

Department of Biomedical Sciences Newsletter

From the Chair:

The Department of Biomedical Sciences has been continuing its mission of educating medical students and continuing to perform research and scholarship during the current COVID-19 pandemic. The departmental faculty have pivoted to provide our students with their curriculum through both synchronous and asynchronous learning opportunities. While the pandemic has hit all facets of our lives, the faculty truly miss the in-person interactions with students that have been a cornerstone of our educational mission in the department and in the COM. Departmental faculty also continue to pursue research, albeit in a limited and physically-distanced capacity, with even some laboratories (including Drs. Houseknecht, May, Tucker, Vaughn) shifting part of their research focus towards understanding SARS-CoV-2. As a whole, the faculty are anxiously waiting for the return of "normalcy" to the campus, so as to reignite our community once again. Lastly, in an effort to extend our departmental reach across the campus and the world, we have launched a new Departmental website (still in part under construction), that can be found here: <https://sites.une.edu/biomedicalsciences/>.

Faculty meeting dates:

- October 27, 2020; 9:30-11; Zoom
- November 24, 2020; 9:30-11; Zoom
- December 22, 2020; 9:30-11; Zoom

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

2020 UNE COM Seminars:

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

Congratulations to Barbara Winterson, PhD for being awarded the rank of Professor Emeritus!

Fall/Winter 2020 Events (to date):

Monday, October 5

Seminar: IN SEARCH OF A MORE PERFECT MULTIPLE-CHOICE QUESTION (MCQ)
Via Zoom

Friday, October 9

University of New England
College of Osteopathic Medicine
Fall 2020 Clerkship Caucus
Via Zoom

CALL FOR SEMINAR SPEAKERS:

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

Fall/Winter 2020 Shared Governance:

UFA

Wednesday, October 21
Via Zoom, 12-2pm

Wednesday, November 18
Via Zoom, 12-2pm

Wednesday, December 16
Via Zoom, 12-2pm

COMFA

Wednesday, October 28
Via Zoom, 12-1pm

Thursday, November 19
Via Zoom, 12-1pm

Upcoming Faculty Development Sessions

UNE COM Caucus

DIVERSITY AND INCLUSIVITY

October 9, 2020 (8:00 am to 4:45 pm) (UNE Clinical Caucus Event) via Zoom

- **Generation Z: The New Kids on the Block (8:45 am – 10:15 am)**
Geoffrey Talmon, MD, MEd, Assistant Dean and Professor, University of Nebraska Medical Center
- **Affirming Healthcare For LGBTQI+, Transgender, and Gender Diverse Patients (10:30 am–12:00 pm)**
Brandy Brown, LCSW, Barbara Bush Children's Hospital/Maine Medical Center
- **Structural Racism: Our Response (2:15 pm – 4:00 pm)**
Julia McDonald, DO, MPH, Faculty Physician, Maine-Dartmouth Family Medicine Residency

ADDITIONAL SESSIONS

October 9, 2020 (8:00 am to 4:45 pm) (UNE Clinical Caucus Event) via Zoom

- **Research Collaboration and Our Clinical Partners (1:00 - 2:00)**
Douglas Spicer, PhD, Associate Professor, Biomedical Sciences
- **News from the Front: An Anatomy Online Teaching Example (4:15 – 4:45)**
Kelley Harmon, DO, Faculty Physician, Maine-Dartmouth Family Medicine Residency, and Frank Willard, PhD, Professor of Anatomy

ART AND SCIENCE OF TEACHING VIRTUAL CHATS - MENTORING PROGRAM (OPEN TO ALL)

October 14, 2020 (12:00 pm to 1:00 pm via Zoom)

- **The Possibilities: Discussion Boards as a Teaching Tool!**
Stacey Pierce-Talsma, DO, MMS, FNAOME

November 11, 2020 (12:00 pm to 1:00 pm via Zoom)

- **Appropriate Inclusive Language Use and Avoidance of Promoting Bias/Stereotyping**
Chris Hunt, EdD, Associate Provost of Community, Equity, and Diversity

December 9, 2020 (12:00 pm to 1:00 pm via Zoom)

- **Using Cases Successfully Asynchronously**
Speaker Pending

Faculty / Student / Staff Highlights:

New Publications (from PubMed (links enabled))

Osteopathic Manipulative Treatment for Low Back Pain.

Ponna V, **Talsma J**, Pierce-Talsma S.

J Am Osteopath Assoc. 2020 Jun 1;120(6):e84-e85. doi: 10.7556/jaoa.2020.067.

Noninvasive Electrocardiography in the Perinatal Mouse.

Fitzsimons LA, Brewer VL, Forrester J, Moran AM, **Tucker KL**.

J Vis Exp. 2020 Jun 12;(160). doi: 10.3791/61074.

Hypertension: An Osteopathic Perspective.

Prieto H, Pena N, Shubrook JH, **Talsma J**.

The AAO Journal. 2020 June; 30(2): 27-34.

[Effects of HIV gp120 on Neuroinflammation in Immunodeficient vs. Immunocompetent States.](#)

Arabatzis TJ, Wakley AA, McLane VD, Canonico D, **Cao L.**

J Neuroimmune Pharmacol. 2020 Jul 6. doi: 10.1007/s11481-020-09936-5.

[Antipsychotic-induced immune dysfunction: A consideration for COVID-19 risk.](#)

May M, Slitzky M, Rostama B, Barlow D, **Houseknecht KL.**

Brain Behav Immun Health. 2020 Jul;6:100097. doi: 10.1016/j.bbih.2020.100097.

[Synthesis and Structure-Activity Relationships of 5'-Aryl-14-alkoxyppyridomorphinans: Identification of a \$\mu\$ Opioid Receptor Agonist/ \$\delta\$ Opioid Receptor Antagonist Ligand with Systemic Antinociceptive Activity and Diminished Opioid Side Effects.](#)

Vekariya RH, Lei W, Ray A, Saini SK, Zhang S, Molnar G, Barlow D, Karlage KL, Bilsky EJ, **Houseknecht KL**, Largent-Milnes TM, Streicher JM, Ananthan S.

J Med Chem. 2020 Jul 23;63(14):7663-7694. doi: 10.1021/acs.jmedchem.0c00503.

[Evaluation of Using the Sphygmomanometer Test to Assess Pain Sensitivity in Chronic Pain Patients vs Normal Controls.](#)

Butler S, Draleau K, Heinrich R, Nguyen L, Shbeeb D, Sigalovsky D, Koh W, Hull SZ, **Cao L.**

Pain Med. 2020 Jul 27:pnaa191. doi: 10.1093/pm/pnaa191.

[Osteopathic Manipulative Treatment for Inhaled Rib Somatic Dysfunction.](#)

Koch J, Tsui C, **Talsma J**, Pierce-Talsma S.

J Am Osteopath Assoc. 2020 Jul 28. doi: 10.7556/jaoa.2020.109.

[Deletion of \$\alpha\$ -Synuclein in Prrx1-positive cells causes partial loss of function in the central nervous system \(CNS\) but does not affect ovariectomy induced bone loss.](#)

Figuroa CA, Bajgain P, Stohn JP, Hernandez A, Brooks DJ, **Houseknecht KL**, Rosen CJ.

Bone. 2020 Aug; 137:115428. doi: 10.1016/j.bone.2020.115428.

[Research at University of New England College of Osteopathic Medicine.](#)

Brenner CA.

J Am Osteopath Assoc. 2020 Aug 1;120(8):495-496. doi: 10.7556/jaoa.2020.082.

[Learning Together: Interprofessional Education at the University of New England.](#)

Mokler DJ, Konrad SC, Hall K, Rodriguez K, St Pierre S, Thieme VS, Van Deusen J.

J Am Osteopath Assoc. 2020 Aug 1;120(8):509-515. doi: 10.7556/jaoa.2020.084.

[Making the Connection: Using Concept Mapping to Bring the Basic Sciences to the Diagnosis.](#)

Spicer DB, **Thompson KH**, **Kilgallen SM.**

J Am Osteopath Assoc. 2020 Aug 1;120(8):524-528. doi: 10.7556/jaoa.2020.086.

[Report on 7 Years' Experience Implementing an Undergraduate Medical Curriculum for Osteopathic Medical Students Using Entrustable Professional Activities.](#)

Reynolds TS, Frothingham C, Carreiro JE, Branda A, **Schuenke MD**, **Tucker KL**, **Daly F**, **Willard FH.**

J Am Osteopath Assoc. 2020 Aug 1;120(8):529-539. doi: 10.7556/jaoa.2020.087.

[Overview of the Pathogenesis and Treatment of SARS-CoV-2 for Clinicians: A Comprehensive Literature Review.](#)

Voto C, Berkner P, **Brenner C.**

Cureus. 2020 12(9): e10357. doi:10.7759/cureus.10357

Regional/National/International Presentations

Mark Schuenke, PhD gave an oral presentation at the Cranial Academy Virtual Conference (June 13, 2020) titled “Microanatomy of the Extracellular Matrix”.

Kathleen Becker, PhD gave a poster presentation at the American Society for Bone and Mineral Research 2020 Annual Meeting (Sept 11-15th) titled “C3H substrain variation results in decreased bone density and fat mass in C3H/HeJ mice”. **Dr. Becker** also participated in the Bone Marrow Adiposity: Bone Aging and Beyond pre-meeting program (Sept 8-10th) where she gave a 5-minute oral poster presentation with the same title.

Ciurylo W, Thieme V, **Brenner C.** (2020, October). “Physician Beliefs Concerning Structural and Institutional Racisms in Healthcare”. Presented at the Maine Public Health Association’s 2020 annual conference.

Student Awards

Megan Tomasch, a PhD student in **Dr. Christophe Straub’s** lab, applied for and was awarded a NIH T32 fellowship position through the University of Maine, to cover her 2nd year of graduate school. Congratulations to both Megan and Chris!

New Funding:

Meghan May, PhD was awarded a Kahn Family Foundation grant entitled “Evaluation of Alternative COVID-19 Screening Strategies” which was facilitated by Dr. Ian Meng and Mr. Bill Chance from UNE Institutional Advancement.

Kerry Tucker, PhD was awarded a Kahn Family Foundation grant entitled “The primary cilium as a potential epithelial infection site for SARS-CoV-2 virus” which was facilitated by Dr. Ian Meng and Mr. Bill Chance from UNE Institutional Advancement.

Other News:

The Association of Biochemistry Educators (ABE) announced the appointment of **Doug Spicer, PhD**, as the new Committee Chair of the Education Resource Development Committee (ERDC). The ERDC is charged with developing educational resources for faculty in the health sciences who teach biochemistry.

Drs. Derek Molliver, Chris Straub and Tamara King attended the inaugural organizational meeting of America’s new pain society (the United States Association for the Study of Pain (USASP)) and the new owners of the *Journal of Pain*. The USASP was formed to address the needs of the pain research community, with particular focus on establishing: a multi-disciplinary society dedicated to the study of pain, a scientific meeting, networking opportunities, a journal for publishing pain research, and early career programming and opportunities.