

CURRICULUM VITAE

Christopher Engeland, Ph.D.

Associate Professor

Department of Biobehavioral Health
229 Biobehavioral Health Building
The Pennsylvania State University (PSU)
University Park, PA 16802

Phone (w): (814) 865-4694
FAX: (814) 863-7525
Cell: (312) 731-6967
Email: cge2@psu.edu

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

Research i) Effects of stress, age, and sex on wound healing and inflammation (human, animal)
Interests: ii) Stress, inflammation, cognitive aging/decline, and dementia (human)
iii) Hormonal regulation of dermal and mucosal tissue repair (human)
iv) Effects of chronic stress and oxytocin on wound healing (animal)
v) Inflammatory biomarkers and stress as predictors of preterm birth (human)
vi) Inflammation and depression (human)
vii) Salivary diagnostics (human)

ACADEMIC POSITIONS

Associate Professor	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	Center for Healthy Aging (PSU)	2016 - Present
Affiliate Faculty Member	Center for Wound Healing (UIC)	2014 - Present

Past Positions:

Assistant Professor	Biobehavioral Health (PSU)	2013 - 2017
Assistant Professor	Periodontics / Center for Wound Healing (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, *Univ. 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

ENGELAND, CG

ACTIVE GRANT FUNDING (Direct costs shown)

NIH R01 AG042595-01 (Engeland, Graham) 09/30/2012 – 05/31/2018 \$1,250,000
Inflammatory mediators of stress and cognitive aging

This longitudinal study incorporates blood and saliva sampling and a battery of psychosocial questionnaires (every 6 months for 4 years) into an ongoing prospective study that examines cognitive aging in 320 individuals 25-65 years of age in the Bronx, NY. **Role: PI (Multiple)**

NIH R01 MD011575-01A1 (Giurgescu) 01/06/2017 – 12/31/2021 \$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**

PENDING REVIEW

NIH R01 AG056487-01 (Engeland, Graham-Engeland) 04/01/2018 – 03/31/2023 \$2,497,245
Integrative biobehavioral and psychosocial risk for cognitive decline in the elderly

This longitudinal study (4 annual data waves) examines how inflammation, lipid signalling, 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) Impact Score: 20 Percentile: 5%

NIH R01 AG (Gamaldo) 07/01/2018 – 06/30/2023 \$2,468,090
Sleep and cognitive function in a socioeconomically diverse sample of black and white adults

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**

COMPLETED FUNDING (Past 5 years)

CTSI Bridges to Translation Award (Engeland) 11/01/2015 – 06/30/2017 \$45,980

Penn State University

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 heightened risk of cardiac events in at-risk individuals during heat waves. **Role: Co-I**

Social Science Research Institute – CYFC (Noll) 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)

ENGELAND, CG

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 immunosenescence 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) 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 validated various inflammatory biomarkers in saliva to previously obtained values in blood, and also related 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 provided additional preliminary data to enhance this group's P01 application for 09/2013 (see above). **Role: Co-I**

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**

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

PUBLICATIONS

h-Index = 19 [Google Scholar] * Mentored trainee ** Corresponding author

1) Pyter LM*, McKim DB, Husain Y, Calero H, Godbout JP, Sheridan JF, Marucha PT, Engeland CG.

ENGELAND, CG

- (2018) Effects of dermal wounding on distal primary tumor immunobiology in mice. Journal of Surgical Research. 221:328-335. PMID: *Featured Article & Cover Design*.
- 2) 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. Journal of Obstetric, Gynecologic, and Neonatal Nursing. 46(1):148-158. PMID: 27836659
 - 3) 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
 - 4) Koenig, MD, McFarlin B, Steffen A, Tussing-Humphreys L, Giurgescu C, **Engeland CG**, Kominiarek M, Strom B, Cieczczak C, O'Brien WD, Norr K, White-Traut R. (2017) Decreased nutrient intake is associated with premature cervical remodeling. Journal of Obstetric, Gynecologic, and Neonatal Nursing. 46(1):123-134. PMID: 27836660
 - 5) 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. Journal of Periodontal Research. 52(3):644-649. PMID: 27573480
 - 6) Giurgescu C, Zenk SN, **Engeland CG**, Garfield L, Templin TN. (2017) Racial discrimination and psychological wellbeing of pregnant women. The American Journal of Maternal/Child Nursing. 42(1): 8-13. PMID: 27749288
 - 7) **Engeland CG**. (2017) Wound healing. In: Gellman MD, Turner JR (Eds.), Encyclopedia of Behavioral Medicine, 2nd edition. New York: Springer. doi:10.1007/978-1-4614-6439-6_502-2
 - 8) 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
 - 9) Giurgescu C, **Engeland CG**, Templin TN, Zenk SN, Koenig MD, Garfield L. (2016) Racial discrimination predicts greater systemic inflammation in pregnant African American women. Applied Nursing Research. 32:98-103.
 - 10) 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. Psychosomatic Medicine. 78(6):646-656. PMID: 27187849
Invited Commentary. PMID: 27057818
 - 11) 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. Journal of Advanced Nursing. 72(6):1452-1463. PMID: 26768753
 - 12) **Engeland CG****, Hugo FN, Hilgert JB, Nascimento GG*, Junges R*, Lim H-J, Marucha PT, Bosch JA. (2016) Psychological distress and salivary secretory immunity. Brain, Behavior, and Immunity. 52(2): 11-17. PMID: 26318411
Invited Commentary. PMID: 26518297
 - 13) Giurgescu C, **Engeland CG**, Templin TN. (2015) Symptoms of depression predict negative birth outcomes in African American women: A pilot study. Journal of Midwifery and Women's Health. 60(5):570-577. PMID: 26461192
Best Research Article of the Year Award 2016 - Journal of Midwifery & Women's Health

ENGELAND, CG

- 14) 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. BMC Psychiatry. 15(1):1-14. PMID: 26138700
- 15) 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. Women's Health Issues. 25(3):294-302. PMID: 25840930
- 16) 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. Applied Nursing Research. 28(1):e1-6. PMID: 25282477
- 17) Slavish DC, Graham-Engeland JE, Smyth JM, **Engeland CG**. (2015) Salivary markers of inflammation in response to acute stress. Brain, Behavior and Immunity. 44:253-269. PMID: 25205395.
- 18) 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. Stress, 17(3): 256-265. PMID: 24689778.
- 19) 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.
- 20) 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.
- 21) 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. PLOS ONE, 8(8): 1-8. PMID: 23951316.
- 22) 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. The Journal of Perinatal & Neonatal Nursing, 27(1): 81-96. PMID: 23360946.
- 23) 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.
- 24) Sun Y, Lu Y, **Engeland CG**, Gordon S, Sroussi HY. (2013) The anti-oxidative, anti-inflammatory, and protective effect of S100A8 in endotoxemic mice. Molecular Immunology, 53(4): 443-449. PMID: 23127860.
- 25) **Engeland CG**. (2013) Stress, aging, and wound healing. In: Bosch JA, Phillips AC, Lord JM (Eds.), *Immunosenescence: Behavioural and Psychosocial Determinants*. New York: Springer, pp. 63-79.
- 26) Graham JE, Song S, **Engeland CG**. (2012) Acute pain speeds skin barrier recovery in healthy men and women. Journal of Psychosomatic Research, 73(6): 452-458. PMID: 23148814.
- 27) **Engeland CG**. (2012) Wound healing. In: Gellman MD, Turner JR (Eds.), *Encyclopedia of Behavioral Medicine*. New York: Springer, pp. 2072-2076.
[http://www.springerreference.com/docs/navigation.do?m=Encyclopedia+of+Behavioral+Medicine+\(Medicine\)-book240](http://www.springerreference.com/docs/navigation.do?m=Encyclopedia+of+Behavioral+Medicine+(Medicine)-book240)
- 28) Hartaigh B, Loerbroks A, Thomas GN, **Engeland CG**, Hollands MA, Fischer JE, Bosch JA. (2012)

ENGELAND, CG

- Age-dependent and -independent associations between depression, anxiety, DHEAS, and cortisol: From the MIPH Industrial Cohort Studies (MICS). Psychoneuroendocrinology, 37(7): 929-936. PMID: 22133517.
- 29) Yashar N, **Engeland CG**, Rosenfeld AL, Walsh TP, Califano JV. (2012) Radiographic considerations for the regional anatomy in the posterior mandible. Journal of Periodontology, 83(1): 36-42. PMID: 21542732.
- 30) Bosch JA, **Engeland CG**, Burns VE. (2011) Psychoneuroimmunology in vivo: Methods and Principles. In: Decety J and Cacioppo J (Eds.), *The Oxford Handbook of Social Neuroscience*. New York: Oxford University Press, pp. 134-148.
- 31) **Engeland CG**, Graham JE. (2011) Psychoneuroimmunological aspects of wound healing and the role of pain. In: Upton D (Ed). *Psychological Impact of Pain in Patients with Wounds*. London: Wounds UK, pp. 87-114.
- 32) **Engeland CG**, Gajendrareddy PK. (2011) Wound healing in the elderly. In: Katlic MR (Ed.), *Cardiothoracic Surgery in the Elderly: Evidence-based Practice*. New York: Springer, pp. 259-270.
- 33) Edwards KM, Bosch JA, **Engeland CG**, Cacioppo JT, Marucha PT. (2010) Elevated macrophage migration inhibitory factor (MIF) is associated with depressive symptoms, blunted cortisol reactivity to acute stress, and lowered morning cortisol. Brain, Behavior, and Immunity, 24(7): 1202-1208. PMID: 20382217.
- 34) Crawford JM, Briggs CL, **Engeland CG**. (2010) Publication bias and its implications for evidence-based clinical decision making. Journal of Dental Education, 74(6): 593-600. PMID: 20516298.
- 35) **Engeland CG****, Sabzehei B*, Marucha PT. (2009) Sex hormones and mucosal wound healing. Brain, Behavior and Immunity, 23: 629-635. PMID: 19111925.
- 36) **Engeland CG**, Marucha PT. (2009) Wound healing and stress. In: Granstein RD and Luger TA (Eds.), *Neuroimmunology of the Skin: Basic Science to Clinical Relevance*. Berlin: Springer, pp. 233-247.
- 37) **Engeland CG**, Jang P, Alves M, Marucha PT, Califano J. (2008) HIV infection and tooth loss. Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology and Endodontology, 105(3): 321-326. PMID: 18280966.
- 38) Bosch JA, **Engeland CG**, Cacioppo JT, Marucha PT. (2007) Depressive symptoms predict mucosal wound healing. Psychosomatic Medicine, 69(7): 597-605. PMID: 17766687.
- 39) Franklin AE*, **Engeland CG**, Kavaliers M, Ossenkopp K-P. (2007) The rate of behavioral tolerance development to repeated lipopolysaccharide treatments depends upon the time of injection during the light-dark cycle: A multivariable examination of locomotor activity. Behavioural Brain Research, 180: 161-173. PMID: 17433456.
- 40) Eijkelkamp N, **Engeland CG**, Gajendrareddy PK, Marucha PT. (2007) Restraint stress impairs early wound healing in mice via α -adrenergic but not β -adrenergic receptors. Brain, Behavior, and Immunity, 21(4): 409-412. PMID: 17344022.
- 41) Hawkey LC, Bosch JA, **Engeland CG**, Marucha PT, Cacioppo JT. (2007) Loneliness, dysphoria, stress, and immunity: A role for cytokines. In: Plotnikoff NP, Faith RE, Murgu AJ and Good RA (Eds.), *Cytokines: Stress and Immunity*, 2nd Edition. Boca Raton: CRC Press, pp. 67-85. *Book Cover Design*.
- 42) Marucha PT, **Engeland CG**. (2007) Stress, neuroendocrine hormones, and wound healing: Human models. In: Ader R, (Ed.), *Psychoneuroimmunology*, 4th Edition. San Diego: Elsevier Inc., pp. 825-

ENGELAND, CG

835.

- 43) **Engeland CG**, Bosch JA, Cacioppo JT, Marucha PT. (2006) Mucosal wound healing: The roles of age and gender. Archives of Surgery (JAMA Surgery), 141(12): 1193-1197; PMID: 17178961. *Invited critique p. 1198.*
- 44) Kalin NH, Shelton SE, **Engeland CG**, Haraldsson MH, Marucha PT. (2006) Stress decreases, while central nucleus amygdala lesions increase, IL-8 and MIP-1 α gene expression during tissue healing in non-human primates. Brain, Behavior, and Immunity, 20(6): 564-568. PMID: 16574374.
- 45) **Engeland CG****, Kavaliers M, Ossenkopp K-P. (2006) Influence of the estrous cycle on tolerance development to LPS-induced sickness behaviors in rats. Psychoneuroendocrinology, 31(4): 510-525. PMID: 16413135.
- 46) Hawkey LC, Berntson GG, **Engeland CG**, Marucha PT, Masi CM, Cacioppo JT. (2005) Stress, aging, and resilience: Can accrued wear and tear be slowed? Canadian Psychology, 46(3): 115-125.
- 47) Ossenkopp K-P, Anderson S, **Engeland CG**, Kavaliers M. (2005) Influence of photoperiod and sex on locomotor behavior of meadow voles (*Microtus pennsylvanicus*) in an automated light-dark 'anxiety' test. Psychoneuroendocrinology. 30(9): 869-879. PMID: 15979243.
- 48) **Engeland CG****, Kavaliers M, Ossenkopp K-P. (2003) The influence of photoperiod and sex on lipopolysaccharide-induced hypoactivity and behavioral tolerance in meadow voles (*Microtus pennsylvanicus*). Psychoneuroendocrinology, 28(8): 970-991. PMID: 14529703.
- 49) Franklin AE*, **Engeland CG**, Kavaliers M, Ossenkopp K-P. (2003) Lipopolysaccharide-induced hypoactivity and behavioral tolerance development are modulated by the light-dark cycle in male and female rats. Psychopharmacology, 170(4): 399-408. PMID: 12955300.
- 50) **Engeland CG****, Kavaliers M, Ossenkopp K-P. (2003) Sex differences in the effects of muramyl dipeptide and lipopolysaccharide on locomotor activity and the development of behavioral tolerance in rats. Pharmacology, Biochemistry and Behavior, 74(2): 433-447. PMID: 12479965.
- 51) **Engeland C**, Mahoney C, Mohr E, Ilivitsky V, Knott VJ. (2002) Acute nicotine effects on auditory sensory memory in tacrine-treated and nontreated patients with Alzheimer's disease: An event-related potential study. Pharmacology, Biochemistry and Behavior, 72(1-2): 457-464. PMID: 11900820.
- 52) **Engeland C**, Mahoney C, Mohr E, Ilivitsky V, Knott V. (2002) Nicotine and sensory memory in Alzheimer's disease: an event-related potential study. Brain and Cognition, 49(2): 232-234. PMID: 15259398.
- 53) Knott VJ, Mohr E, Mahoney C, **Engeland C**, Ilivitsky V. (2002) Effects of acute nicotine administration on cognitive event-related potentials in tacrine-treated and nontreated patients with Alzheimer's disease. Neuropsychobiology, 45(3): 156-160. PMID: 11979067.
- 54) **Engeland CG****, Kavaliers M, Ossenkopp K-P. (2001) Locomotor activity changes following lipopolysaccharide treatment in mice: A multivariate assessment of behavioral tolerance. Physiology & Behavior, 72(4): 481-491. PMID: 11282131.
- 55) Knott V, **Engeland C**, Mohr E, Mahoney C, Ilivitsky V. (2000) Acute nicotine administration in Alzheimer's disease: An exploratory EEG study. Neuropsychobiology, 41(4): 210-220. PMID: 10828731.
- 56) **Engeland CG****, Vanderwolf CH, Gelb AW. (1999) Rats show unimpaired learning within minutes after recovery from single bolus propofol anaesthesia. Canadian Journal of Anesthesia, 46(6): 586-

ENGELAND, CG

592. PMID: 10391609.

- 57) Ferland M, Ramsay J, **Engeland C**, O'Hara P. (1998) A comparison of normals and traumatic brain injury survivors on repeat administrations of the Wisconsin Card Sorting Test. Journal of Clinical and Experimental Neuropsychology, 20(4): 473-482. PMID: 9892051.

Manuscripts Submitted

Majd M*, Graham-Engeland JE, Smyth JM, Sliwinski MJ, Lipton RB, Katz MJ, **Engeland CG****. Distinct inflammatory response patterns are evident among men and women with increasing depressive symptoms. Physiology and Behavior. (Accepted pending minor revision)

Slavish DC, Graham-Engeland JE, **Engeland CG**, Taylor DJ, Buxton OM. Insomnia symptoms predict C-reactive protein in young adults. Journal of Sleep Research.

Giurgescu C, Zenk SN, Templin TN, **Engeland CG**, Kavanaugh K, Misra DP. Neighborhood disorder predicts lower serum vitamin D levels in pregnant African American women: A pilot. Public Health Nursing.

Selected Manuscripts in Preparation

Engeland CG, Manos M*, Marucha PT, Gajendrareddy PK. Corticosteroid modulation of oral mucosal healing. New England Journal of Medicine.

Monestero AP*, da Rocha JM*, Manos MP*, **Engeland CG**, Gajendrareddy PK. Wound healing and inflammation in periodontal disease. Journal of Periodontology.

Engeland CG, Crosby TR*, Bosch JA, da Rocha JM*, Marucha PT. Salivary growth factors: Relation to oral healing. Journal of Periodontology.

Engeland CG, da Rocha JM*, Manos MP*, Marucha PT. Mucosal wound healing: Sex and inflammation. Brain, Behavior, and Immunity.

Engeland CG, Fang Z, Marucha PT. Examination stress slows oral mucosal healing via hyperinflammation of tissue. Mucosal Immunology.

Graham-Engeland JE, Sin NL*, Jones D, Smyth JM, Sliwinski M, Almeida D, Katz M, Lipton R, **Engeland CG**. Peripheral inflammatory biomarkers are linked with momentary affect but not recalled affect. Brain, Behavior and Immunity.

Giurgescu C, Misra DP, Slaughter-Acey JC, **Engeland CG**, Zenk SN, Lydic T, Ford J, Nowak A, Stemmer P. Neighborhoods, racial discrimination and preterm birth among African American women: Potential stress-related mechanisms.

Published Abstracts (* Presenter)

- 1) Knight EL*, Majd M, Graham-Engeland JE, Smyth JM, Sliwinski MJ, Lipton RB, Katz MJ, **Engeland CG**. The link between stress and inflammation is mediated by depressive symptomology and moderated by gender. (American Psychosomatic Society [APS], Louisville Kentucky)
- 2) Mathur A*, Sliwinski MJ, Jones DR, **Engeland CG**, Smyth JM, Lipton RB, Katz MJ, Graham-Engeland JE. Peripheral inflammation and recent physical pain: Moderation by aggregated momentary negative affect. (APS, Louisville Kentucky)

ENGELAND, CG

- 3) **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)
- 4) 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)
- 5) 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)
- 6) **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. Brain, Behavior, and Immunity. 57 S: e3. (Psychoneuroimmunology Research Society [PNIRS], Brighton UK)
- 7) Graham-Engeland JE*, **Engeland CG**, Sin NL, Smyth JM, Sliwinski MJ, Almeida DM, Lipton RB, Katz MJ. (2016) The relationship between mood and inflammatory biomarkers is influenced by their temporal proximity and mood measurement. Brain, Behavior, and Immunity. 57 S: e4. (PNIRS, Brighton UK)
- 8) Majd M*, Graham-Engeland JE, Smyth JM, Sliwinski MJ, Lipton, RB, Katz MJ, **Engeland CG**. (2016) Gender differences in the relationship between depressive symptoms and LPS-induced inflammation. Psychosomatic Medicine. (APS, Denver CO)
- 9) Graham-Engeland JE*, Sin NL, Smyth JM, Sliwinski MJ, Almeida DM, Lipton, RB, Katz MJ, **Engeland CG**. (2016) Peripheral inflammatory biomarkers are linked with momentary affect but not global recalled affect. Psychosomatic Medicine. (APS, Denver CO)
- 10) Sin NL*, Graham-Engeland JE, Almeida DM, Sliwinski MJ, Smyth JM, Lipton RB, Katz MJ, **Engeland CG**. (2015) Good moments add up for inflammatory health: Associations of momentary positive events with inflammatory state and responsiveness. Brain, Behavior, and Immunity, 49 S: e17. (PNIRS, Seattle WA)
- 11) Pyter LM*, Husain Y, Calero H, McKim D, Lin H-Y, Sheridan JF, Godbout JP, **Engeland CG**, Marucha PT. (2015) Dermal wounds alter tumor immunobiology in mice. Brain, Behavior, and Immunity, 49 S: e15. (PNIRS, Seattle WA)
- 12) Ezenwa MO*, Yao Y, Molokie RE, **Engeland CG**, Wang ZJ, Suarez ML, Zhao Z, Wilkie DJ. (2015) Quantitative sensory testing (QST) and salivary cortisol protocol in adults with sickle cell disease. Western Journal of Nursing Research. (Midwest Nursing Research Society [MNRS], Indianapolis IN)
- 13) Ezenwa MO*, Yao Y, Molokie RE, **Engeland CG**, Wang ZJ, Suarez ML, Zhao Z, Wilkie DJ. (2015) Stress them up, give them pain. The *Tango* relations of stress and pain in sickle cell disease. Western Journal of Nursing Research. (MNRS, Indianapolis IN)
- 14) Ezenwa MO*, Yao Y, Molokie RE, **Engeland CG**, Wang ZJ, Suarez ML, Zhao Z, Carrasco J, Angulo R, Wilkie DJ. (2015) Feasibility of an internet-enabled tablet-based guided imagery for stress and pain reduction intervention in adults with sickle cell disease. The Journal of Pain. (American Pain Society, Palm Springs CA)
- 15) **Engeland CG***, Monestero AP, da Rocha JM, Manos MA, Gajendrareddy PK. (2014) Inflammation, wound healing, and periodontal disease. Brain, Behavior, and Immunity, 40 S: e6-e7. (PNIRS, Philadelphia PA)

ENGELAND, CG

- 16) Gayles JG*, Dorn LD, **Engeland CG**. (2014) Examining differences in serum pro- and anti-inflammatory cytokine profiles across behavioral and physical health in healthy adolescent girls. Brain, Behavior, and Immunity, 40 S: e14. (PNIRS, Philadelphia PA)
- 17) **Engeland CG***, da Rocha JM, Manos MP, Marucha PT. (2014) Sex differences in mucosal healing: The role of inflammation. Psychosomatic Medicine, 76(3): (APS, San Francisco CA)
- *Selected for an APS Press Release*
- 18) **Engeland CG***, Marucha PT, Manos MP. (2013) Oral mucosal wound healing: Sex differences and inflammation. Brain, Behavior, and Immunity, 32 S: e38. (PNIRS, Stockholm Sweden)
- 19) **Engeland CG***, Pyter L, McKenzie C, Yang L. (2012) Novel mechanisms by which social isolation delays dermal wound healing in mice. Brain, Behavior, and Immunity, 26 S1: s21. (PNIRS, San Diego CA)
- 20) Pyter LM*, Yang L, **Engeland CG**. (2012) Sex modulates isolation-induced wound healing impairments in mice. Brain, Behavior, and Immunity, 26 S1: s26. (PNIRS, San Diego CA)
- 21) **Engeland CG***, Manos MP, Gajendrareddy PK, Marucha PT. (2012) Corticosteroid administration: Effects on mucosal wound healing. Psychosomatic Medicine, 74(3): A12. (APS, Athens Greece)
- *Selected as a Citation poster of high merit*
- 22) Yang L*, Marucha PT, **Engeland CG**. (2011) Isolating mice slows wound healing. Brain, Behavior, and Immunity, 25 S2: s192. (PNIRS, Chicago IL)
- 23) Yang L, Carter S, Marucha PT, **Engeland CG***. (2010) Oxytocin speeds healing in stressed mice. Brain, Behavior, and Immunity, 24 S2: s38. (PNIRS, Dublin Ireland)
- 24) **Engeland CG***, Marucha PT. (2010) Corticosteroid modulation of oral mucosal wound healing. Psychosomatic Medicine, 72(3): A54. (APS, Portland OR)
- 25) **Engeland CG***, Diab H, Marucha PT. (2009) Older individuals exhibit altered gene expression in wounded mucosa: A mechanism for age-impaired healing? Brain, Behavior, and Immunity, 23 S2: s35. (PNIRS, Breckenridge CO)
- 26) **Engeland CG***, Fang Z, Marucha PT. (2009) Examination stress causes hyper-inflammation of the oral mucosa and slows healing. Psychosomatic Medicine, 71(3): A114. (APS, Chicago IL)
- *Selected for an APS Press Release*
- 27) Edwards KM*, Bosch JA, **Engeland CG**, Cacioppo JT, Marucha PT. (2009) Elevated macrophage migration inhibitory factor (MIF) and flattened diurnal cortisol in individuals reporting high levels of depressive symptoms. Psychosomatic Medicine, 71(3): A134. (APS, Chicago IL)
- 28) Marucha PT*, Crosby TR, Bosch JA, **Engeland CG**. (2009) Salivary growth factors and risk factors for impaired mucosal healing. Psychosomatic Medicine, 71(3): A47. (APS, Chicago IL)
- 29) **Engeland CG***, Fang Z, Marucha PT. (2008) University examinations cause hyper-inflammation of mucosal tissues. Brain, Behavior, and Immunity, 22(4) S1: s28 (PNIRS, Madison WI)
- 30) Zyaei B*, **Engeland CG**, Marucha PT. (2008) Mucosal wound healing: The relationship with human sex hormones. Brain, Behavior, and Immunity, 22(4) S1: s29 (PNIRS, Madison WI)
- 31) Marucha PT*, Crosby TR, Bosch JA, **Engeland CG**. (2008) Gender, aging, stress, and salivary growth factors in mucosal wound healing. Brain, Behavior, and Immunity, 22(4) S1: s44 (PNIRS, Madison WI)

ENGELAND, CG

- 32) Marucha PT*, Fang Z, **Engeland CG**. (2008) Stress dysregulates plasma and tissue cytokines during human mucosal healing. Wound Repair and Regeneration, 16 (2): A49. (Wound Healing Society [WHS], San Diego CA)
- 33) **Engeland CG***, Fang Z, Marucha PT. (2007) Examination stress leads to hyper-inflammation of tissue and slower wound healing. Society for Neuroscience (SFN) Abstracts, 33: Program No. 733.16 (SFN, San Diego CA)
- 34) **Engeland CG***, Marucha PT. (2007) Biomarkers in blood predict wound healing rates. Brain, Behavior, and Immunity, 21(4) S1: (PNIRS, Arcachon France)
- 35) **Engeland CG***, Fang Z, Marucha PT. (2006) Examination stress relates to higher inflammatory cytokine expression and larger wound sizes in the oral mucosa. Brain, Behavior, and Immunity, 20(3) S1: s19-20 (PNIRS, Miami FL)
- 36) Friedstat JS, Marucha PT, Weber RJ, **Engeland CG***. (2006) Morphine delays wound healing in restraint stressed mice. Brain, Behavior, and Immunity, 20(3) S1: s22 (PNIRS, Miami FL)
- 37) Marucha PT*, Fang Z, **Engeland CG**. (2006) Stress-impaired mucosal wound healing in humans involves an early overexpression of chemokines and E-selectin. Brain, Behavior, and Immunity, 20(3) S1: s46 (PNIRS, Miami FL)
- 38) **Engeland CG***, Bosch JA, Cacioppo JT, Marucha PT. (2005) Age, gender and cortisol: Modulating effects on mucosal wound healing. SFN Abstracts, 31: Program No. 303.7 (SFN, Washington DC)
- *Selected for publication in the SFN Press Book*
- 39) 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)
- 40) **Engeland CG***, Kalin NH, Shelton SE, Haraldsson MH, Marucha PT. (2005) Amygdala lesions increase IL-8 and MIP-1 α gene expression in dermal wound tissue. Wound Repair and Regeneration, 13(2): A44. (WHS, Chicago IL)
- 41) Sharma R*, **Engeland CG**, Fang Z, Marucha PT. (2005) Early pro-inflammatory cytokine expression during mucosal wound healing. Wound Repair and Regeneration, 13(2): A10. (WHS, Chicago IL)
- *Award Finalist for best graduate research*
- 42) 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)
- 43) **Engeland CG***, Kalin NH, Shelton SE, Haraldsson HM, Marucha PT. (2005) Amygdala lesions increase IL-8 and MIP-1 α gene expression during tissue healing in primates. Brain, Behavior, and Immunity, 19(4) S1: e18-e19. (PNIRS, Denver CO)
- 44) Regis LA*, **Engeland CG**, Bosch JA, Cacioppo JT, Marucha PT. (2005) Depression symptom scores predict altered pro-inflammatory cytokine release and glucocorticoid resistance in non-depressed individuals. Brain, Behavior, and Immunity, 19(4) S1: e60-e61 (PNIRS, Denver CO)
- 45) Sharma R, **Engeland CG**, Fang Z, Marucha PT*. (2005) Excessive inflammation in females and older adults: relationship to delayed mucosal wound healing. Brain, Behavior, and Immunity, 19(4) S1: e64 (PNIRS, Denver CO)
- 46) **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)

ENGELAND, CG

- 47) Marucha P*, **Engeland C**, Bosch J, Chou J, Cacioppo J. (2004) Adults with depressive symptoms have delayed healing and impaired angiogenic growth factor expression. Brain, Behavior, and Immunity, 18(3) S1: (PNIRS, Titisee Germany)
- 48) Marucha PT*, **Engeland CG**, Cacioppo JT. (2004) Wound healing is delayed in women and in the aged: A potential role for the HPA axis. Wound Repair and Regeneration, 12(2): A21. (WHS, Atlanta GA)
- 49) **Engeland CG***, Cacioppo JT, Bosch JA, Marucha PT. (2003) Oral wound healing is delayed in the aged and in women. Brain, Behavior, and Immunity, 17(3): 173. (PNIRS, Amelia Island FL)
- 50) **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. SFN Abstracts, 28: Program No. 875.14. (SFN, Orlando FL)
- 51) 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. SFN Abstracts, 28: Program No. 773.8. (SFN, Orlando FL)
- 52) Ossenkopp K-P*, Tenk CM, Martin L, **Engeland CG**, Kavaliers M. (2002) An automated place preference conditioning procedure using the Digiscan animal activity monitor. SFN Abstracts, 28: Program No. 875.16. (SFN, Orlando FL)
- 53) Tenk CM*, **Engeland CG**, Kavaliers M, Ossenkopp K-P. (2002) Place aversion conditioning and activity effects of LiCl in rats: Multivariate assessment. SFN Abstracts, 28: Program No. 875.17. (SFN, Orlando FL)
- 54) **Engeland CG***, Kavaliers M, Ossenkopp K-P. (2001) Stage of the estrous cycle modulates the development of tolerance to LPS-induced hypoactivity in the rat. SFN Abstracts, 27: Program No. 844.1. (SFN, San Diego CA)
- 55) 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. SFN Abstracts, 27: Program No. 648.5. (SFN, San Diego CA)
- 56) Franklin AE*, **Engeland CG**, Kavaliers M, Shivers RR, Ossenkopp K-P. (2001) Day-night differences in endotoxin-induced hypoactivity and the development of behavioral tolerance. SFN Abstracts, 27: Program No. 843.1. (SFN, San Diego CA)
- 57) **Engeland CG***, Kavaliers M, Ossenkopp K-P. (2001) Endotoxin-induced locomotor decrements are critically mediated by time of day in male and female rats. Brain, Behavior, and Immunity, 15(2): 146-147. (PNIRS, Utrecht Holland)
- 58) **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. SFN Abstracts, 26: 1180. (SFN, New Orleans LA)
- 59) Ossenkopp K-P*, Krieger D, Kent WDT, Cross-Mellor SK, **Engeland CG**. (2000) Reduced alcohol intake in rats chronically treated with disulfiram (antabuse). SFN Abstracts, 26: 1527. (SFN, New Orleans LA)
- 60) **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. Brain, Behavior, and Immunity, 14(2): 93. (PNIRS, Wilmington NC)

ENGELAND, CG

- 61) **Engeland CG***, Kavaliers M, Ossenkopp K-P. (1999) Changes in spontaneous locomotion induced by gram-negative and gram-positive bacterial compounds in female rats. SFN Abstracts, 25(2): 1446. (SFN, Miami Beach FL)
- 62) **Engeland CG***, Ossenkopp K-P, Kavaliers M. (1998) Singular and interactive effects of lipopolysaccharide and muramyl dipeptide on locomotor behavior in rats. SFN Abstracts, 24(2): 2075. (SFN, Los Angeles CA)
- 63) **Engeland CG***, Ossenkopp K-P, Kavaliers M. (1998) The effects of lipopolysaccharide and muramyl dipeptide on open field behaviour in rats. Journal of Neuroimmunology, 90(1): 39. (International Society of Neuroimmunology, Montreal PQ)

Non-Published Abstracts (* Presenter)

- 1) Majd M*, Greaney J, Saunders E, **Engeland CG**. (2017) Ex vivo inflammatory response patterns among non-medicated depressed patients. (American Society of Clinical Psychopharmacology, Miami Beach FL)
- 2) Greaney JL*, **Engeland CG**, Saunders EF, Alexander LM. (2017) Nuclear factor- κ B activation contributes to vascular endothelial dysfunction in adults with major depressive disorder. (Society of Biological Psychiatry, San Francisco CA)
- 3) 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*
- 4) 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).
- 5) Manos MP*, Monestero AP, da Rocha JM, Gajendrareddy PK, **Engeland CG**. (2015) Oral mucosal healing and inflammation in patients with periodontal disease. (International Association for Dental Research [IADR], Boston MA)
- *National finalist for DENTSPLY/Caulk Student Clinician Research Award*
- 6) 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)
- 7) Pyter LM*, Calero H, Marucha PT, **Engeland CG**. (2013) Cancer and stress impair dermal wound healing in mice. (Society for Behavioral Neuroendocrinology, Atlanta GA)
- 8) McKenzie CC*, Pyter LM, Yang L, **Engeland CG**. (2013) Social isolation: Rethinking bacteria's role in stress-impaired wound healing. (IADR, Seattle WA)
- 9) Manos MP*, Marucha PT, **Engeland CG**. (2013) Sex differences in oral mucosal healing: A role for inflammation. (IADR, Seattle WA)
- 10) 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)
- 11) Manos MP*, Gajendrareddy PK, Marucha PT, **Engeland CG**. (2012) Oral mucosal healing: Surgical

ENGELAND, CG

- implications regarding corticosteroid administration in dentistry. (American Dental Association [ADA], San Francisco CA)
- *National runner-up for DENTSPLY/Caulk Student Clinician Research Award*
- 12) 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*
 - 13) 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*
 - 14) 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)
 - 15) Giurgescu C*, **Engeland CG**, Zenk SN, Dancy BL (2011) Race-related stressors, inflammation and preterm birth in African American women. (COGI, Paris France)
 - 16) Gyllenhaal KA*, **Engeland CG**, Vecchio JC, Fischer DJ. (2011) Salivary inflammatory mediators in patients with intraoral lesions versus controls. (IADR, San Diego CA)
 - 17) 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*
 - 18) McKenzie C*, Yang L, **Engeland CG**. (2011) Topical morphine delays wound closure, possibly by altering wound contraction. (IADR, San Diego CA)
 - 19) Casey P*, Yang L, Carter S, **Engeland CG**. (2011) Oxytocin and stress effects on cutaneous wound healing in mice. (IADR, San Diego CA)
 - 20) **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)
 - 21) 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*
 - 22) 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*
 - 23) **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)
 - 24) Marucha PT*, Fang Z, **Engeland CG**. (2008) Stress dysregulates plasma cytokines during human mucosal healing. (IADR, Dallas TX)
 - 25) 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*

ENGELAND, CG

- 26) 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)
- 27) 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)
- 28) **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)
- 29) **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)
- 30) **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)
- 31) 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)
- 32) 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)
- 33) 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)
- 34) **Engeland CG***, Kavaliers M, Ossenkopp K-P. (2001) Female sex hormones modulate the development of tolerance to LPS-induced activity decrements in naturally cycling rats. (PNIRS, Utrecht Holland)
- 35) **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)
- 36) Ossenkopp K-P, Zaki KA, **Engeland CG***. (2001) Sensitization of locomotor behaviors with repeated quinpirole treatments: A model of compulsive behavior? (IBNS, Cancun Mexico)
- 37) **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)
- 38) **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)
- 39) **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)
- 40) **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)
- 41) **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)

INVITED SPEAKER

- 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.**
(22nd Annual Methodology Workshop – Population Research Institute, PSU, University Park PA)
- 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: **Stress and mucosal healing.** (Children's Hospital, Dept. of Immunology, Utrecht, Netherlands)
- 2009: **Health disparities in oral mucosal healing.** (Behavior & Health Seminar Series, UIC, Chicago IL)
- 2008: **Stress, age, gender: Modulation of mucosal healing.**
(Universidade Federal do Rio Grande do Sul, School of Dentistry, Porto Alegre, Brazil)
- 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

- 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)

CONFERENCE SYMPOSIA

- 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.* (American Psychosomatic Society [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)

MEDIA COMMENTARY

- 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

American Psychosomatic Society	2010 - Present
International Behavioral Neuroscience Society (IBNS)	1998 - Present
International Society of Neuroimmunology	1998 - Present
Psychoneuroimmunology Research Society (PNIRS)	1999 - Present
Society for Neuroscience (SFN)	1998 - Present
Wound Healing Society	2008 - Present

SCIENTIFIC REVIEWER (Ad-Hoc)

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

EDITORIAL BOARD

Brain, Behavior, and Immunity	2016 - 2018
Health Psychology	2011 - 2014

GRANT/FELLOWSHIP REVIEWS

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) Peer Review Panel

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

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)

Fellowship Review – UIC

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

SERVICE AT CONFERENCES

Board of Directors (Elected)	Psychoneuroimmunology Research Society (PNIRS): 2015-2017
Scientific Affairs Committee	PNIRS: 2005-2007, 2010-2011, 2016-2017
Training Committee	PNIRS: 2015-2017
Membership Committee	PNIRS: 2016-2019
Financial Committee	PNIRS: 2012-2015
Membership & Communications Committee	Intl. Behavioral Neuroscience Society (IBNS): 2012-2015
Scientific Program Committee	American Psychosomatic Society (APS): 2009
Student Representative (Elected)	IBNS: 2001-2002
Co-Organizer	18 th Annual Meeting of the PNIRS, Chicago IL, June 8-11 2011
Head Organizer	4 th Annual Illinois Brain Behavior & Immunity Meeting, Chicago IL, Dec 2-3 2011
	3 rd Annual Illinois Brain Behavior & Immunity Meeting, Chicago IL, Dec 3-4 2010
	2 nd Annual Illinois Brain Behavior & Immunity Meeting, Chicago IL, Dec 5-6 2009

COMMITTEE POSITIONS

Chair / Co-Chair

Biological and Life Sciences Research Group	PSU College of Health and Human Development: 2017-Present
Research Committee	PSU Dept. Biobehavioral Health: 2017-Present
Founder's Day Committee	PSU Dept. Biobehavioral Health: 2015-Present
Colloquium Committee (BBH 590)	PSU Dept. Biobehavioral Health: 2014-2017

Member

PhD Council	PSU College of Nursing: 2015-Present
MSN Council	PSU College of Nursing: 2015-Present
Graduate Affairs Committee	PSU College of Nursing: 2014-Present
Research Committee	PSU Dept. Biobehavioral Health: 2016-2017
Undergraduate Program Committee	PSU Dept. Biobehavioral Health: 2013-2017
Search Committee – CIHRI Director	PSU College of Health and Human Development: 2017-2018
Task Force – Center for Individualized Health Care and Intervention (CIHRI)	PSU College of Health and Human Development: 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
Student Representative (Elected)	Graduate Affairs Committee (UWO): 2000-2001, 2001-2002

ENGELAND, CG**AWARDS AND SCHOLARSHIPS (COMPETITIVE)** (* Canadian dollars)

Name of Award	Value/Year	Type	Location	Held/Awarded
Ontario Graduate Scholarship	\$15,000*	Provincial	UWO	2001-2002
(OGS) – plus tuition waver	\$11,859*	Provincial	UWO	2000-2001
	\$11,859*	Provincial	UWO	1999-2000
Ontario Graduate Scholarship in Science and Technology	\$15,000*	Provincial	UWO	2000-2001
(Both declined in place of OGS)	\$15,000*	Provincial	UWO	1999-2000
IBNS Research Scholars Award	\$1,000	International	UWO	06 / 2002
IBNS Research Scholars Award	\$1,000	International	UWO	04 / 2001
IBNS Research Scholars Award	\$ 500	International	UWO	04 / 2000
Accuscan SFN Research Award	\$ 200	International	UWO	11 / 2001
Accuscan SFN Research Award	\$ 200	International	UWO	11 / 2000
Accuscan SFN Research Award	\$ 200	International	UWO	11 / 1999
PNIRS Research Scholars Award	\$1,000	International	UIC	06 / 2005
PNIRS Research Scholars Award	\$1,000	International	UIC	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

SUPERVISORY/MENTORING HISTORY

Student	Institution	Project or Position	Field of Study
Daniel Nielsen	UWO	Undergraduate Thesis	Neuroscience
Kashif Zaki	UWO	Undergraduate Thesis	Neuroscience
Desmond Cheung	UWO	Undergraduate Thesis	Neuroscience
Andrew Franklin	UWO	Undergraduate Thesis	Neuroscience
Julia Flook	UWO	Independent Study	Neuroscience
Sara Little	UWO	Independent Study	Neuroscience
Sari Anderson	UWO	Independent Study	Neuropsychology
Andrew Franklin	UWO	Masters Thesis	Neuroscience
James Chou	OSU	Masters Thesis	Oral Biology
Ritu Sharma	UIC	Masters Thesis	Bioengineering
Tricia Crosby	UIC	Masters Thesis	Oral Sciences (Periodontics)
Jeffrey Burke ¹	UIC	Masters Thesis	Oral Sciences (Periodontics)
Bahareh Sabzehei ¹	UIC	Masters Thesis	Oral Sciences (Periodontics)
* Logesh	UIC	Masters Thesis	Oral Sciences (Periodontics)
Swayamprakasam ²			
Lara Regis	UIC	Masters Thesis	Oral Sciences
Donnie Rivera ¹	UIC	Independent Study	Dentistry
Jon Friedstat ¹	UIC	James Scholar Research	Medicine (Surgery)
* Hiba Diab ^{1,2}	UIC	Summer Dental Research	Dentistry
* Houman Ebrahimi	UIC	Summer Dental Research	Dentistry
* Patty Casey	UIC	Summer Dental Research	Dentistry
+ Gustavo Nascimento	UIC	Research Scholar	Dentistry (Brazil)

ENGELAND, CG

* Cassandra McKenzie ²	UIC	Summer Dental Research	Dentistry
* Linglan Yang ²	UIC	PhD Research	Oral Sciences (China)
* Marc Manos ^{1,2}	UIC	Summer Dental Research	Dentistry
* Leah Pyter ²	UIC	Research Assistant Professor	Psychoneuroimmunology
+ Roger Junges	UIC	Research Scholar	Dentistry (Brazil)
Kelley Gyllenhaal ^{1,2}	UIC	Summer Dental Research	Dentistry
* Sara Mahmood	UIC	Summer Dental Research	Dentistry
* Shohreh Raouf ²	UIC	Summer Dental Research	Dentistry
Antonia Savarese	UIC	PhD rotation	Neuroscience
+ Andrew Monestero	UIC	Masters Thesis	Oral Sciences (Periodontics)
+ Jose M. da Rocha	UIC	PhD Research	Oral Sciences (Brazil)
* Marzieh Majd	PSU	PhD Research	Biobehavioral Health
+ Nancy Sin ¹	PSU	Post-Doctoral Fellow (NRSA)	Biobehavioral Health
+ Aprile Benner	Austin TX	Assistant Professor (K01)	HDFS (Univ. Texas at Austin)
+ Liane Hunter ¹	Bronx NY	MD student - F31 NRSA Fellow	Medicine
+ Lisa Shank ¹	Washington DC	PhD student - F31 NRSA Fellow	Medicine & Clinical Psychology
+ Jinshil Hyun ²	PSU	PhD student - T32 NIA Fellow	Center for Healthy Aging
+ Hyunju Yang ¹	PSU	PhD Research	Nursing
+ Anna Stanhewicz	PSU	Post-doctoral Fellow (K99/R00)	Kinesiology
^ Autumn Kujawa	PSU	Assistant Professor (K23)	Psychiatry (Hershey)
+ Dahlia Mukherjee	PSU	Assistant Professor (KL2)	Psychiatry (Hershey)
* Erik Knight	PSU	T32 NIA Post-doctoral Fellow	Center for Healthy Aging

* Primary mentor, + Co-mentor, ^Consultant

¹National/International research award recipient, ²Regional research award recipient

Dissertation Committee:

Jeffrey Burke (MS), Tricia Crosby (MS), Lara Regis (MS), Bahareh Sabzehei (MS), Logesh Swayamprakasam (MS) (Chair), William Kenkel (PhD), Whitney Dunn-Weiner (MS), Andrew Monestero (MS), Hyunju Yang (PhD)

Comprehensive Examination Committee (PhD): Hyunju Yang, Francisco Alejandro Montiel-Ishino, Marzieh Majd (Chair)

Preliminary Examination Committee (PhD): William Kenkel (Neuroscience), Mateusz Wietecha (Oral Sciences)

Candidacy Committee (PhD): Francisco Alejandro Montiel-Ishino, Marzieh Majd (Chair)

Advisory Committee: Dr. Nancy Sin (Funded NRSA)

TEACHING (FACULTY MEMBER)

Course Instructor – PSU

Biobehavioral Aspects of Stress (BBH 432 – Section 002)	2016
Neuropathology & Neuroimaging (NURS 597a: Special Topics - Graduate)	2015
Neuroanatomical Bases for Disorders of Behavior and Health (BBH 468)	2014, 2015, 2017

Student Training / Mentoring – PSU

Independent Studies (BBH 496)	2016
Individual Studies - Graduate (NURS 596)	2015
Research Project (BBH 494)	2014, 2015, 2016

Guest Lecturer – PSU

Biobehavioral Aspects of Aging (BBH 497 005)	2017
Biobehavioral Aspects of Stress (BBH 432)	2016, 2017
Biobehavioral Systems in Health and Development (BBH 503)	2016, 2017
Research Colloquium (NURS 590)	2015
Interdisciplinary Integration in Biobehavioral Health (BBH 311)	2014, 2015

ENGELAND, CG

Course Director / Instructor – UIC

Statistics for Oral Sciences (OSCI 441)	2013
Statistics for Dental Residents (OSCI 594)	2009-2012
Introduction to Quantitative Data Analysis (MHPE 494)	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)	2013
Applied Oral & Behavioral Sciences II (DAOB 311)	2012
Biomedical & Clinical Sciences IV (DBCS 314)	2012
Biomedical & Clinical Sciences I (DBCS 311)	2011
Applied Oral & Behavioral Sciences I (DAOB 311)	2011

Course Lecturer in Immunology – UIC

2012-2013

Content Expert in Immunology – UIC

2012-2013

Guest Lecturer – UIC

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

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)

Continuing Education Centre, Philemon Wright High School, Hull, Quebec, Canada (1994–1996)

OTHER RESEARCH ENDEAVORS

Organizer – PSU

First Annual Founder's Endowment for Excellence and Innovation Research Day (2016)
Second Annual Founder's Endowment for Excellence and Innovation Research Day (2017)

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)

ENGELAND, CG

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)