Dr. Norah Algarzae Curriculum Vitae
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EDUCATION

Howard University College of Medicine Washington, DC
Ph.D. Physiology and Biophysics, Concentration Neuroscience May 2020
- Research Interest: Physiology and Biophysics, Neuroscience, Neurodegenerative Diseases, Inflammation, Developmental Neuroscience.
- Dissertation: "Beyond the Hippocampus: Regional Effects of Pediatric HIV infection"

Georgetown University Washington, DC
- M.S., Biochemistry, Cell and Molecular Biology May 2012

Howard University Washington, DC
- B.S., Biology and Chemistry May 2010
  Magna Cum Laude

TEACHING EXPERIENCE

State Fair Community College Sedalia, MO
- Adjunct Professor 2020

University of Central Missouri Warrensburg, MO
- Adjunct Professor 2019

Howard University Washington, DC
- Graduate Teaching Assistant (GA) Biology Department 2016-2017
- Mentoring Students in the Lab 2014-2020

Georgetown University Washington, DC
- Mentoring Students in the Lab 2010-2013

RESEARCH EXPERIENCE

George Washington University Washington, DC
- Research Assistant in the Interventional Radiology Department 2008-2009
- Research Assistant in the Emergency Medicine Department 2009 - 2010

Georgetown University Washington, DC
- Research Assistant in the Lab for Dementia and Parkinsonism 2010-2013

Virginia Commonwealth University Richmond, VA
- Research Assistant in the Center on Health Disparities, School of Medicine 2013
- Research Assistant in the Parkinson's and Movement Disorders Center 2013

National Institute of Health Bethesda, MD
- Researcher in Dr.Avindra Nath's Lab in National Institute of Neurological Disorders and Stroke 2016

SKILLS and TECHNIQUES

- Immunohistochemistry
- Stereology
- Confocal and Fluorescence Microscopy
- Protein Purification
- Isolation of protein and analysis by Western Blot
- Isolation of proteins/antibodies and analysis by ELISA
- Mammalian cell culture
- Isolation of DNA/RNA and quantitative analysis by PCR/rPCR

- Statistical analysis of data

LEADERSHIP and AWARDS

Georgetown University Washington, DC

- Outstanding Research Award 2012
  Department of Biochemistry, Cell and Molecular Biology
- Certificate Of Excellence 2011
  Department of Biochemistry, Cell and Molecular Biology

Howard University Washington, DC

- The Chemical Rubber Company Award 2008
  Department of Chemistry

- Academic Honor Award 2008
  National Society of Collegiate scholar
- The Dr.Alfred Spriggs Memorial Award 2009
  Department of Chemistry
- Howard University Honor Award 2009
  Golden Key International Honor Society

ABSTRACT

N Algarzae, H Carryl, M Swang, D Brewer, K Van Rompay, K De Paris, MW Burke. Direct and Indirect Mechanisms of Neurotoxicity in Pediatric HIV Infection. Abstract of the Society for Neuroscience, 2018.

PUBLICATIONS

1. **Algarzae N,** Hebron M, Miessau M, Moussa CE. Parkin prevents cortical atrophy and Aβ-induced alterations of brain metabolism: 13C NMR and magnetic resonance imaging studies in AD models. Neuroscience. 2012 Dec 6;225:22-34. PubMed PMID: 22960314; PubMed Central PMCID:PMC3479335.
2. Hebron ML, **Algarzae NK**, Lonskaya I, Moussa C. Fractalkine signaling and Tau hyper-phosphorylation are associated with autophagic alterations in lentiviral Tau and Aβ1-42 gene transfer models. Exp Neurol. 2014 Jan;251:127-38. PubMed PMID: 23333589; PubMed Central PMCID: PMC3644355.
3. Lonskaya I, Hebron ML, **Algarzae NK**, Desforges N, Moussa CE. Decreased parkin solubility is associated with impairment of autophagy in the nigrostriatum of sporadic Parkinson's disease. Neuroscience. 2013 Mar 1;232:90-105. PubMed PMID: 23262240; PubMed Central PMCID:PMC3618990.
4. Rice AC, Keeney PM, **Algarzae NK**, Ladd AC, Thomas RR, Bennett JP Jr. Mitochondrial DNA copy numbers in pyramidal neurons are decreased and mitochondrial biogenesis transcriptome signaling is disrupted in Alzheimer's disease hippocampi. J Alzheimers Dis. 2014;40(2):319-30. PubMed PMID:24448779.
5. Desforges NM, Hebron ML, **Algarzae NK**, Lonskaya I, Moussa CE. Fractalkine Mediates Communication between Pathogenic Proteins and Microglia: Implications of Anti-Inflammatory Treatments in Different Stages of Neurodegenerative Diseases. Int J Alzheimers Dis. 2012;2012:345472. PubMed PMID: 22919540; PubMed Central PMCID: PMC3420133.
6. Hebron ML, Lonskaya I, Sharpe K, Weerasinghe PP, **Algarzae NK**, Shekoyan AR, Moussa CE. Parkin ubiquitinates Tar-DNA binding protein-43 (TDP-43) and promotes its cytosolic accumulation via interaction with histone deacetylase 6 (HDAC6). J Biol Chem. 2013 Feb 8;288(6):4103-15. PubMed PMID: 23258539; PubMed Central PMCID: PMC3567661.
7. Lonskaya I, Shekoyan AR, Hebron ML, Desforges N, **Algarzae NK**, Moussa CE. Diminished parkin solubility and co-localization with intraneuronal amyloid-β are associated with autophagic defects in Alzheimer's disease. J Alzheimers Dis. 2013;33(1):231-47. PubMed PMID: 22954671.

MANUSCRIPTS

1. **Norah Algarzae**, Melanie Swang ,Koen K.A. Van Rompay, Kristina De Paris, Mark W. Burke. Neurocognitive Effects in Infant Macaques Orally and Intravenously Infected with Virulent Simian Immunodeficiency Virus. **Submitted and Under Review.**
2. **Norah Algarzae**, Melanie Swang ,Brittany Voth, Janiya Brooks,, Awele Utomi, Koen K.A. Van Rompay, Kristina De Paris, Mark W. Burke. Neuronal Loss in the Dorsolateral Prefrontal Cortex in Pediatric Simian Immunodeficiency Virus Infection. **In preparation.**