



College of Osteopathic Medicine - Faculty Research Interests 2018

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Faculty	Research Interests
Hywda A. Arafat, M.D., Ph.D. <i>Clinical Professor</i> harafat@une.edu	<ul style="list-style-type: none"> Investigating medical educational development demands through studying curriculum design and development for both faculty and students
Geoffrey Bove, D.C., Ph.D. <i>Research Professor</i> gbove@une.edu	<ul style="list-style-type: none"> Effects of inflammation on nerves and axons Pain mechanisms due to peripheral nerve disorders Manual therapy for prevention of repetitive motion disorders
Carol A. Brenner, Ph.D. <i>Associate Dean, Research & Scholarship; Professor</i> cbrenner1@une.edu	<ul style="list-style-type: none"> Mitochondrial biology Reproductive sciences Rural and underserved medicine
Sarah Breul, M.P.A. <i>Director, Coastal Healthy Communities Coalition</i> sbreul@une.edu	<ul style="list-style-type: none"> Community-based approaches to preventing childhood lead poisoning Community collaboration and action to reduce substance use among youth SNAP-Ed nutrition education, helping Mainers to shop, cook and eat healthy on a budget
Mark Brezinski, M.D., Ph.D., CPT <i>Adjunct Faculty</i> mbrezinski@une.edu	<ul style="list-style-type: none"> Early detection of arthritis Coronary plaque imaging Injury prevention and gait analysis
Ling Cao, M.D., Ph.D. <i>Associate Professor</i> lcao@une.edu	<ul style="list-style-type: none"> Neuroimmune mechanisms in neuropathic pain and nerve regeneration Morphine exacerbated HIV-associated neurological disorders Chronic pain related clinical/population studies
Frank J. Daly, Ph.D. <i>Associate Professor</i> fdaly@une.edu	<ul style="list-style-type: none"> Vertebrate retinal biology Anatomical Educational Practices
Stuart N. Damon, D.O., M.S. <i>Assistant Clinical Professor</i> sdamon@une.edu	<ul style="list-style-type: none"> Cognitive Load Theory applied to simulation Asperger autism Rural medicine
Marilyn R. Gugliucci, M.A., Ph.D. <i>Professor; Director, Geriatrics Education & Research</i> mgugliucci@une.edu	<ul style="list-style-type: none"> Learning by Living: Nursing Home Immersion Research – Students live as an elder resident for 2 weeks 48 Hour Hospice Home Immersion Research – Students live in acute-care environment providing care Balancing Act Falls Prevention Research – Self-taught balance program for older adults
Ben Harrison, Ph.D. <i>Assistant Professor</i> Bharrison2@une.edu	<ul style="list-style-type: none"> Changes in neuron structure during the development of chronic pain Development of bioinformatics approaches to study gene regulation during neuroplasticity Coordination of protein complexes during neuron branching
Selma C. Holden, M.D., M.P.H., M.S. <i>Assistant Clinical Professor</i> sholden1@une.edu	<ul style="list-style-type: none"> Analyzing the effects of prenatal yoga on maternal wellness and mobility Botanical approaches to medication assisted treatment
Karen Houseknecht, Ph.D. <i>Associate Provost for Research & Scholarship; Professor</i> khouseknecht@une.edu	<ul style="list-style-type: none"> Integration of neuroscience/metabolism; molecular regulation of mood/metabolism (diabetes) Pharmacology: Efficacy and side of effects of psychiatric medications and drugs of abuse Novel therapeutics: Treatment of metabolic syndrome, psychosis and pain-based diseases
Tamara King, Ph.D. <i>Associate Professor</i> tking6@une.edu	<ul style="list-style-type: none"> Mechanisms underlying cancer-induced bone pain Mechanisms underlying advanced osteoarthritis induced pain
Meghan May, M.S., Ph.D. <i>Associate Professor</i> mmay3@une.edu	<ul style="list-style-type: none"> Pathogen Evolution and Genomics; Emerging Infectious Diseases Mechanisms of infection-mediated pain Improved Clinical Diagnostics for Infections and case reports in Infectious Disease

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<p>Ian D. Meng, Ph.D. <i>Professor; Director, Center of Biomedical Research Excellence (COBRE) for the Study of Pain and Sensory Function; Director, Center for Excellence in the Neurosciences</i> imeng@une.edu</p>	<ul style="list-style-type: none"> • Migraine headache; Medication overuse headache • Transformation of migraine headache to chronic daily headache • Chronic Dry Eye Syndrome
<p>David J. Mokler, Ph.D. <i>Professor; Co-Chair, Department of Biomedical Sciences</i> dmokler@une.edu</p>	<ul style="list-style-type: none"> • Effects of prenatal protein malnutrition on brain development, particularly to limbic system • Effects of drugs of abuse on the brain dopamine and serotonin systems • Prefrontal cortex of the adolescent brain compared to the adult brain
<p>Derek C. Molliver, Ph.D. <i>Associate Professor</i> dmolliver@une.edu</p>	<ul style="list-style-type: none"> • Signal transduction and proteomics in chronic pain • Control of neuronal response properties through changes in modular signaling complexes • Selectivity and integration of G protein-coupled receptor signaling pathways
<p>Joy Palmer, D.O. <i>Adjunct Faculty; Program Director, NMM/ OMM Plus One Residency</i> jpalm@une.edu</p>	<ul style="list-style-type: none"> • Osteopathic Manipulative Medicine in the VA Population • Osteopathic Manipulative Medicine and Hip Osteoarthritis
<p>Tristan Reynolds, D.O. <i>Assistant Clinical Professor</i> treynolds2@une.edu</p>	<ul style="list-style-type: none"> • Innovations in medical education • Neuromusculoskeletal medicine
<p>Rebecca J. Rowe, Ph.D. <i>Associate Professor</i> rrowe@une.edu</p>	<ul style="list-style-type: none"> • Medical Education Research
<p>Mark Schuenke, Ph.D. <i>Associate Professor; Co-Chair, Department of Biomedical Sciences</i> mschuenke@une.edu</p>	<ul style="list-style-type: none"> • Examine anatomical and biomechanical relationships related to lumbopelvic pain • Examine potential sites of peripheral nerve entrapment • Examine potential countermeasures to age-related muscle atrophy and diabetes
<p>Ryan M. Smith, D.O., M.Ed., FAPA <i>Assistant Professor</i> Rsmith8@une.edu</p>	<ul style="list-style-type: none"> • Medical student and resident physician mental health; Electroconvulsive therapy • Suicide and psychiatric disorders and their treatment in rural medicine • Medical education research on standardized test assessment preparation methods
<p>Douglas Spicer, Ph.D. <i>Associate Professor</i> dspicer@une.edu</p>	<ul style="list-style-type: none"> • Innovations in medical education • Active learning pedagogies in medical education
<p>Victoria Stacey Thieme, D.O. <i>Clinical Assistant Professor; Director of Preceptor Programs</i> vthieme@une.edu</p>	<ul style="list-style-type: none"> • Therapeutic effects of cannabis and hospice care • Rural Maine and Geriatric care; Movement therapy on patients in long term care • Physician attitudes towards people with substance use disorders
<p>Kathryn Thompson, Ph.D. <i>Professor</i> ktompson@une.edu</p>	<ul style="list-style-type: none"> • Cognitive integration of basic and clinical sciences to improve learning and retention. • Culinary medicine and other pedagogies for the integration of nutrition in medical school curricula • Concept mapping, team based learning and other active learning pedagogies
<p>Kerry L. Tucker, Ph.D. <i>Associate Professor</i> ktucker2@une.edu</p>	<ul style="list-style-type: none"> • Primary cilia and pain processing • Primary cilia and brain development and function • Mouse models of congenital heart defects
<p>Katherine Warden, Ph.D. <i>Dir. of Behavioral Medicine, St. Elizabeth's F.M. Residency Program</i> kwarden@mvhealthsystem.org</p>	<ul style="list-style-type: none"> • Neuropsychology (TBI, Stroke, TIA, Neurocognitive Disorders) • Behavioral Health in Primary Care; Substance Abuse in Primary Care • Childhood Disorders in Primary Care
<p>Frank Willard, Ph.D. <i>Professor of Anatomy</i> fwillard@une.edu</p>	<ul style="list-style-type: none"> • Examine the neurovascular anatomy of the cervical and lumbosacral spine • Exploring the myofascial and ligamentous support system of the lumbosacral spine and its dysfunction in patients with low back pain
<p>Barbara Winterson, Ph.D. <i>Professor</i> bwinterson@une.edu</p>	<ul style="list-style-type: none"> • Vision and eye movements • Pain and movement • Assessment in medical education