

Benedict J. Kolber, Ph.D.

Curriculum Vitae (2/2023)
University of Texas at Dallas
Department of Neuroscience
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I. Professional Preparation and Experience

A. Education

Post-Doctoral Research Fellow: 12/2009 – 11/2011

Washington University in St. Louis St. Louis, MO
Supervisor: Dr. Seymour and Rose T. Brown Professor of Anesthesiology Robert Gereau IV, Ph.D.
Department of Anesthesiology and Washington University Pain Center

- National Institutes of Health (NIH) NRSA-Kirschstein F32 Individual Fellowship from the NINDS (National Institute of Neurological Disorders and Stroke)

Post-Doctoral Research Associate: 11/2008 – 12/2009

Washington University in St. Louis St. Louis, MO
Supervisor: Dr. Seymour and Rose T. Brown Professor of Anesthesiology Robert Gereau IV, Ph.D.
Department of Anesthesiology and Washington University Pain Center

Ph.D. in Neuroscience: 8/2003 – 11/2008

Washington University in St. Louis St. Louis, MO
Supervisor: Professor of Pediatrics Louis Muglia, M.D. Ph.D.
Program in Neuroscience, Division of Biomedical and Biological Sciences, Department of Pediatrics
Dissertation: **Kolber BJ** (2008). The role of limbic glucocorticoid receptors and corticotropin-releasing hormone in the modulation of normal and pathological stress adaptation.

- NIH NRSA-Kirschstein F31 Individual Fellowship from the NIMH (National Institute of Mental Health)
- Honors: Teaching Citation (11/2008) from The Teaching Center & Graduate School of Arts and Sciences

B.S. in Biology and Psychology: 8/1999 – 5/2003

University of Dayton Dayton, OH
Supervisor: Professor Carissa Krane, Ph.D.
Majors: Biology and Psychology Minor: Chemistry

- Honors: Graduated Summa Cum Laude (GPA 4.0); Bro. Dean Leonard Mann Award to the Outstanding Graduate in the School of Arts and Sciences (2003); John E. Dlugos, Jr. Memorial Award of Excellence to the Outstanding Senior Major in Biology (2003)

B. Work history

1. Academic Appointments

Program Director, Systems and Cellular Neuroscience Track in Cognition and Neuroscience PhD Program (8/2022 – Present)
University of Texas at Dallas, Richardson, TX

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

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

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

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

Instructor, Neuroscience Program and Department of Biology (6/2009 – 11/2011)

Washington University in St. Louis, St. Louis, MO

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

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

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

Lab Instructor, Department of Biological Sciences (6/2001 – 8/2001)
University of Dayton, Dayton, OH

Undergraduate Student Research Assistant, Department of Biological Sciences (5/2001 – 5/2003)
University of Dayton, Dayton, OH

2. Non-Academic Appointments

Program Director, Enhancing NeuroScience Undergraduate Research Experience Program (Fall 2021 – Present)
University of Texas at Dallas, Richardson, TX

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

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

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

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

C. Memberships in professional organizations

- 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)

II. Teaching

A. Graduate/professional courses taught

1. Courses taught at the University of Texas at Dallas

ACN/HCS 6372.001 – Neuroscience of Pain. Spring 2021, Spring 2022

HCS 7121.001 – Graduate Seminar in Systems Neuroscience. Fall 2022

HCS 6314.001 – Scientific and Grant Writing. Spring 2023

ACN 6v72 – Research for Credit. Spring 2022, 2023; Fall 2022

- Course is 1-3 credits; individual students do neuroscience research in my laboratory

2. Courses taught prior to the University of Texas at Dallas

Duquesne University

BIOL 560 – Endocrinology. Spring 2012, 2013, 2014, 2015, 2016, 2018, 2019

- Co-taught with one other instructor

BIOL 696 – Introduction to Graduate Research. Spring 2014, 2015, 2016, 2017, 2018, 2019; Fall 2015 (2 lectures)

BIOL 646 – Advanced Topics: From paralysis to feeling no pain: An advanced topic in channelopathies and electrophysiology. Fall 2017

BIOL 690 – Biology Seminar. Fall 2013

- Co-taught with one other instructor

BIOL 646 – Advanced Topics: Techniques and Tips for Giving Oral Scientific Presentations. Fall 2012

BIOL 679 – Research for credit. Fall 2016; Spring 2014, 2015

- Course is 1-3 credits; individual students do biological research in my laboratory
- Have taught 3 times

Washington University in St. Louis

BIO 5565 – Presentation of Scientific Data. Fall 2007, 2009, 2010, 2011

B. Undergraduate courses taught

1. Courses taught at University of Texas at Dallas

NSC 4358 – Neuroscience of Pain. Fall 2020, Fall 2021

NSC 4v98 – Directed Research. Spring 2021, 2022, 2023; Fall 2021, 2022

- Course is 1-3 credits; individual students do neuroscience research in my laboratory

2. Courses taught prior to the University of Texas at Dallas

Duquesne University

BIOL 111/111L – General Biology. Fall 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019

- Co-taught with one other instructor; each instructor teaches half of semester

BIOL 490 – Biology Seminar. Fall 2013

- Co-taught with one other instructor; included BIOL 690

BIOL 398/399 – Research for credit. Fall 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019; Spring 2013, 2014, 2015, 2016, 2017, 2018, 2019

- Course is a 1-3 credits; individual students do biological research in my laboratory 4-12 hrs/week
- Have taught >30 times (including students who took 398/399 for multiple semesters)

BIOL 460 – Endocrinology. Spring 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019

- Co-taught with one other instructor; included BIOL 560 2012-2016

BMED 490 – Research for credit. Spring 2015, 2017, 2019; Fall 2016, 2019

- Course is a 1-3 credits; individual students do biomedical engineering research in my laboratory 4-12 hrs/week
- Have taught 3 times (including student who took 490 for multiple semesters)

CMH 490H – Research for credit. Spring 2016; Fall 2016

- Course is a 1-3 credits; individual students do research in my laboratory 4-12 hrs/week
- Have taught 2 times (including student who took 490 for multiple semesters)

Washington University in St. Louis

BIO 4427 – Problem-based learning in the biomedical sciences. Spring 2009, 2010

BIO 1112 – Introduction to problem-based learning in biology. Fall 2008, 2009; Summer 2009

BIO 3341 – Principles of the nervous system. Fall 2005

- Served as Teaching Assistant

University of Dayton

BIO 101L – General biology lab. Summer 2001

C. Academic advisement or mentoring

1. Ph.D. dissertation committees chaired

University of Texas at Dallas

Veronica Hong (3rd year Ph.D. candidate in Neuroscience): 10/2020 – Present

- NRSA F31 recipient (also listed below in grants)

Phuong Pham (1st year Ph.D. candidate in Neuroscience): 12/2022 – Present (note: not yet in candidate stage)

Duquesne University

Harley Bobnar (3rd year Ph.D. candidate in Biological Sciences; finished with masters degree): 5/2018 – 6/2020

- NRSA F31 recipient (also listed below in grants)

Heather Allen (Ph.D. in Biological Sciences defended 9/2021): 4/2017 – 9/2021

- Currently post-doctoral research at New York University
- Post-doctoral research at the University of Pittsburgh 9/2021-9/2022
- NRSA F31 recipient (also listed below in grants)

Anna Polaski (Ph.D. in Biological Sciences defended 6/2019): 4/2015 – 6/2019

- Worked as Clinical Trial Coordinator at Singer Neuroscience Institute, Allegheny Research Institute (2019 – 2020)
- Currently at RQM+ as a Clinical Trial Specialist

Neil Lax (Ph.D. in Biological Sciences defended 7/2018): 4/2013 – 12/2018

- Currently Assistant Professor and Chair in Neuroscience at Thiel College

Katelyn Sadler (Ph.D. in Biological Sciences defended 11/2016): 4/2012 – 1/2017

- NRSA F31 recipient (also listed below in grants)
- Awarded Duquesne University 2017 Distinguished Dissertation Award
- Currently Assistant Professor in Neuroscience University of Texas at Dallas
- Post-doctoral researcher at Medical College of Wisconsin with Dr. Cheryl Stucky, Ph.D. 2017-2022

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

University of Texas at Dallas

Skylar Mendez (Ph.D. candidate in SCN): 2023 – Present (FYP committee)

Yile Wang (Ph.D. candidate in SCN): 2022 – Present (FYP committee and Dissertation committee)

Hailey Welch (Ph.D. candidate in SCN): 2022 – Present (FYP committee and Dissertation committee)

Christopher Driskill (Ph.D. candidate in SCN): 2021 – Present (Dissertation committee)

Caeley Bryan (Ph.D. candidate in SCN; left with masters degree): 2020 – 2022

University of Alabama, Birmingham

Salvador Lopez (Ph.D. in Psychology defended 2022): 2021 – 2022

Duquesne University

Brooke Deal (Ph.D. in Biological Sciences defended 2023): 1/2019 – 8/2020

Kandarp Dave (Ph.D. candidate in Pharmacology): 9/2019 – 08/2020

Manisha Chandwani (Ph.D. in Pharmacology defended 2022): 11/2018 – 2022

Kayce Tomcho (Ph.D. in Chemistry defended 2019): 8/2016 – 2019

Sara McClelland (Ph.D. in Biological Sciences defended 2019): 12/2015 – 2019

Lu Sherlock Liu (5th year Ph.D. candidate in Pharmaceutics): 12/2015 – 8/2020

Andrea Stevens (Ph.D. in Biological Sciences defended 2020): 1/2015 – 2020

Muzamil Saleem (Ph.D. in Biological Sciences defended 2019): 1/2014 – 9/2019

Jessica Thomas (Ph.D. in Biological Sciences defended 2016): 4/2013 – 6/2016

Kiran Vasudeva (Ph.D. in Biological Sciences defended 2015): 4/2013 – 5/2015

University of Pittsburgh

Lindsey Snyder (Ph.D. in Neuroscience defended 2017): 6/2017 – 8/2017

Deepak Soneji (Ph.D. in Neuroscience defended 2012): 9/2012 – 11/2012

3. Mentored post-doctoral trainees, graduate, undergraduate, and high-school students

1) Primary research advisor for Postdoctoral fellows

University of Texas at Dallas

Blesson Paul, PhD: 5/2022 – Present

Anny Treat, PhD: 7/2019 – 4/2021 (*started at Duquesne University*)

- Pre-doctoral candidate

Lakeisha Lewter, PhD: 2/2019 – Present (*started at Duquesne University*)

- Burroughs Wellcome Postdoc Diversity Enrichment Program Fellow
- NRSA F32 recipient (also listed below in grants)

2) Research advisor for graduate and post-baccalaureate independent research (see Section I.C.1 above for additional mentored graduate students)

University of Texas at Dallas

Alexis Trail (1/2023 – Present) (M.S. student ACN Neuroscience)
Lily Vu (10/2022 – 11/2021) (Ph.D. rotation student Neuroscience)
Oly Khowash (3/2022 – Present) (M.S. student ACN Neuroscience)
Uma Chatterjee (12/2021 – Present) (M.S. student ACN Neuroscience)
Leah Chandy (11/2021 – 12/2021) (Ph.D. rotation student Neuroscience)
Brendan Williams (10/2021 – 11/2021) (Ph.D. rotation student Neuroscience)
Hailey Welch (8/2021 – 10/2021) (Ph.D. rotation student Neuroscience)

Duquesne University

Anna Vietmeier (9/2019 – 12/2019) (Ph.D. student Biology)
Kyle Emerson (1/2019 – 4/2019) (Ph.D. student Biology)
Barathi Balasubramonian (8/2018 – 12/2018) (Ph.D. student Biology)
Brooke Deal (4/2018) (Ph.D. student Biology)
Thomas Kelly (1/2017 – 4/2017) (Ph.D. student Biology)
Grant Barber (8/2016 – 3/2018) (Post-Bac Pre-Medical Program)
Neal McQuaid (12/2014 – 7/2016) (M.S. student Biotechnology)
Vishnu Rahul Kannan (5/2014 – 9/2014) (M.S. student Biotechnology)
Laura Geffert (9/2012 – 5/2014) (M.S. in Pharmaceutical Sciences)

- Primary advisor was Dr. Christopher Surratt (Mylan Graduate School of Pharmacy); I served as Laura's advisor for behavioral experimentation and analysis

Muzamil Saleem (12/2013 – 4/2013) (Ph.D. student Biology)

- 3) **Research Advisor for undergraduate independent research.** Details include whether students were mentored in the UT Dallas Clark Program, the UT Dallas Enhancing NeuroScience Undergraduate Research Experience (ENSURE) Program, the UT Dallas Biomedical Engineering Research Experience for Undergraduates (BEREU), Duquesne University Summer Undergraduate Research Program (URP), Pain Undergraduate Research Experience (PURE), and Neurodegenerative Undergraduate Research Experience (NURE) programs. Also includes details on external student funding (see also below "Grants" section).

University of Texas at Dallas

Jesus Sotelo (1/2023 – Present)
• Fall 2022 – Spring 2024 ENSURE Fellow
Samuel Joseph (1/2023 – Present)
Lizzie Schmitz (8/2022 – Present)
Tarik Ehsan (7/2022 – Present)
Iniya Anandan (5/2022 – Present)
• Spring 2023 URSA Scholar
• Summer 2022 Clark Scholar
Alexis Trail (12/2021 – 12/2022) (B.S. Dec 2022 Neuroscience)
Mursal Hussein (8/2021 – Present)
Enzabelle Quinto (8/2021 – 12/2021)
Amulya Bhaskara (5/2021 – Present)
Avaneesh Rade (5/2021 – Present)
Ruwaida Ahmed (3/2021 – 9/2021)
Antos Widner (3/2021 – 12/2022) (B.S. Dec 2022 Neuroscience)
• Honors College Thesis
Nina Narasov (1/2021 – 5/2022) (B.S. May 2022 Neuroscience)
• BBS Honors Thesis
Alejandro Morales (10/2020 – 12/2022) (B.S. Dec 2022 Neuroscience)

Duquesne University

Gage Gladysz (5/2019 – 8/2019) (B.S. May 2020 Thiel College)
• Summer 2019 NSF SRE CIRCLE Program
• Current: MS Student
Marisa Johnson (1/2019 – 5/2020)(B.S. May 2021)
• Current: MS Student
Andrew George (1/2019 – 5/2020)(B.S. May 2021)
• Summer 2019 NIH R25 PURE
• Current: M.D. student Ohio State University
Antonio Lopez (5/2018 – 8/2018)(B.S. May 2020)

- Summer 2018 NIH R25 NURE
- Current: M.D. student Drexel University
- Meeraal Zaheer (2/2018 – 4/2019)(B.S. May 2020)
 - American Physiological Society Undergraduate Research Fellowship (\$5,600)
 - *Also participated in 2018 PURE events
 - Current: Technician at biotech startup
- Olivia Babyok (1/2018 – 5/2021) (B.S. May 2021)
 - Summer 2019 NIH R25 PURE
 - Summer 2020 NIH R25 PURE (*Note – program cancelled due to Covid-19)
 - 10/2019 – 7/2020: Beta Beta Beta Undergraduate Research Award 2019 (\$1000)
 - 4/2021: Honors Thesis
 - Current: PhD student neuroscience University of Pittsburgh
- Gabrielle Majetic (1/2018 – Present) (B.S. May 2020)
 - Summer 2019 NIH R25 PURE
 - Current: MS Program at Duquesne University
- Alicia Serafino (8/2017 – 8/2018) (B.S. Dec 2019)
- Sadie Riskus (8/2017 – 12/2018) (B.S. Dec 2018)
 - Summer 2018 PURE
 - Current: PhD student neuroscience University of Pittsburgh
- Vianie Henri (5/2017 – 11/2018) (B.S. May 2019)
- Jack Klens (1/2017 – 5/2017)
- Ifra Malik (1/2017 – 6/2017)
- Sarah Leep (1/2017 – 11/2018) (B.S. Dec 2018)
 - Summer 2017 NURE
 - Current: M.D. student West Virginia University
- Analise Zapadka (5/2016 – 8/2017) (B.S. May 2017)
 - Summer 2017 PURE
 - Current: M.D. student at Philadelphia College of Medicine
- Marissa Behun (1/2016 – 12/2017)
 - Summer 2016, 2017 PURE
 - Current: Ph.D. student in Bioengineering University of Pittsburgh
- Patrick Cunningham (8/2015 – 5/2016) (B.S. May 2016)
 - Current: Ph.D. student in biology at Lehigh University (start 8/2016)
- Youstina Seliman (8/2015 – 12/2016) (B.S. May 2017)
 - Current: M.D. Lake Erie College of Medicine (5/2021)
- Abigail Cox (5/2015 – 5/2018) (B.S. May 2018)
 - Summer 2015, 2016* PURE; Summer 2017** NURE
 - 5/2017 – 8/2017: Irene and Eric Simon Undergraduate Summer Research Fellowship 2014 (\$2500 Money turned down but Cox still included in fellowship program and all associated activities)
 - **Also participated in 2017 NURE events
 - 11/2016 – 6/2017: Beta Beta Beta Undergraduate Research Award 2017 (\$1000)
 - 5/2016 – 4/2017: American Physiological Society Undergraduate Research Fellowship (\$5,600)
 - *Also participated in 2016 PURE events
 - 4/2018: Honors Thesis
 - Current: M.D. University of Pittsburgh (5/2022); Current resident in medicine at University of Wisconsin
- Kara Jones (1/2015 – 8/2015) (B.S. December 2016)
 - Summer 2015 PURE
 - Current: M.D. student at West Virginia University School of Medicine (start 8/2017)
- Edward Hilton (5/2014 – 5/2017) (B.S. May 2017)
 - Summer 2014, 2016 PURE
 - 4/2016: American Society of Pharmacology and Experimental Therapeutics Travel Award (\$750)
 - Current: D.D.S. student at Harvard University (start 8/2017)
- Allison Trouten (1/2014 – 5/2015) (B.S. May 2016)
 - Current: Ph.D. student at South Carolina University (start 9/2019); M.S. biotechnology at Case Western Reserve University (2017)

Austin Ramsey (9/2013 – 12/2014) (B.S. Dec 2014)

- Summer 2014* URP
- 5/2014 – 8/2014: Irene and Eric Simon Undergraduate Summer Research Fellowship 2014 (\$2,500)
 - *Also participated in 2014 URP events
- Current: Ph.D. student in neuroscience at University of Maryland (start 8/2015)

Melissa Wolz (5/2013 – 5/2015) (B.S. May 2015)

- Current: M.D. from West Virginia University School of Medicine (5/2019)

Caela Long (5/2013 – 5/2016) (B.S. with Honors Thesis at Swarthmore College May 2016)

- Summer 2013, 2014 URP, 2015 PURE
- 11/2015: Council for Undergraduate Research Travel Award (\$250)
- Current: Ph.D. student in neuroscience at the University of Pennsylvania (start 8/2018)

Rani Rajaram (1/2013 – 5/2015) (B.S. May 2015)

- Summer 2014 URP
- Current: M.D. from Temple University School of Medicine (5/2019); Current resident in internal medicine at Thomas Jefferson University Hospital

Devon Burkholder (8/2012 – 3/2013)

Christopher Ignatz (1/2012 – 5/2014) (B.S. May 2014)

- Summer 2013 URP
- 12/2013 – 5/2014: Beta Beta Beta Undergraduate Research Award 2014 (\$800)
- Current: D.O. from Lake Erie College of Osteopathic Medicine (5/2018); Residency in Internal Medicine in Harrisburg, PA (start 2018)

Jarred Stratton (1/2012 – 12/2013) (B.S. Dec 2013)

- Summer 2012*, 2013 URP
- 5/2012 – 4/2013: American Physiological Society Undergraduate Research Fellowship (\$5,600)
 - *Also participated in 2012 URP events
- Current: M.S. in neuroscience from Thomas Jefferson University (2017); educator

David George (12/2011 – 5/2013) (B.S. May 2013)

- Summer 2012 URP
- Current: USMC Officer (start 1/2017)

Washington University in St. Louis

Rachel Bowling (2/2009 – 10/2010) (B.S. May 2012)

- Summer 2010 - HHMI/WashU Summer Undergraduate Research Fellowship (\$4,000) Postdoctoral advisor to Rachel in lab of Robert Gereau, Ph.D.
- Current: M.D. from the University of Texas Medical School at Houston (5/2017); Residency in Phoenix, AZ in Neurology

Chiamaka Onwuzurike (8/2007 – 11/2008) (B.S. May 2010)

- Summer 2008 - HHMI/WashU Summer Undergraduate Research Fellowship (\$4,000) Graduate student advisor to Chiamaka in lab of Louis Muglia, M.D. Ph.D.
- Current: M.D. from University of Pennsylvania Medical School (5/2015); Residency at Northwestern University; Attending University of Pennsylvania

4) Ethics mentor for Duquesne University Summer Undergraduate Research Program (URP) Summer 2013, 2014

5) Undergraduate academic mentor

Each academic year, I served as an academic mentor to 8-15 undergraduate Biological Sciences majors at Duquesne University from 2012 – 2020, 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.

6) 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: Undergraduate student at Duquesne University (Psychology)

D. Peer-reviewed publications pertaining to teaching curriculum development (not included below in “Scholarship”)

This section contains purely teaching curriculum development and mentoring scholarship. Teaching-related experimental research is included in “Scholarship” section below. 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. Which individual actually contributes the most of the writing of the manuscript varies.

- 1) **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](https://doi.org/10.1186/s12909-016-0648-7); PMID: 27142616; PMCID: PMC4855323
*Equal contribution and corresponding authors
- 2) **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](https://doi.org/10.24918/cs.2014.8) (Accepted 7/7/14) ^{**Contributed equally to manuscript.}

E. Grants/Funding Received for Teaching/Mentoring Activities

This section contains purely teaching curriculum development and mentoring grants. Teaching-related experimental research grants are included in “Scholarship” section below. 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 “co-principal investigators” (co-PI). In cases where an investigator is not a lead, that person is typically called a “co-investigator” (co-I). All grants are peer-reviewed.

1. Grants awarded while at the University of Texas at Dallas

- 1) **Title:** Enhancing NeuroScience Undergraduate Research Experience (ENSURE).
Years of funding: 2021 – 2024
Funding agency: North Texas Cares Foundation
Grant number: Health and Scientific Research Human Capital Grant
Role: Director (co-Directors Burton and Taylor)
Budget: \$900,000
Date received: 10/2021

I took the lead working with the co-directors and admin Marcos Chavez to submit this foundation award. I have subsequently taken the lead organizing the leadership team including setting bi-weekly agendas and following up on activities.

2. Grants awarded while at Duquesne University

- 1) **Title:** Pain and Neurodegenerative Undergraduate Research Experiences: Interacting with community partners to build specialized and enhanced neurologic disease programs for undergraduates.
Years of funding: 2018 – 2022 (NCE through 2023)
Funding agency: NIH (NINDS)
Grant number: 1R25-NS100118-A1
Role: Principal Investigator (primary); co-PIs (Tidgewell, Cascio, Mihailescu); Note: I stepped down as PI in spring 2022 due to the move to UT Dallas
Budget: \$539,989 (\$27,259 direct to Kolber)
Date received: 1/2018
- 2) **Title:** The Neurodegenerative Undergraduate Research Experience (NURE): Utilizing community partners to build a specialized and enhanced neurological disease research program for underrepresented undergraduates.
Years of funding: 2016 – 2017

Funding agency: Charles Leach II Fund
Grant number: n/a
Role: Principal Investigator
Budget: \$25,000
Date received: 6/2016

3. *Grants pending (in review and/or under consideration for funding)*

- 1) **Title:** MARC Program at the University of Texas at Dallas.
Years of funding: 2023 – 2028
Funding agency: NIH (NIGMS)
Grant number: T34GM145436-A1
Role: Principal Investigator (primary); mPI (Burton)
Budget: \$539,989 (\$27,259 direct to Kolber)
Date received: Pending

I took the lead organizing the team that wrote the majority of this grant expanding from an existing NIH R25 proposal originally written by Ted Price, Michael Burton, Anna Taylor, and Marcos Chavez. I organized bi-weekly meetings for 3 months leading up to both submissions including setting to-do list, sending agendas, coordinating with Hanover grant consultants etc. I did all of the final editing and compiling and submitted the grant (~100 hours total time personally spent on grant). The first submission of this grant received an impact score of 41 (no percentile given) and had positive reviews. This resubmission received an impact score of 25 (best possible score is 10).

F. Other activities relevant for teaching

1. *Educational seminars, workshops, and panels*

- 1) **BJ Kolber**, Burton M, Taylor A, Huxtable K, Brody S (2021 – 2022). “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.
- 2) Wandner LD, Adams M, & **BJ Kolber** (2022). Submitted and accepted 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) **BJ Kolber** (2022). “Scientific Writing: Poster Abstracts.” Invited 45 min lecture for the University of Texas at Dallas Clark Summer Research Program, Richardson, TX 6/14/2022.
- 4) **BJ Kolber** (2022). “RCR: Reporting your research.” Invited 60 min presentation for the University of Texas at Dallas office of research virtual RCR workshop (Spring 2022), Richardson, TX 4/21/2022.
- 5) **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 UTD undergraduates, Richardson, TX, April 2022
- 6) **BJ Kolber** (2021). “RCR: Reporting your research.” Invited 60 min presentation for the University of Texas at Dallas office of research virtual RCR workshop (Spring 2021), Richardson, TX 3/9/2021.
- 7) **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. <https://doi.org/10.17226/25627>.
(Note: also listed below in service)
- 8) **BJ Kolber** (2019). Invited and funded participant in NINDS workshop “Strengthening a Neural Network: Pathways for Institutional Change Regarding Diversity and Inclusion” 4/29-4/30/2019.

- 9) **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.
- 10) **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.
- 11) **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.
- 12) **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.
- 13) **Kolber BJ** (2017). “Effective poster presentations.” 60min seminar given to the BSNE Graduate Students association (~25 students). Invited by Natalie Hager 10/31/2017.
- 14) **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 (BSNE) to offer 6-week long workshop on mentoring for undergraduate students for 10 faculty from BSNE, 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.
- 15) **BJ Kolber** (2016). “Can you hear me? The art of oral scientific presentation.” 60 min seminar given to the BSNE Graduate Students association (~25 students). Invited by Joseph Sallmen 10/4/2016.
- 16) **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.
- 17) **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.
- 18) **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.
- 19) **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.
- 20) **BJ Kolber** (2012 – Present). “Using scientific teaching to enhance the learning process.” Seminar given to incoming Biology (2012 – Present), Chemistry (2013 – Present), and Pharmacy (2015) Ph.D. graduate students at Duquesne University 8/21/2012, 8/21/2013, 8/20/2014, 8/19/2015, 8/18/2016, 8/16/2017.
- 21) **BJ Kolber** (2013). Invited panelist for “Academics: Primarily undergraduate institutions” at the NIH Career Symposium, Bethesda MD 5/19/2013.
- 22) **BJ Kolber** (2012). “Can you hear me? An examination of the art of scientific presenting.” Seminar presented at Mount Union College 10/24/2012.
- 23) **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.
- 24) **BJ Kolber** (2012). Panelist for “Faculty-grad student mentoring relationships” panel discussion organized by Duquesne University Center for Teaching Excellence 10/3/2012.

- 25) 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.
- 26) BJ Kolber** (2010). Panelist for “Managing mentoring relationships” Professional Development Program panel discussion at Washington University in St. Louis 10/12/2010.
- 27) 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.
- 28) BJ Kolber** (2008). Moderator for panel discussion on “Teaching assistantships” at Washington University in St. Louis, St. Louis, MO 8/20/2008.

2. Guest lectures

University of Texas at Dallas

HCS 6302 – Proseminar, Fall 2021, 2022

- Gave ~2 hour long lecture on department, SCN program, my career, and my research. NSC 4v90.002 – Health Disparities in Neuroscience, Spring 2021
- 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 West 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

3. Attended the following workshops to improve teaching/mentoring

“Faculty Mentoring Workshop”

12/22 – 5/23 (1x per month for 5 sessions)

University of Texas at Dallas ENSURE program and CTL

I developed and participated in this workshop (also listed above in section F.1.1)

“NINDS Mentor-Mentee Onboarding Workshop” virtual workshop. Invited to participate in one-day workshop designed to onboard new NRSA F31 mentees (Veronica Hong). 12/7/22

“Burroughs Wellcome Fund Faculty Mentoring Workshop” live workshop for faculty mentors. Invited to participate in multi-day workshop designed to onboard new Burroughs Wellcome Post-doctoral Diversity Enrichment Program (PDEP) Award Winners (Dr. Lakeisha Lewter) and train their faculty mentors 10/10 – 10/13/22

Michael Rogawski, Barbara Slusher, and Karl Scheidt (2021). Applied for and was accepted for competitive workshop at NIH/NINDS “Training in Neurotherapeutics Discovery and Development for Academic Scientists” Zoom Virtual 2/8-2/16/21.

“How Life Works Adopters Workshop” workshop in Austin, TX. Invited to participate in two-day workshop designed to help develop the 3rd edition of Biology: How Life Works. 12/1/17 – 12/2/17 Macmillan Education

“Entering Mentoring – A workshop for faculty on mentoring undergraduate and graduate research” 3/16/17 – 4/27/17 (1x per week for 6 total sessions)
Duquesne University Center for Teaching Excellence
I developed and participated in this workshop (also listed above in section F.1.1)

“Transparent Assignment Design Enhances Students’ Success” with Mary-Ann Winkelmes from UNLV
4/26/16
Duquesne University Center for Teaching Excellence

“Improving STEM Outcomes Through Learning Science in Majors Biology” workshop in Austin, TX. Invited to participate in three-day workshop designed to address issues related to metacognition in general biology courses. 2/11/16 – 2/13/16
McGraw-Hill Education

“Flex-tech classroom discussion”
1/26/16
Duquesne University Center for Teaching Excellence and Technology Services

“Raising your scholarly profile”
1/21/16
Duquesne University Library Services

“Classroom Observation Protocol (COPUS) Training to promote Active Learning”
10/26/2015
Duquesne University Center for Teaching Excellence
I helped organize this event including finding keynote speaker

“Start where you are: Incorporating active learning” with Robin Wright (University of Minnesota)
11/17/2014
Duquesne University Center for Teaching Excellence
I helped organize this event including inviting and hosting Robin Wright

“Early adopters workshop” James Morris (Brandeis University) and Robert Lue (Harvard University) in Boston, MA. Invited to participate in day-long workshop designed for early-adaptors of General Biology textbook Biology: How life works by James Morris. 10/25/2014

“Evidence-Based Teaching: The Next Generation” with Michelle Smith (UColorado) and Mary Pat Wenderoth (UWashington) 8/4/2014
EDUCAUSE Webinar

“Lecture strategies that increase comprehension” 1/15/2013
Duquesne University Center for Teaching Excellence

“HHMI/National Academies Summer Institutes in Scientific Teaching” week-long workshop and follow-up meeting to learning about “scientific teaching” 6/10/2012 – 6/16/2012; 3/1/2012 – 3/3/2013
Harvard University, National Academies

“Near-peer Mentoring Program” involved meeting monthly with a group of new and “near peer” (~3rd-4th year) faculty to discuss teaching, mentoring, and scholarship. Fall 2012 – Spring 2013
Duquesne University Center for Teaching Excellence

“Problem-based learning: Experience it for yourself with Marsha McFalls” 4/3/2012
Duquesne University Center for Teaching Excellence

“Entering mentoring” six-week long workshop covering the various aspects of mentoring undergraduate students with Dr. Sally Elgin. 4/2007 – 6/2007
Washington University Biology Department

G. Teaching awards/citations

- Beta Beta Beta National Biology Honors Fraternity 2019 Outstanding Advisor Award for the Northeastern Region III (4/2019)
- Early Career Mentoring Award from the Biology Division of the Council of Undergraduate Research (CUR) – Honorable Mention (11/2015)
- Mentoring Active Learning and Teaching” (MALT) Award for early career educators from the American Society for Cell Biology (11/2014) (included below in “Grants”)
- Student-Learning Assessment Award from the Duquesne University Office of the Provost for assessment of Department of Biological Sciences Mentoring program – Award to Drs Benedict Kolber and Joseph McCormick (10/2014)
- Mentor Award for Excellence in Advising Graduate Students from the Department of Biological Sciences, Duquesne University (4/2014)
- National Academies Education Fellow in the Life Sciences (2012 – 2013)
- Washington University Graduate School of Arts and Sciences Teaching Citation (2008)

III. Scholarship

A. Scholarly publications

Personal *h*-index (2005 – 2023) is 20 (20 articles have been cited at least 20 times) as of 2/1/2023
As of February 1, 2023: My publications have been cited 1714 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.

1. **Peer-reviewed publications based on work done at the University of Texas at Dallas**

^{UG} – Undergraduate author mentored; ^G – Graduate author mentored; ^{PD} – Post-doc author mentored;
^C – Corresponding author

- 1) 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](https://doi.org/10.3390/md21020110) *Equal contribution
- 2) 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](https://doi.org/10.1016/j.biopsych.2022.09.010). Note: Accepted for publication Fall 2022.
- 3) 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* (2022). doi: [10.1021/acsomega.1c05727](https://doi.org/10.1021/acsomega.1c05727). *Equal contribution
- 4) 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 (2021). Development and

- characterization of novel conductive sensing fibers for in vivo nerve stimulation. *Sensors* 21: 7581. doi: [10.3390/s21227581](https://doi.org/10.3390/s21227581)
- 5) 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*. doi: [10.1039/D1MD00285F](https://doi.org/10.1039/D1MD00285F)
 - 6) 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](https://doi.org/10.1371/journal.pcbi.1009097)
 - 7) 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](https://doi.org/10.1186/s12938-021-00870-y)
 - 8) 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](https://doi.org/10.1093/pm/pnaa403)
 - 9) 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](https://doi.org/10.1016/j.pneurobio.2020.101891)
 - 10) 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 (2020). Countermeasures for preventing and treating opioid overdose. *Clinical Pharmacology and Therapeutics*. 2021 Mar;109(3):578-590. doi: [10.1002/cpt.2098](https://doi.org/10.1002/cpt.2098)
 - 11) Lewter L^{PD}, Johnson M^{UG}, Treat A^{PD}, Kassick AJ, Averick S, **BJ Kolber^C** (2022). Slow-sustained delivery of naloxone reduces typical naloxone-induced precipitated opioid withdrawal effects in male morphine-dependent mice. *Journal of Neuroscience Research* (Accepted 2020) 100: 339-352. doi: [10.1002/jnr.24627](https://doi.org/10.1002/jnr.24627)
 - 12) Koroshetz WJ,... [+ 26 others including **Kolber BJ**] (2020). Framework for advancing rigorous research. *eLife* 9: e55915. doi: [10.7554/eLife.55915](https://doi.org/10.7554/eLife.55915)
2. **Peer-reviewed publications based on work done at Duquesne University**
^{UG} – Undergraduate author mentored; ^G – Graduate author mentored; ^{PD} – Post-doc author mentored; ^C – Corresponding author
- 13) 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](https://doi.org/10.1038/s41598-019-51247-0)
 - 14) Kassick AJ, Allen HA^G, Yerneni SS, Pary F, Kovaliov M, Cheng C, Praventoni M, Tomycz ND, Whiting DM, Nelson TL, Feasel M, Campbell PG, **Kolber BJ**, S Averick (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](https://doi.org/10.1021/acsabm.9b00380)
 - 15) Tseuguem PP, Ngangoum DAM, Pouadjeu JM, Piégang BN, Sando Z, **Kolber BJ**, Tidgewell KJ, TB Nguelefack^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](https://doi.org/10.1016/j.jep.2019.02.048). Epub 2019 Mar 5. PubMed PMID: 30849505.
 - 16) 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](https://doi.org/10.1371/journal.pone.0210418).

- 17) 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](https://doi.org/10.30707/spora5.1baktay); PMID: 30793094; PMCID: PMC6380509
- 18) 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-HT₇R) affinity modulates depression and anxiety-like behavior in mice. *Synapse* Nov;72(11):e22059. doi: [10.1002/syn.22059](https://doi.org/10.1002/syn.22059).
- 19) 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](https://doi.org/10.1177/1744806917743479).
- 20) 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](https://doi.org/10.1016/j.neurobiolaging.2017.04.010)
- 21) **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](https://doi.org/10.1097/j.pain.0000000000000843); PMID: 28141636
- 22) 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](https://doi.org/10.1097/j.pain.0000000000000830); PMID: 28225716
- 23) 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](https://doi.org/10.3791/54130).
- 24) 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 published online Nov 2016*, 51 (4): 412-426. Doi: [10.1080/00219266.2016.1257503](https://doi.org/10.1080/00219266.2016.1257503).
- 25) 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](https://doi.org/10.1016/j.physbeh.2016.08.009); PMID: 27520589
- 26) 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](https://doi.org/10.1097/PR9.0000000000000569)
- 27) 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](https://doi.org/10.1080/13880209.2016.1181659).1181659 PMID: 27181630 *Equal contribution
- 28) 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](https://doi.org/10.1016/j.juro.2015.10.198).
- 29) 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](https://doi.org/10.1371/journal.pone.0103524); PMID: 25061818; PMCID: PMC4111598
- 30) 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](https://doi.org/10.1021/cn500133b); PMID: 25003748 PMCID: PMC4176318
- 31) 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](https://doi.org/10.3791/51413).

- 32) 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](https://doi.org/10.1371/journal.pone.0079617); PMID: 24223980; PMCID: PMC3818235
- 33) 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](https://doi.org/10.1523/JNEUROSCI.1473-12.2012); PMID: 23055491 / PMCID: PMC3494864 ^{**Co-first authors}

3. Peer-reviewed publications based on work done prior to Duquesne University

^{UG} – Undergraduate author mentored; ^G – Graduate author mentored

- 34) 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](https://doi.org/10.3233/JAD-2011-111328); PMID: 22045495 / PMCID: PMC3494090.
- 35) 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](https://doi.org/10.1097/ALN.0b013e318238c051); PMID 22037639 / PMCID 3226928
- 36) 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](https://doi.org/10.1016/j.mce.2010.11.011); PMID 21094675 / PMCID 3172614
- 37) 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](https://doi.org/10.1371/journal.pbio.1000575); PMID 21264353 / PMCID 3019112
- 38) **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](#)
- 39) **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](https://doi.org/10.1523/JNEUROSCI.1216-10.2010); PMID 20554871 / PMCID2898903
- 40) **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](https://doi.org/10.1523/JNEUROSCI.4470-09.2010); PMID 20164342 / PMCID 2969849
- 41) **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](https://doi.org/10.1016/j.brainres.2009.03.061); PMID 19361487 / PMCID 2821940
- 42) **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](https://doi.org/10.1073/pnas.0803216105); PMID 18695245 / PMCID 2575312

Media coverage:

- Faculty of 1000 Biology – “Exceptional” Kolber et al, 2008 *Proceedings of the National Academy of Sciences* 105(33).

This manuscript is based on half of my Ph.D. dissertation research. I did over 90% of the experimental design, experiments, analysis, manuscript writing, and manuscript editing.

- 43) **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](https://doi.org/10.1080/10253890701821081); PMID 18609295 / PMCID 2744095
- 44) Boyle MP, **Kolber BJ**, Vogt SK, Wozniak DF & LJ Muglia (2006). Forebrain glucocorticoids receptors modulate anxiety-associated locomotor activation and adrenal responsiveness. *Journal Neuroscience* 26(7): 1971-1978. doi: [10.1523/JNEUROSCI.2173-05.2006](https://doi.org/10.1523/JNEUROSCI.2173-05.2006); PMID 16481429

4. *Invited and edited (non-peer reviewed) publications*

- 1) **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.
- 2) 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.
- 3) **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](#)
- 4) **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
- 5) 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](#)
- 6) 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](#)

B. Book Chapters

1. *Peer-reviewed book chapter based on work done at University of Texas at Dallas*

- 1) **BJ Kolber** & L Lewter (2020). Chapter 16: Alternative and complementary modulation. In R. E. Sorge (Ed.), *Dynamics of Pain*. Great River Learning. <https://uab.grlcontent.com/dynpain>

2. *Peer-reviewed book chapter based on work done at Duquesne University*

- 2) **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; PMID: 25744677

C. Grants awarded

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 "co-principal investigators" (co-PI). In cases where an investigator is not a lead, that person is typically called a "co-investigator" (co-I). Finally, for student research awards, the faculty sponsor and mentor is typically called "sponsor", "mentor", or "advisor." In such circumstances below, I have used the term "Faculty sponsor." All grants are peer-reviewed.

1. *Grants awarded while at The University of Texas at Dallas*

*Active

- 1) ***Title:** High content analgesic screening from human nociceptors
Years of funding: 2023-2026
Funding agency: National Institutes of Health (NCCIH)
Grant number: R61AT011938-01A1
Role: Principal Investigator, mPIs (Pancrazio, Dussor)
Budget: \$1,110,561 (estimated over three years)
Date Received: 1/2023
- 2) ***Title:** Probing the role of serotonin in neuropathic pain with flexible carbon microelectrode arrays
Years of funding: 2022 – 2027
Funding agency: National Institutes of Health (NINDS)
Grant number: R01NS126454-01
Role: co-Investigator, PI (Castagnola, University of Pittsburgh/Louisiana Tech)
Budget: \$446,027 to UT Dallas (\$300,761 direct to Kolber)
Date Received: 7/2022*

*Note: I am a sub-award on this grant. The grant was funded in July 2022 to Castagnola who was a Res Asst Prof at Pitt. The grant was started at Pitt but then transferred to LATech where Castagnola started as an Asst Prof in Aug 2022. Due to the quick switch of institutions, we decided to not start my sub-award until after the transfer. The transfer is still in process as of Feb 2023. Most of my award is in years 3-5 with only some summer salary in years 1-2. I will be responsible for Aim 3.
- 3) **Title:** ABRCMS Annual Meeting Judges Travel Award
Years of funding: 2022
Funding agency: Annual Biomedical Research Conference for Minoritized Scientists
Grant number: ABRCMS Annual Meeting Judges Travel Award
Role: Travel Award Recipient
Budget: \$1,500 plus conference registration
Date Received: 9/2022
- 4) **Title:** Covalent naloxone nanoparticles for next generation fentanyl countermeasures.
Years of funding: 2020 – 2022
Funding agency: NIH (NIDA)
Grant number: R21-DA050565
Role: co-Investigator (Averick PI)
Budget: \$31,461 to Kolber
Date Received: 5/2020 (Kolber funding start 12/2021)
- 5) ***Title:** Impact of amygdala lateralization on processing and modulation of bladder pain.
Years of funding: 2018 – 2023
Funding agency: NIH (NIDDK)
Grant number: 1R01-DK115478-01 A1
Role: Principal investigator
Budget: \$1,549,080 (\$1,195,690 direct to Kolber)
Date Received: 8/2018 (8/2019 Supplement to Promote Diversity in Health-Related Research)
- 6) **Title:** CNS drug discovery from the ocean: Utilizing cyanobacteria to treat comorbid pain and depression.
Years of funding: 2018 – 2021 (2022 NCE)
Funding agency: NIH NCCIH
Grant number: R15 AT008060-02
Role: co-Principal Investigator until 8/2020; co-Investigator from 8/2020 after moving to UT Dallas (co-PI Kevin Tidgewell)
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)

2. Grants awarded while at Duquesne University

- 7) **Title:** Understanding the role of the amygdala in chronic neuropathic pain.
Years of funding: 2020 – 2022
Funding agency: Commonwealth of Pennsylvania

Grant number: CURE Award

Role: Principal Investigator

Date submitted: 9/2019

Budget: \$54,376

Status: 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.

- 8) **Title:** A novel TRP modulator YB-2 to fight opioid crisis and treat chronic pain.
Years of funding: 2019 – 2020 (NCE 2021)
Funding agency: NIH (NIDA) SBIR
Grant number: 1R43-DA050405
Role: co-Investigator
Budget: \$73,587 to Duquesne (\$53,324 direct to Kolber)
Date Received: 9/2019
- 9) **Title:** Using ethnopharmacologic knowledge from Cameroon to develop novel Sigma 2 receptor agonists for pain treatment.
Years of funding: 2018 – 2019 (NCE 2022)
Funding Agency: International Association for the Study of Pain
Grant Number: 2018 IASP Collaborative Research Grant
Role: Principal Investigator (Tidgewell and Nguelefack co-I)
Budget: \$15,000
Date Received: 5/2018
- 10) **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.
Years of funding: 2017 – 2018
Funding agency: Clinical and Translational Science Institute, University of Pittsburgh and Virginia Kaufmann Foundation
Grant number: Pain Research Challenge
Role: co-Investigator (Ross PI)
Budget: \$75,000 (\$15,000 direct to Kolber)
Date received: 5/2017
- 11) **Title:** “Walking” OR Combining two known analgesic interventions (exercise & meditation) in a novel interaction study to treat patients with chronic pain.
Years of funding: 2017 – 2018
Funding agency: Clinical and Translational Science Institute, University of Pittsburgh and Virginia Kaufmann Foundation
Grant number: Pain Research Challenge
Role: co-Investigator (Kostek PI)
Budget: \$75,000 (\$42,000 direct to Kolber)
Date received: 5/2017
- 12) **Title:** A multi-continent collaboration in pain research and treatment: Using ethnopharmacological knowledge from Cameroon to develop novel pain treatments.
Years of funding: 2017 – 2018
Funding agency: Duquesne University Center for African Studies
Grant number: Rev. Alphons Loogman, C.S.Sp. Faculty Research Grant
Role: Principal Investigator
Budget: \$6,000
Date received: 4/2017
- 13) **Title:** Theranostic pain nanomedicines: Imaging inflammation, reducing pain and need for opioids.
Years of funding: 2015 – 2018
Funding agency: National Institutes of Health (NIDA)
Grant number: R21DA039621 CEBRA
Role: co-Investigator (Jelena Janjic PI)
Budget: \$330,000 (total costs); \$50,000 (direct costs to Kolber (not including over-head))
Date received: 4/2015

- 14) **Title:** Age dependent changes in amygdala signaling responsible for altered pain sensitivity.
Years of funding: 2016
Funding agency: Duquesne University Aging Research and Teaching Consortium
Grant number: ARTC Stimulator Program
Role: Faculty sponsor for graduate student Katelyn Sadler
Budget: \$2,250
Date received: 5/2016
- 15) **Title:** Development of an extensive active learning strategy for a large introductory science course.
Years of funding: 2015 – 2016
Funding agency: American Society for Cell Biology
Grant number: Mentoring Active Learning and Teaching”(MALT) Award for early career educators
Role: Primary Investigator
Budget: \$1,200
Date received: 11/2014
- 16) **Title:** A role for the amygdala in age-related increases in pain sensitivity.
Years of funding: 2014 – 2015
Funding agency: Duquesne Chronic Pain Research Consortium
Grant number: Research Stimulator Grant
Role: co-Principal Investigator (Jane Cavanaugh co-PI)
Budget: \$2,954 (direct to co-PI's)
Date received: 9/2014
- 17) **Title:** Cyanobacterial natural products to treat comorbid pain and depression.
Years of funding: 2014 – 2018
Funding agency: NIH NCCIH
Grant number: NCCIH R15 AT008060
Role: co-Principal Investigator (Kevin Tidgewell co-PI)
Budget: \$392,796 (total costs); \$150,000 (direct costs to Kolber (not including over-head))
Date received: 7/2014
- 18) **Title:** Chronic pain research consortium interdisciplinary award.
Years of funding: 2014 – 2017
Funding agency: Duquesne University Office of the Provost
Grant number: Provost's Interdisciplinary Research Consortia Grant
Role: co-Investigator (Jelena Janjic and John Pollock are co-PIs; Kevin Tidgewell is co-I)
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
- 19) **Title:** Managing pain: Testing the social aspects of exercise therapy using a multi-school collaborative approach with an animal model of muscle pain.
Years of funding: 2014 – 2018
Funding agency: Duquesne University
Grant number: Faculty Development Fund
Role: Principal Investigator
Budget: \$9,700 (\$4,850 direct to Kolber)
Date received: 5/2014
- 20) **Title:** Probing the role of hemispheric lateralization in the modulation of bladder pain.
Years of funding: 2013 – 2015
Funding agency: International Association for the Study of Pain (IASP) and Scan|Design Research Foundation
Grant number: Early Career Research Grant
Role: Principal Investigator
Budget: \$20,000 direct to Kolber
Date received: 4/2013
- 21) **Title:** Cyanobacterial natural products to treat comorbid pain and depression.
Years of funding: 2013 – 2015

Funding agency: Duquesne University
Grant number: Faculty Development Fund
Role: co-Investigator (Kevin Tidgewell PI)
Budget: \$10,000 (\$2,245 direct to Kolber)
Date received: 4/2013

22) Title: Cyanobacterial natural products to treat comorbid pain and depression.

Years of funding: 2013 – 2015

Funding agency: American Pain Society

Grant number: Sharon S. Keller Award in Chronic Pain

Role: Principal Investigator (Kevin Tidgewell co-I)

Budget: \$35,000 (\$19,500 direct to Kolber)

Date received: 04/2013

23) Title: Treating comorbid major depression and chronic pain with novel compounds that target both individual diseases.

Years of funding: 2012 – 2014

Funding agency: The Pittsburgh Foundation with the Jacob A. and Frieda M. Hunkele Charitable Trust for Research of Dreaded Diseases

Grant number: n/a

Role: Principal Investigator

Budget: \$6,000

Date received: 05/2012

3. Mentored grants awarded while at The University of Texas at Dallas

*Active

1) *Title: Sigma 2 receptor (TMEM97): Investigating the peripheral role of this novel therapeutic target for pain.

Years of funding: 2023 – 2026

Funding agency: NIH National Institute of Neurological Disorders and Stroke (NINDS)

Grant number: NINDS National Service Research Award (NRSA) F31 NS129269-A1

Role: Faculty Sponsor graduate student Veronica Hong

Budget: \$42,481 (year 1) (total direct costs to Hong)

Date received: 12/2022 (UT Dallas started funded 2/2023)

2) *Title: The impact of amygdala CGRP receptors on the development of persistent bladder pain.

Years of funding: 2022 – 2024

Funding agency: Burroughs Wellcome Fund

Grant number: Post-doctoral Diversity Enrichment Program (PDEP)

Role: Faculty Sponsor post-doc Lakiesha Lewter

Budget: \$60,000 (total direct costs to Lewter) (~\$10,000 for Kolber professional development)

Date received: 10/2022

3) *Title: Environmental modulation of maternal behavior and mesolimbic DA function.

Years of funding: 2022 – 2026

Funding agency: NIH National Institute of Mental Health (NIMH)

Grant number: K01MH128800

Role: Faculty Mentor to Neuro Asst Professor Rincón-Cortés

Budget: \$0 Direct to Kolber; All funds to support PI Rincón-Cortés

Date received: 5/2022

4) *Title: The impact of amygdala CGRP receptors on the development of persistent bladder pain.

Years of funding: 2021 – 2024

Funding agency: NIH National Institutes of Diabetes and Digestive and Kidney Diseases (NIDDK)

Grant number: NIDDK National Service Research Award (NRSA) F32DK128969-01

Role: Faculty Sponsor post-doc Lakiesha Lewter

Budget: \$199,170 (total direct costs to Lewter)

Date received: 9/2021

4. Mentored grants awarded while at Duquesne University

- 1) **Title:** Probing bladder pain physiology through the interrogation of specific cell types in the amygdala.
Years of funding: 2020 – 2023*
Funding agency: NIH National Institutes of Diabetes and Digestive and Kidney Diseases (NIDDK)
Grant number: NIDDK National Service Research Award (NRSA) F31DK124996-01A1
Role: Faculty Sponsor for graduate student Harley Bobnar
Budget: \$125,000 estimated* (total direct costs to Bobnar)
Date received: 4/2020*
*Note: Impact score = 16. Grant was selected for funding but Bobnar left the PhD program prior to official NOA (due to move from Duquesne to UT Dallas)
- 2) **Title:** Characterization of zymosan-induced bladder pain in female mice treated as both neonates and adults.
Years of funding: 2019 – 2020
Funding agency: Beta Beta Beta Biology Honors Society
Grant number: Undergraduate Research Award
Role: Faculty Sponsor for undergraduate student Olivia Babyok
Budget: \$600
Date received: 10/2019
- 3) **Title:** An agent-based model of pain-related neural activity in the amygdala.
Years of funding: 2019
Funding agency: National Institute for Mathematical and Biological Sciences
Grant number: NIMBioS Undergraduate Research Conference (URC) Travel
Role: Faculty Sponsor for undergraduate student Gabbie Majetic
Budget: \$674 (total direct costs to Majetic)
Date received: 10/2019
- 4) **Title:** Investigation of cell-type specific contributions to bladder pain modulation in the central amygdala.
Years of funding: 2019 – 2022
Funding agency: NIH National Institutes of Diabetes and Digestive and Kidney Diseases (NIDDK)
Grant number: NIDDK National Service Research Award (NRSA) F31DK12148401
Role: Faculty Sponsor for graduate student Heather Allen
Budget: \$126,678 (total direct costs to Allen)
Date received: 1/2019
- 5) **Title:** Investigating the role of amygdala kappa opioid receptors in the modulation of stress-induced pain.
Years of funding: 2018
Funding agency: American Physiological Society
Grant number: Undergraduate Summer Research Fellowship Program
Role: Faculty Sponsor to undergraduate Meeraal Zaheer
Budget: \$5,900 (\$300 direct to Kolber)
Date received: 4/2018
- 6) **Title:** Dose-dependent effect of moderate intensity exercise on sensitivity to pain in humans.
Years of funding: 2018
Funding agency: American Pain Society
Grant number: APS Young Investigator Travel Support Program
Role: Faculty Sponsor for graduate Anna Polaski
Budget: \$750
Date received: 12/2017
- 7) **Title:** Calcitonin Gene-Related Peptide: A potential origin of central amygdala lateralization to regulate bladder pain.
Years of funding: 2017
Funding agency: IES Brain Research Foundation
Grant number: IES Brain Research Foundation Summer Fellowship
Role: Faculty Sponsor for undergraduate Abigail Cox

- Budget:** \$2,500 (note – Money turned down but AC still included in fellowship program and all associated activities)
Date received: 4/2017
- 8) **Title:** Investigating presynaptic origins of central amygdala lateralization in bladder pain processing.
Years of funding: 2016 – 2017
Funding agency: Beta Beta Beta Biology Honors Society
Grant number: Undergraduate Research Award
Role: Faculty Sponsor for undergraduate Abigail Cox
Budget: \$1,000 direct to Kolber
Date received: 11/2016
- 9) **Title:** Age dependent changes in amygdala signaling responsible for altered pain sensitivity.
Years of funding: 2016
Funding agency: Duquesne University Aging Research and Teaching Consortium
Grant number: ARTC Stimulator Program
Role: Faculty Sponsor for graduate student Katelyn Sadler
Budget: \$2,250
Date received: 5/2016
- 10) **Title:** Understanding the persistent physiological mechanisms of interstitial cystitis/bladder pain syndrome.
Years of funding: 2016 – 2017
Funding agency: American Physiological Society
Grant number: Undergraduate Summer Research Fellowship Program
Role: Faculty Sponsor for undergraduate Abigail Cox
Budget: \$5,900 (\$300 direct to Kolber)
Date received: 3/2016
- Media coverage:
- “Duquesne Chronic Pain Research Consortium Undergraduate Wins National Fellowship” *Duquesne University News* 4/6/2016 <http://duq.edu/news/duquesne-chronic-pain-research-consortium-undergraduate-wins-national-fellowship>
 - “Newsmaker: Abigail Cox” *Trib Live* 4/8/2016 <http://triblive.com/mobile/10206846-96/cox-pain-biology>
- 11) **Title:** Analysis of sex-based differences in a mouse model of stress-induced analgesia.
Years of funding: 2015
Funding agency: Council for Undergraduate Research (CUR)
Grant number: Biology Division Travel Award
Role: Faculty Sponsor for undergraduate Caela Long
Budget: \$250
Date received: 9/2015
- 12) **Title:** Effects of central amygdala lateralization on descending control of bladder pain.
Years of funding: 2014 – 2017
Funding agency: NIH National Institutes of Diabetes and Digestive and Kidney Diseases (NIDDK)
Grant number: NIDDK National Service Research Award (NRSA) F31DK104538-01
Role: Faculty Sponsor for graduate student Katelyn Sadler
Budget: \$113,925 (total direct costs to Sadler)
Date received: 9/2014
- 13) **Title:** Managing pain: Testing the dosing and social aspects of exercise therapy using animal models.
Years of funding: 2014
Funding agency: Irene and Eric Simon Brain Research Foundation
Grant number: Summer Fellowship Program
Role: Faculty Sponsor for undergraduate Austin Ramsey
Budget: \$2,500
Date received: 4/2014

- 14) **Title:** Modulation of depression and pain through the biochemically active properties of compounds within marine cyanobacteria.
Years of funding: 2013 – 2014
Funding agency: Beta Beta Beta Biology Honors Society
Grant number: Undergraduate Research Award
Role: Faculty Sponsor for undergraduate Christopher Ignatz
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
- 15) **Title:** Understanding the physiology of bladder pain through a UTI model in mice.
Years of funding: 2012 – 2013
Funding agency: American Physiological Society
Grant number: Undergraduate Summer Research Fellowship Program
Role: Faculty Sponsor for undergraduate Jarred Stratton
Budget: \$5,600 (\$300 direct to Kolber)
Date received: 4/2012

5. **Grants pending (under review and/or consideration for funding)**

- 1) **Title:** Impact of amygdala lateralization on processing and modulation of bladder pain.
Years of funding: 2023 – 2028
Funding agency: NIH NIDDK R01
Role: Principal Investigator
Date submitted: Fall 2022
- 2) **Title:** Tools and methods for evaluating mechanisms of cannabis constituents for analgesia and antinociception
Years of funding: 2023 – 2028
Funding agency: NIH NIDA R01
Role: Principal Investigator (mPI Baker and Leahy)
Date submitted: Fall 2022
- 3) **Title:** Crossroads: Using decision making strategies to develop high impact content for training in rigor and transparency.
Years of funding: 2023 – 2026
Funding agency: NIH NINDS U05
Role: Principal Investigator (mPIs Brody and Ybarra)
Date submitted: Fall 2022
- 4) **Title:** North Texas Kidney, Urology, and Hematology Training Grant.
Years of funding: 2023 – 2026
Funding agency: NIH NIDDK KUH Program Project Grant
Role: co-Investigator on Training Core; co-Investigator on Administrative Core (PI Vishal Patel UTSW)
Date submitted: Fall 2022
- 5) **Title:** Planning study for the development of Sigma 2 ligands as analgesics.
Years of funding: 2023 – 2025
Funding agency: NIH NIDA R61NS127271-A1
Role: Principal Investigator (mPI Tidgewell)
Date submitted: Summer 2022
Impact score and status: Impact score: 42; Asked for a rebuttal; under consideration.
- 6) **Title:** Planning study for the development of Sigma 2 ligands as analgesics.
Years of funding: 2023 – 2025
Funding agency: NIH NINDS R15 NS128624-01A1
Role: co-Investigator (PI Neilan Duquesne University)
Date submitted: Summer 2022

Impact score and status: Impact score: 37 (25%); Asked for a rebuttal; under consideration.

6. Grants awarded prior to Duquesne University

- 1) **Title:** Cellular and molecular mechanisms underlying amygdala-dependent pain modulation.

Years of funding: 2010 – 2011

Funding agency: NIH NINDS

Grant number: F32 NS067761-01

Role: Principal Investigator (Robert Gereau faculty advisor)

Budget: \$87,070

Date received: 2/2010

- 2) **Title:** Amygdala GR function in stress activation and promotion.

Years of funding: 2006 – 2008

Funding agency: NIH NIMH

Grant number: F31 MH075250-03

Role: Principal Investigator (Louis Muglia faculty advisor)

Budget: \$80,373

Date received: 7/2006

- 3) **Title:** Methods of aquaporin homeostasis: A link between aquaporins and RAS-mediated AVP regulation

Years of funding: 2002

Funding agency: American Physiological Society (Carissa Krane faculty advisor)

Grant number: Undergraduate Summer Research Fellowship Program

Role: Undergraduate Investigator

Budget: \$6,500

Date received: 4/2002

7. Research Workshops

- 1) **Title:** NIDDK “Early Investigator” Workshop

Workshop dates: 04/2022

Funding agency: National Institutes of Health (NIDDK)

Role: First time R01

Budget: NA (virtual workshop)

Date received: 04/2022

- 2) **Title:** 2021 Yale University Innovation to Impact

Workshop dates: 08/2021 – 10/2021

Funding agency: National Institutes of Health and Yale University

Role: Start-up Entrepreneur

Budget: Funding for participation (virtual due to Covid-19)

Date received: 8/2021

I applied for and was accepted to this competitive start-up development workshop.

- 3) **Title:** Southwest Regional NSF ICorps Workshop

Workshop dates: 06/2021

Funding agency: National Science Foundation

Role: Start-up Entrepreneur

Budget: Funding for participation (virtual due to Covid-19)

Date received: 6/2021

I applied for and was accepted to this competitive start-up development workshop and was encouraged to apply for the national workshop. We did not apply for the national because we decided to not move forward with our business.

- 4) **Title:** Training in Neurotherapeutics Discovery and Development for Academic Scientists

Workshop dates: 02/2021

Funding agency: National Institutes of Health (NINDS)

Role: Student

Budget: Funding for participation (virtual due to Covid-19)

Date received: 12/2020

I applied for this competitive workshop by submitting a grant proposal and CV. I was one of ~30 “students” in the week long workshop which included top pharmaceutical and academic drug discovery scientists.

8. Grants submitted but not awarded at University of Texas at Dallas and Duquesne University

A separate document is available by request.

D. Scholarly presentations at international, national, regional, and local meetings

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 uncommon 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 of a competitive application process, I have indicated as such below.

1. Presentations based on work done at the University of Texas at Dallas

^{PD} - Post-doc mentored; ^{UG} – Undergraduate mentored; ^G – Graduate mentored; ^{HS} – High school student mentored; Presenter of data

- 1) 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.” Poster presentation at the Mathematical Association of America MathFest 2022, August 2022.

Outstanding Poster Award

- 2) Anandan I^{UG}, Hong V^G, Allen H^G, Chatterjee U^G, & **Kolber BJ** (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).
- 3) Bhaskara A^{UG}, Ploski J, & **Kolber BJ** (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).
- 4) Hussein M^{UG}, Morales A^{UG}, Averick S, & **Kolber BJ** (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

- 5) Morales A^{UG}, Criswell Connor, Nguelefack T, & **Kolber BJ** (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

- 6) Avaneesh R^{UG}, Hong V^G, Liebl D, Yousef S, Price T, & **Kolber BJ** (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).
- 7) Widner A^{UG}, Lewter L^{PD}, Allen H^G & **Kolber BJ** (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

- 8) Reith C^{UG}, Neilan R, & **Kolber BJ** (2022). "Predicting pain using a computational model of neural activity." Poster presentation at the Undergraduate Research Program Symposium Duquesne University, July 2022 (Abstract 127).
- 9) Lewter L^{PD} & **Kolber BJ** (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.
- 10) **Kolber BJ** (2022). "Positive and negative gating of bladder pain by the amygdala." Invited oral presentation at the Gulf Coast Consortia Translational Pain Research Conference, Houston, TX, April 2022.
- 11) 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.
- 12) Allen H^G & **BJ 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).
- 13) 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.
- 14) 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.
- 15) Babyok^{UG}, Allen H^G & **BJ 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

- 16) Allen H^G & **BJ 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).

2. Presentations based on work done at Duquesne University

^{UG} – Undergraduate author mentored; ^G – Graduate author mentored; ^{HS} – High school student mentored; Presenter of poster

- 1) Babyok O^{UG}, Allen H^G, & **BJ 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.
- 2) Majetic G^{UG}, Neilan R, Adke A, Carrasquillo y & **BJ 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

- 3) 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.

- 4) Allen H^G, Cox A, & **BJ 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).
- 5) Pum Tseuguem P, Mougua Ngangoum AD, Tsague Kenfack M, Kolber BJ, Tidgewell KJ, & TB Nguetefack (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).
- 6) 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.
- 7) **Kolber BJ** (2019). "The implications of a longer-lasting Narcan." Invited oral presentation at the First Integrative Health Summit at Duquesne University, Pittsburgh PA, Oct 2019.
- 8) Majetic G^{UG}, Neilan R, Adke A, Carrasquillo y \$ **BJ 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).
- 9) 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).
- 10) 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).
- 11) 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).
- 12) 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 and invited oral presentation at the Duquesne University Undergraduate Research Program Symposium in Pittsburgh, PA July 26, 2019 (#154).
- 13) 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.
- 14) 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)

- 15) 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.
- 16) **BJ Kolber** (2019). "Neuromodulation of Bladder Pain by the Central Amygdala: Implication of Basic Sciences Findings on Imaging Data from Patients." 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.

- 17) 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)

- 18) 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.
- 19) 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).
- 20) 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).
- 21) Lopez A^{UG}, Donkeng J, Nguetefack 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).
- 22) Zaheer M, 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).
- 23) 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).
- 24) 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)

- 25) 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).
- 26) 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).
- 27) 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).

- 28) 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.
- 29) 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

- 30) 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).
- 31) 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).
- 32) 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 (\$25).

- 33) 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).

PURE/NURE Reviewed Abstract Award – Won 2nd place prize for blinded peer-reviewed abstract (\$25).

- 34) 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).
- 35) 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).
- 36) 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.
- 37) 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.
- 38) 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.

Winner of the “Best in Show: Basic Science Poster” at the American Pain Society Annual Meeting.

- 39) 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.
- 40) 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.
- 41) 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)

- 42) 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). Poster presentation at the American Physiological Society Experimental Biology Meeting, Chicago, IL April 2017 (#D23 812.8).

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

- 43) 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).
- 44) 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.
- 45) Sadler K^G & **Kolber B** (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)

- 46) **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).
- 47) 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.
- 48) 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.
- 49) 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).

- 50) **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).
- 51) **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).
- 52) **Sadler K^G** & **BJ Kolber** (2016). "Opposing roles of the left and right central amygdala in bladder pain modulation." Oral presentation at the "Clinical and Basic Science Data Blitz" at the American Pain Society Annual Meeting in Austin, TX, May 11, 2016. Presentation proposal was chosen in a competitive peer-reviewed process.

Presentation won "Best Data Blitz Presentation"

- 53) **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 BSNE Poster Award (\$100)

- 54) **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).

Recipient of Undergraduate Travel Award from ASPET (\$1000)

- 55) **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.
- 56) **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.
- 57) **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>
- 58) **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.
- 59) **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)

- 60) **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.

- 61) 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.
- 62) 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).
- 63) 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).
- 64) 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.

Travel award from the Council for Undergraduate Research (\$250)

- 65) 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.
- 66) 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.
- 67) 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.

Poster won the best Predoctoral Poster prize at the retreat

- 68) 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.

Poster won 2nd Place Poster prize at the symposium

- 69) 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.

Poster won the best Predoctoral Poster prize at the retreat (\$250)

- 70) 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.
- 71) 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.
- 72) 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.

- 73) 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).
- 74) 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).

Poster given special central location for presentation

- 75) 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).
- 76) 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).
- 77) 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).
- 78) 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).
- 79) 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).
- 80) 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.

Gulli awarded a first place prize for poster

- 81) 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).
- 82) 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).
- 83) 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.
- 84) 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.
- 85) 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.

- 86) 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.
 - 87) 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.
 - 88) 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.
 - 89) **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.
 - 90) **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.
 - 91) 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.
 - 92) 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)*
- 93) 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)

- 94) Ahmed KhT, Lax N^G, **Kolber BJ** & KJ Tidgewell. "5-HT_{2c} GPCR Ligand from a Panamanian Cyanobacterium." Poster presentation at the Pittsburgh Bacterial Meeting, Pittsburgh, PA, March 8, 2014.
- 95) 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).
- 96) 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).

- 97) 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).
- 98) 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.
- 99) 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.
- 100) **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.
- 101) 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.
- 102) 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.
- 103) 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.
- 104) 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).
- 105) 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.
- 106) 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.
- 107) **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).
- 108) 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.
- 109) 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.
- 110) 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.

- 111) **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.

3. ***Presentations based on work done prior to Duquesne University***

^{UG} – Undergraduate author mentored; ^G – Graduate author mentored; Presenter of poster

- 1) **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).
- 2) 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.
- 3) **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.
- 4) **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.
- 5) **Kolber BJ** (2011). "Modulation of somatic versus visceral sensation by the amygdala." Oral presentation at the 2011 Midwest Pain Interest Group Meeting in Chicago, IL, July 23, 2011.
- 6) **Kolber BJ** (2010). "Activation of the amygdala in mice induces pain-like behavior in the absence of any tissue injury." Oral presentation at the 2010 Washington University Annual Neuroscience Retreat at Pere Marquette Lodge, IL, Sept 24, 2010.
- 7) **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.
- 8) 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.
- 9) **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).
- 10) 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.
- 11) **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.
- 12) **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).
- 13) **Kolber BJ** (2006). "Amygdala glucocorticoid receptor function in mediating fear-based learning." Selected for oral presentation at the 2006 Washington University Annual Neuroscience Retreat at Trout Lodge, MO, Oct 6, 2006.

- 14) **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).
- 15) **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.
- 16) **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.
- 17) **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.

E. Invited scholarly presentations

1. Seminars based on work done at The University of Texas at Dallas

- 1) UT Dallas Scholars Day seminar, Fall 2022
Seminar entitled "An evolution in pain: New perspectives on the left vs right brain in pain."
- 2) 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."
- 3) 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."
- 4) NIDDK Neurourology: 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."
- 5) UT Dallas Summer Platform for Undergraduate Research (SPUR) Keynote Lecture, July 2022
Seminar entitled "Reproducibility and opportunity."
- 6) KeyBank Corp Thrive Week, Invited Lecture, June 2022
Seminar entitled "Where brain meets body: Where stress meets pain."
- 7) 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."
- 8) 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."
- 9) 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"
- 10) 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."
- 11) 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."

2. Seminars based on work done at Duquesne University

- 1) 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."
- 2) 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."
- 3) Department of Anesthesiology, Stonybrook University Medical School, Spring 2020
Seminar entitled "Divergent functions of the left and right amygdala in visceral pain."
- 4) Center for Neuroscience, Jikei Medical University, Spring 2020
Seminar entitled "Kolber laboratory for integrative pain studies."
- 5) 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."
- 6) National Institute of Physiological Sciences (NIPS), Pain Survival Conference Okazaki, Japan, Spring 2020
Seminar entitled "Role of amygdala CGRP in bladder pain."
- 7) 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."
- 8) Department of Anesthesiology, University of Kansas Medical Center (KUMC), Fall 2019
Seminar entitled "Divergent functions of the left and right amygdala in visceral pain."
- 9) 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."
- 10) Department of Neurobiology, University of Pittsburgh School of Medicine Seminar, Fall 2018
Seminar entitled "Divergent functions of the left and right amygdala."
- 11) School of Pharmacy Speaker Series, Duquesne University, Fall 2018
Seminar entitled "Divergent functions of the left and right brain in the control of pain."
- 12) Resident Life Seminar, Duquesne University, Fall 2018
Seminar entitled "Stress and anxiety."
- 13) Mt. Lebanon Public Library Seminar Series, Pittsburgh, PA Fall 2018.
Invited member of panel discussion on "Alternative treatments for chronic pain: Panel discussion."
- 14) Dept of Biological Sciences, Duquesne University, Department Retreat, 2018
Seminar entitled "Using calcium imaging to identify novel therapeutic effects from Cameroonian natural products."
- 15) Center for Pain Research, University of Pittsburgh, Pittsburgh, PA Spring 2018.
Seminar entitled "Exploration of Exercise Analgesia in Humans."
- 16) Dept of Zoology, University of Buea, Buea, Cameroon Summer 2017.
Seminar entitled "Using optogenetics to manipulate neurons with light."
- 17) Dept of Animal Behavior, University of Dschang (Universite de Dschang), Dschang, Cameroon Summer 2017. Seminar given with Dr. Kevin Tidgewell (Pharmacy).
Seminar entitled "Utilizing marine cyanobacteria as a novel source of psychoactive compounds to treat depression and pain."

- 18) Pain Research Forum (www.painresearchforum.org), Summer 2017.
Invited member of "Webinar: Chronic Pelvic Pain."
- 19) Dept of Neuroscience, University of Cincinnati, Cincinnati, OH Spring 2017.
Seminar entitled "Divergent functions of the left and right amygdala in bladder pain."
- 20) Dept 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."
- 21) 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."
- 22) Dept 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."
- 23) Dept 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."
- 24) Rutgers Department of Genetics. Rutgers The State University of New Jersey, New Brunswick, NJ, Spring 2015. "Pain in the brain: Lateralization of the central amygdala in the modulation of pain."
- 25) 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."
3. ***Seminars based on work done prior to Duquesne University***
 - 1) Dept of Pediatric Neurology. Washington University in St. Louis, St. Louis, MO, Spring 2011.
Seminar entitled "Tips for giving effective professional presentations."
 - 2) Dept of Biomedical Sciences. Marquette University, Milwaukee, WI, Spring 2011. Seminar entitled "Pain in the brain: Evidence for central nervous system control of pain."
 - 3) Dept of Biological Sciences. Depaul University, Chicago, IL, Spring 2011. Seminar entitled "Pain in the brain: Evidence for central nervous system control of pain."
 - 4) Zoology Dept. Oregon State University, Corvallis, OR, Spring 2011. Seminar entitled "Pain in the brain: Evidence for central nervous system control of pain."
 - 5) Psychology Dept. Western New England College, Springfield, MA, Spring 2011. Seminar entitled "Pain in the brain: Evidence for central nervous system control of pain."
 - 6) Psychology Dept. Northeastern University, Boston, MA, Spring 2011. Seminar entitled "Pain in the brain: Evidence for central nervous system control of pain."
 - 7) 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."
 - 8) Dept of Biological Sciences. Duquesne University, Pittsburgh, PA, Fall 2010. Seminar entitled "Pain in the brain: Evidence for central nervous system control of pain."
 - 9) 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."
 - 10) 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."
 - 11) Developmental Biology Dept. Washington University in St. Louis, St. Louis, MO, Spring 2008.
Seminar entitled "Central amygdala glucocorticoid receptor action promotes fear conditioning."

F. Works in progress

- 1) Lewter^{PD}, Narasov N^{UG}, Dussor G, & **B Kolber** (2023). "Metanalysis of CGRP animal studies for migraine." (*In preparation*).

G. Scholarship awards/citations

- Duquesne University Presidential Award for Excellence in Scholarship (2019)
- Duquesne University Bayer School for Natural and Environmental Sciences Award for Excellence in Scholarship (2019)
- Duquesne University Research Hall of Fame Inductee (2019)
- National Institutes of Health (NIH) Early Career Reviewer (ECR) Program (applied 2012; selected for program 2016) (included below in "Service")
- International Association for the Study of Pain and Scan|Design Foundation by Inger and Jens Bruun Early Career Investigator Award (2013-2015) (included above in "Grants")
- National Institutes of Health (NINDS) Ruth L. Kirschstein Postdoctoral NRSA Fellowship (2/2010 – 11/2011) (included above in "Grants" and "Professional Preparation")
- Washington University John Merlie Travel Fellowship (2009)
- Society for Neuroscience Chapter Graduate Student Travel Award (2007)
- National Institutes of Health (NIMH) Ruth L. Kirschstein Predoctoral NRSA Fellowship (7/2006 – 10/2008) (included above in "Grants" and "Professional Preparation")
- Lucille P. Markey Special Emphasis Pathway in Human Pathobiology Fellow (2004 – 2005)
- University of Dayton Bro. Dean Leonard Mann Award to the Outstanding Graduate in the School of Arts and Sciences (2003) (included above in "Professional Preparation")
- University of Dayton John E. Dlugos, Jr. Memorial Award of Excellence to the Outstanding Senior Major in Biology (2003) (included above in "Professional Preparation")
- 2002 American Physiological Society Undergraduate Summer Research Award (2002)
- University of Dayton Cordell W. Hull International Fellow Award for social psychology research in Cameroon, Africa (2002)
- University of Dayton Leopold W. Like, MD Scholars Award (2002)
- University of Dayton Learn, Lead and Serve Award for undergraduate research (2001)
- University of Dayton Pat Gilbert Scholarship (2000)
- University of Dayton Scholars Program (1999 – 2003)
- Dayton Area Academic Scholarship (1999)
- Purdue University Junior Scholar Biology Award (1998)

H. Additional media coverage of, or related to, scholarship (since 2011)

- *Research Earns Diversity Enrichment Fellowship*, UT Dallas news 8/26/2021
<https://news.utdallas.edu/students-teaching/accolades-aug-2022/>
- *Neuroscientist Wins NIH Fellowship, Shines as Researcher, Mentor* in UT Dallas news 5/21/2021
<https://news.utdallas.edu/students-teaching/nih-fellowship-researcher-2021/>
- *Message Received: Looking for the cells in the brain that receive pain signals from the bladder.* Valkanas, M. (2019). Message Received: Looking for the cells in the brain that receive pain signals from the bladder. *D.U. Quark*, 4 (1). Retrieved from <https://dsc.duq.edu/duquark/vol4/iss1/3>
- *Exercise Can Help Reduce Chronic Pain, Researchers Say* on National Public Radio *Morning Edition* 9/9/2019 <https://www.npr.org/templates/transcript/transcript.php?storyId=758943492>;
<https://www.npr.org/sections/health-shots/2019/09/23/754869132/exercising-to-ease-pain-taking-brisk-walks-can-help>
- *Right brain or left brain? Both sides may hold key to treating chronic pain: Professor's NIH-funded study will examine the role of emotions in chronic pain* in Duquesne University Magazine Fall 2019 (9/9/2019)

- Next-generation single-dose antidotes for opioid overdoses in the ACS News Release as part of the 2019 ACS meeting 4/1/19
<https://www.acs.org/content/acs/en/pressroom/newsreleases/2019/april/next-generation-single-dose-antidotes-for-opioid-overdoses.html>
- Duquesne researchers receive \$1.5M grant to study link between emotions and physical pain in the TribLive 3/12/19 <https://triblive.com/news/health-now/duquesne-researchers-receive-1-5m-grant-to-study-link-between-emotions-and-physical-pain/>
- New Duquesne Study Explores the Impact of Emotion on Pain in Duquesne University Times 3/13/2019 <https://applications.duq.edu/times/2019/03/13/new-duquesne-study-explores-the-impact-of-emotion-on-pain/>
- A Neural Ensemble in the Amygdala Makes Pain Unpleasant in the Pain Research Forum; 3/7/2019 Quoted for article. <https://www.painresearchforum.org/news/111850-neural-ensemble-amygdala-makes-pain-unpleasant>
- “APS Awards \$299,550 to Its 2018 Undergraduate Research Fellows” *American Physiological Society Press Release* 5/30/2018
- “Pharmacognosy Field Notes: Random Encounter Leads to Cameroon Adventure” *American Society of Pharmacognosy Fall 2017 Newsletter Vol 53 Issue 3* 10/24/2017 written by: Dr. Kevin Tidgewell
- “2017 Distinguished Dissertation Award Winners Announced” *Duquesne University Times* 6/28/2017 <https://applications.duq.edu/times/2017/06/2017-distinguished-dissertation-award-winners-announced/>
- “National Funding Continues to Support Doctoral Biology Student” *Duquesne University Times* 10/28/2015 <http://applications.duq.edu/times/2015/10/national-funding-continues-to-support-doctoral-biology-student/>
- “A week in Curacao, a year of analysis for Chronic Pain Research members” *Duquesne University Times* 8/12/2015 <http://applications.duq.edu/times/2015/08/a-week-in-curacao-a-year-of-analysis-for-chronic-pain-research-members/>
- “Pain response may differ in males, females” CBS News 6/30/2015 <http://www.cbsnews.com/news/pain-responses-differ-gender-male-female/>
- “Duquesne Summer Program hits record turnout” 6/9/2015 http://www.icontact-archive.com/J0IA9rS2048SGwaCDHxk_0SLuPRJTYSa?w=4
- “Summer Undergraduate Research Program Hits Historic High” *Duquesne University Times* 6/3/2015 <http://applications.duq.edu/times/2015/06/summer-undergraduate-research-program-hits-historic-high/>
- *Pain Research Forum* “Closing the sex gap in preclinical pain research.” 5/27/2015; contribute quote as moderator and lead for debate at the American Pain Society
- MedScape “Abuse Risk Evaluation Changes Opioid Prescribing” 5/15/2015; contributed quote as moderator of American Pain Society symposium <http://www.medscape.com/viewarticle/844734>
- University of Dayton Department of Biology Alumni Profile 4/29/2015
- “Duquesne Undergrad Recognized with Prestigious Science Award” *Duquesne University Times* 3/18/2015 <http://applications.duq.edu/times/2015/03/duquesne-undergrad-recognized-with-prestigious-science-award/>
- “Faculty Recognized for Excellence in Student-Learning Assessment” *Duquesne University Times* 12/17/2014 <http://applications.duq.edu/times/2014/12/faculty-recognized-for-excellence-in-student-learning-assessment/>
- “Hempfield Grad Making Her Mark in Health Research” *TribLive* 12/11/2014 <http://triblive.com/neighborhoods/yourhempfield/yourhempfieldmore/7296609-74/research-sadler-award#axzz3Lqg27IV5>
- “University Garners First NIH NRSA Fellowship for Graduate Student” *Duquesne University Times* 11/13/2014 <http://applications.duq.edu/times/2014/11/university-garners-first-nih-nrsa-fellowship-for-graduate-student/>
- Contributed content to article “The Science of Scare” in *The Duquesne Duke* newspaper <http://www.duqsm.com/the-science-of-scare/> 10/30/2014
- “Chronic pain research consortium explores pain and its impact on everyday lives” in *The Pittsburgh Catholic Senior Living Supplement* by Karen Ferrick-Roman 10/24/2014
- “Unraveling the mysteries of pain.” *Duquesne University Magazine* Fall 2014

- Interview for People Behind the Science podcast. 033: Dr. Ben Kolber: “No Pain, No Gain in the Research of Chronic Pain Mechanisms.” <http://www.peoplebehindthescience.com/dr-ben-kolber/#more-304> 5/8/2014
- “Member spotlight: Benedict J. Kolber, Ph.D.” *American Pain Society September E-News* (Monthly newsletter for the American Pain Society). September 2013
- “Bayer School Students Engaged with Research.” *Spectrum* (Newsletter for Bayer School of Natural and Environmental Sciences). Spring 2013
- “Summer workshop will help students think like scientists.” *Spectrum* (Newsletter for Bayer School of Natural and Environmental Sciences). Winter 2012
- “Biology department welcomes new professor, Dr. Benedict Kolber.” *Spectrum* (Newsletter for Bayer School of Natural and Environmental Sciences). Fall 2012
- “National fellowship funds Duquesne undergraduate researcher of chronic pain.” *Duquesne University Newsroom* May 7, 2012

IV. Service

A. Service at University

University of Texas at Dallas

1. **University-Wide Service**

- 1) Initiated and developed the inaugural 2022 Summer Platform for Undergraduate Research (SPUR) summer symposium for UT Dallas undergraduate students. Serve as organizing chair 2022 – Present.

2. **Eric Jonnson School of Engineering**

- 1) Judge of BEREU summer research posters, 7/2021.

3. **School of Behavioral and Brain Sciences (BBS) service**

- 1) Volunteer to give tour of BSB for incoming Dallas College UTD transfer students (n=20 in two groups), 12/2022.
- 2) Co-Director of Enhancing NeuroScience Undergraduate Research Experience (ENSURE) program (note also listed in above sections).
- 3) Chair of BBS Website redesign committee, 4/2021 – 12/2022.

4. **Department of Neuroscience service**

- 1) Program Director of Systems and Cellular Neuroscience Track in Cognition and Neuroscience PhD program, 8/2021 – Present. Note: Listed above in positions section.
 - i. Recruited at ABRCMS and SFN conference for PhD program, Fall 2022.
- 2) Graduate School Admissions Committee Member, 12/2020 – 8/2021 (Chair Dr. Catherine Thorn).
- 3) Redesign of Systems Neuroscience Website with Dr. Catherine Thorn, 8/2020 – 9/2020.

5. **Center for Advanced Pain Studies**

- 1) Faculty member and member of executive committee for CAPS, 8/2020 – Present.
 - i. Gave tour to anonymous donor for new post-doc fellowship, Spring 2023.

Duquesne University

1. **Department of Biological Sciences service**

- 1) Review nominations for the BSNE Top Undergraduate Award and Mitch Johnson Award for Outstanding Service, 4/2019.
- 2) 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.
- 3) Member of “Graduate Program Committee,” 1/2017 – Present.
- 4) Committee chair for “First Year Graduate Student Qualifying Exam Committee,” 3/2016 – 7/2016.
- 5) Committee chair “Department Retreat Planning Committee,” 1/2015 – Present. 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.
- 6) Departmental mentoring program assessment, revision, and training, 8/2012 – Present.
- 7) Member of Annual Chair Review Committee, 1/2014 – 5/2014.
- 8) Committee chair for “First Year Graduate Student Qualifying Exam Committee,” 3/2012 – 6/2012.

- 9) Hosted 14 external scholarly seminars or lectures, 9/2012 – Present.
- 10) Member of “Teaching Schedule Committee,” 1/2012.
- 11) Gave seven individual tours or meetings with prospective undergraduates, 2011 – Present.

2. Bayer School of Natural and Environmental Sciences service

- 1) Represented the Department of Biological Sciences at “Duquesne Fest” 6/14/2015.
- 2) Presented and gave laboratory tours at “Science Preview Day” 2/2012, 2/2013, 2/2014, 2/2015, 2/2016.
- 3) Judge for Undergraduate Research and Scholarship Symposium at Duquesne 4/2013.

3. University service

- 1) Organized and coordinated University-wide Personal Protection Equipment (PPE) collection and donation of PPE to local hospitals and clinics for Covid-19 crisis (2020).
- 2) Served on Duquesne University “President’s Faculty Awards for Excellence” nomination and selection committee Spring 2020
- 3) Served on the Duquesne School of Osteopathic Medicine dean’s search Fall 2019
- 4) Member of Center for African Studies Faculty Advisor Board, 3/2019 – Present
- 5) 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).
- 6) 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.
- 7) Undergraduate Scholarship and Research Symposium Advisory Committee, since 10/2016.
- 8) 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.
- 9) Reviewer for Aging and Teaching Research Consortium Stimulator Grant submissions, 4/2016.
- 10) Faculty mentor for Summer URP program Ethics Forum 6/2013, 6/2014.
- 11) Reviewer for Hunkele Research Grant submissions, 4/2013.
- 12) Moderator for the Summer Undergraduate Research Symposium Oral Presentations, 7/2012.
- 13) Webmaster for Chronic Pain Research Consortium, 1/2012 – Present.
- 14) Coordinator of monthly Pain Journal Club for Chronic Pain Research Consortium, 1/2012 – Present.

B. Community service (since 12/2011)

- 1) 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.
- 2) Organized lab volunteer activity through the Duquesne University Spring Clean-up (3 total people), 4/2017.
- 3) Organized volunteer outing with Habitat for Humanity for my laboratory group (14 total people), 7/2014, 7/2015.
- 4) Judge for Pennsylvania Junior Academy of Science, 2/2014, 2/2015, 2/2016.
- 5) Volunteer for BikePGH “Bike to Work Day,” 5/2013.
- 6) Volunteer for “Tar and Feather Event” at Pittsburgh Distilling Co, 2012 – 2013.

C. Professional service (since 12/2011)

1. Frontiers Journals – Systems Neuroscience

- Review Editor (2020-present)

2. National Academies of Science, Engineering, and Medicine

- 1) 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*

3. National Institutes of Health (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).

4. NIH Study Section Ad-Hoc Reviewer (Continuing submission status eligible)

- 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 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.

5. University of Wisconsin NIH Review Study Section Reviewer

- Reviewed grants (3) for UW study to evaluate efficiency of NIH review process (March 13, 2017).

6. 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.

7. Reviewer of scientific manuscripts – Each manuscript ~ 3 hours of work

- Reviewed >75 manuscripts (12/2011 – Present) for the following journals: Journal of Neuroscience (13); Journal of Neurophysiology (2); Pharmacology, Biochemistry, and Behavior (1); Neuropharmacology (5); PLoS ONE (3); Frontiers in Behavioral Neuroscience (1); European Journal of Pain (5); Current Drug Targets (1); Drug and Alcohol Dependence (1); Pain (5); Neuroscience (3); Arthritis and Rheumatology (1); Advances in Pharmacology (1); Molecular Pain (1); Molecular Psychiatry (1); Future Science OA (1); JSM Pain Management (1); Pain Medicine (1); Journal of Pain (1); Neuroscience Letters (2); 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); Journal of Biological Education (2); Behavioural Brain Research (1); Neuron (1); Nature Communications (1)

8. 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)

9. 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.

10. International Association for the Study of Pain

- 1) Selected to serve on the IASP Fellowships, Grants, and Awards Working Group (FGAWG) (8/2016 – Present)
 - a. Reviewed Bonica Fellowship Grants, Early Career Investigator Grants, IASP World Congress Awards, Developing Country Grants, Collaborative Research Grants from 2016 – Present.
 - i. Typically review 2-3 times per year with 5-10 grants per cycle.

11. American Physiological Society

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

12. NIH NIDDK

- 1) Invited reviewer of O'Brien Center Opportunity Pool Application, July 2018.

13. NIH Center for Scientific Review (CSR)

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

14. National Academies of Science (note also listed above in teaching lectures)

- 1) 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

15. Texas Pain Research

- 1) Invited member of “Pain in the Brain” breakout room.
 - April 7-8, 2021