

# Department of Biomedical Sciences Newsletter

## **Congratulations to Departmental faculty: Drs. Becker, Geguchadze Goode, King, Molliver, Schuenke, and Scully!**

Congratulations to Drs. Geguchadze and Goode on being awarded an UNE mini-grant.

Congratulations to Drs. Becker, King, and Molliver on being awarded an UNE RIF grant.

Congratulations to Drs. Schuenke and Scully for being chosen as COM faculty of the month for October and November, respectively.

## **Faculty meeting dates:**

- January 26, 2022; 1:00-2:00; Zoom and Ross Conf. Rm.
- February 23, 2022; 1:00-2:00; Zoom and Ross Conf. Rm.
- March 23, 2022; 1:00-2:00; Zoom and Ross Conf. Rm.

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

## **2022 UNE COM Seminars:**

All seminars hosted by the department will be posted here:

<https://sites.une.edu/biomedicalsciences/seminar-series/>

## **Previous Departmental News and Newsletters found here:**

<https://sites.une.edu/biomedicalsciences/news/>

**Thank you all for your hard work and for a successful first semester of AY 2021-22.**

**Happy Holidays and Best Wishes in the New Year!**

**Wishing Chris Straub, PhD best wishes in his new scientific pursuits. We will miss you and your collegial attitude.**

**Congratulations to all COM students and COM faculty mentors for a very successful 2021 UNE COM Fall Research Forum.**

## **Winter 2022 Shared Governance:**

### UFA

**Wednesday, January 19**

Via Zoom, 12-2pm

**Wednesday, February 16**

Via Zoom, 12-2pm

**Wednesday, March 16**

Via Zoom, 12-2pm

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### COMFA

**Wednesday, January 26**

Ross Conf. Rm. and via Zoom, 12-1pm

**Thursday, February 17**

Ross Conf. Rm. and via Zoom, 12-1pm

**Wednesday, March 23**

Ross Conf. Rm. and via Zoom, 12-1pm

**CALL FOR SEMINAR SPEAKERS:**

Please consider being a speaker, or inviting one, to present a research seminar to the UNE community in-person or through Zoom. Our students are still required to fulfill their seminar attendance requirement.

**Upcoming Seminars/Events****COM Seminar Series:****Tuesday, January 25; 12-1pm**

Holly Parker, PhD; UNE

“The United Nations Sustainable Development Goals: A Framework for Community and Human Health”

**Tuesday, February 1; 12-1pm**

Mark Korson, MD; VMP Genetics, LLC

“Rare New England’s Rare Disease Day Speaker Series”

**Tuesday, February 22; 12-1pm**

Lori Banks, PhD; Bates College

“Fighting Old Foes with New Friends”

**UNE COM Events**

COM Faculty and Staff Retreat

Leonard Hall

**Wednesday, March 9****MOA Conference****Saturday, February 12****Faculty / Student / Staff Highlights:****New Publications (from PubMed (links in blue are enabled))**

[Housing Temperature Influences Atypical Antipsychotic Drug-Induced Bone Loss in Female C57BL/6J Mice.](#)

Kunst RF, Langlais AL, Barlow D, **Houseknecht KL**, Motyl KJ.

JBMR Plus. 2021 Sep 7;5(10):e10541.

doi: 10.1002/jbm4.10541.

[Strategies for Promoting Inclusivity in Health Sciences Education.](#)

Haight MA, Bahner I, Belovich AN, Bonaminio G, Brenneman A, Brooks WS, Chinn C, El-Sawi N, Haudek SB, Ikonne U, McAuley RJ, McKell D, **Rowe R**, Slivkoff M, Taylor TAH, Vari RC.

Med Sci Educ. 2021 Sep 10:1-4.

doi: 10.1007/s40670-021-01391-y.

[In Vitro Fertilization in a Nulliparous Female Resulting in Placenta Increta and Postpartum Hemorrhage.](#)

Kassas JM, Blue LM, **Brenner CA**.  
Cureus. 2021 Sep 17;13(9):e18042.  
doi: 10.7759/cureus.18042.

[Anococcygeal Nerve and Sitting Pain: Differential Diagnosis and Treatment Results.](#)

Alimehmeti RH, **Schuenke MD**, Dellon AL.  
Ann Plast Surg. 2021 Oct 7.  
doi: 10.1097/SAP.0000000000002920.

[Large-scale voltage imaging in behaving mice using targeted illumination.](#)

Xiao S, Lowet E, Gritton HJ, Fabris P, Wang Y, Sherman J, Mount RA, Tseng HA, Man HY, **Straub C**, Piatkevich KD, Boyden ES, Mertz J, Han X.  
iScience. 2021 Oct 12;24(11):103263.  
doi: 10.1016/j.isci.2021.103263.

[Experimental test of microbiome protection across pathogen doses reveals importance of resident microbiome composition.](#)

Weitzman CL, Rostama B, Thomason CA, **May M**, Belden LK, Hawley DM.  
FEMS Microbiol Ecol. 2021 Oct 20;97(11):fiab141.  
doi: 10.1093/femsec/fiab141.

[Sarcoidosis with secondary recurrent right-sided chylothorax and chylous ascites in a Caucasian male patient.](#)

Jagannathan SH, Winn CM, Nayar AP, Koussa GJ, **Brenner CA**.  
Oxf Med Case Reports. 2021 Oct 26;2021(10):omab098.  
doi: 10.1093/omcr/omab098.

[Optogenetic Inhibition of Nav1.8 Expressing Corneal Afferents Reduces Persistent Dry Eye Pain.](#)

Mecum NE, Russell R, Lee J, Sullivan C, **Meng ID**.  
Invest Ophthalmol Vis Sci. 2021 Nov 1;62(14):15.  
doi: 10.1167/iovs.62.14.15.

**New Publications (from Research Square ([links enabled in blue](#)))** – a preprint, a preliminary version of a manuscript that has not completed peer review at a journal.

[Longitudinal RNA sequencing of skin and DRG neurons in mice with paclitaxel-induced peripheral neuropathy.](#)

Anthony M. Cirrincione, Cassandra A. Reimonn, **Benjamin J Harrison**, Sandra Rieger  
DOI: 10.21203/rs.3.rs-960602/v1

## Faculty Scholarly Exhibitions

The work of **Joel Talsma, MS** (and others) on the fascia plastination project was unveiled in Germany with Body Worlds on November 24, 2021.

<https://bodyworlds.com/exhibitions/events/>

## Regional/National/International Talks

**Hwyda Arafat, MD, PhD** presented a talk entitled “*Exploring Power Differentials & the Hidden Curriculum in Interprofessional Education*”. 2021 Nexus Summit. October, 2021 (virtual).

**Tamara King, PhD** presented a talk to the Department of Pharmacology and Neuroscience at Texas Tech University Health Sciences Center, School of Medicine in Lubbock, Texas (October, 2021).

**Meghan May, PhD** presented a talk entitled “*Molecular Methodology for Tick Speciation and Tickborne Pathogen Surveillance*”. International Society for Infectious Diseases 8th Annual International Meeting on Emerging Diseases and Surveillance. November, 2021 (virtual).

**Meghan May, PhD** presented a talk entitled “*Virulence, Pathogenesis, and Host Response*”. Session Convener, 23rd Biennial/1st Virtual International Organization for Mycoplasma Congress. November, 2021.

## Regional/National/International Poster Presentations

M. Short, **M. May**. Pandemic Parallels: Common Threads between the Emergence of SARS-CoV-2 in 2019 and Influenza A - H1N1 in 1918. International Society for Infectious Diseases 8<sup>th</sup> Annual International Meeting on Emerging Diseases and Surveillance. November 2021 (virtual).

E. Ramirez, **M. May**. Pandemic Parallels: Typhoid Mary’s Reign and the Emergence of SARS-CoV2. International Society for Infectious Diseases 8<sup>th</sup> Annual International Meeting on Emerging Diseases and Surveillance. November 2021 (virtual).

R. Cutting, **M. May**. Pandemic Parallels: Common Threads between the Emergence of SARS-CoV-2 in 2019 and HIV. International Society for Infectious Diseases 8<sup>th</sup> Annual International Meeting on Emerging Diseases and Surveillance. November 2021 (virtual).

M. Brown, **M. May**. Common Threads between the Emergence of SARS-CoV-2 and Ebola Virus Disease. International Society for Infectious Diseases 8<sup>th</sup> Annual International Meeting on Emerging Diseases and Surveillance. November 2021 (virtual).

## 2021 UNE COM Fall Research Forum Student Poster Presentations - 10/29/2021

<https://www.une.edu/news/2021/medical-students-present-research-com-research-and-scholarship-forum>

Ahlholm, P (COM Student); **Harrison, B** (mentor). The Role of CD2AP in Alzheimer's Disease.

Brown, M (COM Student); **May, M** (mentor). Pandemic Parallels: Common Threads between the Emergence of SARS-CoV-2 and Ebola Virus Disease.

Connors, N (COM Student); **Cao, L** (mentor). Inflammatory Responses within Lumbar Dorsal Root Ganglia following Sciatic Nerve Crush in Microglial CD137L Conditional Knockout Mice.

Cutting, R (COM Student); **May, M** (mentor). Pandemic Parallels: Common Threads Between the Emergence of SARS-CoV-2 and HIV.

Dao, B (COM Student); **Cao, L** (mentor). Supervised Interprofessional Student Pain Clinic Program - Efficacy with the Utilization of Zoom.

Devoe, C (COM Student); **Harrison, B** (mentor). Determining the Role of the Transcriptional Regulatory Protein CELF4 on Pro-Nociceptive Protein Expression in Dorsal Root Ganglion Neurons.

Drago, K (COM Student); **King, T** (mentor). The Role of Spinal Cord Processing of Sensory Input in Maintaining Movement Evoked Breakthrough Pain.

Gehan, D (COM Student); **Straub, C** (mentor). Establishing Real-time in vivo Measurement of Acetylcholine Dynamics in Behaving Mice.

Joseph, S (COM Student); Keane, A (COM Student); **Brenner, C** (mentor). Survey to Assess the Attitudes and General Knowledge of Medical Students Toward the COVID-19 Vaccine.

Kohsar, A (COM Student); **Cao, L** (mentor). Bioinformatic Pathway Analysis of Spinal Cord Inflammation in a Tat Induced HIV-Associated Sensory Neuropathy Model.

Lajoie, C (COM Student); **Becker, K** (mentor). Loss of Dock7 Reduces Bone Mineralization and Osteoblast Gene Expression.

Lavamway, K (COM Student); **Brenner, C** (mentor). The Utility of Student-Lead Medical Education During a Pandemic.

Lundstedt, C (COM Student); Chase, A (COM Student); **May, M** (mentor). Surveillance for Tickborne Pathogens in the Upper Midwest.

Mirianashvili, A (COM Student); **May, M** (mentor). Pandemic Parallels: Common Threads between the Emergence of SARS-CoV-2 and Polio.

Ramirez, E (COM Student); **May, M** (mentor). Pandemic Parallels: Typhoid Mary's Reign and the Emergence of SARS-CoV2.

Ravichandran, P (COM Student); **May, M** (mentor). Pandemic Parallels: Common Threads Between the Emergence of SARS-CoV-1 and SARS-CoV-2.

Robinson, M (COM Student); Callagy, S (COM Student); **May, M** (mentor). Molecular Methodology for Tick Speciation for Surveillance.

Selvarajan, R (COM Student); **Spicer, D** (mentor). The Effects of Stress on the Eating Patterns of First and Second Year Medical Students.

Short, M (COM Student); **May, M** (mentor). Pandemic Parallels: Common Threads Between the Emergence of SARS-CoV-2 in 2019 and Influenza A - H1N1 in 1918.

### [2021 UNE COM Fall Research Forum Student Talks](#)

Henderson, G (COM Student); **Becker, K** (mentor). Establishing a Model for Saphenous Nerve Transection to Investigate the Innervation of Rodent Tibia.

## UNE Undergraduate Research Day - Student Presentations – October 2021

Neufield, PK (UNE Undergraduate Student); **Harrison, B** (mentor). Investigating RNA-Protein Interactions using Public Datasets and Open-Source Bioinformatics.

Watch Peter present his poster to Dean Millen at [https://fb.watch/9F\\_THfeZRF/](https://fb.watch/9F_THfeZRF/) at timestamp 53:28.

Peter's work was supported by a Khan fellowship.

## Student Awards

### 2021 UNE COM Fall Research Forum Student Awards

CATEGORY: Medical Student - Basic Science Research:

2<sup>nd</sup> Place

Henderson, G (COM Student); **Becker, K** (mentor). Establishing a Model for Saphenous Nerve Transection to Investigate the Innervation of Rodent Tibia.

## New Funding:

Congratulations **Ramaz Geguchadze, PhD** for being awarded an UNE mini-grant entitled "Contributions of mitochondrial dynamics to inflammatory pain."

Congratulations **Diana Goode, PhD** for being awarded an UNE mini-grant entitled "Investigating CD6-Alcam signaling in T cells and dorsal root ganglion neurons in chemotherapy-induced peripheral neuropathy."

Congratulations to **Kathleen Becker, PhD** and **Tamara King, PhD** for obtaining an UNE RIF award for the purchase of a dual-energy X-ray absorptiometry (DXA) instrument for assessing bone mineral density, body composition and mineralized tissues.

Congratulations to **Tamara King, PhD** for being awarded an UNE RIF award for additional support for the COM Morganne Fellowship program.

Congratulations to **Derek Molliver, PhD** for being awarded an UNE RIF award for the purchase of an Agilent Seahorse HS Mini instrument.

## Study Section Reviewer Service

**Ling Cao, MD, PhD** was a reviewer for an NIH small business panel on Drug Discovery for Aging, Neuropsychiatric and Neurologic Disorders (ZRG1 ETTN-H (11)), May-June 2021.

**Ling Cao, MD, PhD** was a reviewer for NIH's, NIH Director's New Innovator DP2 Award (IRG/SRG: ZRG1 CVRS-A (70)), October-December 2021.

**Tamara King, PhD** was a reviewer for the Cellular and Molecular Medicine (CAMM) Merit Review panel at the Department of Veterans Affairs (November, 2021).

## Other News

As of November 6<sup>th</sup>, Meghan May became the official chair-elect of the International Organization for Mycoplasmaology.

## Faculty Development

Asynchronous opportunities for faculty development now exist on the UNE COM Faculty and Professional Staff Development SharePoint Site:

<https://une1.sharepoint.com/teams/COM/AcademicAffairs/Office/FSDev/SitePages/Home.aspx>