **BJ Kolber.** (2015). "Reliability of cost-effective human quantitative sensory testing for pain." Poster presentation at the Center for Neuroscience at the University of Pittsburgh Annual Retreat at Oglebay Resort, WV September 11-13, 2015.

105) Sadler K[G], Trouten A[UG] & **BJ Kolber.** (2015). "Hemispheric lateralization of bladder pain modulation." Poster presentation at the Center for Neuroscience at the University of Pittsburgh Annual Retreat at Oglebay Resort, WV September 11-13, 2015.

106) Lax N[G], Hilton T[UG], Ahmed T, Tidgewell K & **BJ Kolber.** (2015). "Characterization of serotonin receptor subtype 7 (5-HT7) in pain and depression using novel compounds derived from marine cyanobacteria." Poster presentation at the Center for Neuroscience at the University of Pittsburgh Annual Retreat at Oglebay Resort, WV September 11-13, 2015.
Best Predoctoral Poster prize

107) Cox A[UG], Lax N[G], Peng Y, Welsh W & **BJ Kolber.** (2015). "Extended pain relieving effects of fenobam sulfate, a non-opioid analgesic, in a mouse model of inflammatory pain." Poster presentation at the Annual Duquesne University Metals in Biology Symposium in Pittsburgh, PA, September 25, 2015.
2nd Place Poster prize

108) Sadler K[G], Trouten A[UG] & **BJ Kolber.** (2015). "Hemispheric lateralization of bladder pain modulation." Poster presentation at the Department of Biological Sciences Retreat at Pymatuning Research Station, September 21-22, 2015.
Best Predoctoral Poster prize ($250)

109) Long C[UG], Sadler K[G] & **BJ Kolber.** (2015). "Analysis of Sex-Based Differences in a Mouse Model of Stress-Induced Analgesia." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 29, 2015.

110) Jones K[UG], Sadler K[G] & **BJ Kolber.** (2015). "Analysis of brain mast cells in a model of chronic bladder pain." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 29, 2015.

111) Cox A[UG], Lax N[G] & **BJ Kolber.** (2015). "Extended pain relieving effects of fenobam sulfate, a non-opioid analgesic, in a mouse model of inflammatory pain." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 29, 2015.

112) Sadler K[G], Trouten A[UG] & **BJ Kolber.** (2015). "Hemispheric lateralization of bladder pain modulation." Poster presentation at the American Pain Society Annual Meeting in Palm Springs, CA, May 13-16, 2015 (Abstract #359 *The Journal of Pain, 16*(4), S1: S65).

113) Lax N[G], Hilton T[UG], Ahmed T, Tidgewell K & **BJ Kolber.** (2015). "Characterization of serotonin receptor subtype 7 (5-HT7) in pain and depression using novel compounds derived from marine cyanobacteria." Poster presentation at the American Pain Society Annual Meeting in Palm Springs, CA, May 13-16, 2015 (Abstract #293). *The Journal of Pain*, 16(4), S1: S49.

114) Rajaram B[UG], Sadler K[G] & **BJ Kolber.** (2015). "Optimization of an extraction method to analyze neural gene expression in the context of urinary-bladder pain." Poster presentation at the Duquesne University Undergraduate Research and Scholarship Symposium, Duquesne University April 9, 2015 (Abstract #40).

115) Hilton E[UG], Lax[G], Tidgewell KJ & **BJ Kolber.** (2015). "Species identification of an unknown cyanobacterium producing an antidepressant compound with 5-HT7 serotonin receptor activity." Poster presentation at the Duquesne University Undergraduate Research and Scholarship Symposium, Duquesne University April 9, 2015 (Abstract #78).

116) Wolz M[UG], Long C[UG] & **BJ Kolber.** (2015). "Cold cutaneous assay: A novel method to measure cold sensitivity in humans." Poster presentation at the Duquesne University Undergraduate Research and Scholarship Symposium, Duquesne University April 9, 2015 (Abstract #98).

117) Trouten A[UG], Sadler K[G] & **BJ Kolber.** (2015). "Evaluation of immediate early gene expression following light-induced activation of the central amygdala and basolateral amygdala." Poster presentation at the Duquesne University Undergraduate Research and Scholarship Symposium, Duquesne University April 9, 2015 (Abstract #142).

118) Tidgewell K, Ahmed KT, Lax N[G] & **BJ Kolber.** (2015). "Panamanian marine cyanobacterial extracts with in vivo activity in models of anxiety and depression." Poster presentation at the 56th American Society of Pharmacognosy Annual Meeting, Copper Mountain, CO, July 25-29, 2015. *Planta Med*; 81 – IL17 doi: 10.1055/s-0035-1556114.

119) Gulli A[HS], Sadler K[G] & **BJ Kolber.** (2015). "Location of pERK and CRH in the central nucleus of the amygdala (CeA)." Poster presentation at the STEM-ulate Science Showcase at the University of Pittsburgh, March 28, 2015.
Awarded a first place prize for poster

120) Lax N[G], Hilton E[UG], Ahmed K, Tidgewell KJ & **BJ Kolber.** (2014). "Characterization of serotonin receptor subtype 2C (5-HT2C) in pain and depression using novel compounds derived from marine cyanobacteria." Poster presentation at the Annual Society for Neuroscience 2014 Washington D.C. Nov 18, 2014 (527.17/EE7).

121) Ahmed KhT, Lax N[G], **Kolber BJ** & KJ Tidgewell (2014). "Discovery of a 5-HT2c GPCR Ligand from a Panamanian Cyanobacterium." Poster presentation at the 55th American Society of Pharmacognosy Annual Meeting, Oxford, MS, Aug 2-6, 2014. *Planta Med* 2014; 80 - PB12 doi: 10.1055/s-0034-1382378.

122) Long CC[UG] & **BJ Kolber.** (2014). "Analysis of sex-based differences in a mouse model of stress-induced analgesia." Poster presentation at the Annual Duquesne University Undergraduate Research Program

Symposium in Pittsburgh, PA, July 25, 2014.

123) Hilton E[UG], Lax N[G], Tidgewell K & **BJ Kolber.** (2014). "Species identification of an unknown marine cyanobacterium." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 25, 2014.

124) Rajaram R[UG], Sadler K[G] & **BJ Kolber.** (2014). "Bladder pain-induced changes in central amygdala gene expression." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 25, 2014.

125) Ramsey A[UG] & **BJ Kolber.** (2014). "Testing the length of stress exposure on behavioral indices of anxiety." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 25, 2014.

126) Nolan TL, Geffert LM[G], **Kolber BJ**, Madura JD & CK Surratt (2014). "Discovery of novel-scaffold antidepressant hit-to-lead compounds via *in silico* screening with the serotonin transporter S1 ligand binding pocket." Poster presentation at the IUPHAR 17th World Congress of Basic and Clinical Pharmacology, Cape Town, SA, July 13-18, 2014.

127) Ignatz CM[UG], Lax N[G], Tidgewell K & **BJ Kolber.** (2014). "Pain, Depression, and Anxiety Modulation through a Novel CNS Active Marine Cyanobacterial Compound." Poster presentation at the Tri-Beta National Convention at Gannon University in Erie Pennsylvania, June 3-7, 2014.

128) Ignatz CM[UG], Lax N[G], Tidgewell K & **BJ Kolber.** (2014). "Depression, Pain, and Anxiety Modulation through a Novel CNS Active Marine Cyanobacteria Compound." Poster presentation at the Duquesne University Undergraduate Research and Scholarship Symposium, Duquesne University, April 9, 2014.
Excellence in Research in the Basic Sciences Award sponsored by the Bayer School of Natural and Environmental Science ($300)

129) Ignatz CM[UG], Lax N[G], Tidgewell K & **BJ Kolber.** (2014). "Depression, Pain, and Anxiety Modulation through a Novel CNS Active Marine Cyanobacteria Compound." Poster presentation at the Tri-Beta Regional Convention at Grove City College in Grove City Pennsylvania, March 29, 2014.
John C. Johnson Award for Excellence in Student Research for a first place poster ($700 travel award)

130) Ahmed KhT, Lax N[G], **Kolber BJ** & KJ Tidgewell. "5-HT2c GPCR Ligand from a Panamanian Cyanobacterium." Poster presentation at the Pittsburgh Bacterial Meeting, Pittsburgh, PA, March 8, 2014.

131) Sadler K[G], Stratton JM[UG] & **BJ Kolber.** (2013). "Effects of body temperature and isoflurane induction on urinary bladder distention." Poster presentation at the Annual Society for Neuroscience 2013 meeting in San Diego, CA, Nov 9-13, 2013 (Abstract #643.13).

132) George DC[UG], Lax NC[G] & **BJ Kolber.** (2013). "The mGluR5 antagonist fenobam induces analgesic conditioned place preference in mice with spared nerve injury." Poster presentation at the Annual Society for Neuroscience 2013 meeting in San Diego, CA, Nov 9-13, 2013 (Abstract #369.10).

133) Geffert LM[G], Ross RR, Nolan TL, **Kolber BJ**, Madura JD & CK Surratt (2013). "Discovery of monoamine transporter ligands via virtual screening with the S1 substrate pocket of the serotonin transporter." Poster presentation at the Annual Society for Neuroscience 2013 meeting in San Diego, CA, Nov 9-13, 2013 (Abstract #227.10).

134) Lax NC[G], George DC[UG] & **BJ Kolber.** (2013). "The mGluR5 antagonist fenobam works as a non-rewarding analgesic in female mice with spared nerve injury." Poster presentation at the Midwest Pain Interest Group at the University of Cincinnati, Aug 23-24, 2013.

135) Sadler KE[G], Stratton JM[UG] & **BJ Kolber.** (2013). "Optimization of Temperature and Anesthesia Induction

Method on UBD-VMR Mouse Model of Bladder Pain." Poster presentation at the Midwest Pain Interest Group at the University of Cincinnati Aug 23-24, 2013.

136) Long CC[UG], **Kolber BJ** & KE Sadler[G] (2013). "Inflammatory Pain and the Central Amygdala: Immunohistochemical Analysis of Pain Markers." Oral presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 26, 2013.

137) Ignatz CM[UG], **Kolber BJ** & KJ Tidgewell (2013). "Depression modulation through CNS-active compounds from a marine cyanobacterium." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 26, 2013.

138) Surratt CK, Nolan TL, Geffert LM[G], Ross RR, **Kolber BJ** & Madura JD. "High-affinity novel-scaffold monoamine transporter ligands revealed via in silico chemical library screening with the S1 substrate pocket of the serotonin transporter." Poster presentation at the Collaborative Research in Computational Neuroscience (CRCNS) PI meeting, June 9-11, 2013.

139) Sadler KE[G], Stratton JM[UG] & **BJ Kolber.** (2013). "Effects of temperature, anesthesia, and infection on urinary bladder pain-like responses in mice." Poster for presentation at the Experimental Biology 2013 meeting in Boston, April 20-24, 2013 (Abstract #691.16 Page 207).

140) George DC[UG] & **BJ Kolber.** (2013). "Evaluating the analgesic properties of the novel mGluR5 antagonist Fenobam." Poster presentation at the Annual Duquesne University Undergraduate Research and Scholarship Symposium in Pittsburgh, PA, April 10, 2013.

141) Stratton JM[UG], Sadler KE[G] & **BJ Kolber.** (2013). "Designing an infection based bladder pain model in mice." Poster presentation at the Annual Duquesne University Undergraduate Research and Scholarship Symposium in Pittsburgh, PA, April 10, 2013.

142) **Kolber BJ**, Crock LW, Morgan CD, Sadler K[G], Vogt SK, Bruchas MR & RW Gereau IV (2012). "Central amygdala mGluR5 in the modulation of visceral pain." Poster presentation at the Annual Society for Neuroscience 2012 meeting in New Orleans, Oct 13-17, 2012 (Abstract #473.19).

143) Stratton JM[UG] & **BJ Kolber.** (2012). "Pain neurons in the central nucleus of the amygdala are primarily inhibitory neurons." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 27, 2012.

144) George DC[UG] & **BJ Kolber.** (2012). "Morphine induces conditioned place preference in mice." Poster presentation at the Annual Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA, July 27, 2012.

145) **Kolber BJ.** (2012). "Optogenetic activation of the amygdala in mice increases bladder "pain-like" responses." Oral presentation at the 2012 American Pain Society Annual Meeting in Honolulu, HI, May 16, 2012. Invited presentation at the Basic Science Business Meeting.

146) Crock L, **Kolber BJ**, Morgan C, Vogt S, Lai H, Bruchas M & R Gereau. (2012). Role of mGluR5 in bladder pain. Poster presentation at the American Pain Society Annual Meeting in Honolulu, Hawaii, May 16-19, 2012. *The Journal of Pain*, *13*(4), S57.

147) Gereau IV RW, Montana MC, **Kolber BJ**, Crock LW & LF Cavallone (2011). "Translational studies of mGlu5 NAMs for the treatment of pain." Presentation at the 7th International Meeting on Metabotropic Glutamate Receptors at Taormina, Italy, Oct 2-7, 2011.

148) **Kolber BJ**, Brenner D, Montana M & RW Gereau IV (2010). "Modulation of amygdala-dependent pain behavior in mice by acute stress." Poster presentation at the 2010 Washington University Annual Neuroscience Retreat at Pere Marquette Lodge, IL, Sept 24, 2010.

149) **Kolber BJ**, Montana M, Carrasquillo Y & RW Gereau IV (2010). "Activation of metabotropic glutamate receptor 5 in the amygdala modulates pain-like behavior." Poster presentation at the Annual Pain Interest Group Meeting in Indianapolis, IN, June 18-19, 2010.

150) **Kolber BJ**, Montana M, Carrasquillo Y & RW Gereau IV (2010). "Activation of metabotropic glutamate receptor 5 in the amygdala modulates pain-like behavior." Poster presentation at the 6th Annual Washington University Postdoc Scientific Symposium in St. Louis, MO, Feb 25, 2010.

151) Bowling RE[UG], Gereau RW & **BJ Kolber.** (2009). "Role of extrahypothalamic corticotropin-releasing hormone (CRH) in nociception using a transgenic mouse model." Poster presentation at the 2010 Washington University Undergraduate Research Symposium, Oct 24, 2009.

152) **Kolber BJ**, Howell MP, Kelley CL, Vogt SK & LJ Muglia (2008). "Transient early forebrain CRH overexpression causes lasting anxiogenic changes in the adult mouse." Poster presentation at the Annual Society for Neuroscience 2008 meeting in Washington DC, Nov 15-19, 2008 (Abstract #477.20/QQ19).

153) **Kolber BJ** (2008). "Central amygdala glucocorticoid receptor action promotes fear conditioning." Selected for oral presentation at the finals for the 2008 Washington University James O'Leary Competition, April 24, 2008.

154) **Kolber BJ**, Nunez M, Sands MS & LJ Muglia (2007). "Amygdalar glucocorticoid receptor disruption attenuates emotional learning." Poster presentation at the Annual Society for Neuroscience 2007 meeting in San Diego, Nov 2-7, 2007 (Abstract #101328/628.1).

155) **Kolber BJ**, Key M, Chen Y, Morris M & C Krane (2003). "Aquaporin 4 mRNA expression in mouse brain is induced in response to dehydration." Poster presentation at the Experimental Biology 2003 meeting in San Diego, April 11-15, 2003 (Abstract # 586.2 Page A919).

156) **Kolber BJ**, Key M, Chen Y, Morris M & C Krane (2003). "Aquaporin 4 mRNA expression in mouse brain is induced in response to dehydration." Poster presentation at the 2003 University of Dayton Stander Symposium, March 4-5, 2003.

157) **Kolber BJ** & C Kimble (2003). "Investigating feminism: Urban vs. rural women in Cameroon, West Africa." Poster presentation at the 2003 University of Dayton Stander Symposium, March 4-5, 2003.

158) Piechowski M, **Kolber BJ** & C Krane (2003). "The role of AQP2 in the kidneys of dehydrated mice deficient in type 1A receptor for ANG II." Poster presentation at the 2003 University of Dayton Stander Symposium, March 4-5, 2003.

Articles Submitted for Publication

1) Back F, Sandoval A, Kroener S, **Kolber BJ**, JE Ploski (2023). Adeno-Associated Viral Vector Resource for the RNA-Targeting Cas13d: A Comparison of High-Fidelity Variants, DjCas13d and hfCas13d. *In Review – Molecular Therapy – Nucleic Acids*

2) Perumel C, Nofal A[G], **B Kolber** & R Neilan[C] (2025). Web application for simulation of an agent-based model in NetLogo3D. *In review as of January 2025 at SPORA – A Journal of Mathematics.*

3) Paul Blesson[PD] & **B Kolber** (2025). Neuronal Physiology of Amygdala Neurons in the Context of Injury and Pain. *In review as of January 2025 at Neurobiology of Pain.*

4) Ojo M[G], Allen H & **Kolber B[C]** (2025). Neuropeptides as mediators of hemispheric brain lateralization. Pre-submission proposal submitted to *Biological Psychiatry* and accepted for preparation 2024. *In review as of January 2025 at Biological Psychiatry.*

5) Fofie C[PD], Granja-Vazquez R, Truong V, Walsh P, Price J, Biswas S, Dussor G, Pancrazio JJ & **BJ Kolber[C]** (2024). Phenotyping induced human pluripotent stem-cell derived sensory neurons for high content drug screening using a multi-electrode array platform. *In review as of Nov 2024 at Cell Reports Methods.*

Works in Progress

1) **Kolber B**[C], Thorn C, Neugebauer V, Froemke R, & G Bakalkin (2024). Neuropeptides as mediators of hemispheric brain lateralization. *In preparation.*
2) Lewter L[PD], Blesson P[PD], Khan M[UG], Ojo M[G], & **BJ Kolber**[C] (2024). Long-term impact of central amygdala CGRP modulation after bladder injury. *In Preparation.*
3) Hong VM[G], Rade AD[UG], Yousef MS, Price TJ, & **BJ Kolber**[C] (2024). Loss of sigma-2 receptor/TMEM97 in nociceptors is associated with prolonged inflammatory pain in mice. *In Preparation.*
4) Hong VM[G], Rade AD[UG], & **BJ Kolber**[C] (2024). A review of sigma-2/TMEM97 pharmacology in pain. *In Preparation.*
5) Lewter[PD], Narasov N[UG], Dussor G, & **B Kolber** (2024). Review of CGRP animal studies for migraine. *In Preparation.*

Invited Talks and Presentations at Professional Meetings, Seminars, or Colloquia Assemblies

1) Washington University in St. Louis Pain Center Seminar Series, February 2025. Seminar entitled "Critical and Dynamic Regulation of Pain by Neuropeptides in the Amygdala."

2) Invited Oral Presentation workshop at the 2024 ACRM National Conference, Dallas, TX, Nov 2024. Seminar entitled "Investigating dose as a critical gap in exercise therapy for pai: From meta-analysis to pilot clinical trial."

3) Texas Tech Health Sciences Core IV Seminar Series, Oct 2024
Seminar entitled "Critical and Dynamic Regulation of Pain by Neuropeptides in the Amygdala."

4) Neuroscience Day, Ohio Miami Valley Chapter for the Society for Neuroscience (OMV-SfN), Keynote Lecture, June 2024
Seminar entitled "Exploring mysteries in neurobiology to impact disease outcomes."

5) Pain Mechanisms and Therapeutics Conference Verona Italy, Data Blitz Presentation, May 2024
Seminar entitled "A computational approach to integrate amygdala data across cell types"

6) NIH HEAL Initiative PURPOSE Meeting, May 2024
Seminar entitled "Diving into drug discovery: The importance of opportunity and open mindedness in drug discovery research in pain."

7) Department of Pharmacology and Chemical Biology, Emory University, March 2024, Department seminar series
Seminar entitled "Critical and Dynamic Regulation of Pain by Neuropeptides in the Amygdala."

8) United States Association for the Study of Pain, Visceral Pain Shared Interest Group, Virtual (Zoom), March 2024, Work in Progress
Seminar entitled "Understanding brain control of bladder pain with functional studies and computer modeling."

9) Pain Research Program, University of Iowa, March 2024, Pain Research Program Visiting Speaker
Seminar entitled "Critical and dynamic regulation of pain by the amygdala in the brain."

10) Clinical Translational Research, Certificate of Added Qualification Program, Baylor College of Medicine, Fall 2023, Bench to Bedside Seminar Series
Seminar entitled "Understanding and treating chronic pain: From bench to bedside to bytes."

11) UTD-UTSW Pain Symposium, Fall 2023
Seminar entitled "Critical and dynamic regulation of pain by the amygdala in the brain."

12) NIH HEAL Initiative PURPOSE Meeting, Spring 2023
Seminar entitled "An evolution in pain: New perspectives on the left vs right brain in bladder nociception."

13) UT Dallas Scholars Day seminar, Fall 2022
Seminar entitled "An evolution in pain: New perspectives on the left vs right brain in pain."

14) Department of Anesthesiology, University of Alabama Birmingham, Fall 2022, Department Seminar Series
Seminar entitled "An evolution in pain: New perspectives on the left vs. the right brain in bladder nociception."

15) NIDDK Neuro-urology: Bridging basic and clinical science to understand urologic disease workshop Session IV Clinical and Translational Tools and Technologies, August 2022
Seminar entitled "Using optogenetics to understand and treat urologic disease."

16) UT Dallas Summer Platform for Undergraduate Research (SPUR) Keynote Lecture, July 2022
Seminar entitled "Reproducibility and opportunity."

17) Tripartite Scientific Meeting on Translational medicine and natural products in pain management at the Medical School Hamburg, Germany, July 2022
Seminar entitled "Understanding the limbic system in pain from human integrative therapy to rodent physiology."

18) KeyBank Corp Thrive Week, Invited Lecture, June 2022
Seminar entitled "Where brain meets body: Where stress meets pain."

19) Quenching Curiosity, The University of Texas at Dallas, public science lecture sponsored by the Department of Bioengineering, June 2022
Seminar entitled "An evolution in the brain: New perspectives on the left vs the right brain in pain."

20) Pain Undergraduate Research Experience Program, Duquesne University, June 2022, Program Seminar Series
Seminar entitled "The amygdala in pain: From patient H.M. to cell-type specific functionality."

21) International Neural Regeneration Symposium (INRS) Web Lecture Series on Brain Lateralization, May 2022
Seminar entitled "Left and right hemispheric lateralization of the amygdala in pain."

22) Department of Bioengineering, Arizona State University, April 2022, Department Seminar Series
Seminar entitled "From killers to saviors: Harvesting ocean cyanobacteria for pain and depression drug discovery."

23) Department of Biology, Texas Woman's University, Spring 2022, Department Seminar Series
Seminar entitled "Utilizing nature as a novel source of psychoactive compounds to treat depression and pain."

24) Gulf Coast Consortia Translational Pain Research Conference, Houston, TX, April 2022.
Seminar entitled "Positive and negative gating of bladder pain by the amygdala."

25) IASP Pain Research Forum, COVID-19 Seminar Series, Summer 2020
Seminar entitled "The amygdala in pain: From patient H.M. to cell-type specific functionality."

26) Department of History, Alumni Chair in Humanities Symposium Global Voices of the University of Dayton Campus, University of Dayton, Spring 2020
Seminar entitled "Natural products drug discovery in Cameroon."

27) Department of Anesthesiology, Stonybrook University Medical School, Spring 2020
Seminar entitled "Divergent functions of the left and right amygdala in visceral pain."

28) Center for Neuroscience, Jikei Medical University, Spring 2020
Seminar entitled "Kolber laboratory for integrative pain studies."

29) Department of Pain Biology, Aichi Medical University, Spring 2020
Seminar entitled "Exercise therapy for pain: Impact of dosing and integrative approaches on perception and disability."

30) National Institute of Physiological Sciences (NIPS), Pain Survival Conference Okazaki, Japan, Spring 2020
Seminar entitled "Role of amygdala CGRP in bladder pain."

31) School of Behavioral and Biomedical Sciences, University of Texas at Dallas, Fall 2019
Seminar entitled "Divergent functions of the left and right amygdala in visceral pain."

32) Department of Anesthesiology, University of Kansas Medical Center (KUMC), Fall 2019
Seminar entitled "Divergent functions of the left and right amygdala in visceral pain."

33) Department of Anesthesiology, University of Kansas Medical Center (KUMC), Fall 2019
Seminar entitled "Exercise therapy for pain: Impact of dosing and integrative approaches on perception and disability."

34) Invited oral presentation as part of session "Limbic System Influence and Dysregulation in Urologic Pain Syndromes" at the Society for Urodynamics, Female Pelvic Medicine and Urogenital Reconstruction (SUFU) Annual Winter Meeting in Miami, FL Feb 26, 2019.
Seminar entitled "Neuromodulation of Bladder Pain by the Central Amygdala: Implication of Basic Sciences Findings on Imaging Data from Patients."

35) First Integrative Health Summit at Duquesne University, Pittsburgh PA, Oct 2019
Seminar entitled "The implications of a longer-lasting Narcan."

36) **BJ Kolber** (2019). Invited planning committee member of National Academies of Sciences "Reproducibility and replicability in science: Next steps symposium," Washington, DC 9/24-9/26/19. Cited in: National Academies of Sciences, Engineering, and Medicine. 2020. Enhancing scientific reproducibility in biomedical research through transparent reporting: Proceedings of a workshop. Washington, DC: The National Academies Press. doi: 10.17226/25627 (*Note: also listed below in service)*

37) Department of Neurobiology, University of Pittsburgh School of Medicine Seminar, Fall 2018
Seminar entitled "Divergent functions of the left and right amygdala."

38) School of Pharmacy Speaker Series, Duquesne University, Fall 2018
Seminar entitled "Divergent functions of the left and right brain in the control of pain."

39) Resident Life Seminar, Duquesne University, Fall 2018
Seminar entitled "Stress and anxiety."

40) Mt. Lebanon Public Library Seminar Series, Pittsburgh, PA Fall 2018
Invited member of panel discussion on "Alternative treatments for chronic pain: Panel discussion."

41) Dept of Biological Sciences, Duquesne University, Department Retreat, 2018
Seminar entitled "Using calcium imaging to identify novel therapeutic effects from Cameroonian natural products."

42) Center for Pain Research, University of Pittsburgh, Pittsburgh, PA Spring 2018
Seminar entitled "Exploration of Exercise Analgesia in Humans."

43) Dept of Zoology, University of Buea, Buea, Cameroon Summer 2017
Seminar entitled "Using optogenetics to manipulate neurons with light."

44) Dept of Animal Behavior, University of Dschang (Universite de Dschang), Dschang, Cameroon Summer 2017
Seminar entitled "Utilizing marine cyanobacteria as a novel source of psychoactive compounds to treat depression and pain."

45) Pain Research Forum (www.painresearchforum.org), Summer 2017
Invited member of "Webinar: Chronic Pelvic Pain."

46) Department of Neuroscience, University of Cincinnati, Cincinnati, OH Spring 2017
Seminar entitled "Divergent functions of the left and right amygdala in bladder pain."

47) Department of Biology, Wright State University, Dayton, OH Spring 2017
Seminar entitled "Utilizing marine cyanobacteria as a novel source of psychoactive compounds to treat depression and pain."

48) University of Maryland, School of Dentistry, Department of Pain and Neural Sciences, Baltimore, MD Spring 2017
Seminar entitled "Using evolutionary consistent evidence for left and right brain differences to understand visceral bladder pain."

49) Department of Biology, Indiana University of Pennsylvania, Indiana, PA Fall 2015
Seminar entitled "Left vs right brain: The ubiquity of asymmetry in vertebrates and implications of mammalian pain."

50) Department of Biology. University of Edinboro in Pennsylvania, Edinboro, PA Spring 2015
Seminar entitled "Can you hear me? An examination of the art of scientific presenting."

51) Rutgers Department of Genetics. Rutgers The State University of New Jersey, New Brunswick, NJ, Spring 2015
Seminar entitled "Pain in the brain: Lateralization of the central amygdala in the modulation of pain."

52) University of Pittsburgh Center for Pain Research. University of Pittsburgh, Pittsburgh, PA, Fall 2013
Seminar entitled "Pain in the brain: Lateralization of the central amygdala in the modulation of pain."

53) Oral presentation at the 2011 Midwest Pain Interest Group Meeting in Chicago, IL, July 23, 2011
Seminar entitled "Modulation of somatic versus visceral sensation by the amygdala."

54) Dept of Pediatric Neurology. Washington University in St. Louis, St. Louis, MO, Spring 2011
Seminar entitled "Tips for giving effective professional presentations."

55) Dept of Biomedical Sciences. Marquette University, Milwaukee, WI, Spring 2011
Seminar entitled "Pain in the brain: Evidence for central nervous system control of pain."

56) Dept of Biological Sciences. Depaul University, Chicago, IL, Spring 2011
Seminar entitled "Pain in the brain: Evidence for central nervous system control of pain."

57) Zoology Dept. Oregon State University, Corvallis, OR, Spring 2011
Seminar entitled "Pain in the brain: Evidence for central nervous system control of pain."

58) Psychology Dept. Western New England College, Springfield, MA, Spring 2011
Seminar entitled "Pain in the brain: Evidence for central nervous system control of pain."

59) Psychology Dept. Northeastern University, Boston, MA, Spring 2011
Seminar entitled "Pain in the brain: Evidence for central nervous system control of pain."

60) Science and Math Division. University of Minnesota, Morris, MN, Fall 2010
Seminar entitled "Pain in the brain: Evidence for central nervous system control of pain."

61) Dept of Biological Sciences. Duquesne University, Pittsburgh, PA, Fall 2010
Seminar entitled "Pain in the brain: Evidence for central nervous system control of pain."

62) 2010 Washington University Annual Neuroscience Retreat at Pere Marquette Lodge, IL, Sept 24, 2010
Seminar entitled "Activation of the amygdala in mice induces pain-like behavior in the absence of any tissue injury."

63) Freethought Dayton, Dayton, OH, Spring 2010
Seminar entitled "The naturalist's toolbox in the 21st century: How functional imaging is changing our interpretation of philosophy and disease."

64) Dept of Biological Sciences. University of Dayton, Dayton, OH, Spring 2009
Seminar entitled "Pavlov's fearful dog: Understanding the role of the endocrine system in fear conditioning."

65) Developmental Biology Dept. Washington University in St. Louis, St. Louis, MO, Spring 2008
Seminar entitled "Central amygdala glucocorticoid receptor action promotes fear conditioning."

66) Selected for oral presentation at the 2006 Washington University Annual Neuroscience Retreat at Trout Lodge, MO, Oct 6, 2006
Seminar entitled "Amygdala glucocorticoid receptor function in mediating fear-based learning."

Refereed Talks/Presentations at Meetings

1) **Kolber BJ**, Hagenauer M, Winham S, Freeman S, Sternberg P (2024). Organized and moderated symposium at the Society for Neuroscience Annual Meeting Nov 2024 in Chicago, IL. Workshop on "Opening the File Drawer: Solutions to Sharing Unpublished Work Including Null Results and Small Findings."

2) Wandner LD, Adams M, & **BJ Kolber** (2022). Refereed symposium on "Growing and retaining a sustainable and informed clinical pain research workforce" at the 2022 United States Association for the Study of Pain annual meeting Cincinnati OH 05/21/2022. Joint presentation and discussion by all three speakers/panelists.

3) **Kolber BJ** (2018). "Brain lateralization of bladder pain" Oral presentation symposium at the Society for Neuroscience Annual meeting October 2018. Symposium entitled "The emerging role of the amygdala in modulating the somatosensory and emotional components of pain and itch." Symposium proposal was organized and submitted by me and was chosen in a competitive peer-reviewed process.

4) Sadler K & **BJ Kolber** (2016). Clinical and Basic Science Data Blitz" at the American Pain Society Annual Meeting in Austin, TX, May 11, 2016
Seminar entitled "Opposing roles of the left and right central amygdala in bladder pain modulation." Presentation by mentored PhD student K Sadler; presentation proposal was chosen in a competitive peer-reviewed process. *Presentation won "Best Data Blitz Presentation*

5) **Kolber BJ** (2014). "Using optogenetics to dissect higher brain control of bladder pain." Oral presentation symposium at the American Pain Society Annual meeting Tampa Bay, FL, May 1, 2014. Symposium entitled "Optogenetics in Pain." Symposium proposal was organized and submitted by me and was chosen in a competitive peer-reviewed process.

6) **Kolber BJ** (2014). "Fiat lux." Oral presentation symposium at the American Pain Society Annual meeting Tampa Bay, FL May 1, 2014. Symposium entitled "Optogenetics in Pain." Symposium proposal was organized and submitted by me and was chosen in a competitive peer-reviewed process.

Contributed Talks/Presentations at Meetings

1) Sotelo J[UG], Paltian J[G], Lewter L[PD], Anez SG, Kellogg J & **Kolber B**. (2023). "Harnessing the Hidden Potential: Exploring Solutions from Nature to Combat Chronic Pain." Oral presentation at Summer Platform for Undergraduate Research, University of Texas at Dallas, Richardson, TX, July 2023 (abstract #18).

2) Reith C[UG], Neilan R, & **Kolber BJ** (2022). "3-Dimensional Agent-Based Model of Neural Activity in the Central Nucleus of the Amygdala During Pain." Oral presentation at the University of Nebraska-Lincoln Conference for Undergraduate Women in Mathematics, January 2022.

3) Reith C[UG], Neilan R, & **Kolber BJ**. "3-Dimensional Computational Model of Neural Activity in the Central Nucleus of the Amygdala During Pain." Oral presentation at the 2021 Illinois State University International Symposium on Biomathematics and Ecology Education and Research, November 2021.

4) Reith C[UG], Neilan R, & **Kolber BJ**. "3-Dimensional Computational Model of Neural Activity in the Central Nucleus of the Amygdala During Pain." Oral presentation at the 2021 Duquesne University Undergraduate Summer Research Symposium in Pittsburgh, PA July 2021.

5) Majetic G[UG], Neilan R, Adke A, Carrasquillo y & **BJ Kolber** (2020). "An Agent-based Model of Cell-Type Specific and Pain-Related Neural Activity in the Amygdala During Neuropathic Pain." Oral presentation at the 2020 Youngstown State University (YSU) Pi Mu Epsilon (PME) Regional Conference in Youngstown, OH February 22, 2020.

6) Majetic G[UG], Neilan-Miller R, Adke A, Carrasquillo Y & **BJ Kolber** (2019). "An Agent-Based Model of Pain-Related Neural Activity in the Right Amygdala." Invited oral presentation at the Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA July 26, 2019 (#154).

7) Majetic G[UG], Neilan R, Adke A, Carrasquillo y $ **BJ Kolber** (2019). "A Computational Model of Cell-Type Specific and Pain-Related Neural Activity in the Amygdala During Neuropathic Pain." Oral presentation at the National Institute of Mathematical and Biological Synthesis (NIMBioS) 11th Annual Undergraduate Research Conference at the Interface of Biology and Mathematics in Knoxville, TN November 16, 2019.

8) Ignatz CM[UG], Lax N[G], Tidgewell K & **BJ Kolber** (2014). "Depression, Pain, and Anxiety Modulation through a Novel CNS Active Marine Cyanobacteria Compound." Oral presentation at the Duquesne University Undergraduate Research and Scholarship Symposium, Duquesne University, April 9, 2014.

9) Onwuzurike CC[UG], Muglia LJ & **BJ Kolber** (2008). "Glucocorticoid regulation of PER 2 rhythms in the central nucleus of the amygdala and basolateral amygdala." Oral presentation at the 2008 Washington University Undergraduate Research Symposium, Oct 25, 2008.

Funding for Original Scholarship:

Submitted Funding for Original Research

A separate document is available upon request for the 100+ grants submitted (including funded proposals) as an independent faculty member at both University of Texas at Dallas and Duquesne University. Below are current pending (in review) proposals.

1) **Title:** Novel TRP modulator to treat pain and reduce opioid use.
Role: co-Investigator (PI Y Shen Young Biopharma; co-I K Sadler UTDallas)
Funding organization: NIH NIDA SBIR
Years of funding: 2025 – 2027
Date submitted: Spring 2024
Status: In review

2) **Title:** North Texas Kidney, Urology, and Hematology Training Grant.
Role: Networking Core co-Investigator (PI Parikh UTSW lead)
Funding organization: NIH NIDDK
Years of funding: 2025 – 2028

Date submitted: Fall 2024
Status: In review

Grant Funding for Original Scholarship

By convention, in my field the lead investigator of a grant is usually called the "principal investigator" (PI). In the case where multiple individuals contribute equally to the conceiving and writing of a grant, they are called "multiple principal investigators" (mPI) or "co-principal investigators" (co-PI) depending on the funding agency involved. In cases where an investigator is not a lead, that person is typically called a "co-investigator" (co-I). All grants are peer-reviewed. See separate section below for mentored student research awards.

*Active awards

1) **Title:** A Novel TRP Modulator, YB-16, to Treat Osteoarthritis Knee Pain.
Role: co-investigator (PI Young Shen, Young Biopharma LLC)
Funding organization: DoD US Army
Grant number: DoD PR241212
Years of funding: 2025 – 2028
Budget: Total budget $4,324,139 ($756,981 total UTD)
Date Received: Pending - Recommended for funding January 2025. All paperwork accepted by DoD. Funding set to start March 2025.

2) ***Title:** From traditional medicine to innovation: Discovering novel analgesics targeting calcium modulation from Cameroonian phytochemicals.
Role: Principal investigator (mPI K Tidgewell University of Kentucky; mPI T Nguelefack University of Dschang)
Funding organization: NIH Fogarty and NIH NCCIH
Grant number: NIH R21AT01
Years of funding: 2024 – 2026
Budget: Total budget $360,514; Direct and Indirect expected for Kolber = $111,151
Date Received: 9/2024

3) ***Title:** High content analgesic screening from human nociceptors
Role: Principal Investigator (mPI J Pancrazio, mPI G Dussor, co-I R Granja, T Price UT Dallas; co-I P Walsh Anatomic Inc)
Funding organization: NIH National Center for Complementary and Integrative Health (NCCIH) R33-AT011938-03; Transition to R33 from R61 Grant listed below
Years of funding: 2024-2026
Budget: $552,318 (R33 total to UT Dallas = $450,968; R33 direct handled by Kolber = $263,477)
Date Received: 8/2024

4) ***Title:** Genetic dissection of defensin signaling in urinary tract infections.
Role: Co-Investigator (PI X Dong UT Dallas; co-I N De Nisco UT Dallas)
Funding organization: NIH National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) DK140039
Years of funding: 2024 – 2029
Budget: Total budget $2,804,716; Direct and Indirect expected for Kolber = $180,023 (Year 1 direct = $31,772)
Date Received: 7/2024

5) ***Title:** Win-Win: Closing gaps through "Short-term Working Groups" (SWG)
Role: co-Investigator (PI L Lewter, co-I S Brody UT Dallas)
Funding organization: Burroughs Wellcome Fund, Ad-Hoc Funding Award
Years of funding: 2024-2025
Budget: $20,000 (total direct costs for support of SWG)
Date received: 5/2024

6) ***Title:** Impact of amygdala lateralization on processing and modulation of bladder pain.

Role: Principal Investigator (co-I R Miller-Neilan Duquesne U, co-I J Ploski Penn State)
Funding organization: NIH NIDDK R01-DK115478
Years of funding: 2023 – 2028
Budget: Total budget $2,631,263; $1,840,965 to UT Dallas (direct to Kolber $1,232,882)
Date Received: 9/2023

7) ***Title:** Planning study for the development of Sigma 2 ligands as analgesics.
Role: Principal Investigator (mPI K Tidgewell University Kentucky; co-I's G Dussor, J Pancrazio, S Yousef UT Dallas; W Van Horn ASU; V Kumar Rutgers U)
Funding organization: NIH National Institute for Neurological Disorders and Stroke (NINDS) R61-NS127271
Years of funding: 2023 – 2025
Budget: Total budget $1,510,066; $497,441 to UT Dallas (direct handled by Kolber = $289,378)
Date Received: 9/2023

8) ***Title:** The integration of laboratory data with computational 3-D modeling to analyze the role of the central amygdala in neuropathic pain.
Role: co-Investigator (PI R Miller Neilan Duquesne U)
Funding organization: NIH NINDS R15-NS128624
Years of funding: 2023 – 2025
Budget: Total budget $462,779; $156,000 to UT Dallas (direct handled by Kolber = $100,000)
Date Received: 9/2023

9) ***Title:** Crossroads: Using decision making strategies to develop high impact content for training in rigor and transparency.
Role: Principal Investigator (mPIs S Brody and R Ybarra UT Dallas)
Funding organization: NIH NINDS UE5-NS133011
Years of funding: 2023 – 2026
Budget: Total budget $270,000 to UT Dallas (direct handled by Kolber = $81,522)
Date Received: 8/2023

10) ***Title:** Maximizing Access to Research Careers (MARC) at the University of Texas at Dallas
Role: Principal Investigator (mPI M Burton and co-I A Taylor UT Dallas)
Funding organization: NIH National Institute of General Medical Sciences (NIGMS) T34-GM145436
Years of funding: 2023-2028
Budget: Total budget $1,300,528 to UT Dallas (direct handled by Kolber/Burton = $995,155; direct to Kolber (salary) = $63,034)
Date Received: 6/2023

11) **Title:** High content analgesic screening from human nociceptors
Role: Principal Investigator (mPI J Pancrazio, mPI G Dussor, co-I R Granja, T Price UT Dallas; co-I P Walsh Anatomic Inc)
Funding organization: NIH NCCIH R61-AT011938; Transition to R33 received above 8/2024
Years of funding: 2023-2024
Budget: R61 funded portion total = $526,016 (R61 total to UT Dallas = $412,016; R61 direct handled by Kolber = $214,813)
Date Received: 1/2023

12) ***Title:** Probing the role of serotonin in neuropathic pain with flexible carbon microelectrode arrays
Role: co-Investigator (PI E Castagnola Louisiana Tech; co-I T Cui University of Pittsburgh)
Funding organization: NIH NINDS R01-NS126454
Years of funding: 2022 – 2027
Budget: Total budget $1,433,450; $304,186 to UT Dallas ($194,991 direct to Kolber)
Date Received: 7/2022

13) **Title:** ABRCMS Annual Meeting Judges Travel Award
Role: Travel Award Recipient

Funding organization: Annual Biomedical Research Conference for Minoritized Scientists, ABRCMS Annual Meeting Judges Travel Award
Years of funding: 2022
Budget: $1,500 plus conference registration
Date Received: 9/2022

14) *Title: Enhancing NeuroScience Undergraduate Research Experience (ENSURE).
Role: Principal Investigator (mPI M Burton and co-I A Taylor UT Dallas)
Funding organization: North Texas Cares Foundation; Health and Scientific Research Human Capital Grant
Years of funding: 2021 – 2024
Budget: Total budget $900,000 to UT Dallas (direct handled by Kolber/Burton = $886,600; almost all funds support undergraduate researchers; direct to Kolber (for undergrad research supplies) = $5,500)
Date received: 10/2021

15) Title: Covalent naloxone nanoparticles for next generation fentanyl countermeasures.
Role: co-Investigator (PI S Averick Allegheny General Hospital)
Funding organization: NIH NIDA R21-DA050565
Years of funding: 2020 – 2022
Budget: $445,382 total budget; $31,461 to UT Dallas (direct to Kolber = $20,562)
Date Received: 5/2020 (Kolber funding start 12/2021)

16) Title: Impact of amygdala lateralization on processing and modulation of bladder pain.
Role: Principal investigator (co-I R Miller-Neilan Duquesne University)
Funding organization: NIH NIDDK R01-DK115478
Years of funding: 2018 – 8/2023 (2024 no cost extension (NCE))
Budget: $1,549,080 ($1,195,690 direct to Kolber)
Date Received: 8/2018 (8/2019 Supplement to Promote Diversity in Health-Related Research)

17) Title: CNS drug discovery from the ocean: Utilizing cyanobacteria to treat comorbid pain and depression.
Role: Principal Investigator until 8/2020; co-Investigator from 8/2020 after moving to UT Dallas (mPI K Tidgewell Duquesne University and now University of Kentucky)
Funding organization: NIH NCCIH R15-AT008060-02
Years of funding: 2018 – 2021 (2022 NCE)
Budget: $511,928 (total costs); $221,255 (direct costs to Kolber)
Date Received: 7/2018 (7/2019 Supplement to Promote Diversity in Health-Related Research)

18) Title: Understanding the role of the amygdala in chronic neuropathic pain.
Role: Principal Investigator
Funding organization: Commonwealth of Pennsylvania; CURE Award
Years of funding: 2020 – 2022
Budget: $54,376
Note: I was selected to receive this grant. However, it was not transferrable to another state so I had to turn it down in April 2020 when I took a job at The University of Texas at Dallas. Amount of award is not included in the totals that I describe in summary documents.

19) Title: A novel TRP modulator YB-2 to fight opioid crisis and treat chronic pain.
Role: co-Investigator (PI Y Shen Young BioPharma LLC)
Funding organization: NIH NIDA SBIR R43-DA050405
Years of funding: 2019 – 2020 (NCE 2021)
Budget: $73,587 to Duquesne (Direct to Kolber = $53,324)
Date Received: 9/2019

20) Title: Using ethnopharmacologic knowledge from Cameroon to develop novel Sigma 2 receptor agonists for pain treatment.
Role: Principal Investigator (co-I K Tidgewell Duquesne U; co-I T Nguelefack Dschang U)
Funding organization: International Association for the Study of Pain; 2018 IASP Collaborative Research Grant

Years of funding: 2018 – 2019 (NCE 2022)
Budget: $15,000 direct to Kolber
Date Received: 5/2018

21) Title: Pain and Neurodegenerative Undergraduate Research Experiences: Interacting with community partners to build specialized and enhanced neurologic disease programs for undergraduates.
Role: Principal Investigator (mPI K Tidgewell, mPI M Cascio, and mPI R Mihailescu Duquesne U); Note: I stepped down as PI in spring 2022 due to the move to UT Dallas
Funding organization: NIH NINDS R25-NS100118-A1
Years of funding: 2018 – 2022 (NCE through 2023)
Budget: Total budget $539,989 to Duquesne (direct handled by Kolber $418,212; $27,259 direct to Kolber)
Date received: 1/2018

22) Title: Kappa opioid receptor signaling is emerging as the underlying mechanism through which stress exacerbates pain disorders, but whether KOR antagonists will relieve stress-induced pain remains untested.
Role: co-Investigator (PI Ross University of Pittsburgh; co-I V Neugebauer Texas Tech U)
Funding organization: Virginia Kaufmann Foundation and Clinical and Translational Science Institute, University of Pittsburgh; Pain Research Challenge
Years of funding: 2017 – 2018
Budget: Total budget $75,000; $15,000 budget to Duquesne (direct to Kolber = $15,000)
Date received: 5/2017

23) Title: "Walking" OR Combining two known analgesic interventions (exercise & meditation) in a novel interaction study to treat patients with chronic pain.
Role: co-Investigator (PI M Kostek and co-I K Szucs Duquesne University)
Funding organization: Virginia Kaufmann Foundation and Clinical and Translational Science Institute, University of Pittsburgh; Pain Research Challenge
Years of funding: 2017 – 2018
Budget: Total budget $75,000 to Duquesne (direct to Kolber = $42,000)
Date received: 5/2017

24) Title: A multi-continent collaboration in pain research and treatment: Using ethnopharmacological knowledge from Cameroon to develop novel pain treatments.
Role: Principal Investigator (co-I K Tidgewell Duquesne U)
Funding organization: Duquesne University Center for African Studies; Rev. Alphons Loogman, C.S.Sp. Faculty Research Grant
Years of funding: 2017 – 2018
Budget: Total budget $6,000 handled by Kolber
Date received: 4/2017

25) Title: The Neurodegenerative Undergraduate Research Experience (NURE): Utilizing community partners to build a specialized and enhanced neurological disease research program for underrepresented undergraduates.
Role: Principal Investigator (coI K Tidgewell Duquesne U)
Funding organization: Charles Leach II Fund
Years of funding: 2016 – 2017
Budget: Total budget $25,000 handled by Kolber
Date received: 6/2016

26) Title: Theranostic pain nanomedicines: Imaging inflammation, reducing pain and need for opioids.
Role: co-Investigator (PI J Janjic and co-I J Pollock Duquesne U)
Funding organization: NIH National Institute of Drug Addiction (NIDA) R21-DA039621
Years of funding: 2015 – 2018
Budget: Total budget $330,000 to Duquesne (direct to Kolber = $69,000)
Date received: 4/2015

27) Title: Development and experimental testing of an extensive active learning strategy for a large introductory science course.
Role: Primary Investigator (mentor J Morris Brandeis U)
Funding organization: American Society for Cell Biology
Grant number: Mentoring Active Learning and Teaching"(MALT) Award for early career educators
Years of funding: 2015 – 2016
Budget: Total budget $1,200 direct to Kolber
Date received: 11/2014

28) Title: A role for the amygdala in age-related increases in pain sensitivity.
Role: co-Principal Investigator (co-PI J Cavanaugh Duquesne U)
Funding organization: Duquesne Chronic Pain Research Consortium; Research Stimulator Grant
Years of funding: 2014 – 2015
Budget: Total budget $2,954 (Direct to Kolber = $1,477)
Date received: 9/2014

29) Title: Cyanobacterial natural products to treat comorbid pain and depression.
Role: Principal Investigator (mPI K Tidgewell Duquesne U)
Funding organization: NIH NCCIH R15-AT008060
Years of funding: 2014 – 2018
Budget: Total budget $392,796 to Duquesne (direct to Kolber = $150,000)
Date received: 7/2014

30) Title: Chronic pain research consortium interdisciplinary award.
Role: co-Investigator (co-PI J Janjic, co-PI J Pollock, co-I K Tidgewell Duquesne U)
Funding organization: Duquesne University Office of the Provost; Provost's Interdisciplinary Research Consortia Grant
Years of funding: 2014 – 2017
Budget: $25,000 for year 1 of 2-year award administered as an award by PI's and co-I's
Date received: 6/2014

31) Title: Managing pain: Testing the social aspects of exercise therapy using a multi-school collaborative approach with an animal model of muscle pain.
Role: Principal Investigator (co-I A Kranjec Duquesne U)
Funding organization: Duquesne University; Faculty Development Fund
Years of funding: 2014 – 2018
Budget: Total budget $9,700 (direct to Kolber = $4,850)
Date received: 5/2014

32) Title: Probing the role of hemispheric lateralization in the modulation of bladder pain.
Role: Principal Investigator
Funding organization: International Association for the Study of Pain (IASP) and Scan|Design Research Foundation; Early Career Research Grant
Years of funding: 2013 – 2015
Budget: Total budget $20,000 direct to Kolber
Date received: 4/2013

33) Title: Cyanobacterial natural products to treat comorbid pain and depression.
Role: co-Investigator (PI K Tidgewell Duquesne U)
Years of funding: 2013 – 2015
Funding organization: Duquesne University; Faculty Development Fund
Budget: Total budget $10,000 (direct to Kolber = $2,245)
Date received: 4/2013

34) Title: Cyanobacterial natural products to treat comorbid pain and depression.
Role: Principal Investigator (co-I K Tidgewell Duquesne U)

Funding organization: American Pain Society; Sharon S. Keller Award in Chronic Pain
Years of funding: 2013 – 2015
Budget: Total budget $35,000 (direct to Kolber = $19,500)
Date received: 04/2013

35) Title: Treating comorbid major depression and chronic pain with novel compounds that target both individual diseases.
Role: Principal Investigator (co-I K Tidgwell Duquesne U)
Funding organization: The Pittsburgh Foundation with the Jacob A. and Frieda M. Hunkele Charitable Trust for Research of Dreaded Diseases
Years of funding: 2012 – 2014
Budget: Total budget $6,000 direct to Kolber
Date received: 05/2012

36) Title: Cellular and molecular mechanisms underlying amygdala-dependent pain modulation.
Role: Principal Investigator (sponsor R Gereau Washington University in St. Louis)
Funding organization: NIH NINDS National Service Research Award (NRSA) F32-NS067761
Years of funding: 2010 – 2011
Budget: Total budget $87,070 direct to Kolber
Date received: 2/2010

37) Title: Amygdala GR function in stress activation and promotion.
Role: Principal Investigator (sponsor L Muglia Washington University in St. Louis)
Funding organization: NIH NIMH NRSA F31-MH075250
Years of funding: 2006 – 2008
Budget: Total budget $80,373 direct to Kolber (including tuition costs)
Date received: 7/2006

38) Title: Methods of aquaporin homeostasis: A link between aquaporins and RAS-mediated AVP regulation
Role: Undergraduate Principal Investigator (sponsor C Krane University of Dayton)
Funding organization: American Physiological Society; Undergraduate Summer Research Fellowship Program
Years of funding: 2002
Budget: Total budget $6,500 direct to Kolber
Date received: 4/2002

Grant Funding for Mentored Research

Below are grants submitted and received by my direct trainees (undergraduate, graduate, and post-doctoral). For these mentored research awards, the faculty sponsor and mentor is typically called "sponsor", "mentor", or "advisor." All grants are peer-reviewed. In most cases (unless noted), I made significant efforts in the development, editing, and support of these awards.
*Active

1) Title: 2025 Helen Froelich Holt Scholarship for Early Career Women in Science
Role: Faculty Sponsor to graduate student Veronica Hong
Funding organization: AAAS
Years of funding: 2025 (travel to AAAS Annual Meeting)
Budget: $1500 direct to Hong
Date received: 1/2025

2) Title: Trainee Professional Development Award
Role: Faculty Sponsor to graduate student Veronica Hong
Funding organization: Society for Neuroscience TPDA
Years of funding: 2024 (travel to SFN meeting)
Budget: $1000 direct to Hong
Date received: 8/2024

3) **Title:** Trainee Professional Development Award
Role: Faculty Sponsor to graduate student Abraham Nofal
Funding organization: Society for Neuroscience TPDA
Years of funding: 2024 (travel to SFN meeting)
Budget: $1000 direct to Nofal
Date received: 8/2024

4) **Title:** Left PBN CGRP projection neuron population on bladder pain-like behavior in mice
Role: Faculty Sponsor for undergraduate Maria Nunez
Funding organization: IES Brain Research Foundation; IES Brain Research Foundation Summer Fellowship
Years of funding: 2024
Budget: $2,500
Date received: 4/2024

5) ***Title:** IASP Travel Award
Role: Faculty sponsor to post-doctoral fellow Dr. Lakeisha Lewter
Funding organization: IASP; Philip A. Spiegel Trainee Travel Award
Years of funding: 2024
Budget: $3,800
Date received: 4/2024 (for 8/2024 meeting)

6) ***Title:** Pain PURPOSE meeting Travel Awards
Role: Faculty Sponsor to graduate students Michael Ojo and Ana Sofia Carreon and post-doctoral research Dr. Blesson Paul
Funding organization: NIH PURPOSE Network; Travel award to trainees
Years of funding: 2024 (travel to PURPOSE meeting)
Budget: $2550 plus registration and lodging (all funds toward trainees)
Date received: 4/2024

7) ***Title:** 2024 Diversity Equity and Inclusion Travel Scholarship.
Role: Faculty Sponsor to graduate student Michael Ojo
Funding organization: United States Association for the Study of Pain; Annual Meeting Travel Award
Years of funding: 2024
Budget: $370 conference registration
Date received: 4/2024

8) ***Title:** Trainee or Young Investigator Travel Award
Role: Faculty Sponsor to graduate student Veronica Hong
Funding organization: United States Association for the Study of Pain; Annual Meeting Travel Award
Years of funding: 2024
Budget: $370 registration; $450 travel reimbursements
Date received: 4/2024

9) ***Title:** Validate novel and efficacious targets for pain management.
Role: Faculty Sponsor to undergraduate Zubab Syed
Funding organization: American Physiological Society; Undergraduate Summer Research Fellowship Program
Years of funding: 2024 – 2025 (including travel to APS meeting)
Budget: Total budget $4,300 (direct to Kolber = $300; remaining funds to Syed)
Date received: 3/2024

10) **Title:** Trainee Professional Development Award
Role: Faculty Sponsor to graduate student Paltian
Funding organization: Society for Neuroscience TPDA
Years of funding: 2023 (travel to SFN meeting)
Budget: $1000 direct to Paltian
Date received: 10/2023

11) Title: ACTTION Travel Award to North American Pain School (NAPS)
Role: Faculty Sponsor post-doctoral research Dr. Lakeisha Lewter
Funding organization: Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks (ACTTION); Travel award to trainee
Years of funding: 2023 (travel to NAPS meeting)
Budget: $750 direct to Lewter
Date received: 6/2023

12) Title: Pain PURPOSE meeting Travel Award
Role: Faculty Sponsor to graduate student Veronica Hong and post-doctoral research Dr. Lakeisha Lewter
Funding organization: NIH PURPOSE Network; Travel award to trainees
Years of funding: 2023 (travel to PURPOSE meeting)
Budget: $1500 plus registration and lodging (all funds toward trainees)
Date received: 5/2023

13) Title: Betty & Gifford Johnson Travel Award
Role: Faculty Sponsor to graduate student Veronica Hong
Funding organization: UT Dallas Betty & Gifford Travel Fund; Travel award to trainee
Years of funding: 2023
Budget: $1000
Date received: 2/2023

14) *Title: Sigma 2 receptor (TMEM97): Investigating the peripheral role of this novel therapeutic target for pain.
Role: Faculty Sponsor graduate student Veronica Hong
Funding organization: NIH NINDS NRSA F31-NS129269
Years of funding: 2023 – 2026
Budget: $123,360 (year 1-3 expected) (total direct costs to Hong)
Date received: 12/2022 (UT Dallas started funded 2/2023)

15) *Title: The impact of amygdala CGRP receptors on the development of persistent bladder pain.
Role: Faculty Sponsor post-doc Dr. Lakeisha Lewter
Funding organization: Burroughs Wellcome Fund; Post-doctoral Diversity Enrichment Program (PDEP)
Years of funding: 2022 – 2025
Budget: $60,000 (total direct costs to Lewter) ($10,000 for Kolber professional development)
Date received: 10/2022

16) Title: ABRCMS Annual Meeting Judges Travel Award
Role: Faculty Sponsor to Post-doc Dr. Lakeisha Lewter
Funding organization: Annual Biomedical Research Conference for Minoritized Scientists; ABRCMS Annual Meeting Judges Travel Award
Years of funding: 2022
Budget: $1,500 plus conference registration to Lewter
Date Received: 10/2022

17) Title: Trainee Travel Award
Role: Faculty Sponsor to Post-doc Dr. Lakeisha Lewter
Funding organization: United States Association for the Study of Pain; USASP Meeting Travel Award
Years of funding: 2022
Budget: $450 plus conference registration to Lewter
Date Received: 10/2022

18) *Title: Environmental modulation of maternal behavior and mesolimbic DA function.
Role: Faculty Mentor to Neuro Asst Professor Rincón-Cortés who wrote entire proposal; Kolber role is just in a mentoring capacity
Funding organization: NIH NIMH K01-MH128800

Years of funding: 2022 – 2026
Budget: $0 Direct to Kolber; All funds to support PI Rincón-Cortés; budget not included in any of my summary totals
Date received: 5/2022

19) Title: The impact of amygdala CGRP receptors on the development of persistent bladder pain.
Role: Faculty Sponsor post-doc Lakeisha Lewter
Funding organization: NIH NIDDK NRSA F32-DK128969
Years of funding: 2021 – 2024
Budget: $205,410 (total direct costs to Lewter)
Date received: 9/2021

20) Title: Probing bladder pain physiology through the interrogation of specific cell types in the amygdala.
Role: Faculty Sponsor for graduate student Harley Bobnar
Funding organization: NIH NIDDK NRSA F31-DK124996
Years of funding: 2020 – 2023*
Budget: $125,000 estimated* (total direct costs to Bobnar)
Date received: 4/2020*
* Grant was selected for funding but Bobnar left the PhD program prior to official NOA (due to move from Duquesne to UT Dallas); Documentation available upon request. Amount of award is not included in the totals that I describe in summary documents.

21) Title: Characterization of zymosan-induced bladder pain in female mice treated as both neonates and adults.
Role: Faculty Sponsor for undergraduate student Olivia Babyok
Funding organization: Beta Beta Beta Biology Honors Society; Undergraduate Research Award
Years of funding: 2019 – 2020
Budget: $600 (direct to Kolber Lab)
Date received: 10/2019

22) Title: An agent-based model of pain-related neural activity in the amygdala.
Role: Faculty Sponsor for undergraduate student Gabbie Majetic
Funding organization: National Institute for Mathematical and Biological Sciences; NIMBioS Undergraduate Research Conference (URC) Travel
Years of funding: 2019
Budget: $674 (total direct costs to Majetic)
Date received: 10/2019

23) Title: Investigation of cell-type specific contributions to bladder pain modulation in the central amygdala.
Role: Faculty Sponsor for graduate student Heather Allen
Funding organization: NIH NIDDK NRSA F31-DK12148401
Years of funding: 2019 – 2022
Budget: $126,678 (total direct costs to Allen)
Date received: 1/2019

24) Title: Investigating the role of amygdala kappa opioid receptors in the modulation of stress-induced pain.
Role: Faculty Sponsor to undergraduate Meeraal Zaheer
Funding organization: American Physiological Society; Undergraduate Summer Research Fellowship Program
Years of funding: 2018
Budget: $5,900 ($300 direct to Kolber)
Date received: 4/2018

25) Title: Dose-dependent effect of moderate intensity exercise on sensitivity to pain in humans.
Role: Faculty Sponsor for graduate Anna Polaski
Funding organization: American Pain Society; APS Young Investigator Travel Support Program
Years of funding: 2018
Budget: $750 (total direct costs to Polaski)

Date received: 12/2017

26) Title: Calcitonin Gene-Related Peptide: A potential origin of central amygdala lateralization to regulate bladder pain.
Role: Faculty Sponsor for undergraduate Abigail Cox
Funding organization: IES Brain Research Foundation; IES Brain Research Foundation Summer Fellowship
Years of funding: 2017
Budget: $2,500 Note – Money turned down but Cox still included in fellowship program and all associated activities. Amount of award is not included in the totals that I describe in summary documents.
Date received: 4/2017

27) Title: Investigating presynaptic origins of central amygdala lateralization in bladder pain processing.
Role: Faculty Sponsor for undergraduate Abigail Cox
Funding organization: Beta Beta Beta Biology Honors Society; Undergraduate Research Award
Years of funding: 2016 – 2017
Budget: $1,000 direct to Kolber
Date received: 11/2016

28) Title: Investigation of a cyanobacterial collection from Curacao for CNS activity.
Role: Faculty Sponsor for undergraduate student Edward Hilton
Funding organization: American Society of Pharmacology and Experimental Therapeutics; ASPET Undergraduate Travel Award
Years of funding: 2016
Budget: $1000 (total direct costs to Hilton)
Date received: 2/2016

29) Title: Age dependent changes in amygdala signaling responsible for altered pain sensitivity.
Role: Faculty Sponsor for graduate student Katelyn Sadler
Funding organization: Duquesne University Aging Research and Teaching Consortium; ARTC Stimulator Program
Years of funding: 2016
Budget: $2,250 (total direct costs to Sadler)
Date received: 5/2016

30) Title: Understanding the persistent physiological mechanisms of interstitial cystitis/bladder pain syndrome.
Role: Faculty Sponsor for undergraduate Abigail Cox
Funding organization: American Physiological Society; Undergraduate Summer Research Fellowship Program
Years of funding: 2016 – 2017
Budget: $5,900 Total ($300 direct to Kolber)
Date received: 3/2016

31) Title: Analysis of sex-based differences in a mouse model of stress-induced analgesia.
Role: Faculty Sponsor for undergraduate Caela Long
Funding agency: Council for Undergraduate Research (CUR); Biology Division Travel Award
Years of funding: 2015
Budget: $250 (total direct costs to Long)
Date received: 9/2015

32) Title: Effects of central amygdala lateralization on descending control of bladder pain.
Role: Faculty Sponsor for graduate student Katelyn Sadler
Funding organization: NIH NIDDK NRSA F31-DK104538
Years of funding: 2014 – 2017
Budget: $113,925 (total direct costs to Sadler)
Date received: 9/2014

33) Title: Managing pain: Testing the dosing and social aspects of exercise therapy using animal models.

Role: Faculty Sponsor for undergraduate Austin Ramsey
Funding organization: Irene and Eric Simon Brain Research Foundation; Summer Fellowship Program
Years of funding: 2014
Budget: $2,500 (total direct costs to Ramsey)
Date received: 4/2014

34) Title: Modulation of depression and pain through the biochemically active properties of compounds within marine cyanobacteria.
Role: Faculty Sponsor for undergraduate Christopher Ignatz
Funding organization: Beta Beta Beta Biology Honors Society; Undergraduate Research Award
Years of funding: 2013 – 2014
Budget: $800 direct to Kolber
Date received: 11/2013
Related: Ignatz won the John C. Johnson Award for Excellence in Student Research at the Tri-Beta District Convention 3/29/2014, which included registration and up to $700 travel to the National Convention

35) Title: Understanding the physiology of bladder pain through a UTI model in mice.
Role: Faculty Sponsor for undergraduate Jarred Stratton
Funding organization: American Physiological Society; Undergraduate Summer Research Fellowship Program
Years of funding: 2012 – 2013
Budget: $5,600 ($300 direct to Kolber)
Date received: 4/2012

Invited or Competitive Funded Research Workshops

1) Title: NIDDK "Early Investigator" Workshop
Role: First time R01 recipient
Funding organization: NIH NIDDK
Workshop dates: 04/2022
Budget: NA (virtual workshop)
Date received: 04/2022
Status: Invited participant

2) Title: 2021 Yale University Innovation to Impact
Role: Start-up Entrepreneur
Funding organization: NIH and Yale University
Workshop dates: 08/2021 – 10/2021
Budget: Funding for participation (virtual due to Covid-19)
Date received: 8/2021

3) Title: Southwest Regional NSF ICorps Workshop
Role: Start-up Entrepreneur
Funding organization: National Science Foundation
Workshop dates: 06/2021
Budget: Funding for participation (virtual due to Covid-19)
Date received: 6/2021

4) Title: Training in Neurotherapeutics Discovery and Development for Academic Scientists
Role: Student
Funding organization: NIH NINDS
Workshop dates: 02/2021
Budget: Funding for participation (virtual due to Covid-19)
Date received: 12/2020

<u>Teaching:</u>

Doctoral Advisement/Direction

1. Ph.D. dissertation committees chaired

Name	Date Degree Awarded or Mentored	Title of Dissertation/Thesis	Notes:
Shevon Alexander	1/2025	*Using Molecular Genetics and Pharmacological Approaches To Understand Tlr4-Specific Mechanisms Driving Sex Differences In Pain Plasticity And Behavioral Comorbidities*	OGE Examining Chair (Supervising Chair Michael Burton)
Paulina Skolasinska	7/2024	*The Combined Effect of Mindfulness Meditation and High Attentional Control Training on Cognition and Brain Networks in Healthy Aging*	OGE Examining Chair (Supervising Chair Dr. Chandramallika Basak)
Ana Sofia Carreon	1/2024 – Present	*In Progress*	
Michael Ojo	12/2023 – Present	*In Progress*	Winner USASP Diversity Award 2024
Phuong Pham	12/2022 – 12/2023	*In Progress*	Left program to start family
Veronica Hong, MS	10/2020 – Present (expected fall 2024)	*In Progress*	NIH NRSA F31 Recipient (listed above in grants) Winner BBS Outstanding PhD Student (2024)
Heather Allen, PhD	5/2018 – 9/2021 (PhD in Biology, Duquesne University)	*CGRP-Driven Lateralization Of Pain Modulation By The Central Amygdala*	NIH NRSA F31 Recipient (listed above in grants) Current Post-doc at University of Florida
Anna Polaski, PhD	4/2015 – 6/2019 (PhD in Biology, Duquesne University)	*Characterization of The Effect of Exercise Dose and Integrative Nonpharmacological Therapies in The Treatment of Chronic Pain*	Currently Clinical Trial Specialist at RQM+
Neil Lax, PhD	4/2013 – 12/2018 (PhD in Biology, Duquesne University)	*Characterization of G-Protein Coupled Receptors in Pain, Depression and Anxiety*	Winner Duquesne Graduate Student Award for Excellence in Teaching Currently Assistant Professor and Chair of Neuroscience, Thiel College
Katelyn Sadler, PhD	4/2012 – 1/2017 (PhD in Biology, Duquesne University)	*Nociceptive Processing in the Central Nucleus of the Amygdala*	NIH NRSA F31 Recipient (listed above in grants) Duquesne University 2017 Distinguished Dissertation Award Currently Assistant Professor University of Texas at Dallas

2. Ph.D. project or dissertation committees as a member

Name	Date Degree Awarded or Mentored	Title of Dissertation/Thesis	Notes:
Skylar Mendez	2023 – Present	*In Progress*	Rincón-Cortés Lab
Ya-Yu He	2022 – Present	*In Progress*	McIntyre and Dussor Labs
Yile Wang	2022 – Present	*In Progress*	Solodkin Lab
Hailey Welch	2022 – Present	*In Progress*	Thorn Lab
Christopher Driskill	2021 – Present	*In Progress*	Kroener Lab
Peace Olaoluw	2022 – Present	*In Progress*	Texas Woman's University
Salvador Lopez, PhD	2021 - 2022	*Effects of Contusion Spinal Cord Injury and Optogenetic Stimulation on Lower Urinary Tract Function*	University of Alabama Birmingham, DeBerry Lab
Brooke Deal, PhD	1/2019 – 8/2020 (PhD 2022)	*Behavioral and inflammatory sex differences revealed by celecoxib nanotherapeutic treatment of peripheral neuroinflammation*	Duquesne University, Pollock Lab
Kandarp Dave, PhD	9/2019 – 8/2020 (PhD 2024)	*DNA Polyplexes of a Phosphorylcholine-Based Zwitterionic Polymer for Gene Delivery*	Duquesne University, Manickam Lab
Manisha Chandwani, PhD	11/2018 – 6/2022 (PhD 2022)	*Neural Stem Cells: Age-Dependent Outcomes During Viral Infections In The Central Nervous System*	Duquesne University, O'Donnell Lab

Lindsey Snyder, PhD	6/2017 – 8/2017	*Modulation of Multiple Modalities of Somatosensory Information by Peripheral Kappa Opioid Receptors*	University of Pittsburgh, Ross Lab
Kayce Tomcho, PhD	8/2016 – 12/2020	*Using a Network of Single Site-Specific Cysteine Mutations Coupled with Crosslinking Mass Spectrometry (CX-MS) to Refine the Structure and Dynamics of the Human Alpha 1 Glycine Receptor (GlyR)*	Duquesne University, Cascio Lab
Sara McClelland, PhD	12/2015 – 5/2020	*Evaluating the Biological Effects and Safety of Exposure to Low, Putatively Safe Concentrations of the Common Pesticide Chlorpyrifos Using an Anuran Model*	Duquesne University, Woodley Lab
Andrea Stevens, PhD	1/2015 – 6/2020	*Differential Expression of RNA in the Rat Peripheral Nervous System Following Nerve Injury and Treatment with Pain-Relieving Celecoxib-Loaded Nanomedicine*	Duquesne University, Pollock Lab
Muzamil Saleem, PhD	1/2014 – 9/2019	*Nanomedicine-driven neuropathic pain relief in rat model is associated with macrophage polarity and mast cell activation*	Duquesne University, Pollock Lab
Jessica Thomas, PhD	4/2013 – 6/2016	*Variation in the amphibian hypothalamic pituitary adrenal axis: Patterns, mechanisms, and implications*	Duquesne University, Woodley Lab
Kiran Vasudeva, PhD	4/2013 – 5/2015	*Cytokine Dynamics, Diagnosis and Treatment of Neuroinflammation In Chronic Constriction Injury Rat Model*	Duquesne University, Pollock Lab
Deepak Soneji, PhD	9/2012 – 11/2012	*Molecular mechanisms of phenotypic change in intact nociceptors*	University of Pittsburgh, Koerber Lab

Masters Advisement/Direction

Name (Chaired or Member)	Date Degree Awarded or Mentored	Title of Dissertation/Thesis	Notes:
Alexis Trail (Chair)	2023 – Present	*In Progress*	BBS Top Graduate Student (MS level) 2024
Uma Chatterjee (Research Lab Supervisor)	2021 – 2023 (MS in Neuroscience, University of Texas at Dallas)	*na – Non-Thesis Masters*	Currently PhD student at University of Wisconsin - Madison
Oly Khowash, MS (Research Lab Supervisor)	2021 – 2023 (MS in Neuroscience, University of Texas at Dallas)	*na – Non-Thesis Masters*	Currently PhD student at Rosalind Franklin University
Caeley Bryan, MS (Member)	2020 – 2022 (MS in Neuroscience, University of Texas at Dallas)	*na*	Burton Lab
Harley Bobnar, MS (Research Lab Supervisor)	5/2018 – 6/2020 (MS in Biology, Duquesne University)	*na – Non-Thesis Masters*	NRSA F31 recipient (returned to NIH; also listed above in grants)
Neal McQuaid, MS, MD (Research Lab Supervisor)	12/2014 – 7/2016 (MS in Biotechnology, Duquesne University)	*na – Non-Thesis Masters*	Currently MD (Residency University of Pittsburgh)
Vishnu Rahul Kannan, MS (Research Lab Supervisor)	9/2013 – 9/2015	*na – Non-Thesis Masters*	Currently Research Associate Leidos Pharma
Laura Geffert, MS (Member)	9/2012 – 5/2014 (MS in Pharmacology, Duquesne University)	*Characterization of an Evolving Serotonin Transporter Computational Model*	Currently Research Technician Penn State University

Undergraduate Advisement/Direction

Name	Dates Mentored (Degree)	Notes and Awards:
Ayomide Dairo (Psychology)	7/2024 - Present	
Bhavya Jaiswal (Neuroscience)	5/2024 – Present	Summer 2024 Clark Scholar
Rebekah Simcik (Neuroscience)	1/2024 – Present	
Jacob Rush (Biology)	12/2023 – Present	
Maria Nunez (Neuroscience)	8/2023 – Present	2024 Irene and Eric Simon Undergraduate Summer Research Fellowship
Zubab Syed (Neuroscience)	8/2023 – Present	2024 American Physiological Society Undergraduate Research Fellowship (listed above in grants)
Myra Khan (Biology)	8/2023 – Present	Summer 2024 UTDallas URAP Fellow (proposal written by Kolber)
See Tack (Neuroscience)	5/2023 – 8/2024 (BS Neuroscience, University of Texas at Dallas)	Honors Thesis: *Analyzing cell integrated stress response of primary mouse dorsal root ganglia by immunocytochemistry of the eIF2a via phosphorylation in conjunction with treatment of cells with veraguamide analogs.*
Kasia Drewniak (Biochemistry)	5/2023 – 1/2024	Summer 2023 UTDallas URAP Fellow (proposal written by Kolber)
Wahab Mohommed (Neuroscience)	5/2023 – 7/2023	Summer 2023 Clark Scholar
Jesus Sotelo	1/2023 – 5/2024 (BS Neuroscience, University of Texas at Dallas)	2022-2024 ENSURE Fellow Spring 2024 URSA Scholar
Samuel Joseph (Neuroscience)	1/2023 – 8/2024	
Elizabeth Schmitz	8/2022 – 5/2023 (BS Molecular Biology, University of Texas at Dallas)	
Tarik Ehsan (Neuroscience)	7/2022 – 8/2023	
Iniya Anandan (Neuroscience)	5/2022 – Present	Spring 2023 URSA Scholar Summer 2022 Clark Scholar
Alexis Trail	12/2021 – 12/2022 (BS Neuroscience, University of Texas at Dallas)	
Mursal Hussein (Neuroscience)	8/2021 – 5/2023 (BS Neuroscience, University of Texas at Dallas)	2023 BBS UT Dallas Top Undergraduate Leadership Award
Amulya Bhaskara	5/2021 – 5/2024 (BS Neuroscience, University of Texas at Dallas)	Honors Thesis: *Investigation into the Effects of Optogenetic Stimulation of PACAP-containing Neurons in the Central Nucleus of the Amygdala on Nociception in Mice* Spring 2024 URSA Scholar
Avaneesh Rade	5/2021 – 5/2024 (BS Neuroscience, University of Texas at Dallas)	Honors Thesis: *Sigma 2 Receptor's Role in Modulating Thermal Hyperalgesia*
Antos Widner	3/2021 – 12/2022 (BS Neuroscience, University of Texas at Dallas)	Honors Thesis: *Central Amygdala Calcitonin Gene-Related Peptide Signaling Differentially Modulates Neuropathic Pain*
Nina Narasov	1/2021 – 5/2022 (BS Neuroscience, University of Texas at Dallas)	Honors Thesis: *Exploring Behavioral Sex Differences in CGRP and Antagonists for Migraine Treatment in Animal Models*
Alejandro Morales	10/2020 – 12/2022 (BS Neuroscience, University of Texas at Dallas)	
Gage Gladysz	5/2019 – 8/2019 (5/2020 BS Biology, Thiel College)	Summer 2019 NSF SRE CIRCLE Fellow
Marisa Johnson	1/2019 – 5/2020 (BS Biology, Duquesne University)	

Andrew George	1/2019 – 5/2020 (BS Biology, Duquesne University)	Summer 2019 NIH R25 PURE Fellow
Antonio Lopez	5/2018 – 8/2018 (BS Biology, Boston University)	Summer 2018 NIH R25 PURE Fellow
Meeraal Zaheer	2/2018 – 4/2019 (BA Neuroscience, Vassar College)	2018 American Physiological Society Undergraduate Research Fellowship (listed above in grants)
Olivia Babyok	1/2018 – 5/2021 (BS Biology, Duquesne University)	Honors Thesis: *Investigation of Pain-Contributing Genes in the Central Nucleus of the Amygdala* Summer 2020 NIH R25 PURE Fellow Summer 2019 NIH R25 PURE Fellow 2019 Beta Beta Beta Undergraduate Research Grant (listed above in grants)
Gabrielle Majetic	1/2018 – 5/2020 (BS Biomedical Engineering, Duquesne University)	Summer 2019 NIH R25 PURE Fellow
Alicia Serafino	8/2017 – 8/2018 (BS Biology, Duquesne University)	
Sadie Riskus	8/2017 – 12/2018 (BS Biology, Duquesne University)	Summer 2018 NIH R25 PURE Fellow
Vianie Henri	5/2017 – 11/2018	
Jack Klens	1/2017 – 5/2017	
Sarah Leep	1/2017 – 11/2018	Summer 2017 NIH R25 NURE Fellow
Analise Zapadka	5/2016 – 8/2017 (BS Biology, Duquesne University)	
Marissa Behun	1/2016 – 12/2017 (BS Biomedical Engineering, Duquesne University)	Summer 2017 NIH R25 PURE Fellow Summer 2016 NIH R25 PURE Fellow
Patrick Cunningham	8/2015 – 5/2016 (BS Biology, Duquesne University)	
Youstina Seliman	8/2015 – 12/2016 (BS Biology, Duquesne University)	
Abigail Cox	5/2015 – 5/2018 (BS Biology, Duquesne University)	Honors Thesis: *Characterization of a Bladder Pain Model and Its Application to the Study of Bladder Pain Mechanisms* Summer 2017 NIH R25 NURE Fellow 2017 Irene and Eric Simon Undergraduate Summer Research Fellowship 2017 Beta Beta Beta Undergraduate Research Grant (listed above in grants) 2016 American Physiological Society Undergraduate Research Fellowship (listed above in grants) Summer 2016 NIH R25 PURE Fellow Summer 2015 NIH R25 PURE Fellow
Kara Jones	1/2015 – 8/2015 (BS Biology, Duquesne University)	Summer 2015 NIH R25 PURE Fellow
Edward Hilton	5/2014 – 5/2017 (BS Biochemistry, Duquesne University)	Summer 2016 NIH R25 PURE Fellow 2016 American Society of Pharmacology and Experimental Therapeutics Travel Award (listed above in grants) Summer 2014 NIH R25 PURE Fellow
Allison Trouten	1/2014 – 5/2015 (BS Biology, Duquesne University)	
Austin Ramsey	9/2013 – 12/2014 (BS Biology, Duquesne University)	Summer 2014 Duquesne University Undergraduate Research Program 2014 Irene and Eric Simon Undergraduate Summer Research Fellowship

Melissa Wolz	5/2013 – 5/2015 (BS Biology, Duquesne University)	
Caela Long	5/2013 – 5/2016 (BS Neuroscience, Swarthmore)	Honors Thesis: *Hormonal and molecular effects of restraint stress on formalin-induced pain-like behavior in male and female mice* Summer 2015 NIH R25 PURE Fellow 2015 Council for Undergraduate Research Travel Award Summer 2014 Duquesne University Undergraduate Research Program Summer 2013 Duquesne University Undergraduate Research Program
Rani Rajaram	1/2013 – 5/2015 (BS Biology, Duquesne University)	Summer 2014 Duquesne University Undergraduate Research Program
Christopher Ignatz	1/2012 – 5/2014 (BS Biology, Duquesne University)	2013 Beta Beta Beta Undergraduate Research Grant (listed above in grants) Summer 2013 Duquesne University Undergraduate Research Program
Jarred Stratton	1/2012 – 12/2013 (BS Biology, Duquesne University)	Summer 2013 Duquesne University Undergraduate Research Program 2012 American Society of Pharmacology and Experimental Therapeutics Travel Award (listed above in grants)
David George	12/2011 – 5/2013 (BS Biology, Duquesne University)	
Rachel Bowling	2/2009 – 5/2013 (BS Biology, Washington University in St. Louis)	
Chiamaka Onwuzurike	8/2007 – 11/2008 (BS Biology, Washington University in St. Louis)	

Post-Doctoral Advisement/Direction

Name	Dates Mentored (Degree)	Notes and Awards:
Christian Fofie, PhD	5/2023 – Present	
Blesson Paul, PhD	5/2022 – Present	
Anny Treat, PhD	7/2019 – 4/2021	Currently in MS Public Health Program, Carnegie Mellon University
Lakeisha Lewter, PhD	2/2019 – Present	NIH NIDDK F32 Recipient (listed above in grants) Burroughs Wellcome Fund Postdoc Diversity Enrichment Program Fellow (listed above in grants)

Classroom Teaching – All Courses

Year	Semester	Course Number	Course Name
2024	Spring	NSC 4v97	Thesis Research (3 students)
2024	Spring	NSC 4v98	Directed Research (6 students)
2024	Spring	NSC 4v99	Independent Study (4 students)
2024	Spring	HCS 6314	Scientific and Grant Writing
2024	Spring	HCS 6v72	Directed Research (MS; 1 student)
2024	Spring	HCS 8v89	Research in Neuroscience (PhD; 2 students)
2024	Spring	HCS 8v99	Dissertation in Neuroscience (PhD; 1 student)
2023	Fall	NSC 4v99	Independent Study (4 students)
2023	Fall	NSC 4v98	Directed Research (9 students)
2023	Fall	HCS 6v72	Directed Research (MS; 1 student)
2023	Fall	HCS 8v89	Research in Neuroscience (PhD; 2 students)
2023	Spring	NSC 4v98	Independent Study (1 student)
2023	Spring	NSC 4v99	Independent Study (4 students)
2023	Spring	NSC 4v98	Directed Research (5 students)
2023	Spring	HCS 6v72	Directed Research (MS; 3 students)
2023	Spring	HCS 6314	Scientific and Grant Writing
2023	Spring	HCS 8v89	Research in Neuroscience (PhD; 2 students)
2022	Fall	NSC 4v98	Directed Research (6 students)
2022	Fall	HCS 7121	Graduate Seminar in Systems Neuroscience

2022	Fall	HCS 8v89	Research in Neuroscience (PhD; 1 student)
2022	Spring	NSC 4397	Thesis Research (1 student)
2022	Spring	NSC 4v98	Directed Research (4 students)
2022	Spring	ACN/HCS 6372	Neuroscience of Pain
2022	Spring	HCS 8v89	Research in Neuroscience (PhD; 1 student)
2021	Fall	NSC 4v98	Directed Research (5 students)
2021	Fall	NSC 4358	Neuroscience of Pain
2021	Fall	HCS 8v89	Research in Neuroscience (PhD; 1 student)
2021	Spring	NSC 4v98	Directed Research (1 student)
2021	Spring	ACN/HCS 6372	Neuroscience of Pain
2021	Spring	HCS 8v89	Research in Neuroscience (PhD; 1 student)
2020	Fall	NSC 4358	Neuroscience of Pain
2019	Fall	BIOL 111 (Duquesne University)	General Biology
2019	Fall	BMED 490 (Duquesne University)	Research for Credit (1 student)
2019	Fall	BIOL 398 (Duquesne University)	Research for Credit (2 students)
2019	Spring	BIOL 696 (Duquesne University	Introduction to Graduate Research
2019	Spring	BIOL 560 (Duquesne University)	Endocrinology
2019	Spring	BIOL 460 (Duquesne University)	Endocrinology
2019	Spring	BIOL 399 (Duquesne University)	Research for Credit (2 students)
2019	Spring	BMED 490 (Duquesne University)	Research for Credit (1 student)
2018	Fall	BIOL 111 (Duquesne University)	General Biology
2018	Fall	BIOL 398 (Duquesne University)	Research for Credit (2 students)
2018	Spring	BIOL 696 (Duquesne University	Introduction to Graduate Research
2018	Spring	BIOL 560 (Duquesne University)	Endocrinology
2018	Spring	BIOL 460 (Duquesne University)	Endocrinology
2017	Fall	BIOL 111 (Duquesne University)	General Biology
2017	Fall	BIOL 398 (Duquesne University)	Research for Credit (2 students)
2017	Spring	BIOL 399 (Duquesne University)	Research for Credit (2 students)
2017	Spring	BIOL 646 (Duquesne University)	Advanced Topics: From paralysis to feeling no pain: An advanced topic in channelopathies and electrophysiology.
2017	Spring	BIOL 696 (Duquesne University	Introduction to Graduate Research
2017	Spring	BIOL 560 (Duquesne University)	Endocrinology
2017	Spring	BIOL 460 (Duquesne University)	Endocrinology
2017	Spring	BMED 490 (Duquesne University)	Research for Credit (1 student)
2016	Fall	BIOL 111 (Duquesne University)	General Biology
2016	Fall	BIOL 398 (Duquesne University)	Research for Credit (2 students)
2016	Fall	BMED 490 (Duquesne University)	Research for Credit (1 student)
2016	Fall	BIOL 679 (Duquesne University)	Research for Credit (MS; 1 student)
2016	Fall	BMED 490 (Duquesne University)	Research for Credit (1 student)
2016	Fall	CMH 490 (Duquesne University)	Research for Credit (1 student)
2016	Spring	BIOL 696 (Duquesne University	Introduction to Graduate Research
2016	Spring	BIOL 560 (Duquesne University)	Endocrinology
2016	Spring	BIOL 460 (Duquesne University)	Endocrinology
2016	Spring	BIOL 399 (Duquesne University)	Research for Credit (2 students)
2016	Spring	CMH 490 (Duquesne University)	Research for Credit (1 student)
2015	Fall	BIOL 111 (Duquesne University)	General Biology
2015	Fall	BIOL 398 (Duquesne University)	Research for Credit (2 students)
2015	Spring	BIOL 679 (Duquesne University)	Research for Credit (MS; 1 student)
2015	Spring	BIOL 696 (Duquesne University	Introduction to Graduate Research
2015	Spring	BIOL 560 (Duquesne University)	Endocrinology
2015	Spring	BIOL 460 (Duquesne University)	Endocrinology
2015	Spring	BIOL 399 (Duquesne University)	Research for Credit (2 students)
2015	Spring	BMED 490 (Duquesne University)	Research for Credit (1 student)
2014	Fall	BIOL 111 (Duquesne University)	General Biology
2014	Fall	BIOL 398 (Duquesne University)	Research for Credit (2 students)
2014	Spring	BIOL 679 (Duquesne University)	Research for Credit (MS; 1 student)
2014	Spring	BIOL 696 (Duquesne University	Introduction to Graduate Research
2014	Spring	BIOL 560 (Duquesne University)	Endocrinology
2014	Spring	BIOL 460 (Duquesne University)	Endocrinology
2014	Spring	BIOL 399 (Duquesne University)	Research for Credit (2 students)
2013	Fall	BIOL 111 (Duquesne University)	General Biology
2013	Fall	BIOL 490 (Duquesne University)	Biology Seminar
2013	Fall	BIOL 398 (Duquesne University)	Research for Credit (2 students)
2013	Fall	BIOL 690 (Duquesne University)	Biology Seminar
2013	Spring	BIOL 560 (Duquesne University)	Endocrinology

2013	Spring	BIOL 460 (Duquesne University)	Endocrinology
2013	Spring	BIOL 399 (Duquesne University)	Research for Credit (2 students)
2012	Fall	BIOL 111 (Duquesne University)	General Biology
2012	Fall	BIOL 646 (Duquesne University)	Advanced Topics: Techniques and Tips for Giving Oral Scientific Presentations
2012	Fall	BIOL 398 (Duquesne University)	Research for Credit (2 students)
2012	Spring	BIOL 560 (Duquesne University)	Endocrinology
2012	Spring	BIOL 460 (Duquesne University)	Endocrinology
2011	Fall	BIO 5565 (Washington University)	Presentation of Scientific Data
2010	Fall	BIO 5565 (Washington University)	Presentation of Scientific Data
2010	Spring	BIO 4427 (Washington University)	Problem-based Learning in the Biomedical Sciences
2009	Fall	BIO 1112 (Washington University)	Introduction to Problem-based Learning in Biology
2009	Fall	BIO 5565 (Washington University)	Presentation of Scientific Data
2009	Summer	BIO 1112 (Washington University)	Introduction to Problem-based Learning in Biology
2009	Spring	BIO 4427 (Washington University)	Problem-based Learning in the Biomedical Sciences
2008	Fall	BIO 1112 (Washington University)	Introduction to Problem-based Learning in Biology
2007	Fall	BIO 5565 (Washington University)	Presentation of Scientific Data

Teaching Other

1) Short-Term Working Group Project, UT Dallas

With Drs. Salena Brody and Regina Ybarra ran a 6-week (4 session) short-term working group project designed to generate activities for a new workshop in rigor and reproducibility, Fall 2023

2) Ad hoc Semester-long Grant Writing Workshop, Duquesne University

Created and ran a semester-long voluntary not-for-credit course on NIH grant writing for six PhD students. Ran 13 total sessions each running 2 hours, Spring 2019

3) Ethics mentor for Duquesne University Summer Undergraduate Research Program (URP)

Summer 2013, 2014

4) Undergraduate academic mentor

Each academic year, I served as an academic mentor to 8-15 undergraduate Biological Sciences majors at Duquesne University from 2012 – 2019, advising them on course selection, extracurricular activities related to their field, and career choice.

In 2012, working with Duquesne University Professor Joseph McCormick, Ph.D., I evaluated the mentoring program from both the undergraduate and faculty perspectives. Outcomes of this research have included informational sessions for students each fall to improve the effectiveness of the program.

5) Research Advisor for high-school independent research

Duquesne University
Alyah Heath (9/2017 – 1/2018)
Tiffany Wilson (7/2016 – 8/2016)
Adriana Gulli (8/2014 – 5/2016)

- Current: Graduated from Duquesne University (Psychology) and is a PhD student in Psychology

6) Educational Seminars, Workshops, and Panels

1. **BJ Kolber** (2024). "Building and communicating the science for a poster." Gave an invited presentation as part of the Office of Research's "Research Week: Poster Practice Session" workshop.

2. **BJ Kolber** (2024). "Strategies for effective mentoring of new faculty." Gave an invited presentation as part of the Provost's Office Faculty Mentoring Program Fall 2024.

3. **BJ Kolber**, Burton M (2024). "Faculty Mentoring Workshop." Offered a 4 month (4 session) workshop on faculty mentoring. For this workshop, I collated all starting materials, organized planning meetings, and led or co-led all sessions. Each week ran for 75-120 min.

4. **BJ Kolber** (2024). "ENSURE/MARC Lunch – Exploratory vs confirmatory research." Presentation given to UTDallas ENSURE undergraduate fellows.

5. **BJ Kolber** (2023). "Building and communicating the science for a poster." Gave an invited presentation as part of the Office of Research's "Research Week: Poster Practice Session" workshop.

6. **BJ Kolber** (2023). "Lab craft: From empty space to scientific oasis." Gave an invited presentation as part of the "How to Get a Quick Start" workshop for new faculty at the University of Texas at Dallas.

7. **BJ Kolber** (2023). "CAPS: Ask Me Anything." Gave a brief biography for the Center for Advanced Pain Studies WIP series followed by a 45-minute question and answer session about my career.

8. **BJ Kolber** (2023). "BBS RISE Faculty Panel." Served on an invited panel of faculty in BBS (University of Texas at Dallas) speaking to BBS Research Immersion Summer Experience (RISE) high school students. Panel organized by Dr. Christa McIntyre.

9. **BJ Kolber** (2023). "ENSURE Lunch – Scientific publications: Process, authorship, and transparency." Presentation given to UTDallas ENSURE undergraduate fellows.

10. **BJ Kolber**, Burton M, Taylor A, Huxtable K, Brody S (2022 – 2023). "Faculty Mentoring Workshop." Coordinated with CTL (Dr. Karen Huxtable et al) to offer a 6 month (5 session) workshop on faculty mentoring with two goals: (1) Training our ENSURE program faculty and (2) Building infrastructure to continue to offer this training workshop through CTL and OGE into the future. For this workshop, I collated all starting materials, organized planning meetings, and led the first, second, and fourth sessions. Each week ran for 75-120 min.

11. **BJ Kolber** (2022). "ENSURE Lunch – Scientific publications: Process, authorship, and transparency." Presentation given to UTDallas ENSURE undergraduate fellows.

12. **BJ Kolber** (2022). "Scientific Writing: Poster Abstracts." Invited 45 min lecture for the UTDallas Clark Summer Research Program, Richardson, TX 6/14/2022.

13. **BJ Kolber** (2022). "RCR: Reporting your research." Invited 60 min presentation for the UTDallas office of research virtual RCR workshop (Spring 2022), 4/21/2022.

14. **Kolber BJ** (2022). "Launch Your Future: In Your Own Back Yard- Furthering Your Studies at UTD Grad Schools – BBS Programs." Invited oral presentation at the Career Center/Office of Research virtual graduate open house for UTDallas undergraduates, April 2022

15. **BJ Kolber** (2021). "RCR: Reporting your research." Invited 60 min presentation for the UTDallas office of research virtual RCR workshop (Spring 2021), 3/9/2021.

16. **BJ Kolber**, E Rentschler (2020). "Entering Mentoring." Coordinated with Duquesne University Center for Teaching Excellence (CTE; Dr. Erin Rentschler) to offer 4-week long virtual workshop on mentoring for undergraduate students for 10 faculty from BSNES, Pharmacy, Health Sciences, and the College. Each week ran for 75 min. Specifically led the workshop for 2 of 4 weeks and co-led the workshop for final session with quantitative assessment.

17. **BJ Kolber** (2019). Invited and funded participant in NIH NINDS workshop "Strengthening a Neural Network: Pathways for Institutional Change Regarding Diversity and Inclusion" 4/29-4/30/2019.

18. **BJ Kolber** (2018). Invited expert participant for "Educational Resource on the Fundamental Principles of Rigorous Neuroscience Research" at the NIH NINDS, Bethesda, MD 10/22-23/2018.

19. M Kalarchian, D Nolfi, M Kostek, **B Kolber** (2018). "How to Prepare a Biosketch Workshop." Workshop organized by Kalarchian to help faculty in the nursing school write and design their biosketches, Duquesne University, School of Nursing, Pittsburgh, PA 1/23/2018.

20. **BJ Kolber**, V Giannetti (2017). "The disease model of opioid addiction." Invited presentation at the Duquesne Forensics Science Symposium "Opium in America: The Science, Law, and Policy of a National Epidemic" Duquesne University, Pittsburgh, PA 10/27/2017.

21. **BJ Kolber**, F Fochman (2017). "Where do opioids come from and what do they do." Invited presentation at the Duquesne Forensics Science Symposium "Opium in America: The Science, Law, and Policy of a National Epidemic" Duquesne University, Pittsburgh, PA 10/27/2017.

22. **Kolber BJ** (2017). "Effective poster presentations." 60min seminar given to the BSNES Graduate Students association (~25 students). Invited by Natalie Hager 10/31/2017.

23. **BJ Kolber**, L Willingham-McLain, E Rentschler, P Palmer (2017). "Entering Mentoring." Coordinated with CTE (Dr. Laurel Willingham-McLain and Dr. Erin Rentschler) and Dr. Philip Palmer (BSNES) to offer 6-week long workshop on mentoring for undergraduate students for 10 faculty from BSNES, Pharmacy, Health Sciences, and the College. Each week ran for 75 min. Specifically led the workshop for 3 of 6 weeks and co-led the workshop for final session with quantitative assessment.

24. **BJ Kolber** (2016). "Can you hear me? The art of oral scientific presentation." 60 min seminar given to the BSNES Graduate Students association (~25 students). Invited by Joseph Sallmen 10/4/2016.

25. **BJ Kolber** (2015). "Undergraduate Research and Scholarship Symposium (URSS) Panel Discussion for Undergraduate Recruitment." Invited to sit on panel to discuss with interested faculty how I have successfully recruited students to participate in the annual URSS. Invited by Christine Pollock 10/28/2015.

26. **R Wright** (2014). "Start where you are: Incorporating active learning." Invited and organized with the Center for Teaching Excellence workshop by a leader in the STEM Education field, Dr. Robin Wright, Associate Dean College of Biological Sciences, Chair of Department of Biological Education, University of Minnesota 11/17/2014.

27. **BJ Kolber, J McCormick** (2012 – 2016). "Biology departmental mentoring program." Seminar given to incoming first-semester Biological Sciences majors to help students get the most out of the department mentoring program 9/7/2012, 9/6/2013, 9/5/2014, 8/28/2015, 8/26/2016.

28. **BJ Kolber** (2012, 2014, 2016). "How to give an effective scientific presentation." Seminar given to Biological Sciences Ph.D. students prior to oral thesis proposal presentations 10/30/2012, 4/7/2014, 3/24/2016.

29. **BJ Kolber** (2012 – 2019). "Using scientific teaching to enhance the learning process." Seminar given to incoming Biology (2012 – 2019), Chemistry (2013 – 2019), and Pharmacy (2015) Ph.D. graduate students at Duquesne University 8/2012, 8/2013, 8/2014, 8/2015, 8/2016, 8/2017, 8/2018, 8/2019.

30. **BJ Kolber** (2013). Invited panelist for "Academics: Primarily undergraduate institutions" at the NIH Career Symposium, Bethesda MD 5/19/2013.

31. **BJ Kolber** (2012). "Can you hear me? An examination of the art of scientific presenting." Seminar presented at Mount Union College 10/24/2012.

32. **BJ Kolber, J McCormick** (2012). Led (with Dr. McCormick) discussion with Biology Department faculty on the problems and potential solutions in our departmental mentoring program 10/5/2012.

33. **BJ Kolber** (2012). Panelist for "Faculty-grad student mentoring relationships" panel discussion organized by Duquesne University Center for Teaching Excellence 10/3/2012.

34. **BJ Kolber** (2011). "Frame of reference" talk on "Seated Bodhisattva Tara in 'Green manifestation'." Seminar presented at the Pulitzer Foundation for the Arts, St. Louis, MO 11/5/2011.

35. **BJ Kolber** (2010). Panelist for "Managing mentoring relationships" Professional Development Program panel discussion at Washington University in St. Louis 10/12/2010.

36. **BJ Kolber** (2010). Panelist for "Teaching techniques" panel discussion at the Midstates Math and Science Consortium "Early Career Faculty Workshop" Door County, WI 7/10/2010.

37. **BJ Kolber** (2008). Moderator for panel discussion on "Teaching assistantships" at Washington University in St. Louis, St. Louis, MO 8/20/2008.

7) Guest Lectures

University of Texas at Dallas

HCS 6302 – Proseminar, Fall 2021, 2022, 2023

- Gave ~2 hour long lecture on department, SCN program, my career, and my research.

NSC 4390.002 – Health Disparities in Neuroscience, Spring 2021, 2023

- Participated in panel discussion for 1 hr 15 min on disparities in pain

Duquesne University

MTH 317 – Mathematical Modeling – Modeling the Opioid Epidemic. Spring 2020

- Taught a 1 hr guest lecture

PHPR 427/UPNS 491 – Etiology and Assessment of Pain. Spring 2013, 2014, 2015, 2016, 2017, 2018, 2019

- Taught a 1.5 – 3 hr guest lecture 2013 – 2019

LAWS C696 – Law and Neuroscience. Spring 2016, 2018, 2019

- Taught a 1.5 hr guest lecture each year

PSYC 560 – Physiological Psychology. Fall 2013

- Taught a 1 hr 15 min guest lecture

University of Pittsburgh

MSNBIO 2622 – Mechanisms Clinical Presentation of Pain. Fall 2019

- Taught a 1 hr guest lecture "Supraspinal Circuits in Pain"

University of Dschang (Cameroon Central Africa)

Genomics – Graduate level course. Summer 2017

- Taught 3 different 2 hr guest lectures (1) "Utilizing light-activated ion channels (optogenetics) to modulate the brain and peripheral nervous system," (2) "Role of the central amygdala in modulating fear conditioning," and (3) "Use of animal models to test novel cyanobacterial-derived metabolites"

Carnegie Mellon University

BIO 03-260 – Neurobiology of Disease. Fall 2014

- Taught a 1 hr 15 min guest lecture "Depression, Anxiety, and the HPA axis"

Washington University in St. Louis

BIO 4435 – Introduction to Neurobiology. Summer 2010

- Taught a 3 hr guest lecture

Service

Reviewing and Refereeing; Administrative Work with Professional Societies

2023 Netherlands Organisation for Scientific Research (NWO) Gravitation Programme
Invited reviewer for the Gravitation Programme which funds proposals of Euro20,000,000 (3/2023)

2022 – Present, Frontiers Journals – Pain Research
Associate Editor

2020 – Present, Frontiers Journals – Systems Neuroscience
Review Editor

2021, Texas Pain Research – Invited member of "Pain in the Brain" breakout room.

2019, National Academies of Science, Engineering, and *Medicine* Invited member of planning committee for 2019 workshop *Enhancing Scientific Reproducibility through Transparent Reporting*.

Monthly phone meetings 4/2019 – 8/2019
Attendance and participation in workshop 9/24 – 9/26/19
Invited to serve on workshop panel 9/25/19
Cited in: National Academies of Sciences, Engineering, and Medicine (2020). Enhancing scientific reproducibility in biomedical research through transparent reporting: Proceedings of a workshop. Washington, DC: The National Academies Press. doi: 10.17226/25627

2019, Department of Defense Ad hoc Grant review
Review grants (3) for Peer Reviewed Medical Research Program (PRMRP) IIRA/TTDA/ExpA, (4/29/19)

2018, American Physiological Society Invited judge for American Physiological Society judging at the 2018 Intel International Science and Engineering Fair, Pittsburgh, PA May 2018

2018 – 2019, NIH Center for Scientific Review (CSR)

Invited reviewer for the 2019 CSR Anonymization Study (IFCN, BM). Reviewed NIH grants that had been made anonymous to determine the impact of blinding on the NIH review process, February 2019.
Invited reviewer for the 2018 CSR Anonymization Study (IFCN, BM). Reviewed NIH grants that had been made anonymous to determine the impact of blinding on the NIH review process, July 2018.

2017, University of Wisconsin NIH Review Study Section Reviewer Reviewed grants (3) for UW study to evaluate efficiency of NIH review process, March 2017.

2016 – Present, NIH Study Section Ad-Hoc Reviewer

Scheduled to review grants (4) on NINDS HEAL SEP study section (6/26/24)
Reviewed grants (2) as primary (1) and tertiary (1) on NINDS ZNS1 SRB-D(28) SEP (3/15/24).
Reviewed grants (1) as primary (1) on NIDDK 2022/10 ZDK1 GRB-M (O3) P SEP (6/22/22).
Reviewed grants (1) as tertiary (1) on NPI study section (2/2/22).
Reviewed grants (1) as tertiary (1) on NIDDK SEP (12/02/21).
Reviewed grants (7) as Primary (4) or Secondary (3) on NPI study section (10/15/21).
Reviewed grants (9) as Primary (3) or Secondary (6) on NPI study section (6/21/21).
Reviewed grants (4) as Primary (3) or Secondary (1) on NCCIH Training and Education SEP (2/18/21).
Reviewed grants (4) as Primary (1) or Secondary/tertiary (3) on NIDA ETTN SBIR (12/7/2020).
Reviewed grants (4) as Primary (2) or Secondary (2) on NINDS R25 SEP (6/7/20).
Reviewed grant (1) as tertiary on HEAL SBIR/STTR NIH Study Section in Bethesda, MD (12/6/19).
Reviewed grants (5) as Primary (2) or Secondary (3) on HEAL SEP NIH Study Section in Bethesda, MD (11/13/19).
Reviewed grants (4) as Secondary/tertiary (4) on HEAL SEP NIH Study Section in Bethesda, MD (June 5-6, 2019); Teleconference review.
Reviewed grants (3) as Primary (1) or Secondary/tertiary (2) on ZNS1 SRB D4 NIH Blueprint ENDURE NIH Study Section in Bethesda, MD (June 3, 2019).
Reviewed grants (2) as Primary (1) or Secondary/tertiary (1) on HEAL SEP NIH Study Section in San Diego, CA (Feb 21, 2019).
Reviewed grants (6) as Primary (3) or Secondary/tertiary (3) on Somatosensory and Pain Systems (SPS) NIH Study Section in San Diego, CA (Feb 20-21, 2019).
Reviewed grants (2) as Primary (1) or Tertiary (1) reviewer on ZRG1 IFCN-B (02) M Pain mechanisms NIH Study Section Internet Assisted Meeting (Nov 14-15, 2018).
Reviewed O'Brien Center Opportunity Pool Application, NIDDK (July 2018)
Reviewed grants (3) as Secondary reviewer on ZRG1 IFCN-B 03 Pain mechanisms NIH Study Section Internet Assisted Meeting (Dec 12-13, 2017).

Reviewed grants (7) on Somatosensory and Chemosensory (SCS) NIH Study Section in Washington DC (Oct 26-27, 2016).
Reviewed grant as Primary Reviewer on ZRG1 DKUS-G 90 NIH Study Section in Chicago, IL (June 30, 2016); Teleconference review.

2016 – Present, International Association for the Study of Pain Selected to serve on the IASP Fellowships, Grants, and Awards Working Group (FGAWG) (8/2016 – Present)

Reviewed Bonica Fellowship Grants, Early Career Investigator Grants, IASP World Congress Awards, Devoloping Country Grants, Collaborative Research Grants from; Typically review 2-3 times per year with 5-10 grants per cycle.

2015, 2016, 2018, External Reviewer for Council on Undergraduate Research (CUR) "Posters on the Hill" competition, Reviewed three abstracts in 12/2015, 12/2016, 12/2018 for the National "Posters on the Hill" conference.

2015 – 2017, Invited reviewer of textbook chapters

I have reviewed textbook chapters for:

Principle's of Biology – Mason – 2015 (Ch 33 and 35)
Biology – Campbell – 2017 (Ch 41)
Biology: How Life Works – Morris – 2013 (Ch 19 and 20); 2014 (Ch 36); 2017 (Case 7, Ch 31, 39, 41)

I have reviewed textbook online content for:

Biology: How Life Works – Morris (2015)
Biology – Brooker (2015 – 2017)

2015 – 2016, NIH Early Career Reviewer Program

Application submitted 6/2015. Accepted for participation 6/19/2015.
Selected (from >1500 ECR applicants) to serve on Somatosensory and Chemosensory (SCS) NIH Study Section in Bethesda MD (June 21-22, 2016).

2013 – 2019, American Pain Society

1. Elected to serve on the Nominating Committee (12/2017 – 4/2019)
2. Elected as the Basic Science Shared Interest Group co-chair (5/2013 – 5/2015).
   a. Co-chair, SFN-Sponsored Social SOC07. Pain Neuroscience Social Sun, 10/18/2015.
   b. Co-organize, set agenda, moderate and give introductory lecture for Basic Science Research Dinner at the 2015 American Pain Society Annual Meeting, 5/2015.
   c. Assist in moderation of Basic Science Business meeting at the 2015 American Pain Society Annual Meeting, 5/2015.
   d. Co-organize, set agenda, moderate "Data Blitz" symposium at the 2015 American Pain Society Annual Meeting, 5/2015.
   e. Review and select speaker submissions for the "Data Blitz" component of the 2015 American Pain Society Annual Meeting, 1/2015 – 4/2015.
   f. Co-organize and set agenda for Basic Science Research Dinner at the 2014 American Pain Society Annual Meeting, 5/2014.
   g. Organize, set agenda, moderate Basic Science Business meeting at the 2014 American Pain Society Annual Meeting, 5/2014.
   h. Co-organize, set agenda, moderate "Data Blitz" symposium at the 2014 American Pain Society Annual Meeting, 5/2014.
   i. Review and select speaker submissions for the "Data Blitz" component of the 2014 American Pain Society Annual Meeting, 1/2014 – 4/2014.

2011 – Present, Ad hoc reviewer of scientific manuscripts – Each manuscript 2-3 hours of work

Reviewed >120 manuscripts (not including re-reviews; 12/2011 – Present) for the following journals: Pain (15), Journal of Neuroscience (15), European Journal of Pain (6), Neuropharmacology (7), PLoS ONE (5), Pain Medicine (4), Journal of Pain (4), Molecular Pain (4), Frontiers in Neuroscience (3), Cell Reports (3), Neuroscience (3), Behavioural Brain Research (2), Neuron (2), Journal of Neurophysiology (2), Nature Communications (2), Neuroscience Letters (2), Journal of Biological Education (2), Science Signaling (1), Molecular Psychiatry (1), British Journal of Pharmacology (1), Current Biology (1), Scientific Reports (1),

Frontiers in Pharmacology (1), Frontiers in Behavioral Neuroscience (1), Frontiers in Pain Research (1), Current Drug Targets (1), Drug and Alcohol Dependence (1), Arthritis and Rhematology (1), Advances in Pharmacology (1), Future Science OA (1), JSM Pain Management (1), BMC Neuroscience (1), Neural Regeneration Research (1), Current Urology (1); International Journal of Clinical Anesthesiology (1), Brain Research (1), AJP – Regulatory, Integrative and Comparative Physiology (1), Pain and Research Management (1), European Journal of Sports Medicine (1), Biomedicine and Pharmacotherapy (1), Cannabis and Cannabinnoid Research (1), Hardware X (1), Aging Cell (1), Journal of Neuroinflammation (1), Pharmacology, Biochemistry, and Behavior (1), Neurobiology of Pain (1), JOVE (1), Asian Journal of Urology (1), Brain Structure and Function (1), Physical Therapy and Occupational Therapy in Geriatrics (1)

Departmental, College, University Committees

University of Texas at Dallas

Department of Neuroscience service

12/2023, Led Department of Neuroscience faculty meeting when Chair was unable to attend

10/2023 – Present, Member of faculty search committee for "Affective Cluster" hire, Chair Dr. Sven Kroener

8/2023 – 12/2023, Chair of Mid-tenure Review committee for Dr. Crystal Engineer

8/2022 – 12/2022, Member of Tenure Review committee for Dr. Michael Burton

8/2021 – Present, Program Director of Systems and Cellular Neuroscience (SCN) Track in Cognition and Neuroscience PhD program Note: Listed above in positions section.

8/2021 – Present, Chair of SCN Graduate Steering Committee. Run monthly meetings. Run end-of-semester meeting with all SCN graduate faculty. Recruited at ABRCMS and SFN conference for PhD program, Fall 2021, 2022, 2023

11/2020 – Present, Responsibility for Department of Neuroscience histology instruments (i.e. cryostats) including training of all users, scheduling, and arranging maintenance

2020 – 2021, Graduate School Admissions Committee Member, 12/2020 – 8/2021 (Chair Dr. Catherine Thorn).

2020, Redesign of Systems Neuroscience Website with Dr. Catherine Thorn

2021, Eric Jonnson School of Engineering Judge of BEREU summer research posters, 7/2021

School of Behavioral and Brain Sciences (BBS) service

2022 – 2023, Faculty Advisor for Neuroscience Graduate Student Association

2022 – 2023, Member of committee and author on Cognition and Neuroscience PhD Program External Review)

2022 – Present, Chair of Psychology and Neuroscience PhD Retreat planning committee

i. Chair planning of retreat (Aug 2023) involving >70 students and faculty
ii. Planning for Aug 2024 retreat

2022, Volunteer to give tour of BSB for incoming Dallas College UTD transfer students (n=20 in two groups), 12/2022.

2022 – Present, Co-Director of Enhancing NeuroScience Undergraduate Research Experience (ENSURE) program (note also listed in above sections)

2021 – Present, Chair of BBS Website redesign committee, 4/2021 – 12/2022 (ad hoc edits into 2023).

University-Wide Service

2022 – Present, Co-Director of Maximizing Access for Research Careers (T34 MARC) program (note also listed in above sections)

2023 – Present, University of Texas at Dallas Hobson Honors College Advisory Council. Serve as member of council representing BBS

2023 – Present, University of Texas at Dallas Post-doctoral Association Advisory Council. Serve as member of council

2022 – Present, University of Texas at Dallas, New faculty peer mentor to Dr. Darshan Sapkota (Department of Biological Sciences)

2021 – Present, Chair organizing committee for the Summer Platform for Undergraduate Research (SPUR) summer symposium for UT Dallas undergraduate students, 2022, 2023, 2024 symposia.

2021, Initiated and developed the inaugural 2022 Summer Platform for Undergraduate Research (SPUR) summer symposium for UT Dallas undergraduate students

2020 – Present, Center for Advanced Pain Studies Faculty member and member of executive committee for CAPS

i. Gave tour to anonymous donor for new post-doc fellowship, Spring 2023.

Duquesne University

Department of Biological Sciences service

2019, Review nominations for the BSNES Top Undergraduate Award and Mitch Johnson Award for Outstanding Service, 4/2019

8/2018 – 5/2019, Member of faculty search committee for Biological Sciences Assistant Professor hire

2017, Developed and implemented a 3 hr neuroscience and pain demonstration for a group of undergraduate neuroscience majors at Thiel College (supervisor Dr. Greg Butcher), 4/2017

2017 – 2020, Member of "Graduate Program Committee," 1/2017 – 7/2020

2016, Committee chair for "First Year Graduate Student Qualifying Exam Committee," 3/2016 – 7/2016

2015 – 2020, Committee chair "Department Retreat Planning Committee," 1/2015 – 7/2020. Developed new off-campus annual retreat for Department of Biological Sciences at Pymatuning Lake. Activities included monthly meetings, coordinating logistics, developing schedule, recruiting presenters and participants.

2014, Member of Annual Chair Review Committee, 1/2014 – 5/2014

2012 – 2020, Departmental mentoring program assessment, revision, and training, 8/2012 – 7/2020

2012, Committee chair for "First Year Graduate Student Qualifying Exam Committee," 3/2012 – 6/2012

2012 – 2020, Hosted 14 external scholarly seminars or lectures, 9/2012 – 7/2020

2012, Member of "Teaching Schedule Committee," 1/2012

2011 – 2020, Gave seven individual tours or meetings with prospective undergraduates

Bayer School of Natural and Environmental Sciences service

2015, Represented the Department of Biological Sciences at "Duquesne Fest" 6/14/2015

2013, Judge for Undergraduate Research and Scholarship Symposium at Duquesne 4/2013

2012 – 2016, Presented and gave laboratory tours at "Science Preview Day" 2/2012, 2/2013, 2/2014, 2/2015, 2/2016

University service

2020, Organized and coordinated University-wide Personal Protection Equipment (PPE) collection and donation of PPE to local hospitals and clinics for Covid-19 crisis (4/2020)

2020, Served on Duquesne University "President's Faculty Awards for Excellence" nomination and selection committee Spring 2020

2019, Served on the Duquesne School of Osteopathic Medicine dean's search Fall 2019

2019 – 2020, Member of Center for African Studies Faculty Advisor Board, 3/2019 – 7/2020

2017 – 2020, Developed and organized Neurodegenerative Undergraduate Research Experience (NURE), a new summer research program designed to introduce students to neuroscience research and clinical experience through working in research labs in multiple schools across campus, 2017. Funded by Leach Fund 2017 and NIH R25 (2018-2023 (note: I stepped down when I left Duquesne in 2020)); Note: Listed above in grants section.

2015 – 2020, Developed and co-Direct the Pain Undergraduate Research Experience (PURE), a new summer research program designed to introduce students to Pain research and clinical experience through working in research labs in five different schools across campus 2015, 2016, 2017, 2018, 2019, 2020 (cancelled due to Covid); Note: Listed above in grants section.

2016 – 2020, Undergraduate Scholarship and Research Symposium Advisory Committee.

2015 – 2017, Reviewer and on selection committee for Undergraduate Research Program undergraduate applications for students doing summer research in Rangos, Mylan, the College, and BSNES, 3/2015, 3/2016, 3/2017.

2016, Reviewer for Aging and Teaching Research Consortium Stimulator Grant submissions, 4/2016.

2013 – 2014, Faculty mentor for Summer URP program Ethics Forum 6/2013, 6/2014.

2013, Reviewer for Hunkele Research Grant submissions, 4/2013.

2012, Moderator for the Summer Undergraduate Research Symposium Oral Presentations, 7/2012.

2012 – 2020, Webmaster for Chronic Pain Research Consortium, 1/2012 – 7/2020.

2012 – 2020, Coordinator of monthly Pain Journal Club for Chronic Pain Research Consortium, 1/2012 – 3/2020.

Community service (since 12/2011)

2023, Judge for Regeneron International Science and Engineering Fair, 5/13/2023, Dallas, TX

2022, Highland Park High School Science and Technology Festival Lectures (2), Fall 2022 Lecture(s) entitled "Using Neuroscience Research to Explore Questions of Evolution, Pain, and Psychiatric Disease."

2021 – 2022, Volunteer and Collaborate with Harmony Public High School "Drug Discovery" class 2021-2022 including going to Harmony, developing experiments, and hosting students and faculty at UT Dallas in Fall 2022. Assisted by Office of Research staff member Tiffany Willoughby.

2017, Participated in community search at North Park for missing Duquesne University student Dakota Jones, 3/2017.

2017, Organized lab volunteer activity through the Duquesne University Spring Clean-up (3 total people), 4/2017.

2014 – 2015, Organized volunteer outing with Habitat for Humanity for my laboratory group (14 total people), 7/2014, 7/2015.

2014 – 2016, Judge for Pennsylvania Junior Academy of Science, 2/2014, 2/2015, 2/2016.

2013, Volunteer for BikePGH "Bike to Work Day," 5/2013.

2012 – 2013, Volunteer for "Tar and Feather Event" at Pittsburgh Distilling Co, 2012 – 2013.