### **CURRICULUM VITAE**

# Christopher Engeland, Ph.D.

Associate Professor (Tenured)

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**Research Overview:** Broadly, I am interested in how stress, age, gender, and hormones affect immunity, inflammation, and health; also the feasibility of different biomarkers for predicting health outcomes.

Research i) Effects of stress, age, sex & hormones on inflammation and wound healing (human, animal)

Interests: ii) Stress, inflammation, cognitive aging/decline, and dementia risk (human)

- iii) Inflammation and mental health (e.g., depression, bipolar) (human)
- iv) Inflammatory biomarkers and stress as predictors of preterm birth (human)
- v) Salivary diagnostics and immunity (human)
- vi) Effects of chronic stress and oxytocin on wound healing (animal)

# **ACADEMIC POSITIONS**

Associate Professor (tenured)	Biobehavioral Health (PSU)	2017 - Present
Joint Faculty Member	College of Nursing (PSU)	2013 - Present
Adjunct Faculty Member	Graduate Program for Neuroscience (PSU)	2013 - Present
Affiliate Faculty Member	Social Behavioral Neuroscience (PSU)	2019 - Present
Affiliate Faculty Member	Center of Geriatric Nursing Excellence (PSU)	2018 - Present
Affiliate Faculty Member	Center for Healthy Aging (PSU)	2016 - Present
Affiliate Faculty Member	Center for Wound Healing (UIC)	2008 - Present
Past Positions:		
Assistant Professor	Biobehavioral Health (PSU)	2013 - 2017
Assistant Professor	Periodontics (UIC)	2008 - 2014
Assistant Professor (Joint)	Women, Child, Family Health Science (UIC)	2012 - 2013
Assistant Professor (Adjunct)	Neuroscience Program (UIC)	2009 - 2013
Research Assistant Professor	Periodontics (UIC)	2005 - 2008

#### **ACADEMIC HISTORY**

**Post-Doctoral Fellow**, *University of Illinois at Chicago (UIC)* 2003-2005, *The Ohio State University (OSU)* 2002-2003, Advisor: Phillip Marucha, Ph.D., D.M.D.

### Doctor of Philosophy, Neuroscience (2002)

University of Western Ontario (UWO) - London, Ontario, Canada

Advisors: Klaus-Peter Ossenkopp Ph.D., Martin Kavaliers Ph.D.

Thesis: Factors which modulate sickness expression and tolerance development following bacterial infection in rodents

Master of Science, Specialization in Neuroscience (1997)

Carleton University - Ottawa, Ontario, Canada; Advisor: Verner Knott Ph.D.

Thesis: Nicotine and the mismatch negativity in Alzheimer's disease

Bachelor of Science, High Honours in Psychology (1994)

Carleton University - Ottawa, Ontario, Canada; Advisor: Shelley Parlow Ph.D.

Thesis: A subclassification of left-handers into consistent and inconsistent classes and an analysis of performance on a 2:1 tapping apparatus

### **ACTIVE GRANT FUNDING** (Direct costs shown)

### NIH RF1 AG056487-01A1

07/01/2018 - 03/31/2023

\$2.650.961

(Engeland, Graham-Engeland)

Integrative biobehavioral and psychosocial risk for cognitive decline in the elderly

This longitudinal study (4 annual data waves) examines how inflammation, lipid signaling, and neurodegenerative biomarkers predict cognitive decline, mild cognitive impairment, and ultimately dementia (e.g., Alzheimer's disease) in 500 participants 70-90 years of age in the Bronx, NY.

Role: PI (Multiple)

# NIH R21 AG066140-01 (Knight, Engeland)

09/15/2019 - 05/31/2022 NCE \$275,000

Sex hormones, inflammation, and cognitive decline in older men and women

This addition to an ongoing longitudinal study examines, across 3 annual data waves, how sex hormones in the elderly (testosterone, estrogen, estrone) relate to inflammation and predict cognitive decline, mild cognitive impairment, and ultimately dementia (e.g., Alzheimer's disease) in 600 participants 70-90 years of age in the Bronx, NY. **Role: PI (Multiple)** 

### NIH R01 MD011575-01A1 (Giurgescu)

01/06/2017 - 4/30/2022

\$2,498,120

Social stressors and inflammation: A mixed methods approach to preterm birth

This mixed method, longitudinal study will be the first to prospectively examine five interrelated factors (social stressors, personal resources, emotional stress, cortisol, and inflammation) that have been related to preterm birth. The study will be conducted with 1500 African American women. **Role: Co-I (PI at Penn State)** 

### NIH U01 AG062370-01 (Ross)

09/30/2018 - 05/31/2021 NCE \$1,380,573

Elucidating the necessary components and mechanisms of cognitive training (ENACT)

This study will use two forms of cognitive training to examine how cognitive and psychosocial factors account for the transfer of such training to everyday function in adults aged 45-90. Lifestyle behaviors, biomarkers and neural mechanisms (fMRI) will also be explored. **Role: Co-I** 

### NIH R44 AG056250-03A1 (Gartenberg)

06/01/2020 - 05/31/2022

\$2,478,346

A non-pharmacological multi-modal therapy to improve sleep and cognition and reduce mild cognitive impairment risk

The overall objective of this research is to develop a non-pharmacological means to address sleep deficiencies and well-being in older adults. **Role: Co-I** 

#### **Proactive Life Inc. (Buxton)**

04/01/2020 - 05/31/2022

\$482.877

A non-pharmacological multi-modal therapy to improve sleep and cognition and reduce mild cognitive impairment risk

In conjunction with NIH grant AG056250-03A1 (above), the overall objective of this research is to develop a non-pharmacological means to address sleep deficiencies and well-being in older adults. **Role: Co-l** 

NIH UL1 TR002014 Penn State CTSI (Mukherjee) 09/01/2019 – 08/31/2021 NCE \$47,300 Neural, Inflammatory and Behavioral Markers of Anhedonia in Treatment Resistant Depression This study examines the unique and interactive associations between measures of fMRI, MRI, and inflammation with components of depressed mood (e.g., anhedonia) in patients who are non-responsive to antidepressants. Role: Co-I

# PA Tobacco Settlement Fund (TSF)

Junior Faculty Research Scholar Award: Commonwealth Universal Research Enhancement (CURE) Program (Mukherjee) 06/01/2020 - 06/30/2023 \$200,000

A neurobiological model of anticipatory anhedonia: The association of inflammation and reward circuitry dysfunction in treatment resistant depression

This study examines the unique and interactive associations between measures of inflammation (blood) and reward (fMRI) with anticipatory anhedonia in patients who are non-responsive to antidepressants.

Role: Faculty mentor / Co-I

NIH R01 HL153377-01 (Zilioli)

04/01/2021 - 03/31/2026

\$2,619,373

Stress, racism, and cardiovascular risk among urban African American adults: A multilevel, mixed methods approach

Using a mixed methods approach, this study will identify the psychosocial stressors most salient to 400 middle-aged and older African Americans. We will model the daily psychological, behavioral and biological pathways through which stress can exacerbate cardiovascular disease (CVD) risk in this population. **Role: Co-I (PI at Penn State)** 

NIH R01 AG067532-01 (Gamaldo)

04/01/2021 - 03/31/2026

\$2.391.530

Psychosocial and neighborhood mechanisms and consequences of Black-White sleep disparities on cognition

This longitudinal study (6 biannual data waves) will model racial differences in the associations between sleep and cognitive functioning, while accounting for factors such as cumulative/life stress and inflammation. Risk for cognitive decline will be determined. **Role: Co-I** 

#### **ACTIVE TRAINING GRANTS**

NIH T32 AG049676-01 (Martire, Almeida)

2015 - Present

Psychosocial determinants and biological pathways to healthy aging

Role: Co-I; Faculty Mentor

NIH R25 HL147668-01 (Wray, Kitko)

2019 - Present

Improving access through research and training (IMPACT)

Role: Co-I; Faculty Mentor

NIH T32 HD101390-01 (Noll, Jackson)

05/11/2020 - 04/30/2025

Creating the next generation of scholars in child maltreatment science

Role: Co-I; Faculty Mentor

### GRANTS PENDING REVIEW (Direct costs shown)

NIH P01 AG003949 (Buxton, Derby, Lipton)

12/01/2021 - 11/30/2026

\$24,150,895

Einstein Aging Study - Renewal proposal for currently funded P01

**Impact Score 20** 

Project Leader (Engeland, Graham-Engeland)

\$2,536,683

Depression, inflammation, biological age, and cognitive function

This longitudinal study (5 annual data waves) will examine how depression, inflammation, and biological aging (telomere length, DNA methylation) interact to predict cognitive decline, mild cognitive impairment, and dementia (e.g., Alzheimer's disease) in 767 participants 60+ years of age in the Bronx, NY.

Role: Project Leader (Multiple)

NIH P01 AG003949 (Buxton, Derby, Lipton)

12/01/2021 - 11/30/2026

Einstein Aging Study - Renewal proposal for currently funded P01

**Impact Score 20** 

Core Leader (Engeland, Paylovic)

\$1,719,450

**Biomarker Core** 

This core for the above P01 renewal oversees the following measures, analyses, and interpretation: plasma-based neurodegenerative biomarkers, blood autophagy, blood chemistry, genetics, and MRI.

Role: Core Leader (Multiple)

NIH R03 DK13295951 (Kovacic)

09/01/2021 - 08/31/2023

\$150,000

Brain-gut-genome profiling in connective tissue disorder-related gastrointestinal dysfunction Pilot study of brain-gut signaling, immune function and transcriptomics in a cohort of adolescents with connective tissue disorders and functional gastrointestinal complaints. Study includes detailed

characterization of autonomic function and inflammatory profiles along with gastric motility using a novel gastric MRI protocol. **Role: Consultant** 

NIH U01 (Fredman, Gamaldo)

09/01/2021 - 08/31/2026

\$8.823.250

A couple-based approach to the treatment of posttraumatic stress disorder in Black Americans. This will be the first study to utilize cognitive-behavioral conjoint therapy (CBCT) for the treatment of PTSD in Black adult couples; this will be done while accounting for relevant socio-cultural risk (e.g., discrimination) and protective factors (e.g., racial identity, spirituality, community ties). Role: Co-I Impact Score 56

### PAST GRANT FUNDING (Direct costs shown)

#### NIH U01 AG062370-02 (Ross)

07/15/2019 - 05/31/2020

\$250,000

Elucidating the necessary components and mechanisms of cognitive training

This administrative supplement provides funds for additional blood-based biomarkers to be assessed that pertain to brain health, neurodegeneration, and Alzheimer's Disease. Additional funds will cover mobile plans for cell phones and other related costs. **Role: Co-I** 

NIH R01 AG042595-01A1 (Engeland, Graham)

09/30/2012 - 05/31/2019

\$1,363,648

Inflammatory mediators of stress and cognitive aging

This longitudinal study incorporates blood and saliva sampling and a battery of psychosocial questionnaires (4 annual data waves) into an ongoing prospective study that examines cognitive aging in 320 individuals 25-65 years of age in the Bronx, NY. **Role: PI (Multiple)** 

**BBH Research Initiative Award (Murdock)** 

11/05/2018 - 06/30/2019

\$9.185

Cognitive performance and inflammation: Evaluating the role of circulating and stimulated cytokines

This study will provide pilot data on basal and lipopolysaccharide-induced cytokines in *ex* vivo human blood samples, to examine how cognitive abilities, stress, health behaviors and inflammation relate to metabolic syndrome. **Role: Co-I** 

**BBH Research Initiative Award (Murdock)** 

04/20/2018 - 08/31/2018

\$3,400

Cognitive profiles and metabolic syndrome: Biobehavioral mechanisms explaining increased risk and progression

This study will provide pilot data on mitochondrial dysfunction for a future R01 grant application examining how cognitive abilities, stress, health behaviors and critical biomarkers relate to metabolic syndrome. **Role: Co-I** 

CTSI Bridges to Translation Award (Engeland)

11/01/2015 - 06/30/2017

\$45,980

Penn State University - NIH UL1 TR002014

Hyperglycemia and impaired healing in medically complex surgical patients

This clinical pilot study examines hyperglycemia development and surgical outcomes in hernia repair patients, with a focus on lipidomics and proteomics aimed at factors critical for tissue repair that are assessed from blood and directly in the wound site (i.e., wound drainage). **Role: PI** 

University of Sydney

01/01/2015 - 12/31/2016

\$19.541

**International Program Development Fund (Edwards)** 

Healthy aging in a changing climate: Heat wave survival, critical biomarkers and interventions This pilot project examines the efficacy of lowcost, energy efficient interventions (e.g. electric fans) on mitigating cardiovascular and thermal strain, which lead to a heighten risk of cardiac events in at-risk individuals during heat waves. Role: Co-I

Social Science Research Institute – CYFC (NoII)

03/01/2014 - 02/28/2016

\$43,000

Penn State University

Daily Stress and Premature Cognitive Aging as Long-term Sequelae of Childhood Sexual Abuse

This grant examined resilience in the face of daily stressors and the extent to which daily stressors exacerbate the impact of an already-compromised Hypothalamic Pituitary Adrenal (HPA) axis.

**Role: Consultant** 

**UIC Midwest Roybal Center** 

10/01/2014 - 09/30/2015

\$50,000

for Health Promotion and Translation (Ezenwa)

Feasibility of a Stress Reduction Intervention Study in Sickle Cell Disease

This clinical pilot study assessed the effects that stress reduction has on pain perception, cortisol levels and cardiovascular function in patients with sickle cell disease. **Role: Co-I** 

Wayne State University (Giurgescu)

04/01/2013 - 03/31/2015

\$5,000

**College of Nursing** 

Social stressors, inflammation, and preterm birth in African American women: A pilot

This study examined the role of social stressors and inflammation on preterm birth for African American women in Detroit. **Role: Co-I** 

College of Nursing Internal Research (Ezenwa)

02/01/2013-01/31/2014

\$10,000

The Feasibility of a Stress Reduction Intervention Study in Sickle Cell Disease

Pilot study that assessed the effects that a guided imagery intervention has on perceived stress, pain perception, and cortisol levels in patients with sickle cell disease. **Role: Co-I** 

**UIC Campus Research Board (Ezenwa)** 

01/01/2014-12/31/2014

\$20,000

Feasibility of a Stress Reduction Intervention Study in Sickle Cell Disease

This clinical pilot study assessed the effects that stress reduction has on pain perception, cortisol levels and cardiovascular function in patients with sickle cell disease. **Role: Co-I** 

Marie Curie Funding Scheme fp7 (Lord)

11/01/2009-10/31/2013

€3,100,000

**European Research Council** 

Neuroendocrine Networks in Aging – Stress, Immunity, and Mental Health

Study aims: 1) to investigate the associations between lifestyle, psychosocial factors, and markers of immunesenescence in pre-senescent adults (18-65 yrs); 2) to investigate the potential mediating roles of neuroendocrine activity and latent viral infection in these associations. **Role: Consultant** 

Social Science Research Institute (Graham)

10/05/2011-10/04/2013

\$24,748

Penn State University

Inflammatory Mediators of Psychological Stress and Cognitive Aging

This pilot funding enabled sample collection over the first year, and also the analysis of inflammatory biomarkers collected during the first 6 months, in an ongoing longitudinal study of stress and cognitive aging in the Bronx, NY. This ensured that physiological data was not lost prior to R01 funding (see above). **Role: Co-I** 

Social Science Research Institute (Graham)

08/01/2012-07/31/2013

\$4,940

Penn State University

Validation of Salivary to Blood-based Inflammatory Markers and Associations with Psychosocial and Immune Health Indicators

This pilot study will validate various inflammatory biomarkers in saliva to previously obtained values in blood, and also relate them to tissue inflammation during wound healing. **Role: Co-I** 

**UIC CCTS Pilot Grant 2011 (White-Traut)** 

08/01/2011-07/31/2013

\$60,000

Pathways to Preterm Birth: Stress, Inflammation, & Cervical Remodelling

This pilot project has provided additional preliminary data to enhance this group's P01 application for 09/2013 (see above). **Role: Co-I** 

5

NIH R01 DE017686-01 (Marucha) Stress-Impaired Microbial Clearance 03/01/2008-02/28/2013

\$1,250,000

This program will study the effects of stress on the immune system, and the role of oxygen on stress-impaired microbial clearance, during wound healing. **Role: Co-I** 

NIH R03 NR010608-01 (Giurgescu)

07/01/2008-06/30/2011

\$100.000

Race-related Stressors and Preterm Birth in African-American Women

This program will examine the relations between psychological and physiological stressors, immune responses and the incidence of preterm birth in low income African-American women. **Role: Co-I** 

**UIC Wach Fund (Fischer)** 

06/01/2009-12/31/2010

314.788

Application of Salivary Diagnostics in Patients With and Without Intraoral Lesions

This study will evaluate saliva as a diagnostic tool in assessing oral health in patients near the end of life. **Role: Co-l** 

NIH R21 DE018161-01 (Engeland)

05/01/2008-04/30/2010

\$275,000

Clinical Corticosteroid Therapy: Impact on Oral Mucosal Wound Healing

This program seeks to determine the effects of corticosteroid administration upon tissue inflammation and the healing of standardized oral mucosal wounds, and to assess the interactive effects of circulating sex and stress hormones on these healing parameters. These results should have a direct impact upon the prevalence of corticosteroid use in dental surgery. **Role: PI** 

NIH R21 DE018161-02S1 (Engeland)

06/02/2009-04/30/2010

\$8.600

**Administrative Supplements Providing Summer Research Experiences** 

This application will fund two undergraduate research students for the summer to work on my NIH funded R21 grant. It also provides \$2000 for research supplies. **Role: PI** 

**PUBLICATIONS** 

h-Index = 26 [Google Scholar]

\* Mentored trainee \*\* Corresponding author

- Giurgescu C, Misra D, Slaughter-Acey J, Gillespie S, Nowak Alexandra, Dove-Medows E, Engeland CG, Zenk S, Lydic T, Sealy-Jefferson S, Ford J, Drury S, Stemmer P. (In Press) Neighborhoods, racism, stress and preterm birth among African American women: A review. Western Journal of Nursing Research.
- Vervoordt S, Arnett P, Engeland CG, Hillary F. (In Press) Depression associated with APOE status and hippocampal volume but not cognitive decline in older adults with a history of traumatic brain injury. Neuropsychology.
- 3) Knight EL, Rodriguex-Stanley J, Jiang Y, Almeida DM, **Engeland CG**, Zilioli S. (2021) Perceived stress is linked to heightened biomarkers of inflammation via diurnal cortisol in a national sample of adults. <u>Brain, Behavior, and Immunity</u>. 93:206-213. PMID: 33515741 *Invited commentary. PMID:* 33831472
- 4) Davis KM, **Engeland CG**, Murdock KW. (2020) Ex vivo LPS-stimulated cytokine production is associated with cortisol curves in response to acute psychosocial stress. <u>Psychoneuroendocrinology</u>. 121:104863 (8 pages). PMID: 32950932
- 5) Giurgescu C, Zhang L, Price M, Dailey R, Frey H, Walker D, Zenk SN, **Engeland CG**, Anderson CM, Misra DP. (2020) Prenatal cigarette smoking as a mediator between racism and depressive symptoms: The biosocial impact on black births study. <u>Public Health Nursing</u>. 37(5):740-749. PMID: 32734603
- 6) Woo J, Koenig MD, **Engeland CG**, Kominiarek M, White-Traut R, Yeatts P, Giurgescu C. (2020) Neighborhood disorder predicts lower serum vitamin D levels in pregnant African American women: A pilot study. <u>Journal of Steroid Biochemistry and Molecular Biology</u>. 200:105648. PMID: 32142935
- 7) Jones DR, Smyth JM, Engeland CG, Sliwinski MJ, Russell R, Sin NL, Almeida D, Graham-Engeland

- JE. (2020) Affect variability and inflammatory markers in midlife adults. <u>Health Psychology</u>. 39(8):655-666. PMID: 32324001
- 8) Yang H\*, **Engeland CG**, King TS, Sawyer AM. (2020) The relationship between diurnal variation of cytokines and symptom expression in mild obstructive sleep apnea. <u>Journal of Clinical Sleep Medicine</u>. 16(5):715-723. PMID: 32029067
- 9) Majd M\*, Saunders E, **Engeland CG\***\*. (2020) Inflammation and the dimensions of depression: A review. Frontiers in Neuroendocrinology. 56:100800 (21 pages). PMID: 31654681
- 10) **Engeland CG\*\*.** (2020) Wound healing. In: Gellman MD, Turner JR (Eds.), Encyclopedia of Behavioral Medicine, 2<sup>nd</sup> edition. New York: Springer. pp. 2360-2366. ISBN: 978-3030399016 doi:10.1007/987-1-4614-6439-6\_502-2
- 11) Lee S, Stone KL, **Engeland CG**, Lane NE, Buxton OM. (2020) Arthritis, sleep health, and systemic inflammation in older men. <u>Arthritis Care and Research</u>. 72(7):965-973. PMID: 31074577
- 12) Knight EL\*, Majd M\*, Graham-Engeland JE, Smyth JM, Sliwinski MJ, **Engeland CG\*\***. (2020) Gender differences in the link between depressive symptoms and *ex vivo* inflammatory responses are associated with markers of endotoxemia. <u>Brain, Behavior, & Immunity Health</u>. 2:100013 (22 pages). PMID: 34258602
- 13) Slavish DC, Jones DR, Smyth JM, **Engeland CG**, Song S, McCormack N, Graham-Engeland JE. (2020) Positive and negative affect and salivary markers of inflammation among young adults. <u>International Journal of Behavioral Medicine</u>. 27(3):282-293. PMID: 31222631
- 14) **Engeland CG\*\***, Bosch JA, Rohleder N. (2019) Salivary biomarkers in psychoneuroimmunology. Current Opinion in Behavioral Sciences. 28:58-65. PMID: 32215283
- 15) Slavish DC, Graham-Engeland JE, **Engeland CG**, Taylor DJ, Buxton OM. (2018) Insomnia symptoms are associated with elevated C-reactive protein in young adults. <u>Psychology and Health</u>. 33(11):1396-1415. PMID: 30358412
- 16) Graham-Engeland JE, Sin NL\*, Smyth JM, Jones DR, Knight EL\*, Sliwinski MJ, Almeida DM, Katz MJ, Lipton RB, **Engeland CG**. (2018) Negative and positive affect as predictors of inflammation: Timing matters. <u>Brain, Behavior, and Immunity</u>. 74:222-230. PMID: 30217538
- 17) Majd M\*, Graham-Engeland JE, Smyth JM, Sliwinski MJ, Lipton RB, Katz MJ, Engeland CG\*\*. (2018) Distinct inflammatory response patterns are evident among men and women with higher depressive symptoms. <u>Physiology and Behavior</u>. 184:108-115. PMID: 29133231
- 18) Pyter LM\*, McKim DB, Husain Y, Calero H, Godbout JP, Sheridan JF, Marucha PT, **Engeland CG**. (2018) Effects of dermal wounding on distal primary tumor immunobiology in mice. <u>Journal of Surgical Research</u>. 221:328-335. PMID: 29229147
- 19) Welke L, Thomson J, Koenig MD, Nemeth E, White-Traut R, McFarlin B, Giurgescu C, **Engeland CG**, Kominiarek M, Tussing-Humphreys L. (2017) Iron metabolism in African American women in the second and third trimesters of high-risk pregnancies. <u>Journal of Obstetric, Gynecologic, and Neonatal Nursing</u>. 46(1):148-158. PMID: 27836659
- 20) Giurgescu C, Zenk SN, Templin TN, **Engeland CG**, Kavanaugh K, Misra DP. (2017) The impact of neighborhood conditions and psychological distress on preterm birth in African-American women. Public Health Nursing. 34(3):256-266. PMID: 27891658
- 21) Koenig, MD, McFarlin B, Steffen A, Tussing-Humphreys L, Giurgescu C, **Engeland CG**, Kominiarek M, Strom B, Ciezczak C, O'Brien WD, Norr K, White-Traut R. (2017) Decreased nutrient intake is

- associated with premature cervical remodeling. <u>Journal of Obstetric, Gynecologic, and Neonatal</u> Nursing. 46(1):123-134. PMID: 27836660
- 22) Gajendrareddy PK, Junges R\*, Cygan G, Zhao Y, Marucha PT, **Engeland CG**. (2017) Increased oxygen exposure alters collagen expression and tissue architecture during ligature-induced periodontitis. <u>Journal of Periodontal Research</u>. 52(3):644-649. PMID: 27573480
- 23) Giurgescu C, Zenk SN, **Engeland CG**, Garfield L, Templin TN. (2017) Racial discrimination and psychological wellbeing of pregnant women. <u>The American Journal of Maternal/Child Nursing</u>. 42(1): 8-13. PMID: 27749288
- 24) Pyter LM\*, Husain Y, Calero H, McKim DB, Lin H-Y, Godbout JP, Sheridan JF, **Engeland CG**, Marucha PT. (2016) Tumors alter inflammation and impair dermal wound healing in female mice. PLoS ONE. 11(8):e0161537 (1-16). PMID: 27548621
- 25) Giurgescu C, **Engeland CG**, Templin TN, Zenk SN, Koenig MD, Garfield L. (2016) Racial discrimination predicts greater systemic inflammation in pregnant African American women. <u>Applied Nursing Research</u>. 32:98-103. PMID: 27969060
- 26) Dorn LD, Gayles JG, Engeland CG, Houts R, Cizza G, Denson LA. (2016) Cytokine patterns in healthy adolescent girls: Heterogeneity captured by variable and person-centered statistical strategies. <a href="Psychosomatic Medicine">Psychosomatic Medicine</a>. 78(6):646-656. PMID: 27187849
  Invited Commentary. PMID: 27057818
- 27) Ezenwa MO, Yao Y, **Engeland CG**, Molokie RE, Wang ZJ, Suarez ML, Wilkie DJ. (2016) A randomized controlled pilot study feasibility of a tablet-based guided audio-visual relaxation intervention for reducing stress and pain in adults with sickle cell disease. <u>Journal of Advanced Nursing</u>. 72(6):1452-1463. PMID: 26768753
- 28) **Engeland CG\*\***, Hugo FN, Hilgert JB, Nascimento GG\*, Junges R\*, Lim H-J, Marucha PT, Bosch JA. (2016) Psychological distress and salivary secretory immunity. <u>Brain, Behavior, and Immunity</u>. 52(2): 11-17. PMID: 26318411 *Invited Commentary. PMID: 26518297*
- 29) Giurgescu C, **Engeland CG**, Templin TN. (2015) Symptoms of depression predict negative birth outcomes in African American women: A pilot study. <u>Journal of Midwifery and Women's Health</u>. 60(5):570-577. PMID: 26461192

  Best Research Article of the Year Award 2016 Journal of Midwifery & Women's Health
- 30) Scott SB, Graham-Engeland JE, **Engeland CG**, Smyth JM, Almeida DM, Katz MJ, Lipton RB, Mogle JA, Ram N, Munoz E, Sliwinski MJ. (2015) The effects of stress on cognitive aging, physiology and emotion (ESCAPE) project. <u>BMC Psychiatry</u>. 15(1):1-14. PMID: 26138700
- 31) Giurgescu C, Zenk SN, Templin TN, **Engeland CG**, Dancy BL, Park C, Kavanaugh K, Dieber W, Misra DP. (2015) The impact of neighborhood environment, social support and avoidance coping on depressive symptoms of pregnant African-American women. <u>Women's Health Issues</u>. 25(3):294-302. PMID: 25840930
- 32) Giurgescu C, Sanguanklin N, **Engeland CG**, Mathews HL, White-Traut RC, Witek Janusek LW. (2015) Relationships among psychosocial factors, biomarkers, preeclampsia, and preterm birth in African American women: A pilot. <u>Applied Nursing Research</u>. 28(1):e1-6. PMID: 25282477
- 33) Slavish DC, Graham-Engeland JE, Smyth JM, **Engeland CG**. (2015) Salivary markers of inflammation in response to acute stress. <u>Brain, Behavior and Immunity</u>. 44:253-269. PMID: 25205395.

- 34) Pyter LM\*, Yang L\*, McKenzie CC\*, da Rocha JM\*, Carter CS, Cheng B, **Engeland CG\*\***. (2014) Contrasting mechanisms by which social isolation and restraint impair healing in male mice. <u>Stress</u>, 17(3): 256-265. PMID: 24689778.
- 35) Pyter LM\*, Yang L\*, da Rocha JM\*, **Engeland CG\*\***. (2014) The effects of social isolation on wound healing mechanisms in female mice. Physiology and Behavior, 127: 64-70. PMID: 24486329.
- 36) Giurgescu C, **Engeland CG**, Zenk SN, Kavanaugh K. (2013) Stress, inflammation and preterm birth in African American women. Newborn & Infant Nursing Reviews, 13(4): 171-177.
- 37) Yang L\*, **Engeland CG**, Cheng B. (2013) Social isolation impairs oral palatal wound healing in Sprague-Dawley rats: A role for miR-29 and miR-203 via VEGF suppression. <u>PLOS ONE</u>, 8(8): 1-8. PMID: 23951316.
- 38) Giurgescu C, Kavanaugh K, Norr KF, Dancy BL, Twigg NM, McFarlin BL, **Engeland CG**, Hennessy MD, White-Traut RC. (2013) Stressors, resources, and stress responses in pregnant African American women: A mixed-methods pilot study. <u>The Journal of Perinatal & Neonatal Nursing</u>, 27(1): 81-96. PMID: 23360946.
- 39) Gajendrareddy PK, **Engeland CG**, Junges R\*, Horan MP, Rojas G, Marucha PT. (2013) MMP-8 overexpression and persistence of neutrophils relate to stress-impaired healing and poor collagen architecture in mice. Brain, Behavior, and Immunity, 28(2): 44-48. PMID: 23103444.
- 40) Sun Y, Lu Y, **Engeland CG**, Gordon S, Sroussi HY. (2013) The anti-oxidative, anti-inflammatory, and protective effect of S100A8 in endotoxemic mice. <u>Molecular Immunology</u>, 53(4): 443-449. PMID: 23127860.
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- 42) Graham JE, Song S, **Engeland CG**. (2012) Acute pain speeds skin barrier recovery in healthy men and women. <u>Journal of Psychosomatic Research</u>, 73(6): 452-458. PMID: 23148814.
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### Manuscripts Submitted

Graham-Engeland JE, DeMeo N, Jones DR, Mathur A, Smyth JM, Sliwinski MJ, McGrady ME, Lipton RB, Katz MJ, **Engeland CG**. Individuals with both higher recent negative affect and physical pain have higher levels of C-reactive protein. <u>Brain</u>, <u>Behavior</u>, <u>& Immunity - Health</u>.

Murdock KW, Stowe RP, **Engeland CG**. Diminished cellular immunity is associated with executive functioning among middle-aged and elderly adults. <u>Psychosomatic Medicine</u>.

Knight EL, Majd M, Graham-Engeland JE, Smyth M, Sliwinski MJ, **Engeland CG\*\***. Depressive symptoms and other negative psychological states relate to ex vivo inflammatory responses differently for men and women: Cross-sectional and longitudinal evidence. <u>Physiology and Behavior</u>.

### Published Abstracts (\* Presenter)

- 1) **Engeland CG\***, Knight EL, Sliwinski MJ, Graham-Engeland JE. (2021) Interactive effects of age and inflammation on change in ecologically-assessed cognitive functioning. (The Gerontological Society of America [GSA], Phoenix AZ)
- 2) Knight EL\*, Harrington EE, Sliwinski MJ, Graham-Engeland JE, Pavlovic J, **Engeland CG**. (2021) Inflammatory biomarkers and sex hormones interact to predict ecologically-assessed cognitive performance (GSA, Phoenix AZ)
- 3) Knight EL\*, Majd M, Graham-Engeland JE, **Engeland CG**. (2020) Depressive symptoms and other negative psychological states predict *ex vivo* inflammatory responses over time: The role of gender. (American Psychosomatic Society [APS], Virtual meeting December 2020) Selected as a Citation poster of high merit
- 4) Mattern BC\*, Marucha PT, **Engeland CG**. (2020) Fear of medical procedures speeds mucosal wound closure. (APS, Long Beach CA)
- 5) Van Bogart K\*, Kang JE, **Engeland CG**, Sliwinski MJ, Smyth JM, Graham-Engeland JE. (2020) Exploring the associations between loneliness and inflammation. (APS, Long Beach CA)
- 6) Knight EL\*, Majd M, Graham-Engeland JE, Smyth JM, Sliwinski MJ, Lipton RB, Katz MJ, **Engeland CG**. (2019) Blood endotoxin levels may explain gender differences in the link between depressive symptoms and ex vivo inflammatory responses. (Psychoneuroimmunology Research Society [PNIRS], Berlin Germany)
- 7) Knight EL\*, Majd M, Graham-Engeland JE, Smyth JM, Sliwinski MJ, Lipton RB, Katz MJ, **Engeland CG**. (2018) Stress indirectly links to ex vivo inflammatory responses via depressive symptoms and is moderated by gender. (PNIRS, Miami FL)
- 8) Nowak A, **Engeland CG**, Zenk SN, Misra DP, Giurgescu C. (2018) Perceptions of neighborhood crime relate to systemic inflammation among pregnant African American women. <u>Western Journal of Nursing Research</u>, 40(10): 1569-1570. PMID: 30188263. (Midwest Nursing Research Society [MNRS], Cleveland OH)
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- Giurgescu C, Misra DP, Nowak A, Engeland CG, Zenk, SN. (2018) Perceived neighborhood crime is related to higher serum IL-8 levels in pregnant African American women. (Sigma Theta Tau -International Nursing Research Congress, Melbourne Australia)
- Slavish DC, Graham-Engeland JE, Engeland CG, Taylor DJ, Buxton OM. (2018) Insomnia symptoms and stress-related vulnerability to sleep disturbance are associated with elevated inflammation. (APS, Louisville Kentucky)
- 11) Knight EL\*, Majd M, Graham-Engeland JE, Smyth JM, Sliwinski MJ, Lipton RB, Katz MJ, **Engeland CG**. (2018) The link between stress and inflammation is mediated by depressive symptomology and moderated by gender. (APS, Louisville Kentucky)
  - Selected as a Citation poster of high merit
- 12) Mathur A\*, Sliwinski MJ, Jones DR, **Engeland CG**, Smyth JM, Lipton RB, Katz MJ, Graham-Engeland JE. (2018) Peripheral inflammation and recent physical pain: Moderation by aggregated momentary negative affect. (APS, Louisville Kentucky)
- 13) **Engeland CG\***, Monestero AP, Gajendrareddy PK, Rocha JM, Manos MA. (2017) Higher local and systemic inflammation in periodontal disease does not alter healing rates or inflammatory responses to acute injury. (APS, Sevilla Spain)

- 14) Graham-Engeland JE\*, Slavish DC, Smyth JM, **Engeland CG**, Song S, McCormick N. (2017) Positive affect is associated with lower salivary C-reactive protein in young adults with and without chronic pain. (APS, Sevilla Spain)
- 15) Jones DR\*, Smyth JM, Sliwinski MJ, **Engeland CG**, Sin NL, Lipton RB, Katz MJ, Almeida D, Graham-Engeland JE. (2017) Positive emotion variability is associated with circulating inflammatory markers. Psychosomatic Medicine. (APS, Sevilla Spain)
- 16) **Engeland CG\***, Majd M, Graham-Engeland JE, Smyth JM, Sliwinski MJ, Lipton RB, Katz MJ. (2016) Higher depressive symptoms relate to different inflammatory response patterns (*ex vivo*) among men and women. <u>Brain, Behavior, and Immunity</u>. 57 S: e3. (PNIRS, Brighton UK)
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- 25) **Engeland CG\***, Monestero AP, da Rocha JM, Manos MA, Gajendrareddy PK. (2014) Inflammation, wound healing, and periodontal disease. <u>Brain, Behavior, and Immunity</u>, 40 S: e6-e7. (PNIRS, Philadelphia PA)
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- 45) **Engeland CG\***, Fang Z, Marucha PT. (2006) Examination stress relates to higher inflammatory cytokine expression and larger wound sizes in the oral mucosa. <u>Brain, Behavior, and Immunity</u>, 20(3) S1: s19-20 (PNIRS, Miami FL)
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- 47) Marucha PT\*, Fang Z, **Engeland CG.** (2006) Stress-impaired mucosal wound healing in humans involves an early overexpression of chemokines and E-selectin. <u>Brain, Behavior, and Immunity</u>, 20(3) S1: s46 (PNIRS, Miami FL)
- 48) **Engeland CG\***, Bosch JA, Cacioppo JT, Marucha PT. (2005) Age, gender and cortisol: Modulating effects on mucosal wound healing. <u>SFN Abstracts</u>, 31: Program No. 303.7 (SFN, Washington DC) Selected for publication in the SFN Press Book
- 49) Marucha PT\*, **Engeland CG**, Shelton SE, Haraldsson HM, Quan N, Kalin NH. (2005) Amygdala lesions increase, while stress decreases, chemokine gene expression in the wound tissue of rhesus monkeys. SFN Abstracts, 31: Program No. 184.8 (SFN, Washington DC)
- 50) **Engeland CG\***, Kalin NH, Shelton SE, Harraldson MH, Marucha PT. (2005) Amygdala lesions increase IL-8 and MIP-1α gene expression in dermal wound tissue. <u>Wound Repair and Regeneration</u>, 13(2): A44. (WHS, Chicago IL)
- 51) Sharma R\*, **Engeland CG**, Fang Z, Marucha PT. (2005) Early pro-inflammatory cytokine expression during mucosal wound healing. <u>Wound Repair and Regeneration</u>, 13(2): A10. (WHS, Chicago IL) *Award Finalist for best graduate research*
- 52) Crosby TR\*, **Engeland CG**, Bosch JA, Marucha PT. (2005) Depressed and lonely individuals express lower EGF and VEGF in saliva. Wound Repair and Regeneration, 13(2): A42. (WHS, Chicago IL)
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- 55) Sharma R, **Engeland CG**, Fang Z, Marucha PT\*. (2005) Excessive inflammation in females and older adults: relationship to delayed mucosal wound healing. <u>Brain, Behavior, and Immunity</u>, 19(4) S1: e64 (PNIRS, Denver CO)
- 56) **Engeland CG\***, Cacioppo JT, Marucha PT. (2004) Stress hormones modulate the healing rates of oral wounds. Brain, Behavior, and Immunity, 18(3) S1: (PNIRS, Titisee Germany)
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- 58) Marucha PT\*, Engeland CG, Cacioppo JT. (2004) Wound healing is delayed in women and in the

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- 59) **Engeland CG\***, Cacioppo JT, Bosch JA, Marucha PT. (2003) Oral wound healing is delayed in the aged and in women. <u>Brain, Behavior, and Immunity</u>, 17(3): 173. (PNIRS, Amelia Island FL)
- 60) Engeland CG\*, Saber AJ, Ossenkopp K-P, Kavaliers M, Cain DP. (2002) Chronic icv infusion of lipopolysaccharide (LPS) elicits partial tolerance to peripheral LPS but does not alter water maze performance in rats. <u>SFN Abstracts</u>, 28: Program No. 875.14. (SFN, Orlando FL)
- 61) Franklin AE, **Engeland CG**, Kavaliers M, Ossenkopp K-P\*. (2002) Day-night variations in the development of tolerance to and the hypoactivity effects of lipopolysaccharide in rats. <u>SFN Abstracts</u>, 28: Program No. 773.8. (SFN, Orlando FL)
- 62) Ossenkopp K-P\*, Tenk CM, Martin L, **Engeland CG**, Kavaliers M. (2002) An automated place preference conditioning procedure using the Digiscan animal activity monitor. <u>SFN Abstracts</u>, 28: Program No. 875.16. (SFN, Orlando FL)
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- 65) Ossenkopp K-P\*, Zaki KA, **Engeland CG**. (2001) Sex differences in sensitization of locomotor behaviors in rats following repeated injections of the D2 agonist, quinpirole. <u>SFN Abstracts</u>, 27: Program No. 648.5. (SFN, San Diego CA)
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- 68) **Engeland CG\***, Kavaliers M, Ossenkopp K-P. (2000) Time of day plays a critical role in the hypoactivity induced by lipopolysaccharide in male and female rats. <u>SFN Abstracts</u>, 26: 1180. (SFN, New Orleans LA)
- 69) Ossenkopp K-P\*, Krieger D, Kent WDT, Cross-Mellor SK, **Engeland CG**. (2000) Reduced alcohol intake in rats chronically treated with disulfiram (antabuse). <u>SFN Abstracts</u>, 26: 1527. (SFN, New Orleans LA)
- 70) **Engeland CG\***, Kavaliers M, Ossenkopp K-P. (2000) Tolerance to LPS-induced hypoactivity is affected by reproductive status in female, but not male meadow voles. <u>Brain, Behavior, and Immunity</u>, 14(2): 93. (PNIRS, Wilmington NC)
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- 72) **Engeland CG\***, Ossenkopp K-P, Kavaliers M. (1998) Singular and interactive effects of lipopolysaccharide and muramyl dipeptide on locomotor behavior in rats. <u>SFN Abstracts</u>, 24(2): 2075.

(SFN, Los Angeles CA)

73) **Engeland CG\***, Ossenkopp K-P, Kavaliers M. (1998) The effects of lipopolysaccharide and muramyl dipeptide on open field behaviour in rats. <u>Journal of Neuroimmunology</u>, 90(1): 39. (International Society of Neuroimmunology, Montreal PQ)

#### Other Abstracts (\* Presenter)

- Vervoordt S\*, Arnett P, Engeland CG, Hillary F. Examining depression as a marker for decline in older adults with a history of moderate to severe traumatic brain injury: Genetic risk, cognitive deficits, and hippocampal volumetric changes. (The International Neuropsychology Society [INS], Virtual Meeting - February 2021)
- 2) Saadat N\*, Zhang L, Padmanabhan V, **Engeland CG**, Misra D, Giurgescu C. Systemic inflammation among pregnant African American women is related to depressive symptoms and intimate partner violence. (Endocrine Society, Virtual Meeting March 2021)
- 3) Saadat N\*, Lydic T, Padmanabhan V, **Engeland CG**, Misra D, Giurgescu C. (2021) Lipidome signatures of higher BMI, and systemic inflammation in pregnant African American women. (Fertility, Virtual Meeting January 2021)
- 4) Song S\*, Almeida DM, Majd M, Engeland CG, Demeo N, Graham-Engeland JE. (2019) Depressive symptoms predict levels of inflammation 10 years later and the role of sleep quality: Findings from the Midlife in the United States (MIDUS) study. (Korean Psychological Association, Seoul South Korea)
- 5) Woo J\*, Giurgescu C, Koenig MD, **Engeland CG**, Kominiarek MA, White-Traut R. (2019) Neighborhood disorder predicts lower serum vitamin D levels in pregnant African American women. (International Scientific Conference on Vitamin D, New York City NY)
- 6) Majd M\*, Saunders EF, **Engeland CG**. (2019) Inflammation and the dimensions of depression: A review. (American Society of Clinical Psychopharmacology [ASCP], Miami FL)
- 7) Majd M\*, Greaney JL, Saunders EF, **Engeland CG**. (2018) Inflammatory correlates of specific symptoms of depression. (ASCP, Miami FL)
- 8) Knight EL\*, Majd M, Graham-Engeland JE, Smyth JM, Sliwinski MJ, Lipton RB, Katz MJ, **Engeland CG**. (2018) The stress-inflammation link is mediated by depressive affect and moderated by gender. (Society for Affective Science [SAS], Los Angeles CA)
- 9) Majd M\*, Greaney JL, Saunders EF, **Engeland CG**. (2017) Ex vivo inflammatory response patterns among non-medicated depressed patients. (ASCP, Miami FL)
- 10) Greaney JL\*, **Engeland CG**, Saunders EF, Alexander LM. (2017) Nuclear factor-κB activation contributes to vascular endothelial dysfunction in adults with major depressive disorder. (Society of Biological Psychiatry, San Francisco CA)
- 11) Giurgescu C\*, Zenk SN, Templin TN, Engeland CG, Kavenaugh K, Misra DP. (2016) The impact of neighborhood conditions and psychological distress on preterm birth in African American women. Council for the Advancement of Nursing Science: Determinants of Health - State of the Science Congress on Nursing Research (Washington DC) - Abstract of distinction
- 12) Ezenwa MO\*, Yao Y, Molokie RE, **Engeland CG**, Wang ZJ, Suarez ML, Zhao ZS, Wilkie DJ. (2015) Guided imagery intervention for stress and pain in adults with sickle cell disease.

- In symposium: Research with vulnerable young adults. (International Nursing Research Congress, San Juan, Puerto Rico).
- 13) Manos MP\*, Monestero AP, da Rocha JM, Gajendrareddy PK, **Engeland CG**. (2015) Oral mucosal healing and inflammation in patients with periodontal disease. (International Asociation for Dental Research [IADR], Boston MA)
  - National finalist for DENTSPLY/Caulk Student Clinician Research Award
- 14) Qi S\*, Munoz E, Graham-Engeland, JE, Engeland CG, Smyth JM, Sciegaj M, Sliwinski MJ. (2014) The association between social isolation and chronic disease burden. (Gerontological Society of America, Washington DC)
- 15) Pyter LM\*, Calero H, Marucha PT, **Engeland CG**. (2013) Cancer and stress impair dermal wound healing in mice. (Society for Behavioral Neuroendocrinology, Atlanta GA)
- 16) McKenzie CC\*, Pyter LM, Yang L, **Engeland CG**. (2013) Social isolation: Rethinking bacteria's role in stress-impaired wound healing. (IADR, Seattle WA)
- 17) Manos MP\*, Marucha PT, **Engeland CG**. (2013) Sex differences in oral mucosal healing: A role for inflammation. (IADR, Seattle WA)
- 18) Sun Y, Lu Y, **Engeland CG**, Gordon S, Sroussi HY\*. (2013) The anti-oxidative, anti-inflammatory, and protective effect of S100A8 in endotoxemia. (IADR, Seattle WA)
- 19) Manos MP\*, Gajendrareddy PK, Marucha PT, **Engeland CG**. (2012) Oral mucosal healing: Surgical implications regarding corticosteroid administration in dentistry. (American Dental Association [ADA], San Francisco CA)
  - National runner-up for DENTSPLY/Caulk Student Clinician Research Award
- 20) Manos M\*, Gajendrareddy PK, Marucha PT, **Engeland CG**. (2012) Effects of corticosteroid administration on oral mucosal healing. (IADR, Tampa FL)
  - National finalist for IADR/Unilever Hatton Research Award
- 21) Gyllenhaal KA\*, **Engeland CG**, Vecchio JC, Fischer DJ. (2012). Salivary biomarker concentrations in patients with intraoral lesions and controls. (IADR, Tampa FL)
  - National Finalist for NSRG DENTSPLY/Caulk Research Award
- 22) Giurgescu, C\*, Sanguanklin N, **Engeland CG**, White-Traut RC, Mathews HL, Witek-Janusek L (2011) Relationships among psychosocial factors, biomarkers, gestational hypertension, and preterm birth in African American women. (World Congress on Controversies in Obstetrics, Gynecology and Infertility [COGI], Paris France)
- 23) Giurgescu C\*, **Engeland CG**, Zenk SN, Dancy BL (2011) Race-related stressors, inflammation and preterm birth in African American women. (COGI, Paris France)
- 24) Gyllenhaal KA\*, **Engeland CG**, Vecchio JC, Fischer DJ. (2011) Salivary inflammatory mediators in patients with intraoral lesions versus controls. (IADR, San Diego CA)
- 25) Fischer D\*, Gyllenhaal K, Vecchio J, Engeland CG. (2011) Comparison of salivary inflammatory mediator levels between four collection methods. (IADR, San Diego CA)
   Won the IADR Salivary Research Award
- 26) McKenzie C\*, Yang L, **Engeland CG**. (2011) Topical morphine delays wound closure, possibly by altering wound contraction. (IADR, San Diego CA)
- 27) Casey P\*, Yang L, Carter S, Engeland CG. (2011) Oxytocin and stress effects on cutaneous wound

- healing in mice. (IADR, San Diego CA)
- 28) **Engeland CG\***, Fang Z, Marucha PT. (2009) Students during examinations exhibit hyper-inflammation and slower healing of mucosal tissues. (Gordon Conference: Tissue Repair and Regeneration, New London NH)
- 29) Swayamprakasam, L\*, Marucha PT, **Engeland CG**. (2009) Oral mucosal wound healing: Effect of psychological stress on gene expression for angiogenic factors. (Volpe Prize Competition, Columbus OH)
  - National finalist for best clinical research in Periodontology
- 30) Diab H\*, Marucha PT, **Engeland CG.** (2009) Older individuals exhibit early delays in gene expression in wounded oral mucosal tissue: A possible mechanism for age-impaired healing (ADA, Honolulu HI). National finalist for DENTSPLY/Caulk Student Clinician Research Award
- 31) **Engeland CG\***, Fang Z, Marucha PT. (2008) The effects of stress on inflammation may be tissue specific. (International Society for Neuroimmunomodulation, Rio de Janeiro, Brazil)
- 32) Marucha PT\*, Fang Z, **Engeland CG.** (2008) Stress dysregulates plasma cytokines during human mucosal healing. (IADR, Dallas TX)
- 33) Burke JJ\*, **Engeland CG**, Fang Z, Marucha PT. (2007) Age and gender effects on expression of angiogenic factors in human oral wound healing. (Volpe Prize Competition, Columbus OH) *National runner-up for Best Clinical Research in Periodontology*
- 34) Rivera DS\*, Fang Z, **Engeland CG**, Bosch JA, Marucha PT. (2007) Dysphoric females overexpress chemokines and adhesion molecules during wound healing. (IADR, New Orleans LA)
- 35) Regis L\*, **Engeland C**, Bosch J, Cacioppo J, Marucha P. (2005) Glucocorticoid resistance: A potential mechanism for impaired oral wound healing. (International Academy of Periodontology, Salvador Brazil)
- 36) **Engeland CG\***, Cacioppo JT, Marucha PT. (2004) Modulation of oral wound healing: A role for HPA activity. (International Behavioral Neuroscience Society [IBNS], Key West FL)
- 37) **Engeland CG\***, Cacioppo JT, Marucha PT. (2004) Oral wound healing is impeded in women and in the aged: A potential role for stress hormones. (Midwest Regional Student Dental Research Conference, Iowa City IA)
- 38) **Engeland CG\***, Saber AJ, Cain DP, Ossenkopp K-P. (2002) The effects of chronic lipopolysaccharide-induced neuroinflammation on locomotor activity and water maze performance in rats. (IBNS, Capri Italy)
- 39) Ossenkopp K-P, Anderson S, **Engeland CG\***, Kavaliers M. (2002) Influence of sex and breeding status on the behavior of meadow voles in the automated Digiscan light-dark anxiety test. (IBNS, Capri Italy)
- 40) Anderson S, Engeland CG\*, Kavaliers M, Ossenkopp K-P. (2002) Effects of a brief exposure to fox odor on anxiety and locomotor activity levels in the light-dark test in male and female meadow voles. (IBNS, Capri Italy)
- 41) Franklin AE, **Engeland CG\***, Kavaliers M, Ossenkopp K-P. (2002) Hypoactivity and behavioral tolerance to lipopolysaccharide are differentially expressed across the light and dark periods in male and female rats. (IBNS, Capri Italy)
- 42) Engeland CG\*, Kavaliers M, Ossenkopp K-P. (2001) Female sex hormones modulate the develop-

- ment of tolerance to LPS-induced activity decrements in naturally cycling rats. (PNIRS, Utrecht Holland)
- 43) **Engeland CG\***, Kavaliers M, Ossenkopp K-P. (2001) The development of tolerance to LPS-induced hypoactivity in the rat varies across the estrous cycle. (IBNS, Cancun Mexico)
- 44) Ossenkopp K-P, Zaki KA, **Engeland CG\***. (2001) Sensitization of locomotor behaviors with repeated quinpirole treatments: A model of compulsive behavior? (IBNS, Cancun Mexico)
- 45) **Engeland CG\***, Ossenkopp K-P, Kavaliers M. (2000) Reproductive status alters the development of tolerance to LPS-induced hypoactivity in meadow voles. (Canadian Symposium on Neuroimmune Biology, Winnipeg MB)
- 46) **Engeland CG\***, Ossenkopp K-P, Kavaliers M. (2000) Reproductive status affects the development of behavioral tolerance to lipopolysaccharide in female, but not male meadow voles: A multivariate assessment of locomotor activity. (IBNS, Denver CO)
- 47) **Engeland CG\***, Ossenkopp K-P, Kavaliers M. (1999) Singular and interactive effects of lipopolysaccharide and muramyl dipeptide on locomotor activity in female rats. (IBNS, Nancy France)
- 48) **Engeland CG\***, Ossenkopp K-P, Kavaliers M. (1998) The effects of bacterial agents on open field behaviour in rats. (Brain, Behaviour and Cognitive Sciences, Ottawa ON)
- 49) **Engeland CG\***, Ossenkopp K-P, Kavaliers M. (1998) The effects of lipopolysaccharide (LPS) and muramyl dipeptide (MDP) on open field activity in rats. (IBNS, Richmond VA)

#### **CONFERENCE SYMPOSIA** (\* Presenter)

Graham-Engeland JE\*, **Engeland CG**, DeMeo N, VanBogart K. (2021) Negative mood in daily life as a predictor of inflammation: A stress story. In Graham-Engeland JE (Chair): *The interaction between cortisol and the immune system in health and disease.* (Invited plenary session for the International Society of Psychoneuroendocrinology [ISPNE], Virtual Conference)

**Engeland CG\*.** (2020) *Discussant*. In Szabo YZ, Slavish DC (Co-Chairs): *Stress, health, and salivary markers of inflammation: An update and opportunities for future research.* (American Psychosomatic Society [APS], Long Beach CA)

Knight EL\*, Majd M, Graham-Engeland JE, Smyth JM, Sliwinski MJ, **Engeland CG**. (2020) Gender differences in the link between depressive symptoms and ex vivo inflammatory responses are associated with markers of endotoxemia. In Juster R-P (Chair): *Gendered adrenals and guts?*: Sex and gender roles in relation to cortisol reactivity and microbiome health. (APS, Long Beach CA)

**Engeland CG\***, Marucha PT, Gajendrareddy PK. (2018) Stress, inflammation, and mucosal tissue repair. In Broadbent E (Chair): *How stress affects wound healing: Hormones, cytokines, gene expression, and immune cells*. (International Congress of Behavioral Medicine [ICBM], Santiago Chile)

**Engeland CG\***, Smyth J, Slavish D, Graham JE. (2013) Lessons learned from the bench: Relating salivary to blood-based inflammatory markers. In Graham JE (Chair), **Engeland CG**, Smyth J (Co-Chairs): *Beyond salivary cortisol: Salivary biomarkers of immune function and stress at the cutting edge*. (APS, Miami FL)

**Engeland CG\*,** Yang L, Pyter LM, McKenzie C. (2012) Isolation stress: Rethinking the mechanisms of stress-impaired healing. In Walker FR (Chair): *Stress, inflammation, neuroinflammation and behavior:* Causes, consequences and treatment. (International Behavioral Neuroscience Society [IBNS], Kona HI)

#### **FEATURED SPEAKER - NATIONAL**

- 2019: **Psychological stress, wound healing, and mucosal immunity. (**Children's Research Institute, Children's Hospital of Wisconsin, Milwaukee WI)
- 2018: Psychological stress and wound healing. (Psychology Dept., University of Texas, El Paso TX)
- 2016: The effects of psychological stress on wound healing and mucosal immunity.

  (Family Medicine Seminar Series, Mount Nittany Medical Center, State College PA)
- 2015: Things the oral cavity can tell us about mucosal and systemic immunity.

  (Regenerative Sciences Seminar, Center for Wound Healing, UIC, Chicago IL)
- 2015: Stress and inflammation: Interpreting measures from the oral cavity.

(Institute for Behavioral Medicine Research, Ohio State Wexner Medical Center, Columbus OH)

- 2015: Stress and inflammation: What can we learn from wound healing and saliva? (Noll Seminar Lecture, PSU, University Park PA)
- 2015: Differentiating between types of dementia: What if it's not Alzheimer's? (Geriatric Interest Network Spring Conference, Altoona PA)
- 2015: Biodemography of exceptional longevity.

(22<sup>nd</sup> Annual Methodology Workshop – Population Research Institute, PSU, University Park PA)

2015: Mucosal immunology and tissue repair.

(Risk of Adolescence & Mucosal Injury in HIV Susceptibility, NIH/NIAID Workshop, Rockville MD)

2014: Influence of stress, inflammation, and gender on surgical wound healing.

(American Association of Endodontists (AAE) Annual Meeting, Washington DC)

2014: **Stress and wound healing.** (CHHD/CON Seminar Series, PSU, University Park PA)

2013: Stress, inflammation, and tissue repair.

(Dept. Microbiology & Immunology, Milton S. Hershey Medical Center, Hershey PA)

- 2013: **Psychological stress: Effects on inflammation and tissue repair.** (Dept. Microbiology & Immunology, Loyola University, Chicago IL)
- 2013: Psychological stress & tissue repair. (Dept. Anatomy & Cell Biology, Rush Hospital, Chicago IL)
- 2013: Stress, inflammation and wound healing. (Wound Healing Center, UIC, Chicago IL)
- 2012: Inflammation, stress, and healing. (Dept. of Physical Therapy, UIC, Chicago IL)
- 2010: Factors which modulate mucosal healing.

(Advances in Cancer Detection & Therapeutics, Seminar Series, Northern IL Univ., DeKalb IL)

- 2009: Health disparities in oral mucosal healing. (Chicago Section of the IADR, Chicago IL)
- 2009: Health disparities in oral mucosal healing. (Behavior & Health Seminar Series, UIC, Chicago IL)
- 2007: Oral wound healing: Stress and inflammation.

(Academy of Behavioral Medicine Research, Park City UT)

2007: Stress and wound healing. (Kinesiology & Nutrition, Departmental Series, UIC, Chicago IL)

#### **FEATURED SPEAKER - INTERNATIONAL**

- 2021: **How stress affects tissue repair and immunity in the oral cavity.** (Department of Periodontics and Oral Medicine, University of Pretoria, Pretoria, South Africa)
- 2018: Effects of social isolation on wound healing and immunity in male and female mice. (Swiss Laboratory Animal Science Association [SGV], Lausanne Switzerland)
- 2009: Stress and mucosal healing. (Children's Hospital, Dept. of Immunology, Utrecht, Netherlands)
- 2008: Stress, age, gender: Modulation of mucosal healing.

(Universidade Federal do Rio Grande do Sul, School of Dentistry, Porto Alegre, Brazil)

# MEDIA COMMENTARY

- Interviewed as scientific expert for Altoona Mirror Vaccines important as one ages. Feb 4, 2018
- Interviewed on Alzheimer's disease for WTAJ-TV News Healthcast. Aired April 24, 2015
- Interviewed as scientific expert for Labrinth on Dutch TV network VPRO. Aired April 14, 2013
- Interviewed as scientific expert for Bottom Line's Daily Health News, July 16, 2009
   http://www.bottomlinepublications.com/content/article/health-a-healing/stress-slows-wound-

healing

Interviewed as scientific expert for Health magazine, Article in Issue: June 2007, p. 90

### PROFESSIONAL MEMBERSHIPS (INTERNATIONAL SOCIETIES)

Fellow of the Academy of Behavioral Medicine Research (ABMR)	2019 - Present
American Psychosomatic Society (APS)	2010 - Present
International Behavioral Neuroscience Society (IBNS)	1998 - Present
Psychoneuroimmunology Research Society (PNIRS)	1999 - Present
Society for Neuroscience (SFN)	1998 - Present
Wound Healing Society (WHS)	2008 - Present

### **SCIENTIFIC REVIEWER (Ad-Hoc)** (37 journals)

AIDS Care; Behavioural Brain Research; Biological Psychology; Brain, Behavior, and Immunity; Brain, Behavior, & Immunity - Health; Brain Sciences; British Journal of Health Psychology; Cellular and Molecular Life Sciences; Clinical and Experimental Pharmacology and Physiology; European Journal of Integrative Medicine; Health Psychology; Hormones and Behavior; Human Immunology; International Journal of Behavioral Medicine; International Journal of Neuropsychopharmacology; Journal of Affective Disorders; Journal of Cell Biology; Journal of Dental Education; Journal of Endocrinology; Journal of Integrative Neuroscience; Journal of Neuroimmunology; Journal of Wound Care; Nature Reviews Immunology; Neurobiology of Aging; Neuroimmunomodulation; Obesity; OBM-Neurobiology; Pharmacology, Biochemistry and Behavior; Physiology & Behavior; PLOS ONE; Proceedings of the National Academy of Sciences; Psychoneuroendocrinology; Psychosomatic Medicine; Scientific Reports; Vaccine; Women's Health Issues; Wound Repair and Regeneration

### **EDITORIAL BOARD** (IF = impact factor)

Brain, Behavior, & Immunity - Health (IF not yet determined)	2019 - Present
Brain, Behavior, and Immunity (IF 6.63)	2016 - Present
Health Psychology (IF 3.46)	2011 - 2014

#### **GRANT REVIEWS - REGIONAL**

#### **Penn State University Commonwealth Campus**

Faculty Grant Writing Workshop (2021)

### **Penn State University**

Clinical and Translational Science Institute (CTSI) – Grant applications

#### Fellowship Review - UIC

Chancellor's Graduate Research Fellowship applications, Graduate College (2011, 2012)

#### **GRANT REVIEWS - NATIONAL**

Department of Defense Military Operational Medicine Research Program (MOMRP) Review Panel Review of applications for Psychological Health and Readiness (PHR) of the 2021 MOMRP (2020)

#### **NIH NIAID Grant Review Panel**

Review of applications submitted under RFA "Risk of Adolescence and Injury in HIV Susceptibility" (2016)

### Department of Defense Gulf War Illness (GWI) Review Panel

Review of applications for GWI Clinical Partnership, Epidemiology, and Treatment Evaluation (2016)

### **GRANT REVIEWS - INTERNATIONAL**

Grant Review – Committee on Research and Development, Education University of Hong Kong Research Grants Council's General Research Fund / Early Career Scheme applications (2016)

### Grant Review - Auckland Medical Research Foundation, New Zealand

Project Grant applications (2014)

**SERVICE AT CONFERENCES** \* Developed the format of this ongoing annual conference.

**Board of Directors (Elected)** Psychoneuroimmunology Research Society (PNIRS): 2015-2018

**Scientific Affairs Committee** PNIRS: 2005-2007, 2010-2011, 2016-2017

Training Committee PNIRS: 2015-2017

Membership Committee PNIRS: 2016-2018

Financial Committee PNIRS: 2012-2015

Membership & Communications Intl. Behavioral Neuroscience Society (IBNS): 2012-2015

Committee

Scientific Program Committee American Psychosomatic Society (APS): 2009

Student Representative (Elected) IBNS: 2001-2002

**Co-Organizer** 18<sup>th</sup> Annual Meeting of the PNIRS, Chicago IL, June 8-11 2011

Head Organizer\* 4th Annual Illinois Brain Behavior & Immunity Meeting, Chicago IL, Dec 2-3 2011

3<sup>rd</sup> Annual Illinois Brain Behavior & Immunity Meeting, Chicago IL, Dec 3-4 2010 2<sup>nd</sup> Annual Illinois Brain Behavior & Immunity Meeting, Chicago IL, Dec 5-6 2009

**COMMITTEE POSITIONS** \* Developed the format of this ongoing annual conference event.

Chair

Search Committee - New faculty PSU Dept. Biobehavioral Health: 2018-2019

(Substance Abuse)

Biological and Life PSU College of Health and Human Development: 2017-2019

**Sciences Research Group** 

Research Committee PSU Dept. Biobehavioral Health: 2017-2019, 2020-2021

Founder's Day Committee\* PSU Dept. Biobehavioral Health: 2015-2019
Colloquium Committee (BBH 590) PSU Dept. Biobehavioral Health: 2014-2017

<u>Member</u>

Graduate ProgramPSU Dept. Biobehavioral Health: 2021-2022Nursing ResearchPSU College of Nursing: 2014-PresentPhD CouncilPSU College of Nursing: 2015-2021MSN CouncilPSU College of Nursing: 2015-2021Graduate Affairs CommitteePSU College of Nursing: 2014-2019

Sabbatical Leave Review
Search Committee – CIHRI Director
Task Force – Center for
PSU College of Health and Human Development: 2020
PSU College of Health and Human Development: 2017-2018
PSU College of Health and Human Development: 2017

Task Force – Center for Individualizeed Health

**Research and Intervention (CIHRI)** 

Research Committee PSU Dept. Biobehavioral Health: 2016-2017

**Undergraduate Program Committee** PSU Dept. Biobehavioral Health: 2013-2017 **Advisory Committee (Elected)** PSU Dept. Biobehavioral Health: 2016 **Executive Committee (Elected)** PSU Dept. Biobehavioral Health: 2014-2015 **Search Committee - New faculty** PSU College of Nursing: 2014

Search Committee - New faculty PSU Dept. Biobehavioral Health: 2014

**Executive Committee (Elected)** UIC College of Dentistry: 2010-2012, 2012-2013

**Faculty Bylaws Ad Hoc Committee** UIC College of Dentistry: 2011-2013 **Graduate Studies Committee** UIC Neuroscience: 2009-2013 **Diversity Advisory Committee** UIC College of Dentistry: 2011-2013 **Diversity Standards Committee** UIC College of Dentistry: 2008-2011

**NIH Steering Committee** Office of Research on Women's Health (ORWH): 2009 Sole Organizer UIC Post-Doctoral Research Forum (monthly), 2005-2008 Graduate Affairs Committee (UWO): 2000-2001, 2001-2002 **Student Representative (Elected)** 

### AWARDS AND COMPETITIVE SCHOLARSHIPS (\* Canadian dollars)

Name of Award	Value/Year	Туре	Location	Held/Awarded
Ontario Graduate Scholarship (OGS) – plus tuition waver	\$15,000* \$11,859* \$11,859*	Provincial Provincial Provincial	UWO UWO UWO	2001-2002 2000-2001 1999-2000
Ontario Graduate Scholarship in Science and Technology (Both declined in place of OGS)	\$15,000* \$15,000*	Provincial Provincial	UWO UWO	2000-2001 1999-2000
IBNS Research Scholars Award IBNS Research Scholars Award IBNS Research Scholars Award	\$1,000 \$1,000 \$ 500	International International International	UWO UWO UWO	06 / 2002 04 / 2001 04 / 2000
Accuscan SFN Research Award Accuscan SFN Research Award Accuscan SFN Research Award	\$ 200 \$ 200 \$ 200	International International International	UWO UWO UWO	11 / 2001 11 / 2000 11 / 1999
PNIRS Research Scholars Award PNIRS Research Scholars Award	\$1,000 \$1,000	International International	UIC UIC	06 / 2005 05 / 2004
1st Place Postdoctoral Research	\$ 150	Institutional	UIC	02 / 2004
Faculty Scholarship Award (Research)	\$1,000	Institutional	UIC	02 / 2013
Journal of Midwifery & Women's Health Best Research Article of the Year		International	PSU	05 / 2016
Janet Williamson Award for Excellence in Teaching (Nursing)		Institutional	PSU	04 / 2021

# SUPERVISORY/MENTORING HISTORY (Sections are in chronological order)

Trainee	Institution	Project or Position	Field of Study
Undergraduate Stu	dents:		
Daniel Nielsen	UWO	Undergraduate Thesis	Neuroscience

Kashif Zaki Desmond Cheung Andrew Franklin Julia Flook Sara Little * Marlisa J. Shaw	UWO UWO UWO UWO UWO PSU	Undergraduate Thesis Undergraduate Thesis Undergraduate Thesis Independent Study Independent Study Schreyer Honors Thesis	Neuroscience Neuroscience Neuroscience Neuroscience Neuroscience Eberly College of Science
Graduate Students:			
Sari Anderson Andrew Franklin James Chou Ritu Sharma Lara Regis Antonia Savarese * Marzieh Majd²,³ + Lisa Shank¹ W + Jinshil Hyun² + Hyunju Yang¹ * Brooke Mattern + Emily Jones¹ + Emily Dove-Medows * Molly Wright	UWO UWO OSU UIC UIC UIC PSU ashington DC PSU PSU PSU PSU PSU PSU PSU PSU Wayne State	Independent Study Masters Thesis Masters Thesis Masters Thesis Masters Thesis Masters Thesis PhD rotation PhD Student PhD Student (F31) PhD Student (T32) PhD Student	Neuropsychology Neuroscience Oral Biology Bioengineering Oral Sciences Neuroscience Biobehavioral Health Medicine & Clinical Psychology Center for Healthy Aging Nursing Biobehavioral Health Biobehavioral Health Nursing Biobehavioral Health
Medical Students:			
Jon Friedstat <sup>1</sup> Donnie Rivera <sup>1</sup> * Hiba Diab <sup>1,2</sup> * Houman Ebrahimi * Patty Casey * Cassandra McKenzie <sup>2</sup> * Marc Manos <sup>1,2</sup> Kelley Gyllenhaal <sup>1,2</sup> * Sara Mahmood * Shohreh Raouf <sup>2</sup> + Liane Hunter <sup>1</sup>	UIC	James Scholar Research Independent Study Summer Dental Research	Medicine (Surgery) Dentistry Medicine (Einstein Med. Coll.)
Medical Residents:			
Tricia Crosby Jeffrey Burke <sup>1</sup> Bahareh Sabzehei <sup>1</sup> * Logesh Swayamprakasam <sup>2</sup> * Andrew Monestero	UIC UIC UIC UIC UIC	Masters Thesis Masters Thesis Masters Thesis Masters Thesis Masters Thesis	Oral Sciences (Periodontics)
Post-doctoral Fellows:			
* Leah Pyter <sup>2,5</sup> + Nancy Sin <sup>1,4</sup> + Anna Stanhewicz <sup>1,4</sup> * Erik Knight <sup>1,4</sup> + Suzanne Hyer	UIC PSU PSU PSU UCF	Research Assistant Professor Post-Doctoral Fellow (F32) Post-Doctoral Fellow (K99/R00) Post-Doctoral Fellow (T32) Post-Doctoral Fellow	Psychoneuroimmunology Biobehavioral Health Kinesiology Center for Healthy Aging Nursing, Univ. Central Florida

### Tenure-track Faculty:

+ Aprile Benner	Austin TX	Assistant Professor	HDFS (Univ. Texas at Austin)
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^ Autumn Kujawa<sup>2</sup> PSU Assistant Professor Psychiatry (Hershey)

+ Dahlia Mukherjee<sup>1,2</sup> PSU Assistant Professor Psychiatry Samuele Zilioil Wayne State Assistant Professor Psychology

#### International Scholars (Visiting Internship):

+ Gustavo Nascimento	UIC	Research Scholar	Dentistry (Brazil)
* Linglan Yang²	UIC	PhD Research	Oral Sciences (China)
+ Roger Junges	UIC	Research Scholar	Dentistry (Brazil)
+ Jose M. da Rocha	UIC	PhD Research	Oral Sciences (Brazil)

<sup>\*</sup> Primary mentor, + Co-mentor, ^ Consultant

### **NIH TRAINING PROGRAMS**

Faculty Mentor – NIH T32 049676 Training Grant - Center for Healthy Aging	2015 - Present
Faculty Mentor – NIH R25 HL147668 Training Program - College of Nursing	2019 - Present
Faculty Mentor – NIH T32 Training Grant - Child Maltreatment Science	2020 - Present

### **GRADUATE EXAMINATION COMMITTEES** (\* Chair)

# Candidacy/Qualifying Examination Committee (PhD):

Francisco Alejandro Montiel-Ishino Marzieh Majd\* Brooke Mattern\* Lauren Chu

# **Preliminary Examination Committee (PhD):**

William Kenkel (Neuroscience) Mateusz Wietecha (Oral Sciences)

# **Comprehensive Examination Committee (PhD):**

Hyunju Yang Francisco Alejandro Montiel-Ishino Marzieh Majd\* Emily Jones Kristin Davis Brooke Mattern\* Julia Kelliher (PhD)

#### **Dissertation Examination Committee:**

Jeffrey Burke (MS) Tricia Crosby (MS) Lara Regis (MS) Bahareh Sabzehei (MS) Logesh Swayamprakasam (MS)\*

<sup>&</sup>lt;sup>1</sup> National/International award recipient (based on mentored research)

<sup>&</sup>lt;sup>2</sup> Regional award recipient (based on mentored research)

<sup>&</sup>lt;sup>3</sup> Recipient of the prestigious Penn State Alumni Association Dissertation Award

<sup>&</sup>lt;sup>4</sup> Now a tenure-track faculty member

<sup>&</sup>lt;sup>5</sup> Now a tenured faculty member

William Kenkel (PhD) Whitney Dunn-Weiner (MS) Andrew Monestero (MS)
Hyunju Yang (PhD)
Marzieh Majd (PhD)\*
Emily Jones (PhD)
Samantha Vervoordt (MS) Julia Kelliher (PhD) Brooke Mattern (PhD)\*

# **TEACHING (FACULTY MEMBER)**

**Guest Lecturer - UIC** 

Course Instructor – PSU (* Designed course) Functional and Integrative Neuroscience (BBH 470) * Neuropathology & Neuroimaging (NURS 597a: Special Topics - Graduate) Neuroanatomical Bases for Disorders of Behavior and Health (BBH 468) * Biology of Aging (BBH 597: Special Topics – Graduate)	2021 2015, 2018, 2021 2014, 2015, 2017, 2019 2018
Biobehavioral Aspects of Stress (BBH 432)	2016
Student Mentoring for Course Credit – PSU Research Project (BBH 494) Independent Studies (BBH 496) Individual Studies - Graduate (NURS 596)	2014-2016, 2019-2021 2016 2015
Guest Lecturer – PSU  Professional Development in BBH (BBH 597)  Orientation to Graduate Study in BBH (BBH 597)  Biobehavioral Aspects of Aging (BBH 497 005)  Research Integrity & Scholarly Ethics (RISE 597)  Biobehavioral Systems in Health and Development (BBH 503)  Biobehavioral Aspects of Stress (BBH 432)  Research Colloquium (NURS 590)  Interdisciplinary Integration in Biobehavioral Health (BBH 311)  Quantitative Methods in Health Research (NURS 586)	2018-2019, 2021 2017-2021 2017-2019 2019 2016-2019 2016, 2017 2015 2014, 2015 2014
Course Director / Instructor – UIC Statistics for Oral Sciences (OSCI 441) Statistics for Dental Residents (OSCI 594) Introduction to Quantitative Data Analysis (MHPE 494)	2013 2009-2012 2008
Course Director – UIC Oral Science Seminar Series (OSCI 595)	2012-2013
Course Facilitator – UIC Small Group Learning [SGL] – Dental Undergraduate Students Applied Oral & Behavioral Sciences III (DAOB 311) Applied Oral & Behavioral Sciences II (DAOB 311) Biomedical & Clinical Sciences IV (DBCS 314) Biomedical & Clinical Sciences I (DBCS 311) Applied Oral & Behavioral Sciences I (DAOB 311)	2013 2012 2012 2012 2011 2011
Course Lecturer in Immunology – UIC Content Expert in Immunology – UIC	2012-2013 2012-2013

Introduction to Clinical and Translational Science (HON 201)
Topics in Social Epidemiology (EPI 594)
Kinesiology and Nutrition (HN 595)
Stress and Health Outcomes (NUSC 594)
Special Topics in Oral Sciences – Wound Healing (Nerve Damage & Regeneration) (OSCI 594)

#### OTHER TEACHING ENDEAVORS

# Full-day Seminar Lecturer – Institute for Brain Potential (2019–Present)

Have developed a full-day CME credit course which I present (several times a year) to mixed medical professionals on the mind-body connection in health.

### Teaching Assistant – University of Western Ontario, London, Ontario, Canada (1997–2002)

Taught undergraduate courses:

- Globalization (Business School)
- Research Methods & Design (Psychology)
- Animal Behavior Laboratory & Techniques (Psychology)

#### High School Teacher – Psychology (1994–1996)

Continuing Education Centre, Philemon Wright High School, Hull, Quebec, Canada

### **OTHER RESEARCH ENDEAVORS**

Faculty Mentoring Training Program – UIC (Completed in 2010)

#### Panelist/Discussant - UIC

- UIC Postdoctoral Association Career Development (2013)
- 1st Annual Meeting of the American College of Wound Healing and Tissue Repair (2011)
- Center for Clinical and Translational Sciences Intensive Summer Program.

  Overcoming the Pitfalls of Clinical Research: Critical Factors for Success (2008, 2009, 2011, 2012)

#### Judge - UIC

Clinic and Research Day, College of Dentistry (2010, 2012, 2013)

#### **Research Assistant**

In the animal laboratory of Case Vanderwolf, Ph.D. (Neuroscience) University of Western Ontario, London, Ontario, Canada (1996–1997)

#### **Research Assistant**

In the clinical office of Mark Ferland, Ph.D. (Clinical Neuropsychology)
St. Vincent's Hospital, Department of Psychology, Ottawa, Ontario, Canada (1994–1996)