

Department of Biomedical Sciences Newsletter

Congratulations to **Dr. Derek Molliver** on being awarded an NIH R01 award, titled "Mitochondrial regulation of nociceptor function."

Congratulations to **Dr. Luis Queme** on being awarded an NIH R21 award, titled "Chronic stress induces neuroimmune modulated primary muscle afferent sensitization."

See the UNE story about **Dr. Tamara King's** and **Dr. Karen Houseknecht's** collaboration with MaineHealth Institute for Research. See the link to the story [here](#).

Years of Service Recognition (congratulations and thank you for your service):

Eliza Grllickova-Duzevik - 5 years
Denise Giuvelis - 5 years
Rebecca Rowe - 10 years
Douglas Spicer - 10 years
Ling Cao - 15 years
Mark Schuenke - 15 years
David Johnson - 30 years
James Vaughn - 35 years
Kathryn Thompson - 40 years

Congratulations to **Dr. Katie Becker** on being selected as the Biomedical Science Faculty Designated Hooder at COM's graduation ceremony in May.

Congratulations to **Dr. Ling Cao** on being a featured speaker on NPR's "Academic Minute" podcast.

Congratulations to **Dr. Ian Meng** on being a featured speaker on Maine Science Festival's "Maine Science" podcast. See link [here](#).

Faculty meeting dates:

- March 22, 2023; 1-2 pm
- April 26, 2023; 1-2 pm
- May 24, 2023; 1-2 pm

Feel free to send any agenda items for discussion at our faculty meeting to Angela Morse.

2023 UNE COM Seminars:

All seminars hosted by the department will be posted on our seminar link on our site: <https://sites.une.edu/biomedicalsciences/seminar-series/>

Shared Governance Meetings:

UFA

Wednesday, March 22
via Zoom, 12-2pm

Wednesday, April 19
via Zoom, 12-2pm

Wednesday, May 17
via Zoom, 12-2pm

COMFA

Thursday, April 20
12-1pm

Wednesday, May 24
12-1pm

Thursday, June 15
12-1pm

NOTE: Publication costs for papers which have COM students as authors are eligible to be considered for up to \$250/student by the [SGA's educational enhancement fund](#) (link enabled). These requests are vetted by the finance committee of the SGA and processed by RSAS.

[Faculty / Student / Staff Highlights:](#)

[New Publications \(from PubMed \(links enabled\)\)](#)

[Sustained Morphine Delivery Suppresses Bone Formation and Alters Metabolic and Circulating miRNA Profiles in Male C57BL/6J Mice.](#)

Carvalho AL, Brooks DJ, Barlow D, Langlais AL, Morrill B, **Houseknecht KL**, Boussein ML, Lian JB, **King T**, Farina NH, Motyl KJ.

J Bone Miner Res. 2022 Nov; 37(11):2226-2243.

doi: 10.1002/jbmr.4690

[Effects of a single dose of psilocybin on cytokines, chemokines and leptin in rat serum.](#)

Bove G and **Mokler DM**.

Journal of Psychedelic Studies. 2022 Dec 7; 6(3):171-175.

<https://doi.org/10.1556/2054.2022.00230>

[Raising Capacity to Address Mental Health Concerns in Costa Rica.](#)

O'Mara TA, Angstman K, **Spicer DB**, Campos E, Erbs NC, Furst JW, Williams MD.

Cureus. 2022 Dec 13; 14(12):e32481.

doi: 10.7759/cureus.32481

[Faculty Achievements:](#)

Congratulations to **Dr. Douglas Spicer** on being appointed as an Editorial Board Member for IAMSE Manuals.

Congratulations to **Dr. Derek Molliver** on being selected for the 2023 offering for Training in Neurotherapeutics Discovery and Development for Academic Scientists.

Congratulations to **Dr. Harry Filippakis** on being invited to co-chair a monthly networking-oriented meeting for early career scientists working in the area of tuberous sclerosis (TSC) and lymphangioleiomyomatosis (LAM). It is organized by the LAM Foundation.

[Regional/National/International Presentations](#)

[Oral Presentations:](#)

Joel Talsma, MS gave a talk, titled "Forgotten Branch of the Intercostal Nerve: Implication for Cryoablation Nerve Block for Pectus Excavatum Repair" at the Chest Wall International Group (CWIG) meeting in Barcelona, Spain in September 2022.

Joel Talsma, MS was an invited speaker at the Spine Intervention Society (SIS) Annual Meeting in Vancouver, BC in September 2022, with the title of his talk being “The anatomy of the thoracic dorsal ramus.”

Mark Schuenke, PhD was an invited speaker at the Association of Extremity Nerve Surgeons Annual Symposium in Fort Worth, TX in November 2022, with the title of his talk being “Sensory Innervation of Lateral Plantar Nerve.”

Mark Schuenke, PhD ran the Nerve Salvage and Revisional Techniques Workshop at the Association of Extremity Nerve Surgeons Annual Symposium in Fort Worth, TX in November 2022.

Mark Schuenke, PhD was an invited speaker at the Sutherland Cranial Teaching Foundation Annual Meeting in Biddeford, ME, with his talk title being “Development of the Heart and Lungs”.

Mark Schuenke, PhD was an invited speaker at the Sutherland Cranial Teaching Foundation Annual Meeting in Biddeford, ME, giving two presentations (“Development of the Heart and Lungs” and “Mechanics of Respiration/Ventilation”).

Poster Presentations:

Grlickova-Duzevik E, Reimonn TM, Michael M, McGrath-Conwell A, Tian T, Owyong JN, Neufeld P, Ward PJ, Mueth M, **Molliver DC**, **Harrison B**. Distinct Expression Profile of the Members of the CUGBP Elav-Like Family of RNA-Binding Proteins in Specific Populations of Murine Primary Sensory Neurons. First Annual Maine Research Symposium on Biomedical Sciences and Engineering, Portland, Maine.

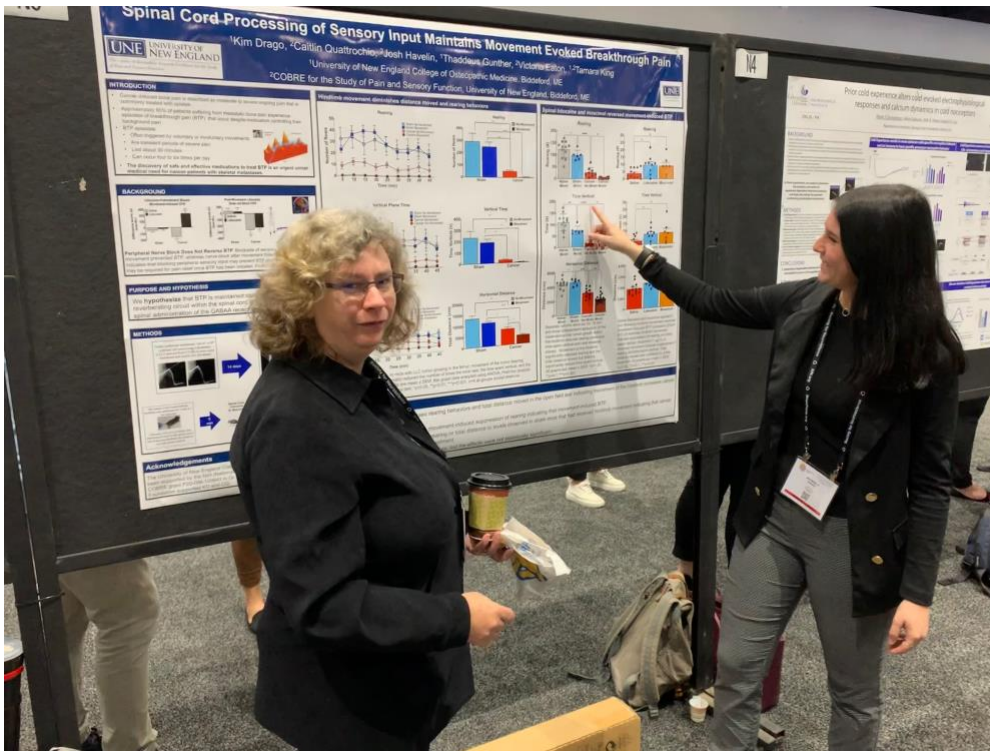
Mueth M, Eaton V, Caradonna P, Sian N, Vesey T, **Grlickova-Duzevik E**, **Harrison B**, **King T**. Females have increased susceptibility to develop ongoing pain in a mouse model of knee joint osteoarthritis. First Annual Maine Research Symposium on Biomedical Sciences and Engineering, Portland, Maine. (Madison Mueth won a graduate student award for her Basic Sciences project).

Society for Neuroscience Annual Meeting Presentations:

Tyler Vesey, Nic Sian, Madison Mueth, Victoria Eaton, Peter Caradonna, **Tamara King**. Sex differences in knee joint pain in relation to joint pathology. San Diego, CA: Society for Neuroscience, 2022.

Caitlin Quattrochio, Kim Drago, Thaddeus Gunther, Victoria Eaton, **Tamara King**. The Role of Spinal Cord Processing of Sensory Input in Maintaining Movement Evoked Breakthrough Pain. San Diego, CA: Society for Neuroscience, 2022.

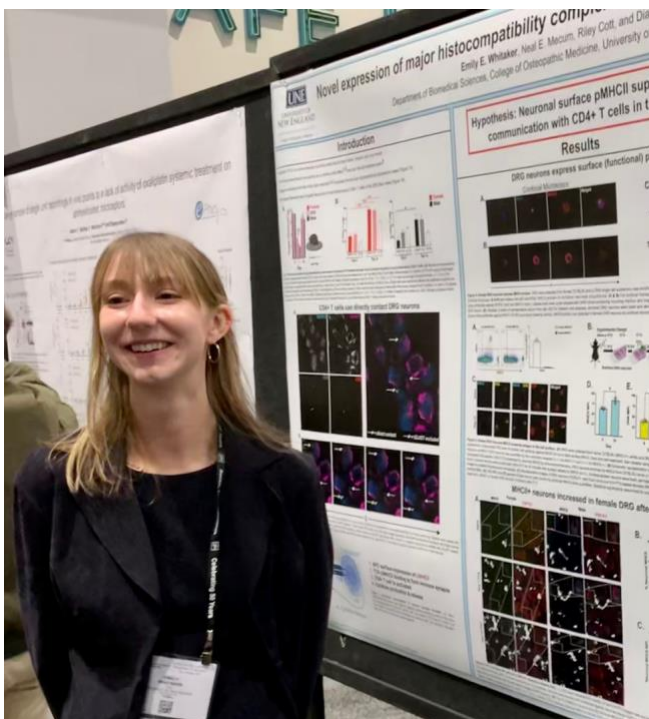
Kim Drago, Caitlin Quattrochio, Josh Havelin, Thaddeus Gunther, Victoria Eaton, **Tamara King**. Spinal Cord Processing of Sensory Input Maintains Movement Evoked Breakthrough Pain. San Diego, CA: Society for Neuroscience, 2022.



Pictured are OMS3 Kimberly Drago (right) and Dr. Tamara King (left) discussing their poster at the Society for Neuroscience Annual Meeting in San Diego, CA in November.

Photo courtesy of Dr. Derek Molliver.

Emily E. Whitaker, Riley Cott, Neal E. Mecum, and **Diana J. Goode**.
 Paclitaxel increases novel expression of major histocompatibility complex II (MHCII) and the MHCII transcription factor, Regulatory Factor X1 (RFX1) in dorsal root ganglion neurons from female mice. San Diego, CA: Society for Neuroscience, 2022.



Pictured are Dr. Emily Whitaker, who works in the laboratory of Dr. Diana Goode, presenting their work at the Society for Neuroscience Annual Meeting in San Diego, CA in November.

Photo courtesy of Dr. Derek Molliver.

Denise Giuvelis, **Ian D. Meng**, **Tamara King**, Deborah Barlow, **Karen L. Houseknecht** and **Kerry L. Tucker**.
 Comparison of Paclitaxel Formulation in Rodent Models of Paclitaxel-Induced Peripheral Neuropathy.

San Diego, CA: Society for Neuroscience, 2022.

Straub, C., Bonet, I.M., Dinsdale, S.M., **Geguchadze, R., Goode, D.J., Meng, I.D., Levine, J.D., Molliver, D.C.**

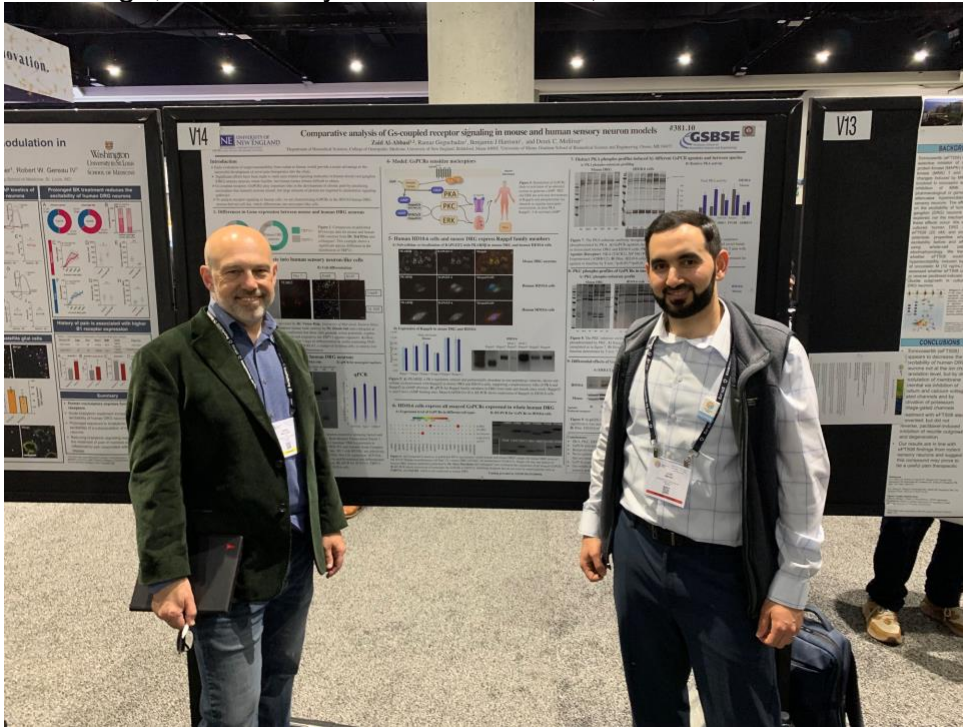
Antinociceptive actions of mitochondrial uncoupling drugs in rat and mouse.

San Diego, CA: Society for Neuroscience, 2022.

Al-Abbasi, Z., **Geguchadze, R., Harrison, B.J., Molliver, D.C.**

Comparative analysis of Gs-coupled receptor signaling cascades in mouse and human sensory neuron models.

San Diego, CA: Society for Neuroscience, 2022.



Pictured are Dr. Derek Molliver (left) and graduate student Zaid Al-Abbasi (right) presenting their work at the Society for Neuroscience Annual Meeting in San Diego, CA in November.

Photo courtesy of Dr. Derek Molliver.

Grlickova-Duzevik, E., Reimonn, T.M., Michael M., McGrath-Conwell, A., Tian, T., Owyong, J., Neufeld, P., Molliver, D.C., Ward., P.J., Harrison, B.J.

Members of the CUGBP Elav-Like Family of RNA-Binding Proteins are Expressed in Distinct Populations of Primary Sensory Neurons.

San Diego, CA: Society for Neuroscience, 2022.

Havelin, J., Dinsdale, S., Rice, M., Tomasch, M., **Meng, I.D.**

Contribution of parabrachial projecting corneal afferents to ocular pain.

San Diego, CA: Society for Neuroscience, 2022.

Mueth M, **Grlickova-Duzevik E**, Neufeld P, **King TE**, Ward PJ, Straub C, **Harrison B.**

Modulation of Nociceptor Excitability by Targeting CUGBP Elav-Like Family Member 4 (CELF4) RNA-Binding Protein.

San Diego, CA: Society for Neuroscience, 2022.

2023 MOA Midwinter Research and Scholarship Symposium (February 10, 2023):

Presenting author: Kimberly Drago (OMS3)

Published mentor: **Tamara King, PhD**

Title: The Role of Spinal Cord Processing of Sensory Input in Maintaining Movement Evoked Breakthrough Pain

First Prize: Medical Student Original Research - Basic Science Research Video Poster

Presenting author: Ahmad Kohsar (OMS3)

Published mentors: **Ling Cao, MD/PhD** and **Benjamin Harrison, PhD**

Title: Identifying Candidate Drugs to Treat Tat-associated HIV Sensory Neuropathy Through Bioinformatic Analysis

Second Prize: Medical Student Original Research - Basic Science Research Video Poster

Presenting author: Sarah Lafleur (OMS1)

Published mentor: **Harry Filippakis, PhD**

Title: Exploring Tryptophan-induced Macropinocytosis as a Metabolic Vulnerability of Tuberous Sclerosis Complex (TSC) in Lymphangioliomyomatosis (LAM)

Selected for an Oral Presentation

Presenting author: Chuhao Nie (OMS3)

Published mentor: **Ling Cao, MD/PhD**

Title: Characterization of Chronic Pain Population in Maine and the Association with Behavioral Risk Factor Surveillance System Data – A Pilot Study

New Funding

Congratulations to **Dr. Derek Molliver** on being awarded an NIH R01 award titled “Mitochondrial regulation of nociceptor function.” R01NS131571

Congratulations to **Dr. Luis Queme** on being awarded an NIH R21 award titled “Chronic stress induces neuroimmune modulated primary muscle afferent sensitization.” R21NS125484

Other News:

Dr. Ian Meng’s Research Laboratory has a YouTube video on “Developing More Effective Treatments for Corneal Pain, which can be seen here: <https://youtu.be/dKffW-FeTsY>. Dr. Meng studies ocular pain by mapping corneal nerves, with the goal of developing new and more effective treatments for corneal pain. His work could also help explain why some forms of chronic pain (i.e., headaches and migraines) are so closely related to corneal pain and for understanding why they can cause such severe emotional reactions.