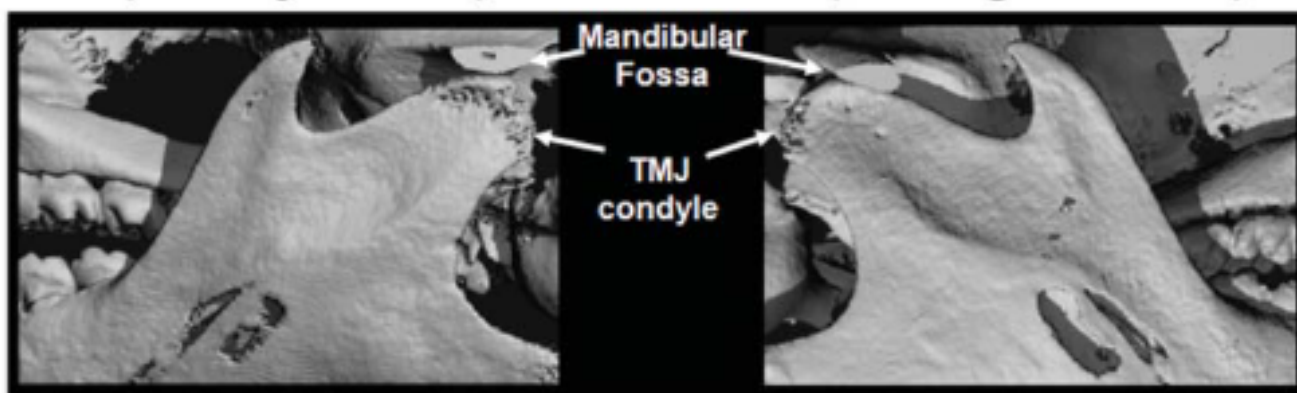


# Department of Biomedical Sciences Newsletter

BELOW: MicroCT images demonstrating bone remodeling of the mandibular condyle after monosodium iodoacetate (MIA) injection in the temporomandibular joint (TMJ). From Dr. King's laboratory (Sannajust et al., Pain 160, 2036-2049, 2019)

## A Contralateral (no injection)

## Ipsilateral (80 mg/ml MIA)



### From the Chair:

I wanted to extend my sincerest thank you for making my start in the Department of Biomedical Sciences, so enjoyable. I cannot believe it has only been 8 weeks (in the good way). It was a pleasure meeting all of you in our 1:1 meetings to learn about your careers, goals, and how I may be able to help in the next stages of your careers. I would also like to extend my appreciation to Mark and Angela as they have helped (and continue to help) me navigate the landscape at UNE.

As always, my door is always open.

### Newsletter – why?

In the places I have been over my career, one thing which I felt was lacking was not getting the word out about all of the good things that a Department does. The point of this Newsletter will be to highlight and celebrate all of the accomplishments of the faculty, staff, post-doctoral fellows, and students in the Department. So **please** let me know via email of all the accomplishments, awards, grants, seminars, study section service, etc. Send them in as they happen so you do not forget.

The hope would be that if this can be kept up-to-date, then this newsletter could serve as a repository for when information is required from the Department, in addition to apprising others (including the administration) about what we are doing.

The plan would be for this newsletter to come out quarterly, to start, with publication set for Winter (end of Jan.), Spring (end of April), Summer (end of July), and Fall (end of Oct.)

### Faculty meeting dates:

- September 24, 2019; 9:30-11; Pickus 214
- October 22, 2019; 9:30-11; Pickus 214
- November 26, 2019; 9:30-11; Pickus 214

Feel free to send any agenda items for discussion at the meeting. If you have any items of concern for the next agenda, please contact Russ Ferland.

**Fall 2019 UNE COM Seminars:****Wednesday, October 15**

Leonard Hall, Noon (12pm)

**Voot P. Yin, PhD**Associate Professor  
MDIBL*“Bridging the valley of death:  
Swimming with zebrafish toward  
heart regeneration*  
-----**Wednesday, October 22**

Leonard Hall, Noon (12pm)

**William Harrison, JD, MA**Director of Research Integrity  
University of New England*“Institutional Review Board (IRB)  
COM student training workshop”*  
-----**Tuesday, October 29**

Leonard Hall, Noon (12pm)

**Kristy Townsend, PhD**Associate Professor  
University of Maine*“Innervation of adipose tissues  
and implications for aging  
research”*  
-----**Tuesday, November 5**

Leonard Hall, Noon (12pm)

**Louise Aronson, MD**

UCSF

*“UNE COM Humanism in Aging  
Leadership Award Lecture”*  
-----**Tuesday, November 12**

Leonard Hall, Noon (12pm)

**Don Olins, PhD & Ada Olins, PhD**

UNE College of Pharmacy

*“History and Mystery of  
Chromatin”*  
-----**Tuesday, November 19**

Leonard Hall, Noon (12pm)

**Tom Meuser, PhD**UNE, Center for Excellence in Aging  
and Health*“Overview of the Legacy  
Scholars program: A data  
people resource for student and  
faculty research”*  
-----**Fall 2019 UNE COM Seminars (continued):****Tuesday, December 3**

Leonard Hall, Noon (12pm)

**Dorothy Edwards, PhD**

U. of Wisconsin-Madison

*“Stroke Research”***Fall 2019 IAMSE Series:****Thursday, October 3**

Ripich 320, 12-1:30pm

**Valerie O’Laughlin, PhD**Fellow, American Association of  
Anatomists, Professor of Anatomy and  
Cell Biology  
Indiana University  
&**Terri Turner, MD, MPH**

Professor

Baylor College of Medicine

*“Beyond See One, Do One,  
Teach One: Developing  
Graduate Students and Medical  
Trainees as Medical Educators”***Fall 2019 Shared Governance:**UFA**Wednesday, October 16**

Bush Ctr. Board Room, 12-2pm

**Wednesday, November 20**

Bush Ctr. Board Room, 12-2pm

**Wednesday, December 18**Bush Ctr. Board Room, 12-2pm  
-----COMFA**Thursday, October 17 (see below)**

St. Francis, 12-1:30pm

**Thursday, November 21**

St. Francis, 12-1:30pm

**Thursday, December 19**

St. Francis, 12-1:30pm

**Fall 2019 Upcoming Events:****Thursday, October 17****UNE COM Fall Caucus****Faculty Development**

12-1:30pm (during the COMFA)

**John Gimpel DO, Med**

President and CEO

National Board of Osteopathic Medical  
Examiners*“NBOME, COMLEX-USA and  
COMFAT Update”*  
-----**Friday, October 18****UNE COM Fall Caucus****Faculty Development**

Alfond 304

9-12am

**Machelle Linsenmeyer, EdD**

Associate Dean

W. Virginia SOM

&amp;

**Maryellen Gusic, MD**

Senior Advisor

U of Virginia Medical School

*“Incorporating workplace  
assessment of EPAs in a  
competency-based program of  
assessment”*

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

### [2019 Publications \(from PubMed \(links enabled\)\)](#)

[Manual therapy prevents onset of nociceptor activity, sensorimotor dysfunction, and neural fibrosis induced by a volitional repetitive task.](#)

**Bove GM**, Delany SP, Hobson L, Cruz GE, Harris MY, Amin M, Chapelle SL, Barbe MF. Pain. 2019 Mar;160(3):632-644. doi: 10.1097/j.pain.0000000000001443.

[Phospho-substrate profiling of Epac-dependent protein kinase C activity.](#)

**Goode DJ, Molliver DC.**

Mol Cell Biochem. 2019 Jun;456(1-2):167-178. doi: 10.1007/s11010-019-03502-1. Epub 2019 Feb 9.

[Prenatal Protein Malnutrition Produces Resistance to Distraction Similar to Noradrenergic Deafferentation of the Prelimbic Cortex in a Sustained Attention Task.](#)

Newman LA, Baraiolo J, **Mokler DJ**, Rabinowitz AG, Galler JR, McGaughy JA.

Front Neurosci. 2019 Feb 19;13:123. doi: 10.3389/fnins.2019.00123. eCollection 2019.

[Pros and Cons of Clinically Relevant Methods to Assess Pain in Rodents.](#)

Tappe-Theodor A, **King T**, Morgan MM.

Neurosci Biobehav Rev. 2019 May;100:335-343. doi: 10.1016/j.neubiorev.2019.03.009. Epub 2019 Mar 15. Review.

[Prenatal Protein Malnutrition Leads to Hemispheric Differences in the Extracellular Concentrations of Norepinephrine, Dopamine and Serotonin in the Medial Prefrontal Cortex of Adult Rats.](#)

**Mokler DJ**, McGaughy JA, Bass D, Morgane PJ, Rosene DL, Amaral AC, Rushmore RJ, Galler JR.

Front Neurosci. 2019 Mar 5;13:136. doi: 10.3389/fnins.2019.00136. eCollection 2019

[Detection of Differentially Expressed Cleavage Site Intervals Within 3' Untranslated Regions Using CSI-UTR Reveals Regulated Interaction Motifs.](#)

**Harrison BJ**, Park JW, Gomes C, Petruska JC, Sapio MR, Iadarola MJ, Chariker JH, Rouchka EC.

Front Genet. 2019 Mar 12;10:182. doi: 10.3389/fgene.2019.00182. eCollection

[A lesson from classic British literature.](#)

**Bove GM**, Dilley A.

Lancet. 2019 Mar 30;393(10178):1297-1298. doi: 10.1016/S0140-6736(18)32533-9. No abstract available.

[Dry eye sensitizes cool cells to capsaicin-induced changes in activity via TRPV1.](#)

Hatta A, Kurose M, Sullivan C, Okamoto K, Fujii N, Yamamura K, **Meng ID.**

J Neurophysiol. 2019 Jun 1;121(6):2191-2201. doi: 10.1152/jn.00126.2018. Epub 2019 Apr 10.

[Role of Evolutionary Selection Acting on Vaccine Antigens in the Re-Emergence of \*Bordetella Pertussis\*.](#)

Etskovitz H, Anastasio N, Green E, **May M.**

Diseases. 2019 Apr 16;7(2). pii: E35. doi: 10.3390/diseases7020035

[Loss of the neurodevelopmental Joubert syndrome causing protein, Ahi1, causes motor and muscle development delays independent of central nervous system involvement.](#)

Bourgeois JR, **Ferland RJ.**

Dev Biol. 2019 Apr 1;448(1):36-47. doi: 10.1016/j.ydbio.2019.01.014. Epub 2019 Jan 26.

[Mechanism of Microbicidal Action of E-101 Solution, a Myeloperoxidase-Mediated Antimicrobial, and Its Oxidative Products.](#)

Denys GA, Devoe NC, Gudis P, **May M**, Allen RC, Stephens JT Jr.

Infect Immun. 2019 Jun 20;87(7). pii: e00261-19. doi: 10.1128/IAI.00261-19. Print 2019 Jul.

[Progesterone Application to the Rat Forehead Produces Corneal Antinociception.](#)

**Meng ID**, Barton ST, Goodney I, Russell R, Mecum NE.

Invest Ophthalmol Vis Sci. 2019 Apr 1;60(5):1706-1713. doi: 10.1167/iovs.18-26049.

[Form and Force Closure of the Sacroiliac Joints.](#)

Vleeming A, **Schuenke M**.

PM R. 2019 Aug;11 Suppl 1:S24-S31. doi: 10.1002/pmrj.12205. Epub 2019 Jul 22. Review.

[The antipsychotic medication, risperidone, causes global immunosuppression in healthy mice.](#)

**May M**, Beauchemin M, Vary C, Barlow D, **Houseknecht KL**.

PLoS One. 2019 Jun 26;14(6):e0218937. doi: 10.1371/journal.pone.0218937. eCollection 2019

[Evaluation of Corneal Damage After Lacrimal Gland Excision in Male and Female Mice.](#)

Mecum NE, Cyr D, Malon J, Demers D, **Cao L**, **Meng ID**.

Invest Ophthalmol Vis Sci. 2019 Aug 1;60(10):3264-3274. doi: 10.1167/iovs.18-26457.

[Recommended rejection of the names \*Malacoplasma\* gen. nov., \*Mesomycoplasma\* gen. nov., \*Metamycoplasma\* gen. nov., \*Metamycoplasmataceae\* fam. nov., \*Mycoplasmoidaceae\* fam. nov., \*Mycoplasmoidales\* ord. nov., \*Mycoplasmoides\* gen. nov., \*Mycoplasmosis\* gen. nov. \[Gupta, Sawnani, Adeolu, Alnajjar and Oren 2018\] and all proposed species comb. nov. placed therein.](#)

Balish M, Bertaccini A, Blanchard A, Brown D, Browning G, Chalker V, Frey J, Gasparich G, Hoelzle L, Knight T, Knox C, Kuo CH, Manso-Silván L, **May M**, Pollack JD, Ramírez AS, Spargser J, Taylor-Robinson D, Volokhov D, Zhao Y.

Int J Syst Evol Microbiol. 2019 Aug 6. doi: 10.1099/ijsem.0.003632. [Epub ahead of print]

[The mitophagy receptor Bcl-2-like protein 13 stimulates adipogenesis by regulating mitochondrial oxidative phosphorylation and apoptosis in mice.](#)

Fujiwara M, Tian L, Le PT, DeMambro VE, **Becker KA**, Rosen CJ, Guntur AR.

J Biol Chem. 2019 Aug 23;294(34):12683-12694. doi: 10.1074/jbc.RA119.008630. Epub 2019 Jul 2.

[Reproducibility of CRISPR-Cas9 methods for generation of conditional mouse alleles: a multi-center evaluation.](#)

Gurumurthy CB, O'Brien AR, Quadros RM, Adams J Jr, Alcaide P, Ayabe S, Ballard J, Batra SK, Beauchamp MC, **Becker KA**, Bernas G, Brough D, Carrillo-Salinas F, Chan W, Chen H, Dawson R, DeMambro V, D'Hont J, Dibb KM, Eudy JD, Gan L, Gao J, Gonzales A, Guntur AR, Guo H, Harms DW, Harrington A, Hentges KE, Humphreys N, Imai S, Ishii H, Iwama M, Jonasch E, Karolak M, Keavney B, Khin NC, Konno M, Kotani Y, Kunihiro Y, Lakshmanan I, Larochele C, Lawrence CB, Li L, Lindner V, Liu XD, Lopez-Castejon G, Loudon A, Lowe J, Jerome-Majewska LA, Matsusaka T, Miura H, Miyasaka Y, Morpurgo B, Motyl K, Nabeshima YI, Nakade K, Nakashiba T, Nakashima K, Obata Y, Ogiwara S, Ouellet M, Oxburgh L, Piltz S, Pinz I, Ponnusamy MP, Ray D, Redder RJ, Rosen CJ, Ross N, Ruhe MT, Ryzhova L, Salvador AM, Alam SS, Sedlacek R, Sharma K, Smith C, Staes K, Starrs L, Sugiyama F, Takahashi S, Tanaka T, Trafford AW, Uno Y, Vanhoutte L, Vanrockeghem F, Willis BJ, Wright CS, Yamauchi Y, Yi X, Yoshimi K, Zhang X, Zhang Y, Ohtsuka M, Das S, Garry DJ, Hochepped T, Thomas P, Parker-Thornburg J, Adamson AD, Yoshiki A, Schmouth JF, Golovko A, Thompson WR, Lloyd KCK, Wood JA, Cowan M, Mashimo T, Mizuno S, Zhu H, Kasperek P, Liaw L, Miano JM, Burgio G.

Genome Biol. 2019 Aug 26;20(1):171. doi: 10.1186/s13059-019-1776-2.

[Ahi1 promotes Arl13b ciliary recruitment, regulates Arl13b stability and is required for normal cell migration.](#)

Muñoz-Estrada J, **Ferland RJ**.

J Cell Sci. 2019 Sep 4;132(17). pii: jcs230680. doi: 10.1242/jcs.230680.

[Females have greater susceptibility to develop ongoing pain and central sensitization in a rat model of temporomandibular joint pain.](#)

Sannajust S, Imbert I, Eaton V, Henderson T, Liaw L, **May M**, Barbe MF, **King T**.

Pain. 2019 Sep;160(9):2036-2049. doi: 10.1097/j.pain.0000000000001598.

[Neuropathy and neural plasticity in the subcutaneous white adipose depot.](#)

Blaszkiwicz M, Willows JW, Dubois AL, Waible S, DiBello K, Lyons LL, Johnson CP, Paradie E, Banks N, Motyl K, Michael M, **Harrison B**, Townsend KL.

PLoS One. 2019 Sep 11;14(9):e0221766. doi: 10.1371/journal.pone.0221766. eCollection 2019.

[Medical biochemistry without rote memorization: multi-institution implementation and student perceptions of a nationally standardized metabolic map for learning and assessment.](#) **Spicer DB, Thompson KH, Tong M, Cowan TM, Fulton TB, Lindsley JE.** Med Sci Edu. 2019;29(1):87-92.

## Books

Multiple chapters in the book Foundations of Osteopathic Medicine 4<sup>th</sup> ed. Edited by Seffinger MA. Wolters Kluwer, Philadelphia, PA were contributed to by **Drs. Willard and Schuenke** with **Frank Willard, PhD** serving as a section editor of the book.

## Book chapters

**Bove GM**, Naylor M, Bushnell C. Complementary and Integrative Approaches for Pain Management. In Gold MS, Pogatzki-Zahh EM, Mallas MS, eds. Pain 2018: Refresher Courses, 17th World Congress on Pain, IASP Press, Washington, DC.

**May M.** "The Mollicutes", in Encyclopedia of Microbiology, 4th Edition (T. Schmidt, ed.) Academic Press (Elsevier), Cambridge, MA. Publication Date: August 2019.

**Thompson, Kathryn H.** Nutrition and Aging, Ch 11. Gerontology for the Health Care Professional 4<sup>th</sup> ed. Edited by Robnett, RH, Brossoie, N and Chop, W. Jones and Bartlett Learning 2020. ISBN: 9781284140569

## National/International Presentations

**Geoffrey Bove, DC, PhD** presented a seminar entitled "Sensory input in pathological states during manual therapy, or, what goes up" at the National Center for Complementary and Integrative Health (NCCIH) workshop titled "Neurocircuitry of Force-Based Manipulations" on September 17, 2019 in Bethesda MD. He also presented at the American Pain Society in April and at the MD Anderson Cancer Center (Houston TX) in July.

**Meghan May, PhD** presented a platform presentation at the Maine Osteopathic Association Midwinter Symposium (Portland, ME) in February 2019 entitled "Influenza Update – New Strains, New Drugs, and New Insights into Pathophysiology."

**Ian Meng, PhD** presented a seminar entitled "Tears without Pain" at Wake Forest University in March.

**Douglas Spicer, PhD** presented at the ABE Biennial Meeting in Tucson, AZ in May: "Impact of the Pathways of Human Metabolism map on students' perceptions of learning biochemistry: experiences across various schools." **Dr. K Thompson** was also an author.

**Kerry Tucker, PhD** presented at the Weinstein Cardiovascular Development and Regeneration Meeting in May: "Hedgehog signaling via primary cilia of the cardiac neural crest cells orchestrates critical aspects of ventricular maturation and postnatal cardiac function."

**Douglas Spicer, PhD** presented at the IAMSE Annual Meeting in Roanoke, VA in June: "Making the connection: taking integrated notes improves learning and retention associated with clinical reasoning". **Drs. Thompson and Kilgallen** were co-authors of the study.

**Ling Cao, MD, PhD** also presented at the IAMSE Annual Meeting in Roanoke, VA in June: “Effectiveness of educating health care professionals in managing chronic pain patients through a supervised student interprofessional pain clinic.”

**Tamara King, PhD** presented at the 2nd International Combined Meeting of Orthopaedic Research Societies (Montreal) in June: “Overview of Musculoskeletal Pain Measurements in Rodents”.

**Meghan May, PhD** presented a platform talk at the American Society for Microbiology ‘Microbe’ meeting (San Francisco, CA) in June 2019 entitled “Evolutionary selection analysis to understand the changing dynamics and spread of Crimean-Congo hemorrhagic fever.”

#### 2019 North East Regional IDeA Conference:

**Benjamin Harrison, PhD** presented a seminar entitled “Neuron-intrinsic mechanisms of nervous system plasticity.”

**Diana Goode, PhD** gave an oral presentation entitled “A novel mechanism for regulation of mitochondrial function by Epac2 in acute inflammatory hyperalgesia.”

**Karen Houseknecht, PhD, Cara Sullivan (Meng lab), and Victoria Eaton (King lab)** presented posters at the conference.

**Tamara King, PhD** presented at the American Society for Bone and Mineral Research 2019 meeting in September: “Mechanistic Analysis of Bone Pain”.

### National/International Poster Presentations

#### Meeting: American Dental Education Association (ADEA) Conference (March, 2019)

Lindsey Cunningham, Greta-Anne Castonguay, Jason Greenbaum, Alexandra Hensen, Jacquelyn McWilliams, Amber-Lise Meyers, **Kin S. Ly**

Examining the value of mentorship: A student survey of a mentoring program at the University of New England College of Dental Medicine.

#### Meeting: Experimental Biology (April, 2019)

**K.L. Houseknecht, M. May, M. Beauchemin, D. Barlow, R. Geguchadze.**

The antipsychotic drug, risperidone, distributes to bone marrow: What is the impact on immune function?

E. Payne, R. Brackin, K. Harrington, P. Richard, S. Couture, C.A. Rieder, S. Sannajust, **T.E. King**, L. Mattei, J. Lee, K. Bittinger, **M. May**, G. Stevenson.

Effects of gut microbiome modulation on alpha/beta diversity, persistent pain-depressed behaviors and inflammation in female Fisher rats with or without voluntary access to running wheels.

#### Meeting: Society on Neuroimmune Pharmacology Conference (April, 2019)

**L. Cao**

HIV sensory neuropathy related behaviors in doxycycline inducible HIV-1 Tat transgenic mice.

#### Meeting: American Pain Society Scientific -- Satellite meeting (April, 2019)

**L. Cao**

HIV sensory neuropathy related behaviors in doxycycline inducible HIV-1 Tat transgenic mice.

#### Meeting: American Association of Immunologists Annual Meeting (May, 2019)

A.A. Wakley and **L. Cao.**

Early treatment of a CD137L neutralizing antibody decreases mechanical hypersensitivity and functional recovery time following a sciatic nerve crush.

**L. Cao**

Role of CD137L in lumbar spinal cord microglial cytokine responses following sciatic nerve crush.

**Meeting:** Association for Research in Vision and Ophthalmology (May, 2019)

Neal Mecum; Rachel Russell; Joshua Havelin; **Ian Meng**

Inhibition of corneal nociceptors reduces persistent, ongoing dry eye-induced pain.

**Meeting:** IAMSE Annual Meeting (June 2019)

**Thompson, KH, Spicer, DB,** Kenneally, M, Ouelette, L.

Using hands on culinary medicine modules to improve acquisition and retention of nutrition concepts for the prevention and treatment of nutrition related disease.

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

Making the connection: taking integrated notes improves learning and retention associated with clinical reasoning.

**Meeting:** American Society for Microbiology Microbe (June, 2019)

E. Green, N. Anastasio, H. Etskovitz, **M. May**.

Evolutionary Selection Analysis to Understand the Changing Dynamics and Spread of Crimean-Congo Hemorrhagic Fever.

B. Rostama, **M. May, L. Cao.**

Characterization of a Novel Neisseria Species from Rodent Brains.

**Meeting:** American Heart Association, Basic Cardiovascular Sciences Sessions (July, 2019)

Lindsey A. Fitzsimons, Adrian M. Moran, **Kerry L. Tucker**

Primary cilia of the cardiac neural crest orchestrate critical aspects of ventricular maturation and postnatal cardiac function: A role for Hedgehog signaling."

Lindsey Avery Fitzsimons, Adrian M Moran, **Kerry L Tucker**

Primary Cilia of Cardiac Neural Crest Cells Orchestrate Multiple Aspects of Cardiovascular Development

**Meeting:** United States Organization for Mycoplasma 6th Biennial Congress (July, 2019)

**M. May,** C. Weitzman, L.K. Belden, D.M. Hawley.

Mycoplasma gallisepticum glycosidase interactions with the host microbiome.

**Meeting:** American Biochemistry Educators Meeting

Gromley Z, **Spicer DB,** Abali EE, Cowan TM, Fulton TB, **Thompson KH,** Lindsley JE, Erdman JS.

Impact of the Pathways of Human Metabolism map on students' perceptions of learning biochemistry: experiences across various schools.

Arbor S, Binstock J, Gromley Z, Manzerra P, **Spicer DB.**

ABE question bank review workshop.

**Meeting:** American Society for Bone and Mineral Research Annual Meeting (September, 2019)

Victoria Eaton, Andrew Elkinson, Joshua Havelin, **Karen Houseknecht, Tamara King.**

Antipsychotic induced bone loss: Impact on osteoporosis-associated back pain.

Adriana Leles Carvalho, Breanna Morrill, Katherine Motyl, Deborah Barlow, **Karen Houseknecht, Tamara King.**

Morphine treatment reduces trabecular bone volume fraction and impairs cortical bone expansion in male mice.

Audrie Langlais, Katherine Motyl, Roni Kunst, **Karen Houseknecht**.  
Housing temperature influences bone and brown adipose tissue side effects of atypical antipsychotic drugs in female mice.

Jennifer Coulombe, Virginia Ferguson, Eben Estell, **Kathleen Becker**, Vanessa Sherk, Clifford Rosen.  
Dock7 Deletion Diminishes Bone Material Properties and Osteocytes Dendrite Morphologies.

Christine Lary, Kathleen Nevola, Alexandra Hinton, Katherine Motyl, Lee Lucas, Sarah Hallen, Theresa Shireman, Andrew Zullo, **Karen Houseknecht**, Sarah Berry, Douglas Kiel.  
Association of beta blocker use and bone mineral density using the Framingham Osteoporosis Study: Effects of dose, duration, and drug.

## In the News

On September 4, 2019, **Meghan May, PhD** discussed Eastern Equine Encephalitis (EEE) on 'NEWS CENTER Maine'

On September 21, 2019, **Ben Harrison, PhD** was on the front page of the Journal Tribune featuring his research and new grant (<https://www.journaltribune.com/articles/front-page/une-researcher-receives-315000-grant-to-study-alzheimers-disease/>).

### **Meghan May, PhD:**

"Patient Zero" (NPR podcast) – discussing the Lyme disease vaccine LYMERix

[https://podcasts.apple.com/us/podcast/bonus-lymerix/id1473507649?i=1000450340769&fbclid=IwAR2OaOiJO6NSSn3DOcUdl9ztcjKTEflpVSwUM5vSRJ9VBtd\\_sCFrr6qQKfc](https://podcasts.apple.com/us/podcast/bonus-lymerix/id1473507649?i=1000450340769&fbclid=IwAR2OaOiJO6NSSn3DOcUdl9ztcjKTEflpVSwUM5vSRJ9VBtd_sCFrr6qQKfc)

Canadian Broadcasting Company radio morning – also discussing LYMERix

[https://www.cbc.ca/radio/thecurrent/the-current-for-may-21-2018-1.4671757/a-vaccine-for-lyme-disease-was-shelved-years-ago-is-it-time-to-bring-it-back-1.4671765?fbclid=IwAR2ZN8rvUVrc74ZtwNss\\_u80QUymzaR4dNNruNNLsRW41TteFdyAttfZ0H4](https://www.cbc.ca/radio/thecurrent/the-current-for-may-21-2018-1.4671757/a-vaccine-for-lyme-disease-was-shelved-years-ago-is-it-time-to-bring-it-back-1.4671765?fbclid=IwAR2ZN8rvUVrc74ZtwNss_u80QUymzaR4dNNruNNLsRW41TteFdyAttfZ0H4)

News Center Maine – Discussing babesiosis

<https://www.newscentermaine.com/article/news/health/tick-and-lyme/kennebunk-boy-struggles-to-recover-from-rare-tick-borne-illness/97-1d055f22-d38b-4965-8f85-6b21e31f8ef9>

## Student Awards

Congratulations to **Lindsey Fitzsimons** and **Dr. Kerry Tucker** for receiving the Thomas Maciag Award for Excellence in Basic and Translational Science for her presentation entitled "Primary cilia of the cardiac neural crest orchestrate critical aspects of ventricular myocardial maturation and postnatal cardiac function" which was presented at the annual Costas T. Lambrew Research Retreat. She was also invited to deliver one of the platform presentations at the 2019 Weinstein International Cardiovascular Development Conference.

Congratulations to Kayleigh Corrado and **Dr. Tamara King** for having been chosen for a student presentation at the 2019 UNE COM Student Fall Research and Scholarship Forum (9/13/19)

Congratulations to Cassidy Veasaw and **Dr. Tamara King** for winning 2nd place in the Basic Science Research category of poster presentations at the 2019 UNE COM Student Fall Research and Scholarship Forum (9/13/19)



Congratulations to all students and their Department of Biomedical Sciences mentors (**Drs. Cao, Houseknecht, King, May, Straub, and Tucker**) on excellent research and presentations at the 2019 UNE COM Student Fall Research and Scholarship Forum (9/13/19)

### New Board Members

**Douglas Spicer, PhD** was elected to the Board of Directors for the Association of Biochemistry Educators this summer.

### 2019 Grants Received

Congratulations to **Derek Molliver, PhD** for being awarded a 4 year, \$1.84 million grant from NINDS and NIGMS entitled “Adenylyl Cyclase Signaling in Persistent Pain” to investigate the transition from acute pain to chronic pain. **Benjamin Harrison, PhD** is a co-investigator on this research project.

Congratulations to **Benjamin Harrison, PhD** for being awarded a one-year administrative supplement to the COBRE of \$315,513 to develop agents that promote survival and homeostatic/adaptive plasticity of cholinergic neurons in Alzheimer’s disease by targeting the NGF signaling pathway. The work has the potential to develop therapeutics that could prevent, delay or even reverse the cholinergic lesion, a major component of Alzheimer’s neuropathology.

Congratulations to **Kathleen Becker, PhD** for being awarded an NIA subcontract entitled “The impact of C3H sub-strain variation on marrow adiposity and bone metabolism” to investigate the impact of naturally occurring genetic variation in C3H mice on bone marrow adipose tissue, bone density, and fat mass.