

ELIZABETH B. ENGLER-CHIURAZZI

CONTACT INFORMATION

Professional

Tulane University
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SUMMARY

- PhD Research Faculty and Rodent Behavior Core Director with 15 years of animal research experience
- Productive team player; 7 first (*Prog Neurobio*; *Neurobio Ag*), 19 co-, 3 senior author publications=29 total
- Funded investigator with >\$1,000,000 in research and outreach grants earned as PI/Co-PI
- Results-oriented leader with project management and mentoring experience in multiple professional domains (laboratory, classroom, service, and community outreach/philanthropy)
- Award-winning speaker and neuroscience outreach coordinator with proven enthusiasm for disseminating knowledge to colleagues, students, and the public; >8000 community members impacted since 2005
- Fluent in English and Spanish

EDUCATION

- 2013 **PhD – Psychology (Behavioral Neuroscience)**, Arizona State University (ASU), *GPA*: 4.0;
Thesis: Optimization of Menopausal Hormone Therapies for Cognitive and Brain Aging in a Rat Model
- 2009 M.A. in passing – Psychology, ASU, *GPA*: 3.96
Thesis: Tonic Premarin Dose-Dependently Enhances Memory, Affects Neurotrophin Protein Levels and Alters Gene Expression in Ovariectomized Rats
- 2007 **BS – Psychology with Honors; Minor – Spanish**, ASU, *GPA*: 3.6 (cumulative; magna cum laude), 3.91 (major)
Thesis: The Effects of Ovariectomy Depend on Age and Specific Memory Function

POSITIONS AND FELLOWSHIPS

- 2020-present Assistant Professor, Clinical Neuroscience Research Center, Department of Neurosurgery, School of Medicine, Tulane University (TU)
- 2019-present AAAS IF/THEN Ambassador
- 2017-2020 Research Assistant Professor, School of Medicine, Departments of Neuroscience and Physiology & Pharmacology, West Virginia University (WVU)
Adjunct Instructor, School of Pharmacy, Department of Basic Pharmaceutical Sciences, WVU
- 2014-2020 Director- Rodent Behavior Core, WVU
- 2013-2017 Post-doctoral Fellow, Mentor: James W. Simpkins, Ph.D., Center for Basic and Translational Stroke Research, WVU
- 2007-2013 Graduate Student, Mentor: Heather A. Bimonte-Nelson, Ph.D., Department of Psychology, ASU
- 2007-2008 ASU Neuroscience Fellowship, \$25,000 (1 year) fellowship
- 2006-2007 Research Fellow, School of Life Sciences Undergraduate Research Fellowship Program

AWARDS AND HONORS

International:

2018 Travel Award, 14th International Symposium on Neurobiology & Neuroendocrinology of Aging Meeting, \$1000
 2016 Travel Award, 13th International Symposium on Neurobiology & Neuroendocrinology of Aging Meeting, \$1000
 2014 Travel Award, Society for Neuroscience Chapters Post-doctoral Fellow, \$1000
 2012 Travel Award, Society for Neuroscience Graduate Student, \$1000
 2011 Workshop Travel Award, Neuroscience School of Advanced Studies Workshop, \$1995

National:

2019 IF/THEN Ambassador, AAAS
Participant, NIH Early Career Reviewer Program
 2016 Travel Award, NISBRE Meeting- Core Personnel
 2007-2008 Neuroscience Graduate Student Fellowship, ASU
 2003-2007 Sun Devil Scholarship ASU, *half tuition waiver (4 years)*

Local:

2019 Finalist, WVU Faculty Award for Distinction in Mentoring Undergraduates in Research
 2018 Research Scholar, West Virginia Clinical and Translational Sciences Institute (WVCTSI), \$80,000 award
Nomination, WVU Faculty Award for Distinction in Mentoring Undergraduates in Research
 2017 Travel Award, WVU Post-doctoral Association, \$500
 2016 1st Place, Poster Presentation Award (Resident/Fellow), WVCTSI Annual Meeting \$100
Honorable Mention, Shark Tank Competition, WVU Center for Neuroscience Retreat
 2015 1st Place, Neuroscience Idol Competition, WVU Center for Neuroscience Retreat, \$150
2nd Place Poster (Post-doctoral Fellow), Van Liere Symposium, \$150
 2014 Overall Best Presentation Award, Allegheny-Erie Society of Toxicology, \$100
 2012 Teaching Excellence Award, ASU Graduate and Professional Student Association
Poster Presentation Award, Photometrics/QImaging, \$150
 2011 Earl A. and Lenore H. Tripke Travel Award, \$800
Travel Award, ASU Graduate and Professional Student Association, \$750
Instructor, ASU Bridge Program, *summer salary*
 2010 Travel Award, ASU Graduate and Professional Student Association, \$750
Service Award, ASU Graduate and Professional Student Association
 2009 Samuel Leifheit Service Award, ASU Department of Psychology
 2007-2012 Travel Award, ASU Department of Psychology \$200
 2007 Travel Award, ASU Graduate College, \$350
AAAS Conference Presentation Award, ASU College of Liberal Arts and Sciences
Runner up, ASU Top Undergraduate Honors Thesis in Psychology Competition

RESEARCH INTERESTS

Central Theme: I aim to understand how the central nervous and immune systems converge to impact brain function and health in the context of cognitive aging, brain injury and affective/mood disorders.

Techniques: Rodent behavioral assessment (mouse and rat): cognitive assessment (radial arm maze, Morris maze, delayed match/non-match to sample, object recognition/location recognition, passive avoidance, t/y-maze), anxiety assessment (open field, elevated plus maze, marble burying, novelty-induced hypophagia), locomotor assessment (visible platform, rotarod), nociception (hot plate, tail flick), sensorimotor (modified neurological stroke severity score, adhesive dot removal, cylinder test, grip strength/wire hang, ladder test), depression-like behavior (forced swim test, social defeat stress paradigm, sucrose preference, tail suspension test), molecular and biochemical assessment (ELISA, microarray gene expression, immunohistology, RT-PCR; western blot), cell quantification (unbiased stereology, ImageJ, voxel-based morphology), surgery (ovariectomy, osmotic pump insertion, photothrombotic stroke; cardiocentesis, perfusion, brain and pituitary extraction, organ extraction).

Software: AnyMaze, Ethovision, Microsoft Office Suite, PAS Locomotion, SPSS, StatView, Prism

PUBLICATIONS

* indicates mentored trainee

** indicates co-primary author

Peer-reviewed Journal Articles

1. Kahle, MP, Grupke, SL, **Engler-Chiurazzi, EB**, Bix, GJ (in final preparation). *Perlecan domain V increases neurogenesis in vitro*.
2. Brichacek, AL, Nwafor, DC, Benkovic, SA, Chakraborty, S, Kenney, SM, Mace, ME, Jun, S, Gambill, CA, Wang, W, Hu, H, Ren, X, Povrznik, JM, **Engler-Chiurazzi, EB**, Primerano, D, Denvir, J, Percifield, R, Infante, A, Franko, J, Schafer, R, Gemoets, DE, Brown, CM (in review). *Experimental stroke induces chronic gut dysbiosis and neuroinflammation in male mice*.
3. Gao, X, Zheng, P, Yang, F, **Engler-Chiurazzi, EB**, Simpkins, JW, Wu, N (in review). *Comparative visible-light and near-infrared fluorescence detection of microRNA in blood plasma with paper-based lateral flow test strips*.
4. Gao, X, Zheng, P, Kasani, S, Yang, F, **Engler-Chiurazzi, EB**, Simpkins, JW, Wigginton, JG, Wu, N (in review). *A "hot-spot"-enhanced paper-based test strip for ultrasensitive detection of traumatic brain injury biomarker S-100 β in blood plasma*.
5. **Engler-Chiurazzi, EB**,** Kooshki, M,** Greene-Schloesser, DM,** Robbins, ME, Metheny-Barlow, L, Brown, CM (in revision). *Estrogen receptor beta ligands attenuate radiation-induced pro-inflammatory signaling pathways in murine microglia*.
6. **Engler-Chiurazzi, EB**, Monaghan, KL, Wan, ECK, Ren, X (2020). *B cells and the aging brain: interactions in the context of stroke*. *Geroscience* (INVITED REVIEW) 42(5):1199-1216. PMID 32767220
7. Quintana, D, Garcia, J, Anatula, Y, Rellick, S, **Engler-Chiurazzi, EB**, Sarkar, S, Brown, C, Simpkins, J (2020). *Amyloid-beta causes mitochondrial dysfunction via a Ca²⁺ driven upregulation of oxidative phosphorylation and superoxide production in cerebrovascular endothelial cells*. *J Alzheimers Dis*. 75(1): 119-138. PMID: 32250296
8. Nwafor, DC, Chakraborty, S, Brichacek, AL, Jun S, Gambill, CA, Wang, W, **Engler-Chiurazzi, E. B.**, Dakhallah, D, Benkovic, SA, Brown, C, (2020). *Loss of tissue nonspecific alkaline phosphatase (TNAP) enzyme activity in cerebral microvessels is coupled to persistent neuroinflammation and behavioral deficits in late sepsis*. *Brain Behav Immun*. 84: 115-131. PMCID: PMC70`0562
9. Cavendish, JZ, Sarkar, S, Colantonio, MA, Quintana, DD, Ahmed, N, White, BA,* **Engler-Chiurazzi, EB**, Simpkins, JW (2019). *Mitochondrial movement and number deficit in embryonic cortical neurons from 3xTg-AD mice and partial amelioration with sigma-1 agonist (+)SKF-10,047*. *J Alzheimers Dis*. 70(1):139-151. PMID:31177221
10. Sarkar, S, **Engler-Chiurazzi, EB**, Cavendish, JZ, Povroznik, JM, Russell, AE, Quintana, DD, Mathers, P, and Simpkins, JW (2019). *Transgenic over-expression of miR-34a in mice induces a rapid cognitive impairment and Alzheimer's disease-like pathology*. *Brain Res* 15:1721:146327. PMID: 31295467
11. Quintana, D, Garcia, J, Sarkar, S, Jun, S, **Engler-Chiurazzi, EB**, Kerr, A, Cavendish, J, Simpkins, JW (2019). *Hypoxia-reoxygenation of primary astrocytes results in a redistribution of mitochondrial size and mitophagy*. *Mitochondrion* 47:244-255. PMID: 30594729
12. Sarkar, SN, Russell, AE, **Engler-Chiurazzi, EB**, Porter, KN, Simpkins, JW (2019). *MicroRNAs and the genetic nexus in aging, neuroinflammation and brain trauma*. *Ag Dis* 10 (2):329-352. PMID: 31295467 (INVITED REVIEW)
13. Quintana, D, Ren, X, Hu, H, **Engler-Chiurazzi, EB**, Rellick, SL, Lewis, SE, Povroznik, JM, Simpkins, JW, Alvi, M (2018). *Gradual common carotid artery occlusion results in cerebral white matter pathology in a novel model of cerebrovascular hypoperfusion*. *Metab Brain Dis* 33(6): 2039-2044. PMCID:PMC6342504.
14. Ozga, JE, Povroznik, JM, **Engler-Chiurazzi, EB**, and Vonder Haar, C (2018). *Executive (dys)Function after Traumatic Brain Injury*. *Behav Pharmacol*. 29(7):617-37. PMCID:PMC6155367 (INVITED REVIEW)
15. Ren, X*, **Engler-Chiurazzi EB***, Sarkar, SN, Rellick, S, Lewis, S, Corbin, D, Clapper, J, Simpkins, JW. (2018). *MIR-34a and Stroke: Assessment of non-modifiable biological risk factors in cerebral ischemia*. *J Neurochem Interna*, PMID: 26463864. (INVITED REVIEW)
16. Povroznik, JM, Ozga, JE, Vonder Haar, C, and **Engler-Chiurazzi, E.B.** (2018). *Executive (dys)Function after Stroke*. *Behav Pharmacol*. 29(7):638-53. PMCID:PMC6152929 (INVITED REVIEW)

17. Povroznik, J, **Engler-Chiurazzi, EB**, Nanavati, T, Pergami, P (2018). *Absolute neutrophil and lymphocyte counts in neonatal ischemic brain injury*. Sage Open Med 6:2050312117752613. PMID: PMC5777550 (WVU PUBLICATION FEE AWARD)
18. Gao, X, Zheng, P, Kasani, S, Wu, S, Yang, F, Lewis, S, Nayeem, S, **Engler-Chiurazzi, E**, Wigginton, J, Simpkins, J, Wu, N (2017). *A paper-based surface-enhanced raman scattering lateral flow strip for detection of neuron-specific enolase in blood plasma*. Anal Chem, 89(18):10104-10110. PMID:28817769
19. Povroznik, JP, Faith, RE, Kessler, MJ, Ali, FN, Kosik, J, Prince, S, **Engler-Chiurazzi, EB** (2017). *Locomotor effects of a low-frequency fire alarm on C57BL/6 male mice*. Lab Anim, 51(6): 647-651 PMID:PMC6124304
20. Qian, M, **Engler-Chiurazzi, EB**, Lewis, SE, Rath, NP, Simpkins, JW, Covey, DF (2016). *Structure-activity studies of non-steroid analogues structurally-related to neuroprotective estrogens*. Organic and Biomolecular Chemistry, 14(41): 9790-9805. PMID:PMC5525543
21. **Engler-Chiurazzi, EB**, Brown, CM, Povroznik, JM, Simpkins, JW (2017). *Estrogens as neuroprotectants: estrogenic actions in the context of cognitive aging and disease*. Prog Neurobio, 157: 188-211. PMID:PMC4985492 (INVITED REVIEW)
22. **Engler-Chiurazzi, EB**, Covey, DF, Simpkins, JW (2017). *A novel mechanism of non-feminizing estrogen in neuroprotection*. Experimental Gerontology, 94:99-102. PMID:PMC5415429 (INVITED REVIEW)
23. **Engler-Chiurazzi, EB**, Singh, M, Simpkins, JW (2016). *From the 90's to now: a brief historical perspective on more than two decades of estrogen neuroprotection*. Brain Res 1633: 96-100. PMID: PMC4969093 (INVITED REVIEW)
24. **Engler-Chiurazzi, EB****, Stapleton, PA**, Stalnaker, JJ, Ren, X, Hu, H, Nurkiewicz, TR, McBride, C, Yi, J, Engels, K, Simpkins, JW (2016). *Impacts of prenatal nanomaterial exposure on male adult behavior and cognition*. J Tox Environ Health 19:1-6. PMID:PMC4899177
25. Doll, DN, **Engler-Chiurazzi, EB**, Lewis, SE, Hu, H, Kerr, AE, Ren, X, Simpkins, JW (2015). *Lipopolysaccharide exacerbates infarct size and results in worsened post-stroke behavioral outcomes*. Behav Brain Funct 11:32. PMID:PMC4604642
26. Weitzner, DS, **Engler-Chiurazzi, EB**, Kotilinek, LA, Ashe, KH, Reed, MN (2015). *Morris water maze test: optimization for mouse strain and testing environment*. J Vis Exp. 100, e52706. PMID:PMC4545046
27. Mennenga, SE,* Gerson, JE,* Koebele, SV,* Kingston, ML,* Tsang, CWS,* **Engler-Chiurazzi, EB**, Baxter, LC, Bimonte-Nelson, HA (2015). *Understanding the cognitive impact of the contraceptive estrogen ethinyl estradiol: tonic and cyclic administration impairs memory, and performance correlates with basal forebrain cholinergic system integrity*. Psychoneuroendocrinology 54C: 1-13. PMID:PMC4433884
28. Mennenga, SE,* Baxter, LC, Grunfeld, IS,* Brewer, GE, Aiken, LS, **Engler-Chiurazzi, EB**, Camp, BW, Acosta, JI, Braden, BB, Schaefer, KR,* Gerson, JE,* Lavery, CN,* Tsang, CWS,* Hewitt, L,* Kingston, ML,* Koebele, SV,* Patten, J, Ball, H, McBeath, MK, Bimonte-Nelson, HA (2014). *Navigating to new frontiers in behavioral neuroscience: Traditional neuropsychological tests predict human performance on a rodent-inspired radial-arm maze*. Frontiers in Behavioral Neuroscience 8:294. PMID:PMC4158810
29. Talboom, JS, West, SG, **Engler-Chiurazzi, EB**, Enders, CK, Crain, I, Bimonte-Nelson, HA (2014). *Learning to remember: Cognitive practice-induced protection against age-related memory decline depends on cognitive demand and can transfer to unpracticed cognitive domains*. Neurobiol of Aging 35(12): 2791-802. PMID:PMC4252709
30. **Engler-Chiurazzi, EB**, Talboom, J, Braden, BB, Tsang, C,* Andrews, A,* Mennenga, S,* Demers, L, and Bimonte-Nelson, HA (2012). *Continuous estrone impairs memory in the surgically menopausal rat*. Hormones and Behavior. 62(1): 1-9. PMID:PMC3397199
31. Wolf, AB, Braden, BB, Bimonte-Nelson, H, Kusne, Y, Young, N, **Engler-Chiurazzi, E**, Garcia, AN,* Walker, DG, Moses, GSD, Tran, H, LaFerla, F, Lue, L, Lombardo, NE, and Valla, J (2012). *Broad-based nutritional supplementation in 3xTg mice corrects mitochondrial function and indicates sex-specificity in response to Alzheimer's disease intervention*. Journal of Alzheimer's Disease, 32(1):217-32. PMID:PMC3774548
32. **Engler-Chiurazzi, EB**, Tsang, C,* Nonnenmacher, S,* Liang, W, Corneveaux, J, Prokai, L, Huentelman, M, and Bimonte-Nelson, HA (2011). *Tonic Premarin dose-dependently enhances memory, affects neurotrophin protein levels and alters gene expression in middle-aged rats*. Neurobiology of Aging, 32: 680-697. PMID:PMC3016463
33. Talboom, J. S, **Engler-Chiurazzi, E**, Whiteaker, P, Simard, A, Scheldrup, M,* Cosand, M,* Garcia, A,* Mennenga, S,* Bowman, B,* Lukas, R, Prokai, L, and Bimonte-Nelson, H (2010). *Components of the most commonly prescribed hormone therapy improve cognition, alter nicotinic binding sites in cognitive brain*

Invited Newsletter Article Publications

- 2011 Co-Author, Society for Neuroscience Chapters Quarterly Newsletter, winter ed.
2010 Co-Author, Psychology Department Alumni Newsletter Article, *"Brain awareness as a compass to a brighter future"*

Media Features

- 2019 Dominion Post "Annual zombie walk doubles as Salvation Army donation drive" by C Schulz, 10/26/19
WVU Medicine "WVU researcher chosen as ambassador and role model for youth-focused STEM initiative". 10/17/19
WVNews "WVU researchers use tech to tackle post-stroke depression" by C Griffith. 1/1/19
WVU Medicine "Neuroscience students "Feed Our Brains" through elementary, middle school outreach program"
WVU Today "WVU researchers investigate treating post-stroke depression with magnetic fields" by S Elza and C Thomas. 10/11/18
2018 WVU Today "WVU researcher explores how an immune system problem may sabotage depression treatment" by S Elza and C Thomas. 10/11/18
Beyond Type 1 "New finding could improve depression treatment in T1D" by K. Doyle 6/18/18
2017 Zackquill.com "Local stroke researchers strive for statewide, national impact", by B. Jarrell 2/6/2017,
2014 Dominion Post "Brain study- WVU neuroscience club visits Brookhaven", 4/17/2014
Daily Athenaeum "Neuroscience club inspires children to brainstorm", by M. Carpenter, Vol 126 (134) 4/23/14

GRANTS AND FUNDING AWARDS (totaling >\$1,000,000 earned as PI/Co-PI)

Extramural:

Funded:

- | | | |
|--|--------------------------|---------|
| 1 K01 MH117343 (PI: Engler-Chiurazzi) | 01/01/2020 to 12/31/2023 | 11.4 CM |
| NIH/NIMH | \$135,346 | |
| <i>Assessment of Mechanisms Underlying B Cell Impacts on Resilience and Susceptibility to Stress</i> | | |
| Goal: The goal of this proposal is to identify the mechanisms underlying how B lymphocytes modulate the response to psychosocial stress in rodents. | | |
| Role: Principal Investigator | | |
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| No # (PI: Engler-Chiurazzi) | 09/01/2020 to 8/31/2021 | No CM |
| AAAS/Lyda Hill Foundation | \$10,000 | |
| <i>Books and Brains – NOLA</i> | | |
| Goal: The goal of this proposal is to implement a neuroscience outreach program leveraging story time sessions hosted by the NOLA public library system. | | |
| Role: Principal Investigator | | |
| | | |
| No # (PI: Simpkins, Ren, & Engler-Chiurazzi) | 12/01/2018 to 11/31/2020 | No CM |
| Lewis Foundation | \$200,000 (total award) | |
| <i>A Proposal for Developing an anti-inflammatory strategy to treat white matter diseases.</i> | | |
| Goal: The goal of this charitable gift is to develop immune-targeted interventions to treat white matter diseases induced by progressive occlusion in brain. | | |
| Role: Co-Principal Investigator | | |
| | | |
| 5 R01 NS099918-03 (PI: Huber) | 07/01/2017 to 06/30/2022 | 0.5 CM |
| NIH/NINDS | \$233,468 | |
| <i>Therapeutic use of Bryostatin-1 to Extend tPA Time Window Following MCAO</i> | | |
| Goal: this application will investigate the ability of Bryostatin-1 to extend the therapeutic window of tPA for ischemic stroke. | | |

Role: Co-Investigator

75N94019C00010-0-9999-1 (PI: Lu) 06/15/2017 to 06/14/2022 No CM
NIH/NIAAA SBIR Phase II \$998,800
Development of novel PDE4B inhibitors to treat alcohol use disorder
Goal: this application will evaluate PDE4B inhibitors as a novel therapeutic target.
Role: Consultant on Sub-award Project (PI Zhang)

R01 NS (PI: Chantler) 09/01/2020 to 08/31/2021 No CM
NIH/NINDS Bridge \$250,000
Psychosocial stress-induced vascular contributions to cognitive impairment and Alzheimer's disease: the role of xanthine oxidase"
Goal: this project will explore how stress alters vasculature and how this contributes to cognitive impairment
Role: Consultant

Pending Decision:

R21 DA051745-01 (PI Olfert) 07/01/2020 to 06/30/2022 1.2 CM
NIH/NIDA \$150,000
Effects of electronic cigarette wattage setting on vascular harm
Goal: The goal of the proposal is to investigate the effects of electronic cigarette settings on vascular harm and functional consequences.
Role: Co-Investigator

R01 NS (PI: Chantler) 01/01/2021 to 12/31/2025 1.2 CM
NIH/NINDS \$250,000
Psychosocial stress-induced vascular contributions to cognitive impairment and Alzheimer's disease: the role of xanthine oxidase"
Goal: this project will explore how stress alters vasculature and how this contributes to cognitive impairment
Role: Co-Investigator

No Number (PI Bennewitz) 01/01/2021 to 12/31/2024 0.3 CM
American Cancer Society \$753,659 (total award)
Targeted manganese oxide nanoparticle for enhanced breast cancer detection
Goal: The goal of the proposal is to develop and improved MRI contrast agent for early detection of breast cancer to enhance diagnostic accuracy and reduce false positives.
Role: Co-Investigator

DoD CDMRP BCRP (PI Bennewitz) 01/01/2021 to 12/31/2023 0.3 CM
Department of Defense \$148,249
Tumor-targeted pH-sensitive manganese oxide nanoparticle for enhanced breast cancer detection using MRI
Goal: The goal of the proposal is to develop and improved MRI contrast agent for early detection of breast cancer to enhance diagnostic accuracy and reduce false positives.
Role: Co-Investigator

R01 NIDA (PI Zhang) 01/01/2021 to 12/31/2026 1.2 CM
NIH/NIDA \$250,000
Behavioral and neurochemical mechanisms of alcohol disorders
Goal: The goal of the proposal is to explore novel mechanisms driving the behavioral dysfunction associated with chronic alcohol use.
Role: Co-Investigator

AHA No Number (PI Roberts) 01/01/2021 to 12/31/2026 1.2 CM
American Heart Association- Bugher Foundation
The contribution of chronic inflammation on hemorrhagic risk in a novel mouse model of Moyamoya syndrome
Goal: the goal of this proposal is to assess the effect of stress-induced inflammation on the risk for hemorrhagic stroke in a novel animal model of Moyamoya disease.

Completed:

6-P20 GM109098 (PI Simpkins) 09/01/2014 to 08/31/2020 4.2 CM (NCE = No CM)
 NIH/NIGMS \$1,588,934
West Virginia Stroke CoBRE

Goal: The goal of this project is to provide a platform to expand stroke-related research in West Virginia by supporting junior investigators, shared resources, and expanded infrastructure. I support this goal by having initiated and directing the WVU Rodent Behavior Core, a shared research facility dedicated to the rigorous, efficient, and ethical conduct of rodent behavioral assessments.

Role: Co-Investigator (Rodent Behavior Core Director)

No # (PI: Simpkins & Engler-Chiurazzi) 01/01/2019 to 06/31/2020 0.1 CM
 Brain Health Project \$128,012

A 2-D Culture System for the Assessment of CogniFemme and CogniHomme Nutraceutical Blends on A β Production and Tau Phosphorylation

Goal: The goal of this proposal is to identify synergistic effects of individual ingredients of proprietary ingredients in Brain Health Project blends in attenuating AD pathological endpoints.

Role: Co-Principal Investigator

No # (PI Engler-Chiurazzi) 01/01/2017 to 12/31/2018 7.8 CM
 Nestlé-Purina \$216,196.26 (total cost)

Assessment of Novel Nestlé-Purina® Dietary Interventions to Promote Myelin Development and Enhance Locomotor, Coordination, and Cognitive Behavioral Outcomes

Goal: The goal of the proposal was to investigate the effects of proprietary brand protection blends and components on white matter development during early life

Role: Principal Investigator

No # (PI Gritsenko & Engler-Chiurazzi) 01/01/2014 to 12/31/2014 No CM
 Society for Neuroscience \$1,400 (total cost)

Northern West Virginia Chapter Neuroscience Program- SfN Chapter Grant

Goal: The goal of this project was to support the operation of the Northern West Virginia Society for Neuroscience Chapter. A portion of these funds support the outreach endeavors in the community that I oversaw.

Role: Co-Principal Investigator

No # (PI Bimonte-Nelson & Engler-Chiurazzi) 10/01/2011 to 5/31/2012 No CM
 Society for Neuroscience \$2,000 (total cost)

Generating New Synapses and Excitement about the Brain, Science and College Among Children - SfN Chapter Grant

Goal: The goal of this project was to support the operation of the Central Arizona Society for Neuroscience Chapter. A portion of these funds support the outreach endeavors in the community that I helped to organize.

Role: Co-Principal Investigator

No # (PI Bimonte-Nelson & Engler-Chiurazzi) 10/01/2010 to 5/31/2011 No CM
 Society for Neuroscience \$2,000 (total cost)

The Brain Fair: Generating New Synapses and Excitement about the Brain, Science and College Among Underprivileged Children

Goal: The goal of this project was to support the operation of the Central Arizona Society for Neuroscience Chapter. A portion of these funds support the outreach endeavors in the community that I helped to organize.

Role: Co-Principal Investigator

Intramural:**Funded:**

No # (PI Steinman & Engler-Chiurazzi) 07/01/2020 to 06/30/2021 No CM
 WVU Research Office \$18,000 (total cost)

B cells as a predictor for postpartum mood and anxiety disturbances in mice and humans

Goal: The goal of this project is to elucidate immune cells and cytokines as biomarkers for the development of pregnancy- and postpartum-associated mood disturbances.

Role: Co-Principal Investigator

Completed:

U54 GM104942 (PI Hodder)

07/01/2018 to 08/31/2020

6 CM

NIH/NIGMS

\$38,500 (annual cost)

Role of the humoral immune system in depression: a potential new therapeutic target

Goal: The goal of this project submitted to the WVCTSI Research Scholars Program was to investigate the role of the B cell in exacerbating depressive-like responses to severe acute stress and evaluating mechanisms by which B cells may underlie depression.

Role: Principal Investigator/Research Scholar

No # (PI Engler-Chiurazzi)

07/01/2018 to 08/31/2020

No CM

WVU Research Office

\$17,500 (total cost)

Role of the humoral immune system in depression: a potential new therapeutic target

Goal: The goal of this project submitted to the WVU Program to Stimulate Competitive Research was to investigate the role of the B cell in exacerbating depressive-like responses to severe acute stress and in the context of post-stroke depression.

Role: Principal Investigator

No # (PI Simpkins & Engler-Chiurazzi)

04/01/2014 to 08/31/2020

No CM

WVU College of Medicine

\$25,000 (total cost)

The Health Sciences Center Rodent Behavior Core: A new facility for the optimized assessment of functional outcomes

Goal: The goal of this project was to support the initiation and operation of the WVU Rodent Behavior Core. Funds primarily supported the purchase of supplies and equipment.

Role: Co-Principal Investigator

U54 GM104942 (PI Hodder)

09/01/2014 to 12/31/16

9 CM

NIH/NIGMS

\$100,000 (total cost)

Intermittent Infection/Inflammation and Cognitive Aging

Goal: The goal of this project submitted to the WVCTSI was to evaluate the impact of intermittent inflammatory experiences during aging on the trajectory of cognitive and brain aging.

Role: Co-Principal Investigator (PI: Simpkins)

No # (PI Engler-Chiurazzi)

12/01/2012 to 05/31/13

No CM

ASU Graduate & Professional Student Association \$2,000 (total cost)

Optimizing Menopausal Hormone Therapies for Memory Goal: The goal of this project was to evaluate the impact of estrone on the trajectory of cognitive and brain aging.

Role: Principal Investigator

INVITED AND CONFERENCE PRESENTATIONS

* indicates mentored trainee

^ indicates presenter

Abstracts and Podium Presentations – International Conferences/Meetings:

1. **Engler-Chiurazzi, EB** (2020). *Post-stroke addiction behaviors*. International Stroke Conference (INVITED PRESENTATION)
2. Sarkar, S,[^] Cavendish, JZ, Povroznik, JM, Russell, AE, Quintana, DD, **Engler-Chiurazzi, EB**, Simpkins, JW (2018). *Probing late-onset AD in 2x(TetR-TetO-mir-34a) transgenic mouse model*. Society for Neuroscience
3. Sarkar, S,[^] Cavendish, JZ, Quintana, DD, Jun, S, **Engler-Chiurazzi, EB**, Simpkins, JW (2017). *Amyloid plaques accumulations in the entorhinal cortex mechanistically links defective mitochondrial structure with working memory dysfunction in mito-CFP-3xTg-AD mice*. Society for Neuroscience

4. **Engler-Chiurazzi, EB**,[^] Povroznik, JM, Doll, D, Ren, X, Hu, H, Simpkins, JW (2018). *B cell deficiency is associated with depressive-like behavior in mice*. 14th International Symposium on Neurobiology and Neuroendocrinology of Aging, Bregenz, Austria (TRAVEL AWARD)
5. Simpkins, JW[^] and **Engler-Chiurazzi, EB** (2016). *Role of non-feminizing estrogens in brain protection from cerebral ischemia and Alzheimer's disease neuropathology*. 13th International Symposium on Neurobiology and Neuroendocrinology of Aging, Bregenz, Austria (TRAVEL AWARD)

Abstracts and Podium Presentations – National Conferences/Meetings:

1. **Engler-Chiurazzi, EB**,[^] Caselli, J,^{*} Schaefer, K,^{*} Gammage, C,^{*} and Bimonte-Nelson, H (2012). *Don't overthink it: Cognitive benefits of Premarin treatment depend on task complexity in a rodent model of surgical-menopause*. Window Of Opportunity for Estrogen and Progestin Intervention During Aging and Alzheimer's Disease Meeting, University of North Texas Health Sciences Center, Fort Worth, Texas (TRAVEL AWARD)
2. Mennenga, S,^{^*} **Engler-Chiurazzi, EB**, Talboom, J, Braden, BB, Tsang, C,^{*} Andrews M,^{*} Demers, L, and Bimonte-Nelson, H (2012). *Estrone, a primary component of Premarin hormone therapy, impairs memory in the rat: relations with the cholinergic system*. Window Of Opportunity for Estrogen and Progestin Intervention During Aging and Alzheimer's Disease Meeting, Fort Worth, Tx (TRAVEL AWARD)

Abstracts and Podium Presentations – Regional Conferences/Meetings:

1. Povroznik, JM,[^] Faith, RE, Kessler, MJ, Ali, FN, Vandyke, C, Kosik, J, Prince, S, **Engler-Chiurazzi, EB** (2018). *Locomotor effects of a low-frequency fire alarm on C57BL/6 male mice*. Mid-Atlantic Directors and Staff of Scientific Cores Meeting (TRAVEL AWARD)
2. **Engler-Chiurazzi, EB**,[^] Stalnaker, JJ, Stapleton, PA, Nurkiewicz, TR, and Simpkins, JW (2014). *Behavioral consequences of prenatal titanium dioxide nanoparticle inhalation exposure*. Allegheny-Erie Society of Toxicology, West Virginia University, Morgantown, WV (BEST OVERALL PRESENTATION AWARD)
3. **Engler-Chiurazzi, EB**,[^] Talboom, J, Braden, BB, Tsang, C,^{*} Andrews, M,^{*} Mennenga, S,^{*} Demers, L., and Bimonte-Nelson, H (2012). *Estrone, a primary component of Premarin hormone therapy, impairs memory in the rat: relations with the cholinergic system*. Arizona Imaging and Microanalysis Society, Arizona State University, Tempe, Az (PHOTOMETRICS/QIMAGING POSTER AWARD)

Abstracts and Podium Presentations – Local Conferences/Meetings:

1. **Engler-Chiurazzi, EB**^{*} (2020). *Sick as a ... mouse: interrogating mechanisms of immune influence on mental health, brain function, behavior, and neurological disease*. WVU Department of Neurology Grand Rounds.
2. Simpkins, JW^{*} and **Engler-Chiurazzi, EB**^{*} (2019). *Role of microRNAs in neurodegenerative conditions*. WVU Center for Excellence and Disabilities Grand Rounds.
3. **Engler-Chiurazzi, EB**[^] (2019). *B cell deficiency is associated with a depressive-like phenotype in mice*. WVU Van Lier Research Convocation Flash Talk. Morgantown, WV (INVITED PRESENTATION)
4. **Engler-Chiurazzi, EB**[^] (2018). *The WVU Rodent Behavior Core: modeling human behavior with rodent analogues*. WVU Technopolooza, Morgantown, WV
5. **Engler-Chiurazzi, EB**[^] Povroznik, J,^{*} Porter, K^{*} (2016). *The Squeaker Speaker 3000*. WVU Center for Neuroscience Annual Retreat, Shark Tank Competition, Canaan Resort, Canaan Valley, WV (HONORABLE MENTION)
6. Simpkins, JW[^] and **Engler-Chiurazzi, EB**[^] (2016). *Center for Basic and Translational Stroke Research Cores*. WVU MMB Group Meeting
7. **Engler-Chiurazzi, EB**[^] (2016). *Of mice and men: modeling human behavior with rodent analogues*. WVU Technopolooza, Morgantown, WV
8. **Engler-Chiurazzi, EB**[^] (2015). *Of mice and men: modeling human behavior with rodent analogues*. WVU Center for Neuroscience Annual Retreat, Science Idol Competition, Olgebay Resort, Wheeling, WV (FIRST PLACE)
9. **Engler-Chiurazzi, EB**[^] (2015). *Of mice and men: modeling human behavior with rodent analogues*. WVU Research Office Core Facility Seminar Series
10. **Engler-Chiurazzi, EB**,[^] Acosta, A, Talboom, J, Braden, BB, and Bimonte-Nelson, HA (2010). *Hormone replacement therapy: Where are we now? Where are we going?* Graduates in Earth, Life, and Social Sciences Annual Symposium, Arizona State University

Abstracts and Podium Presentations – Lay Person Audiences:

1. **Engler-Chiurazzi, EB**[^] (2018). *Sick as a ... mouse” the influence of the immune system on brain aging and disease*. Thousand Oaks Kiwanis Club, Thousand Oaks, CA

Abstracts and Poster Presentations – National/International Conferences:

1. **Engler-Chiurazzi, EB**,[^] Corbin, DR, Povroznik, JM, White, BA,^{*} Gunter, A,^{*} Jebbia, C,^{*} Cook, E,^{*} Grossman, L,^{*} Simpkins, JW (2019). *Assessment of mechanisms underlying the impact of the B lymphocyte in the response to stress*. Society for Neuroscience
2. Sarkar, SN,[^] **Engler-Chiurazzi, EB**, Cavendish, JZ,^{*} Povroznik, JM, Russell, A,^{*} Quintana, DD,^{*} Mathers, P, Simpkins, JW (2019). *Modeling sporadic Alzheimer’s disease in mice through miR-34a targeted polygenic suppression*. Society for Neuroscience
3. Petrisko, TJ, [^] Nelson, RJ, White, BA,[^] Stewart, EL, Prunty, MA, **Engler-Chiurazzi, EB** (2019). *Feeding Our Brains in West Virginia: Coupling neuroscience education with strategic philanthropy as a novel approach to engaging in brain awareness outreach and promoting social embeddedness in the local community*. Society for Neuroscience
4. White, BA,[^] Petrisko,^{*} TJ, **Engler-Chiurazzi, EB**, Gritsenko, V (2019). *Reaching young minds in Morgantown, West Virginia*. Society for Neuroscience
5. O’Reilly, J,[^] Aboaziza, E, Miller, J, Johnson, A, **Engler-Chiurazzi, E**, Olfert, IM (2019). *Memory and learning in offspring exposed to maternal vaping*. Experimental Biology
6. White, B,[^] Grossman, L,[^] Povroznik, J, Corbin, D, Cook, E,^{*} Ren, X, Simpkins, J, and **Engler-Chiurazzi, E** (2019). *B cell deficiency is associated with depressive-like behavior in mice*. National Council on Undergraduate Research Annual Meeting (TRAVEL AWARD)
7. **Engler-Chiurazzi, EB**,[^] Povroznik, JM, Doll, D, Ren, X, Hu, H, Simpkins, JW (2018). *B cell deficiency is associated with depressive-like behavior in mice*. Society for Neuroscience
8. **Engler-Chiurazzi, EB**,[^] Povroznik, JM, Doll, D, Ren, X, Hu, H, Simpkins, JW (2018). *B cell deficiency is associated with depressive-like behavior in mice*. 14th International Symposium on Neurobiology and Neuroendocrinology of Aging, Bregenz, Austria (TRAVEL AWARD)
9. **Engler-Chiurazzi, EB**,[^] Povroznik, JM, Doll, D, Ren, X, Hu, H, Simpkins, JW (2018). *B cell deficiency is associated with depressive-like behavior in mice*. Keystone Conference: B Cells-Mechanisms in Immunity and Autoimmunity, Dresden, Germany
10. Brichacek, AL,[^] Povroznik, JM, Jun, S, Wang, W, Quintana, DD, Hu, H, Ren, X, **Engler-Chiurazzi, EB**, Brown, CM (2018). *Effects of Nos2 on behavior and functional outcomes following ischemic stroke in mice*. Stroke
11. Ulman, HK,[^] Povroznik, JM, **Engler-Chiurazzi, EB**, Brown, CM (2017). *Effects of ambient room temperature fluctuations on C57BL/6 mice on sensori-locomotor behavioral outcomes*. Biomedical Engineering Society. (TRAVEL AWARD)
12. Povroznik, JM,[^] **Engler-Chiurazzi, EB**, Simpkins, JW (2017). *Optimizing object recognition testing procedures to minimize experimental variability and maximize intra- and inter-laboratory data replicability*. Society for Neuroscience
13. **Engler-Chiurazzi, EB**,[^] Povroznik, JM, Russell, AE, Porter, KN, Wang, D, Schreurs, BG, Simpkins, JW (2017). *Cognitive impacts of recurring inflammatory/infection-like experiences during aging*. Society for Neuroscience
14. Povroznik, JM, Ali, FN,[^] Vandyke, C, Faith, RE, Kessler, MJ, Kosik, J, Prince, S, **Engler-Chiurazzi, EB** (2017). *Locomotor effects of a low-frequency fire alarm on C57BL/6 male mice*. American Association for Laboratory Animal Science
15. Povroznik, JM, Faith, RE, Kessler, MJ, Ali, FN, Kosik, J, Prince, S, **Engler-Chiurazzi, EB**[^] (2017). *Locomotor effects of a low-frequency fire alarm on C57BL/6 male mice*. Association for Biomedical Research Facilities
16. **Engler-Chiurazzi, EB**,[^] Clapper, J,^{*} Lewis, SE, Lamb, R,^{*} Simpkins, JW (2016). *Interactions between circulating microRNA expression and hormonal control of reproductive function in aging rats*. 13th International Symposium on Neurobiology and Neuroendocrinology of Aging, Bregenz, Austria (TRAVEL AWARD)
17. **Engler-Chiurazzi, EB**,[^] Povroznik, JM, Simpkins, JW (2016). *The WVU Rodent Behavior Core*. Biennial National IDeA Symposium of Biomedical Research Excellence (TRAVEL AWARD)

18. Doll, DN, **Engler-Chiurazzi, EB**,[^] Lewis, SE, Hu, H, Kerr, AE, Ren, X, Simpkins, JW (2016). *Lipopolysaccharide exacerbates infarct size and results in worsened post-stroke behavioral outcomes*. Biennial National IDeA Symposium of Biomedical Research Excellence (TRAVEL AWARD)
19. Pergami, P,[^] Povroznik, J, Nanavati, T, **Engler-Chiurazzi, E** (2015). *Neutrophil and lymphocyte counts in neonatal hypoxic ischemic encephalopathy and acute ischemic stroke: a possible role for immunity in ischemic brain injury*. Child Neurology Society
20. Nguyen, L, Feinberg, T, Villers, M,^{*} Montgomery, C,^{^*} **Engler-Chiurazzi, EB**, Wimsatt, J (2015). *Pharmacokinetic profiles of a buprenorphine sustained-release formulation in mice*. American Association for Laboratory Animal Science (3RD PLACE POSTER PRESENTATION AWARD)
21. **Engler-Chiurazzi, EB**,[^] Stalnaker, JJ, Ren, X, Hu, H, Sarkar, SN, Jun, S, Quintana, DD, Stapleton, PA, Nurkiewicz, TR, McBride, C, Yi, J, Simpkins, JW (2014). *Adult Behavioral Consequences of Prenatal Nanomaterial Exposure*. Society for Neuroscience (TRAVEL AWARD)
22. **Engler-Chiurazzi, EB**,[^] Talboom, JS, Braden, BB, Tsang, C,^{*} Mennenga, S,^{*} Andrews, M,^{*} Hiroi, R, Handa, RJ, Bimonte-Nelson, H (2012). *Continuous treatment with propylpyrazole triol, an estrogen receptor alpha agonist, impairs spatial memory*. Society for Neuroscience (TRAVEL AWARD)
23. **Engler-Chiurazzi, EB**,[^] Mennenga, S,^{*} Acosta, J, Braden, BB, Camp, B, Tsang, C,^{*} Roberts, N,^{*} Talboom, J, McBeath, M, Presson, C, Crnic, K, Bimonte-Nelson, HA (2012). *The Brain Fair for children: a how-to guide for efficient and impactful brain awareness research and community outreach*. Society for Neuroscience (TRAVEL AWARD)
24. Bimonte-Nelson, HA, Roberts, N,^{*} **Engler-Chiurazzi, EB**,[^] Acosta, J, Braden, BB, Camp, B, Tsang, CWS,^{*} Luecken, L, McBeath, M (2012). *Girl Brain Power: targeting a brain fair to empower and excite elementary-aged girls about science*. Society for Neuroscience (TRAVEL AWARD)
25. Acosta, JA,[^] **Engler-Chiurazzi, EB**, Talboom, JS, Bimonte-Nelson, HA (2012). *Cognitive effects of surgical menopause in the rat: a cross sectional evaluation of the impact of ovariectomy from young adulthood to old age*. Society for Neuroscience (TRAVEL AWARD)
26. Acosta, JA,[^] **Engler, EB**, Talboom, JS, Bimonte-Nelson, HA (2012). *The cognitive effects of ovariectomy transitions from detrimental to beneficial with age*. International Behavioral Neuroscience Society
27. **Engler-Chiurazzi, EB**,[^] Caselli, J,^{*} Schaefer, K,^{*} Gammage, C,^{*} Bimonte-Nelson, H (2011). *Don't overthink it: Cognitive benefits of Premarin treatment depend on task complexity in a rodent model of surgical-menopause*. Society for Neuroscience
28. **Engler-Chiurazzi, EB**,[^] Mennenga, S,^{*} Acosta, J, Talboom, J, Braden, BB, Camp, B, Holloway, S, Tsang, C,^{*} Kingston, M,^{*} Grunfeld, I,^{*} Schaefer, K,^{*} Teplitzky, B,^{*} McBeath, M, Bimonte-Nelson, H (2011). *Generating new synapses at the second annual Arizona State University brain fair for children: Teaching that "knowledge is power"*. Society for Neuroscience
29. Talboom, JS, Tyler, WJ, Acosta, JA,[^] **Engler-Chiurazzi, EB**, Cosand, M,^{*} Andrews, M,^{*} Scheldrup, M,^{*} Bimonte-Nelson, HA (2011). *Age and ovarian hormone status alters spatial memory and number of putative synapses in specific lamina of the female rat hippocampus*. Society for Neuroscience
30. **Engler-Chiurazzi, EB**,[^] Talboom, J, Braden, BB, Tsang, C,^{*} Andrews, M,^{*} Mennenga, S,^{*} Demers, L, Bimonte-Nelson, H (2010). *Estrone, a primary component of Premarin hormone therapy, impairs memory in the rat: relations with the cholinergic system*. Society for Neuroscience
31. **Engler-Chiurazzi, EB**,[^] Tsang, C,^{*} Garcia, A,^{*} Mennenga, S,^{*} Andrews, M,^{*} Acosta, J, Talboom, J, Braden, BB, Camp, B, Cole, N, Zay, C, Holloway, S, Teplitzky, B,^{*} Santos, V, Helms Tillery, S, McBeath, M, Bimonte-Nelson, H (2010). *Generating new synapses at the first Arizona State University brain fair for children: Teaching that "knowledge is power"*. Society for Neuroscience
32. Allen, AN,[^] Talboom, JS, Bimonte-Nelson, HA, Broughton, NJ, Hackett, NJ, Scheldrup, MR, **Engler-Chiurazzi, EB**, Huentelman, MJ (2010). *Inhibition of MARCKS phosphorylation improves working memory*. Alzheimer's Association International Conference on Alzheimer's Disease, 6(4): S581
33. Allen, AN,[^] Talboom, JS, Bimonte-Nelson, HA, Broughton, NS, Hackett, NJ, Scheldrup, MR,^{*} **Engler-Chiurazzi, EB**, Huentelman, MJ (2010). *Inhibition of MARCKS phosphorylation improves working memory*. Society for Neuroscience
34. **Engler-Chiurazzi, EB**,[^] Scheldrup, M,^{*} Ciciolla, L, Bowman, B,^{*} Braden, BB, Acosta, A, Talboom, J, Demers, L, Prokai, L, Baxter, L, Bimonte-Nelson, HA (2009). *Oral Premarin treatment dose- and task-dependently influences memory in middle-aged surgically menopausal rats*. Society for Neuroscience
35. Valla, J,[^] Braden, BB, Lind, J, Young, N, **Engler, EB**, Garcia, AN,^{*} Bowman, BL,^{*} Wolf, A, Page, K, Kusne, Y, Lombardo, NE, Bimonte-Nelson, H (2009). *Comprehensive polynutrient dietary supplementation improves cognition in 3xTG mice*. Society for Neuroscience

36. Talboom, JS,[^] **Engler-Chiurazzi, EB**, Whiteaker, P, Simard, AR, Scheldrup, MR,* Cosand, M,* Garcia, A,* Mennenga, S,* Bowman, B,* Lukas, RJ, Prokai, L, Bimonte-Nelson, H (2009). *A component of the most commonly prescribed hormone therapy improves cognition, alters nicotinic binding sites in cognitive brain regions and suppresses luteinizing hormone in the surgically menopausal rat*. Society for Neuroscience
37. Braden, BB,[^] Talboom, JS, Crain, ID, Zay, C, Prokai, L, Scheldrup, MR,* Acosta, JI, **Engler, EB**, Bowman, BL,* Nonnenmacher, SR,* Bimonte-Nelson, H (2009). *The progestin component of the Women's Health Initiative hormone therapy impairs cognition and alters the GABAergic system of cognitive brain regions in aged surgically menopausal rats*. Society for Neuroscience
38. **Engler, EB**,[^] Tsang, C,* Zay, C, Nonnenmacher, S,* Liang, WS, Cornevaux, JJ, Huentelman, MJ, Prokai, L, Bimonte-Nelson, HA (2008). *Premarin enhances working memory during temporal challenge and increases BDNF in the cingulate gyrus in middle-aged surgically menopausal rats: a dose-dependent response*. Society for Neuroscience
39. Braden, B,[^] Talboom, J, Crain, I, Zay, C, Prokai, L, Scheldrup, M,* Acosta, J, **Engler, E**, Bowman, B,* Nonnenmacher, S,* Bimonte-Nelson, H (2008). *The Women's Health Initiative progestin, the synthetic medroxyprogesterone acetate, impairs memory in aged surgically menopausal rats*. Society for Neuroscience
40. **Engler, EB**,[^] Zay, C, Alexander, G,* Bimonte-Nelson, H (2007). *Ovarian hormone loss and cognitive decline at multiple timepoints during aging; correlations with gonadotropins*. Society for Neuroscience (PRESS RELEASE)
41. Talboom, J,[^] Crain, I, **Engler, E**, Sundin, B, Zay, C, Bimonte-Nelson, H (2007). *Use it or lose it? A lifetime of cognitive practice improves memory in the aged rat: cognitive demand is necessary*. Society for Neuroscience (PRESS RELEASE)
42. Terry, DP, **Engler, EB**,[^] Millan, M, Zay, C, Crain, I, Bimonte-Nelson, HA (2007). *Ovarian hormone loss and cognitive decline at multiple timepoints during aging*. American Association for the Advancement of Science
43. Terry, DP, **Engler, EB**,[^] Millan, M, Zay, C, Crain, I, Bimonte-Nelson, HA (2006). *Ovarian hormone loss and cognitive decline at multiple timepoints during aging*. Society for Neuroscience

Abstracts and Poster Presentations – Regional Conferences:

1. Kiblinger, HL, [^] Corbin, DR, **Engler-Chiurazzi, EB** (2019). *Levels of serum immunoglobulins in B cell deficient mice and their wildtype counterparts: implications for major depressive disorder*. WV INBRE Meeting (INBRE SCHOLAR)
2. **Engler-Chiurazzi, EB**,[^] Povroznik, JM, Doll, D, Ren, X, Hu, H, Simpkins, JW (2019). *Associations between genetic and inducible B cell deficiency and depressive-like behavior in mice*. West Virginia Clinical and Translational Sciences Institute Annual Meeting
3. White, B,^{^^} Grossman, L,* Povroznik, J, Corbin, D, Cook, E,^{^^} Ren, X, Simpkins, J, **Engler-Chiurazzi, E** (2019). *Humoral (B cell) Immune System Imbalance is Associated with Development of Depressive-like Phenotype*. 16th Annual Undergraduate Research Day at the WV Capitol (INVITED PRESENTATION)
4. O'Reilly, J,[^] Aboaziza, E, Miller, J, Johnson, A, Engler-Chiurazzi, E, Olfert, IM (2019). *Memory and learning in offspring exposed to maternal vaping*. 16th Annual Undergraduate Research Day at the WV Capitol (INVITED PRESENTATION)
5. **Engler-Chiurazzi, EB**,[^] Povroznik, JM, Doll, D, Ren, X, Hu, H, Simpkins, JW (2018). *B cell deficiency is associated with depressive-like behavior in mice*. West Virginia Clinical and Translational Sciences Institute Annual Meeting
6. Povroznik, JM,[^] Faith, RE, Kessler, MJ, Ali, FN, Vandyke, C, Kosik, J, Prince, S, **Engler-Chiurazzi, EB** (2018). *Locomotor effects of a low-frequency fire alarm on C57BL/6 male mice*. Mid-Atlantic Directors and Staff of Scientific Cores Meeting (TRAVEL AWARD)
7. Povroznik, JM,[^] Faith, RE, Kessler, MJ, Ali, FN, Vandyke, C, Kosik, J, Prince, S, **Engler-Chiurazzi, EB** (2017). *Locomotor effects of a low-frequency fire alarm on C57BL/6 male mice*. Three Rivers Branch of AALAS, (PRESENTATION AWARD)
8. **Engler-Chiurazzi, EB**,[^] Povroznik, JM, Simpkins, JW (2017). *The WVU Rodent Behavior Core*. Southeast IDeA Conference
9. Nwafor, DC,[^] Jun, S, Povroznik, JM, **Engler-Chiurazzi, EB**, Brown, CM (2017). *Experimental sepsis impairs locomotor and thermal nociception behaviors in male mice*. Southeast IDeA Conference
10. Nayeem, S,[^] **Engler-Chiurazzi, EB**, Lewis, SE, Simpkins, JW (2017). *Brain trauma and microRNAs*. 14th Annual Undergraduate Research Day at the WV Capitol (INVITED PRESENTATION)

11. **Engler-Chiurazzi, EB**,[^] Russell, AE, Porter, KN, Povroznik, JP, Simpkins, JW (2016). *Cognitive impacts of recurring inflammatory/infection-like experiences during aging*. West Virginia Clinical and Translational Sciences Institute Annual Meeting (BEST POSTER PRESENTATION-STUDENT/RESIDENT/FELLOW)
12. **Engler-Chiurazzi, EB**,[^] Povroznik, JM, Simpkins, JW (2016). *The WVU Rodent Behavior Core: Optimizing object recognition testing procedures to minimize experimental variability and maximize intra- and inter-laboratory data replicability*. Mid-Atlantic Directors and Staff of Scientific Cores Meeting
13. **Engler-Chiurazzi, EB**,[^] Stalnaker, JJ, Stapleton, PA, Nurkiewicz, TR, Simpkins, JW (2014). *Behavioral consequences of prenatal titanium dioxide nanoparticle inhalation exposure*. Allegheny-Erie Society of Toxicology (BEST OVERALL PRESENTATION AWARD)
14. Koebele, S,[^] **Engler-Chiurazzi, EB**, Jordan, A, Hiroi, R, Bimonte-Nelson, HA (2013). *Comparison of two estrogens that circulate endogenously and are given as components of hormone therapy on place versus visual object recognition in middle-aged surgically menopausal rats*. Arizona Alzheimer's Consortium
15. **Engler-Chiurazzi, EB**,[^] Talboom, JS, Braden, B, B, Tsang, C,^{*} Mennenga, S,^{*} Andrews M,^{*} Hiroi, R, Handa, RJ, Bimonte-Nelson, H (2012). *Continuous treatment with propylpyrazole triol, an estrogen receptor alpha agonist, impairs spatial memory*. Arizona Alzheimer's Consortium
16. Acosta, JA,[^] **Engler, EB**, Talboom, JS, Bimonte-Nelson, HA (2012). *The cognitive effects of ovariectomy transitions from detrimental to beneficial with age*. Arizona Alzheimer's Consortium
17. **Engler-Chiurazzi, EB**,[^] Talboom, J, Braden, BB, Tsang, C,^{*} Andrews M,^{*} Mennenga, S,^{*} Demers, L, Bimonte-Nelson, H (2012). *Estrone, a primary component of Premarin hormone therapy, impairs memory in the rat: relations with the cholinergic system*. Arizona Imaging and Microanalysis Society, Arizona State University (PHOTOMETRICS/QIMAGING POSTER AWARD)
18. Talboom, JS, Tyler, WJ, Acosta, JA[^], **Engler-Chiurazzi, EB**, Cosand, M,^{*} Andrews, M,^{*} Scheldrup, M,^{*} Bimonte-Nelson, HA (2011). *Age and ovarian hormone status alters spatial memory and number of putative synapses in specific lamina of the female rat hippocampus*. Arizona Alzheimer's Consortium
19. **Engler-Chiurazzi, E**,[^] Mennenga, S,^{*} Acosta, J, Talboom, J, Braden, BB, Camp, B, Holloway, S, Tsang, C,^{*} Kingston, M,^{*} Grunfeld, I,^{*} Schaefer, K,^{*} Teplizky, B,^{*} McBeath, M, Bimonte-Nelson, H (2011). *Generating new synapses at the annual Arizona State University Brain Fair for Children: teaching that "knowledge is power"*. Arizona Alzheimer's Consortium
20. Caselli, J,[^] **Engler-Chiurazzi, E**, Schaefer, K,^{*} Gammage, C,^{*} Bimonte-Nelson, HA (2011). *Don't overthink it: Cognitive benefits of Premarin treatment depend on task complexity in a menopause rodent model*. Arizona Alzheimer's Consortium
21. Grunfeld, IS,[^] Camp, BW, **Engler-Chiurazzi, EB**, Acosta, J, Mennenga, S,^{*} Braden, BB, Tsang, C,^{*} Kinston, M,^{*} Schaefer, K,^{*} Hewitt, L,^{*} Brewer, GA, Baxter, LC, McBeath, MK, Bimonte-Nelson, HA (2011). *Walk this way: translating the rodent radial-arm maze to humans*. Arizona Alzheimer's Consortium
22. **Engler-Chiurazzi, EB**,[^] Scheldrup, M,^{*} Ciciolla, L, Braden, BB, Acosta, A, Talboom, J, Demers, L, Prokai, L, Baxter, L, Bimonte-Nelson, HA (2010). *Oral Premarin treatment dose- and task- dependently influences memory in middle-aged surgically menopausal rats*. Arizona Alzheimer's Consortium
23. Wolf, AB,[^] Braden, BB, Hatch, M, Young, N, **Engler, EB**, Garcia, AN,^{*} Bowman, BL,^{*} Kusne Y, Lombardo, NE, Bimonte-Nelson HA, Valla J (2010). *Polynutrient dietary supplementation corrects brain mitochondrial biomarkers and improves cognition in the 3XTG mouse model of Alzheimer's disease*. Arizona Alzheimer's Consortium
24. Talboom, JS,[^] **Engler-Chiurazzi, EB**, Whiteaker, P, Simard, AR, Scheldrup, MR,^{*} Cosand, M,^{*} Garcia, A,^{*} Mennenga, S,^{*} Bowman, B,^{*} Lukas, RJ, Prokai, L, Bimonte-Nelson, HA (2010). *$\Delta 8,9$ -dehydroestrone, a component of Premarin, enhances spatial memory and alters cholinergic nicotinic receptor expression*. Arizona Alzheimer's Consortium
25. Allen, AN,[^] Talboom, JS, Bimonte-Nelson, HA, Broughton, NS, Hackett, NJ, Scheldrup, MR,^{*} **Engler-Chiurazzi, EB**, Huentelman, MJ (2010). *Inhibition of MARCKS phosphorylation improves working memory*. Arizona Alzheimer's Consortium
26. Braden, BB, [^] Talboom, JS, Crain, ID, Zay, C, Prokai, L, Simard, AR, Lukas, RJ, Scheldrup, MR,^{*} Acosta, JI, **Engler, EB**, Bowman, BL,^{*} Nonnenmacher, SR,^{*} Bimonte-Nelson, HA (2010). *The Women's Health Initiative progestin, medroxyprogesterone acetate, impairs memory and alters the GABAergic system within cognitive brain regions in aged surgically menopausal rats*. Arizona Alzheimer's Consortium
27. **Engler-Chiurazzi, EB**,[^] Scheldrup, M,^{*} Ciciolla, L, Bowman, B,^{*} Braden, BB, Acosta, A, Talboom, J, Demers, L, Prokai, L, Baxter, L, Bimonte-Nelson, HA (2009). *Oral Premarin treatment dose- and task- dependently influences memory in middle-aged surgically menopausal rats*. Poster presented at the Arizona Alzheimer's Consortium

28. Braden, BB,[^] Bimonte-Nelson, HA, **Engler, EB**, Garcia, AN,* Lind, J, Young, N, Bowman, BL,* Wolf, A, Page, K, Kusne, Y, Lombardo, NE, Valla, J (2009). *Comprehensive polynutrient dietary supplementation improves cognition in 3xTG mice*. Arizona Alzheimer's Consortium
29. Braden, BB,[^] Talboom, JS, Crain, ID, Zay, C, Prokai, L, Scheldrup, MR,* Acosta, JI, **Engler, EB**, Bowman, BL,* Nonnenmacher, SR,* Bimonte-Nelson, HA (2009). *The progestin component of the Women's Health Initiative hormone therapy impairs cognition in aged surgically menopausal rats*. Arizona Alzheimer's Consortium
30. Talboom, JS,[^] Tsang, CWS,* Braden, BB, Acosta, JI, Sundin, B, **Engler, E**, Zay, CA, Prokai-Tatrai, K, Prokai, L, Bimonte-Nelson, HA (2009). *Cyclic or Tonic Treatment with a Prodrug of Estradiol Facilitates Learning and Memory in the Absence of Elevated Circulating Estrogen Levels and Uterine Stimulation*. Arizona Alzheimer's Consortium Meeting, Phoenix, AZ.
31. **Engler, EB**,[^] Tsang, C,* Zay, C, Nonnenmacher, S,* Liang, WS, Cornevaux, JJ, Huentelman, MJ, Prokai, L, Bimonte-Nelson, HA (2008). *Premarin enhances working memory during temporal challenge and increases BDNF in the cingulate gyrus in middle-aged surgically menopausal rats: a dose-dependent response*. Arizona Alzheimer's Consortium
32. **Engler, EB**,[^] Zay, C, Alexander, G,* Bimonte-Nelson, H (2008). *Ovarian hormone loss and cognitive decline at multiple timepoints during aging; correlations with gonadotropins*. Barrow Neurological Institute/ASU Neuroscience Meeting
33. Bowman, B,*[^] **Engler, E**, Crain, I, Braden, B, Tsang, C,* Castillo, J,* Bimonte-Nelson, H (2008). *Where were you, and where are you now? Rat performance on spatial and non-spatial maze paradigms interact with age and maze order*. Arizona Alzheimer's Consortium
34. **Engler, EB**,[^] Zay, C, Alexander, G,* Bimonte-Nelson, H (2007). *The age-related effects of ovariectomy on spatial working and reference memory*. Arizona Alzheimer's Consortium Conference
35. Talboom, J,[^] Crain, I, **Engler, E**, Sundin, B, Zay, C, Bimonte-Nelson, H (2007). *Use it or lose it? A lifetime of cognitive practice improves memory in the aged rat: cognitive demand is necessary*. Arizona Alzheimer's Consortium
36. Terry, DP, **Engler, EB**,[^] Millan, M, Zay, C, Crain, I, Bimonte-Nelson, HA (2006). *Ovarian hormone loss and cognitive decline at multiple timepoints during aging*. Barrow Neurological Institute/ASU Neuroscience Meeting

Abstracts and Poster Presentations – Local Conferences:

1. Cavendish, JZ, Sarkar, S, Colantonio, MA, Quintana, DD, Ahmed, N, White, BA,* **Engler-Chiurazzi, EB**, Simpkins, JW (2019). *Mitochondrial Movement and Number Deficit in Embryonic Cortical Neurons from 3xTg-AD Mice*. WVU Van Lier Convocation
2. White, B,^{^^} Grossman, L,* Povroznik, J, Corbin, D, Cook, E,^{^^} Ren, X, Simpkins, J, **Engler-Chiurazzi, E** (2019). *Humoral (B cell) Immune System Imbalance is Associated with Development of Depressive-like Phenotype*. WVU Van Lier Convocation
3. O'Reilly, J,[^] Aboaziza, E, Miller, J, Johnson, A, Engler-Chiurazzi, E, Olfert, IM (2019). *Memory and learning in offspring exposed to maternal vaping*. WVU Van Lier Convocation
4. White, B,^{^^} Grossman, L,^{^^} Povroznik, J, Corbin, D, Cook, E,* Ren, X, Simpkins, J, **Engler-Chiurazzi, E** (2018). *Humoral (B cell) Immune System Imbalance is Associated with Development of Depressive-like Phenotype*. WVU American Association of Pharmaceutical Scientists Symposium
5. Grossman, L,[^] White, B,* Povroznik, J, Corbin, D, Cook, E, Xuefang, R, Simpkins, J, **Engler-Chiurazzi, E** (2018). *Humoral (B cell) Immune System Imbalance is Associated with Development of Depressive-like Phenotype*. WVU Summer Undergraduate Research Symposium
6. Ulman, HK,[^] Povroznik, JM, **Engler-Chiurazzi, EB**, Brown, CM (2018). *Effects of ambient room temperature fluctuations on C57BL/6 mice on sensori-locomotor behavioral outcomes*. WVU Van Lier Convocation
7. Gupta, S,[^] Nwafor, DC, **Engler-Chiurazzi, EB**, Brown, CM (2018). *Contributions of pre-existing Alzheimer's disease pathology to sepsis-associated neurological dysfunction in female mice*. WVU Van Lier Convocation
8. Nwafor, DC,[^] Jun, S, Povroznik, JM, **Engler-Chiurazzi, EB**, Chakraborty, S, Brown, CM (2018). *Changes in brain leukocyte populations instigate alterations in cognitive and sensorimotor behaviors of septic male mice*. WVU Van Lier Convocation

9. Povroznik, JM,[^] Faith, RE, Kessler, MJ, Ali, FN, Kosik, J, Prince, S, **Engler-Chiurazzi, EB** (2017). *Locomotor effects of a low-frequency fire alarm on C57BL/6 male mice*. WVU Center for Neuroscience Annual Retreat
10. Sanchez, C,[^] **Engler-Chiurazzi, EB**, Meares, GP (2017). *Behavioral characterization of astrocyte-selective PERK knockout mice*. WVU Center for Neuroscience Annual Retreat
11. Gupta, SR,[^] Benkovic, S, Jun, S, **Engler-Chiurazzi, EB**, Brown, CM (2017). *Contribution of Alzheimer's disease pathology to sepsis-associated neurological dysfunction*. WVU Center for Neuroscience Annual Retreat
12. Brichacek, AL,[^] Povroznik, JM, Jun, S, Wang, W, Quintana, DD, Hu, H, Ren, X, **Engler-Chiurazzi, EB**, Brown, CM (2017). *Effects of Nos2 on behavior and functional outcomes following ischemic stroke in mice*. WVU Center for Neuroscience Annual Retreat
13. Ulman, HK,^{*,^} Povroznik, JM, **Engler-Chiurazzi, EB**, Brown, CM (2017). *Effects of ambient room temperature fluctuations on C57BL/6 mice on sensori-locomotor behavioral outcomes*. WVU Center for Neuroscience Annual Retreat
14. Ulman, HK,^{*,^} Povroznik, JM, **Engler-Chiurazzi, EB**, Brown, CM (2017). *Effects of ambient room temperature fluctuations on C57BL/6 mice on sensori-locomotor behavioral outcomes*. WVU Summer Undergraduate Research Symposium
15. Clapper, J,^{*,^} **Engler-Chiurazzi, EB**, Lewis, SE, Lamb, R, * Simpkins, JW (2017). *Interactions between circulating microRNA expression and hormonal control of reproductive function in aging rats*. WVU Undergraduate Research Spring Symposium
16. Povroznik, JM,[^] Faith, RE, Kessler, MJ, Ali, FN, Kosik, J, Prince, S, **Engler-Chiurazzi, EB** (2017). *Locomotor effects of a low-frequency fire alarm on C57BL/6 male mice*. WVU Van Liere Convocation
17. Porter, KN,[^] Povroznik, JM,[^] Russell, AE,[^] **Engler-Chiurazzi, EB**, Wang, D, Schreurs, BG, Simpkins, JW (2017). *Cognitive impacts of recurring inflammatory/infection-like experiences during aging*
18. Aboaziza, E,[^] Fabrega, M, * Breit, M, Hoskinson, H, Pitzer, C, Povroznik, J, Olfert, IM, **Engler-Chiurazzi, E** (2017). *Effects of electronic cigarette vapor exposure on anxiety and stress-related behavior in rodents*. WVU Van Liere Convocation
19. **Engler-Chiurazzi, EB**, Povroznik, JM,[^] Simpkins, JW (2016). *The WVU Rodent Behavior Core: Optimizing object recognition testing procedures to minimize experimental variability and maximize intra- and inter-laboratory data replicability*. WVU Center for Neuroscience Annual Retreat
20. **Engler-Chiurazzi, EB**,[^] Clapper, J,* Lewis, SE, Lamb, R, Simpkins, JW (2016). *Interactions between circulating microRNA expression and hormonal control of reproductive function in aging rats*. WVU Center for Neuroscience Annual Retreat
21. Fabrega, M,^{*,^} Breit, M, Hoskins, H, Pitzer, C, Ede, G, **Engler-Chiurazzi, E**, Olfert, M (2016). *Effects of electronic cigarette vapor exposure on body mass and anxiety behavior*. WV INBRE Summer Research Symposium
22. Porter, KN,[^] **Engler-Chiurazzi, EB**, Kerr, AE, Simpkins, JW (2016). *The cognitive effects of aging and intermittent inflammatory experience/infection: dose-finding study*. WVU Van Liere Convocation
23. **Engler-Chiurazzi, EB**, Clapper, J,^{*,^} Lewis, SE, Lamb, R, Simpkins, JW (2016). *Interactions between circulating microRNA expression and hormonal control of reproductive function in aging rats*. WVU Van Liere Convocation
24. **Engler-Chiurazzi, EB**,[^] Nguyen, L, Montgomery, C,* Simpkins, JW, Wimsatt, JH (2015). *A novel slow-release buprenorphine formulation impacts locomotor, anxiety, and nociceptive behaviors in mice*. WVU Center for Neuroscience Annual Retreat
25. Povroznik, J,[^] **Engler-Chiurazzi, EB**, Nanavati, T, Pergami, P (2015). *Neutrophil and lymphocyte counts in neonatal hypoxic ischemic encephalopathy and acute ischemic stroke: a possible role for immunity in ischemic brain injury*. WVU Center for Neuroscience Annual Retreat
26. Kerr, AE,[^] **Engler-Chiurazzi, EB**, Simpkins, JW (2015). *The effects of intermittent systemic inflammation on cognitive outcomes in an aging mouse model*. WVU Center for Neuroscience Annual Retreat
27. Porter, KN,[^] **Engler-Chiurazzi, EB**, Simpkins, JW (2015). *The effects of aging and intermittent inflammatory experience/infection on locomotor ability and affective behavior*. WVU Center for Neuroscience Annual Retreat
28. **Engler-Chiurazzi, EB**,[^] Stalnaker, JJ, Ren, X, Hu, H, Sarkar, SN, Jun, S, Quintana, DD, Stapleton, PA, Nurkiewicz, TR, McBride, C, Yi, J, Simpkins, JW (2015). *Adult Behavioral Consequences of Prenatal Nanomaterial Exposure*. WVU Van Liere Convocation (SECOND PLACE: POSTDOCTORAL FELLOW POSTER)

29. **Engler-Chiurazzi, EB**,[^] Simpkins, JW (2015). *The Health Sciences Center Rodent Behavior Core: a facility for evaluating functional outcomes at West Virginia University*. WVU Van Liere Convocation
30. Kerr, AK,^{*} **Engler-Chiurazzi, EB**, Simpkins, JW (2015). Sick as a ... mouse?: health outcomes following repeated intermittent infection exposure during aging. Van Liere Convocation
31. Povroznik, J,[^] **Engler-Chiurazzi, EB**, Nanavati, T, Pergami, P (2015). *Neutrophil and lymphocyte counts in neonatal hypoxic ischemic encephalopathy and acute ischemic stroke: a possible role for immunity in ischemic brain injury*. WVU Van Liere Convocation (FIRST PLACE: MASTER'S STUDENT POSTER)
32. **Engler-Chiurazzi, EB**,[^] Stalnaker, JJ, Ren, X, Hu, H, Sarkar, SN, Jun, S, Quintana, DD, Stapleton, PA, Nurkiewicz, TR, McBride, C, Yi, J, Simpkins, JW (2014). *Adult Behavioral Consequences of Prenatal Nanomaterial Exposure*. WVU Center for Neuroscience Annual Retreat
33. **Engler-Chiurazzi, EB**, Ren, X, Hu, H, Zhang, H, Simpkins, JW (2014). *The Health Sciences Center Rodent Behavior Core: an upcoming facility for evaluating functional outcomes at WVU*. WVU Van Liere Convocation
34. Gerson, J,[^] **Engler-Chiurazzi, E**, Simard, A, Bimonte-Nelson, H (2011). *Estrone impairs spatial working memory in the menopausal rat: Impact on cyclooxygenase-2 levels?* ASU School of Life Sciences Undergraduate Research Poster Symposium
35. Grunfeld, IS,[^] Camp, BW, **Engler-Chiurazzi, EB**, Acosta, J, Mennenga, S,^{*} Braden, BB, Tsang, C,^{*} Kinston, M,^{*} Schaefer, K,^{*} Hewitt, L,^{*} Brewer, GA, Baxter, LC, McBeath, MK, Bimonte-Nelson, HA (2011). *Walk this way: translating the rodent radial-arm maze to humans*. ASU Celebrating Honors Poster Symposium, Barrett Honors College
36. Cosand, MP,[^] Talboom, JS, **Engler, EB**, Acosta, J, Bimonte-Nelson, H (2010). *A component of the most commonly used estrogen therapy enhances cognition*. ASU School of Life Sciences Undergraduate Research Poster Symposium
37. Tsang, CW,[^] **Engler-Chiurazzi, E**, Nonnenmacher, S,^{*} Prokai, L, Bimonte-Nelson, H (2010). *Tonic Premarin dose-dependently enhances memory and impacts circulating estrogen levels in middle-aged rats*. ASU School of Life Sciences Undergraduate Research Poster Symposium
38. Bowman, B,[^] **Engler, E**, Crain, I, Braden, B, Tsang, C,^{*} Castillo, J,^{*} Bimonte-Nelson, H (2009). *Effects of Age on Susceptibility to Interference by Prior Learning Experience*. ASU School of Life Sciences Undergraduate Research Poster Symposium
39. Bowman, B,[^] **Engler E**, Crain I, Braden, B, Tsang, C,^{*} Castillo, J,^{*} Bimonte-Nelson, H (2009). *Age and susceptibility to interference by prior learning experience*. ASU College of Liberal Arts and Sciences Poster Symposium
40. Scheldrup, M,[^] **Engler-Chiurazzi, E**, Bowman, B,^{*} Ciciolla, L, Baxter, L, Demers, L, Prokai, L, Bimonte-Nelson, H (2009). *Oral premarin affects memory and neurotrophins in the surgically menopausal rat: efficacy depends on cognitive demand*, ASU School of Life Sciences Undergraduate Research Poster Symposium
41. Bowman, B,[^] **Engler, E**, Crain, I, Braden, B, Tsang, C,^{*} Castillo, J,^{*} Bimonte-Nelson, H (2008). *Where Were You, and Where Are You Now? Performance on Spatial and Non-spatial Maze Paradigms Interact with Age and Maze Order*. ASU School of Life Sciences Undergraduate Research Poster Symposium
42. **Engler, EB**,^{*} Terry, DP, Millan, M, Zay, C, Crain, I, Bimonte-Nelson, HA (2007). *Ovarian Hormone Loss and Cognitive Decline at Multiple Timepoints during Aging*. ASU School of Life Sciences Undergraduate Research Poster Symposium
43. Crain, I,^{*} Talboom, J, **Engler, E**, Sundin, B, Zay, C, Bimonte-Nelson, H (2007). *Does Lifelong Cognitive Practice Influence Age-Related Cognitive Changes?* ASU School of Life Sciences Undergraduate Research Poster Symposium

CLASSROOM TEACHING, MENTORING, THESIS COMMITTEE SERVICE

Summer, 2020 Co-Facilitator, Stroke: Bench to Bedside to Community, Dr. Simpkins and Ren
 Spring, 2020 Guest Lecturer, Advanced Neuroscience, Dr. Vonder Haar
 Spring, 2019 Facilitator, Current Topics in Immunology, Dr. Barnett
 Fall, 2018 Guest Lecturer, Advanced Neuroscience, Drs. Kinsey and Vonder Haar
 Fall, 2017 Guest Lecturer, Neuroscience Graduate Student Cellular Methods
 2016-2017 Co-Honor's Thesis Mentor (with Dr. Simpkins), Sara Nayeem
 Spring, 2017 Adjunct Instructor, Biochemical Pharmacology, Dr. Hanif
 Fall, 2016 Guest Lecturer, Neuroscience Graduate Student Cellular Methods

Spring, 2016 Guest Lecturer, Physiological Psychology, Dr. Petrone
 Fall, 2015 Guest Lecturer, WVU Core Facility Seminar
 Spring 2015 Guest Lecturer, Physiological Psychology, A. Petrone
Guest Lecturer, Neuroscience Graduate Student Forum
 Fall, 2014 Committee Member - Honors Thesis of G. Stonebarger, ASU
 Spring, 2014 Guest Lecturer, WVU Meeting of Biomedical and Behavior Sciences
 Spring, 2013 Teaching Assistant – Physiological Psychology (2 sections), Dr. Hansen
 Fall, 2012 Teaching Assistant – Introduction to Statistics, Dr. Lynch
 Summer, 2012 Guest Lecturer, ASU Summer Fellowship for Middle School Students, Dr. Hutchinson
 Spring, 2012 Instructor – Physiological Psychology
Laboratory Instructor - Psychology Research Methods, Dr. Pederson
 Fall, 2011 Laboratory Instructor - Psychology Research Methods, Dr. Szeli
 Summer, 2011 Instructor, ASU Bridge Program Introduction to Psychology
 Spring, 2011 Teaching Assistant –Physiological Psychology, Dr. Olive
Teaching Assistant – Physiological Psychology, Dr. Acosta
 Fall, 2010 Teaching Assistant – Physiological Psychology, Dr. Acosta
 2009-2011 Mentor, ASU Shades Multicultural Mentoring Program
 Fall, 2009 Teaching Assistant - Behavioral Endocrinology, Dr. Bimonte-Nelson
 Fall, 2008 Teaching Assistant - Neuroanatomy Lecture and Lab, Dr. Biswas
 2007-2013 Co-mentor of Research Assistants, Bimonte-Nelson Lab
 2006-2007 Academic Tutor - ASU Intercollegiate Athletes

MENTORING

Graduate Students

Doctoral

Carly Callender – Rotation
 Sarah Milne – Rotation
 Robin Oliverio – Rotation
 Eleni Padden – Rotation
 Shokofeh Rahimpour Kaldeh – Rotation
 Bailey Whitehead – Rotation

Masters

Megan Grund – Rotation

Academic Advising

Alexis Crocket
 Eleni Padden
 Allison White

T32 Graduate Training Program Involvement

Co-Director: PI = James W Simpkins, “*Pre-doctoral training in stroke and its co-morbidities*” 05/01/17 to 04/30/22; Sept 2018 - present

Preceptor: PI = Albert Berrebi and James W Simpkins, “*Research training program in behavioral and biomedical sciences*” 07/01/19 to 06/30/23; May 2018 - present

Trainee Committee Service

Graduate Student Committee Membership

2019-present Committee Member (Master’s in passing), Kristen Pechacek
Committee Member (Doctorate), Aruvi Vijikumar
Committee Member (Doctorate), Dominic Quintana
 2018-present Committee Member (Doctorate), Eiman Aboaziza

Undergraduate Honors Thesis Committee Membership

- 2016-2017 Co-Mentor, Sara Nayeem (WVU Graduate, currently accepted to WVU Incoming 2019 Medical School Class; 2017 WV Undergraduate Research Day at the Capitol Presenter)
- 2014 Member, Gail Stonebarger (ASU Graduate, Oregon Health Sciences University Grad Student)

Undergraduate Students (Volunteers or Course Credit)

Current

2020-present Rebecca Kaiser
Ilana Spitz

Former

- 2019-2020 Josie Gilbert – Research Apprenticeship Program Fellow
Sabrina Siegan – Research Apprenticeship Program Fellow
- 2018-2019 Lori Gosnell – Research Apprenticeship Program Fellow
Liza Grossman – 2018 WVU Summer Undergraduate Research Experience; 2019 WV Undergraduate Research Day at the Capitol Presenter
Anna Gunter – Research Apprenticeship Program Fellow
Cece Jebbia
Heather Kiblinger – WVU Research Apprentice Program Fellow
Brishti White – Research Apprenticeship Program Fellow; WVU Undergraduate Research Office Travel Award Recipient- NCUR Meeting 2019; 2019 WV Undergraduate Research Day at the Capitol Presenter; WVU Psychology Captstone
- 2017-2018 Liza Grossman
Abby Rosiello
Brishti White
Courtney Wild – Research Apprenticeship Program Fellow

Former-WVU Graduates

- 2015-2017 Jared Clapper – WVU Graduate; Applicant for US Army Health Professionals Scholarship
Eleana Cook – Physician's Assistant applicant
James Hammock – Medical School Applicant
Hana Ulman – 2017 WVU Summer Undergraduate Research Experience

SERVICE ACTIVITIES

Professional Service

- 2020 Reviewer, Brain Research
Reviewer, Geriatric Psychiatry
- 2019 Awardee, AAAS IF/THEN Ambassador
Reviewer, Behavioural Pharmacology
Awardee, NIH Early Career Reviewer Program
- 2017 Reviewer, Journal of Neurological Sciences
Reviewer, Behavioural Pharmacology
- 2016 Reviewer, JoVE
- 2015 Reviewer, Neuroendocrinology
Reviewer, Endocrinology
- 2014 Reviewer, Aging and Disease
- 2013 Co-Chapter Leader/Representative - Society for Neuroscience Tempe Chapter
- 2012 Co-Chapter Leader/Representative - Society for Neuroscience Tempe Chapter
Ad Hoc Reviewer - Hormones and Behavior
- 2011 Co-Chapter Leader/Representative - Society for Neuroscience Tempe Chapter
- 2010 Co-Chapter Leader/Representative - Society for Neuroscience Tempe Chapter
Ad Hoc Reviewer - The Endocrine Society
- 2009 Ad Hoc Reviewer - Behavioral Brain Research; Brain Research

University Service

- 2020 Director – WVU Rodent Behavior Core

- *Determine strategic direction and business plan*
- *Publicize facility and recruit new users*
- *Hold onboarding/planning meetings and advise users on study design, rigor and reproducibility*
- *Assure regulatory compliance of animal use*
- *Manage resource allocation by maintaining cloud core management platform*
- *Maintain equipment functionality and run validation cohorts*
- *Train new users in behavioral testing*
- *Assist in data management, statistical analysis, and interpretation*
- *Aid in the dissemination of findings by helping to compose, edit, and review scientific products (abstracts, manuscripts, posters, and grant proposals)*

Advisor – West Virginia University Roller Derby Intramural Club Sports Team

- *Organize and engage in roller derby awareness outreach and recruitment to WVU students*
- *Manage finances for the league*
- *Manage merchandise sales and inventory*

Advisor – West Virginia University Undergraduate Neuroscience Club

- *Organize and engage in brain awareness outreach efforts at West Virginia University*
- *Acquire funding and managed finances*
- *Mentor undergraduate club leadership*
- *Facilitate research experience for club members*

2019 Director – WVU Rodent Behavior Core

Advisor – West Virginia University Roller Derby Intramural Club Sports Team

Advisor – West Virginia University Undergraduate Neuroscience Club

2018 Director – WVU Rodent Behavior Core

Advisor – West Virginia University Undergraduate Neuroscience Club

2017 Director – WVU Rodent Behavior Core

Poster Judge – West Virginia University Summer Undergraduate Research Symposium

Co-Advisor – West Virginia University Undergraduate Neuroscience Club

2016 Director – WVU Rodent Behavior Core

Co-Advisor – West Virginia University Undergraduate Neuroscience Club

2015 Director – WVU Rodent Behavior Core

Co-Advisor – West Virginia University Undergraduate Neuroscience Club

2014 Director – WVU Rodent Behavior Core

Co-Advisor – West Virginia University Undergraduate Neuroscience Club

2013 Organizer - Night of the Open Door - Brain Awareness, 5000 children and parents (ASU campus)

- *Organized activities and recruited volunteers for the “What’s Inside your Head?” station*
- *Mentored undergraduate event organizers*

2011 Mentor - SHADES Undergraduate Mentoring Program

2010 Research Grant Reviewer - ASU Graduate and Professional Student Association

Mentor - SHADES Undergraduate Mentoring Program

2009 Research Grant Reviewer - ASU Graduate and Professional Student Association

Mentor - SHADES Undergraduate Mentoring Program

Organizer - Graduates in Earth, Life and Social Sciences Annual Symposium

Departmental, Center, and Institute Service

2020 Advisor, Graduate Women Advancing Science (GWAS)

2019 Committee Member, Biostatistics Curriculum Development Committee

Presenter, 1st Annual Brain Camp for High School Students, WVU Department of Neuroscience

Committee Member, WVCTSI Early Stage Investigator Advisory Board, Health Sciences Center, WVU

Committee Member, Women in Science and Health Committee, Health Sciences Center, WVU

Committee Member, Animal Facility Advisory Committee, Health Sciences Center, WVU

Poster Judge – West Virginia University Van Lier Convocation Health Sciences Center, WVU

2018 Committee Member, Women in Science and Health Committee, Health Sciences Center, WVU

Committee Member, Animal Facility Advisory Committee, Health Sciences Center, WVU

Poster Judge – West Virginia University Van Lier Convocation Health Sciences Center, WVU

2017 Judging Organizer of Graduate Student Poster Presentations, Center for Neuroscience Retreat, Canaan Valley, West Virginia

- Committee Member, Animal Facility Advisory Committee, Health Sciences Center, WVU
Judge of Student Podium Presentations, Van Liere Symposium, Health Sciences Center, WVU
 2016 Session Moderator of Graduate Student Podium Presentations, Center for Neuroscience Retreat, Canaan Valley, West Virginia
Judge of Student Oral Presentations, Betschart Symposium, Physiology & Pharmacology Department, WVU
 2014 Judge of Student Oral Presentations, Betschart Symposium, Physiology & Pharmacology Department, WVU
 2012 Graduate Student Representative: Behavioral Neuroscience Area - Graduate Studies Committee, Psychology Department, ASU
 2010 Organizer - Behavioral Neuroscience Station, Psychology Department Homecoming Booth, ASU
Graduate School Panel Member - Behavioral Neuroscience, Psychology Honors Thesis Class
Graduate Liaison: Behavioral Neuroscience Representative - Psi Chi National Psychology Undergraduates Honors Society, ASU
 2009 Graduate School Panel Member - Psi Chi-hosted 'Road to Grad School' Panel Discussion, ASU
Graduate Liaison: Behavioral Neuroscience Representative - Psi Chi National Honors Society, ASU
 2008 Graduate School Panel Member - Psi Chi-hosted 'Road to Grad School' Panel Discussion, ASU
Graduate Liaison: Behavioral Neuroscience Representative - Psi Chi National Honors Society, ASU

Community Service & Neuroscience Education/Outreach (Organizer/co-organizer, except where noted)

- 2020 Carnegie Science Center Women in Stem Virtual Speaker Series (~50)
 "Feed Our Brains" Neuroscience Activity Packets for Monongalia County School Children (~2300)
 "Train Our Brains" by WVU Neuroscience at WVU Day at the WV State Capitol (~125)
 2019 "Train Our Brains" by WVU Neuroscience, Morgantown High School (~125)
 Science Fair Judge, Cheat Lake Elementary School (~25)
 "Train Our Brains" by WVU Neuroscience, Mountainview Elementary 1st graders (~25)
 Morgantown Zombie Walk (~50)
 "Feed Our Brains" Table at Terra Café (~25)
 International Day of the Girl Virtual Career Discussion via Nepris (~25)
 WVU Home Football Game Booth (~25)
 RNI-Department of Neuroscience Table at the Alzheimer's Association Awareness Walk (~50)
 "Train Our Brains" by WVU Neuroscience, WV State Fair (~1000)
 "Feed Our Brains" presentation and donation, Mountainview Elementary, 5th grade class (~100)
 Books and Brains at the Morgantown Public Library (~150)
 2018 Morgantown Spark! Imagination Center Science Day Booth (~50)
 2017 "Train Our Brains" by WVU Neuroscience Club, Waldorf School of Pittsburgh, 7th grade class (~15)
 "Train Our Brains" by WVU Neuroscience Club, Mylan Park Dr. Seuss Night, mixed ages (~100)
 Morgantown Spark! Imagination Center Science Day Booth (~50)
 Morgantown March for Science Booth mixed ages (~200)
 2016 "Train Our Brains" by WVU Neuroscience Club, Mountaineer Boys & Girls Club 5th-8th grade (~25)
 The Shack Neighborhood House Annual Science Carnival Booth (~100)
 Morgantown Spark! Imagination Center Science Day Booth (~50)
 2015 "Train Our Brains" by WVU Neuroscience Club, Watson Elementary 3rd and 4th grade classes (~200)
 "Train Our Brains" by WVU Neuroscience Club, North Elementary 5th grade classes (~100)
 "Train Our Brains" by WVU Neuroscience Club, University High School Science Club (~25)
 The Shack Neighborhood House Annual Science Carnival Booth (~100)
 Morgantown Spark! Imagination Center Science Day Booth (~50)
 2014 "Train Our Brains" by WVU Neuroscience Club, Cheat Lake Elementary 5th grade classes (~100)
 "Train Our Brains" by WVU Neuroscience Club, Brookhaven Elementary 5th grade classes (~100)
 "Train Our Brains" by WVU Neuroscience Club, Mountaineer Boys & Girls Club 5-8th grade (~25)
 2013 Villa Montessori School (~50)
 2012 Girl Scouts Brain Power event at ASU (~50)
 ASU Night of the Open Door Brain Station, mixed ages (~500)
 3rd Annual ASU Brain Fair, Cesar Chavez Elementary 5th grade classes (~300)
 2011 Arizona Science Center All About Brains Presentation (~25)
 2nd Annual ASU Brain Fair, Cesar Chavez Elementary 5th grade classes (~600)

- 2010 Lela Alston Elementary Career Day, 4th grade class (~80)
1st Annual ASU Brain Fair, Cesar Chavez Elementary 5th grade classes (~600)
Lela Alston Elementary Career Day, 4th grade class (~80)
- 2009 Camp Sparky College Day Brain Station, ASU campus (~200)
Brain Awareness Presenter, Waggoner Elementary, 5th grade (~50)
Brain Awareness Presenter, Anderson Elementary 5th grade (~50)
Brain Awareness Presenter, McKemy Elementary 5th grade (~50)
Brain Awareness Presenter, Children's Museum of Phoenix (~50)
- 2008 Camp Sparky College Day Brain Station, ASU campus (~200)
Brain Awareness Presenter, Waggoner Elementary 5th grade (~50)
Brain Awareness Presenter, Anderson Elementary 5th grade (~50)
Brain Awareness Presenter, McKemy Elementary 5th grade (~50)
- 2007 Brain Awareness Presenter, Waggoner Elementary 5th grade (~50)
Brain Awareness Presenter, Anderson Elementary 5th grade (~50)
Brain Awareness Presenter, McKemy Elementary 5th grade (~50)
- 2006 Brain Awareness Presenter, Mesa High School 12th grade (~25)
Brain Awareness Presenter, Waggoner Elementary 5th grade (~50)
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PROFESSIONAL AFFILIATIONS AND MEMBERSHIPS

National

- 2010-present Association of Women in Science
2010-present Foundation for Biomedical Research – Research Saves Campaign
2008-present Psi Chi National Honors Society – ASU Graduate Liaison (5/2008-8/2010)
2006-present Society for Neuroscience

Regional

- 2017-2018 Three Rivers Branch, AALAS
2014-2016 Allegheny-Erie Society of Toxicology
2012-2013 Arizona Imaging and Microanalysis Society
2007-2013 Arizona Alzheimer's Consortium

Local

- 2013-present WVU Postdoctoral Association
2009-2013 ASU Graduate and Professional Student Association
2009-2013 ASU Graduates in Earth, Life and Social Sciences
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LANGUAGE PROFICIENCY

English – fluent in reading, writing and speaking
Spanish – fluent in reading, writing and speaking
Italian – some conversational ability

REFERENCES

Post-doctoral Fellow Mentor

Dr. James Simpkins, Professor and Director, Center for Basic and Translational Stroke Researcher,
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