CURRICULUM VITAE

Rukhsana Sultana, Ph.D

School of Behavioral and Brain Sciences
The University of Texas at Dallas
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Education

PhD Life Science…….. 2004
The University of Hyderabad, India
Dissertation: Studies on the expression of cytosolic and microsomal glutathione-S-transferases upon Alcohol administration and withdrawal in Rat Liver.

Masters in Life Science-Animal Science ……..1997
University of Hyderabad, India.

***Bachelor Biology*- Genetics, Zoology, and Chemistry ……1995**
Osmania University, India

Teaching Experience

University of Dallas at Texas 08/2017-current
Senior Lecturer-School of Behavioral and Brain sciences
Taught/teaching Introduction to Neuroscience (NSC 3361), Cellular Neuroscience (NSC 4352), Neurolab method (NSC 4353), Integrative Neuroscience (NSC 4354), Neurophysiology (NSC 4356), molecular Neuroscience (NSC 4362), Neuroanatomy (NSC 4366), and Teaching Internship (NSC4V96) to undergraduate students. Also taught/teaching functional neuroanatomy (ACN/HSC/PSYCH 6338), Neurophysiology (ACN/HSC/PSYCH 6323), and systems Neuroscience (ACN/HCS/ PSYC-6346) to Masters students. Technologies utilized/utilizing includes: blackboard collaborate, teams, webex, learn smart, kahoot, and perusall to facilitate learning, and hands on activities.
From Fall 2017 through Summer 2022, I have taught 2,128 undergraduate students and 256 graduate students in thesis research, teaching internship, or individual study. ***Currently teaching eleven undergraduate courses per year****.*

Tarrant Community College
Adjunct Faculty -Biology • Tarrant, TX 01/2017 –08/2017
Taught Anatomy and Physiology (AP-2401/2402) both lecture and laboratory. Technologies utilized include blackboard, learn smart, and kahoot to facilitate learning.

North Lake Community College
Adjunct Faculty-Biology • Irving, TX 08/2016 – 06/2018
Teaching and Anatomy and Physiology (AP-2401) both in class and online students.

Adjunct Faculty- Biology • Irving, TX 01/2015 – 06/2016
Taught lab of General Biology (BIO 1408/1406-Non-Science Majors/science major) and Anatomy and Physiology (AP-2401) to 20-24 students.

University of Kentucky
Substitute Staff-Neurochemistry • Lexington, KY 01/2008 – 05/2012

Taught allotted topics in advance course of Neurochemistry (CHE 556-3 credit hour) course to a class of 13, consisting of both senior undergraduate and graduate students.

Substitute Staff-Biochemistry • Lexington, KY 01/2011 – 05/2011
Taught allotted topics in advance course of Biochemistry (CHE 550-3 credit hour) to a class of 50, consisting of both senior undergraduate and graduate students.

Instructor-Biochemistry • Lexington, KY 08/2007 – 12/2007
Taught an advanced course in Biological chemistry (CHE 550-3 credit hour course) in the Department of Chemistry to a class of 56 students consisting of both senior undergraduate and graduate students. This class met twice a week, each class was for 75 minutes

Bluegrass Community and Technical College
Adjunct -Biology • Lexington, KY 01/2007 – 05/2007
Taught Principles of Biology (BIO 152, a 3 credit course) to 12 undergraduate students. This class met twice a week, each class was for 75 minutes.

Research Experience

UT Southwestern Medical Center, Dallas, Texas
Senior Research Scientist • Dallas, TX 09/13 – 12/14
Conducted Neurobiology research focused on role of Eph receptor in Alzheimer/s disease, Autism, and pain using a variety of in-vivo and in-vitro models. Biochemical and histological techniques, generation of transgenic mice, imaging, and other in-vivo and in-vitro techniques are heavily utilized within these projects. Culturing of primary neurons and cell lines (Cos1/Cos7), and basic molecular biology were also used.

University of Kentucky
Research Assistant Professor • Lexington, KY 04/10 – August 08/13
Major focus was on Neurobiology research involving the role of oxidative stress in Alzheimers disease, chemobrain (anti-cancer drug induced memory loss), and Neuronanotoxicology (Ceria nanoparticles) using a number of in vitro and in vivo models. Proteomics and pull down assays were heavily utilized to identify post-translational protein modifications. Biochemical and histological techniques, imaging, and other in-vivo and in-vitro techniques, culturing of primary neurons and basic molecular biology were also used. Promoted from Research Associate to Research assistant professor. Trained visiting faculty, graduate, and undergraduate in laboratory science methodologies, interpretation and manuscript preparation(s).

Postdoctoral scholar- Research Associate • Lexington, KY 11/2004 – 03/2010
Major research focus was on Neurobiology involving the role of oxidative stress in Alzheimers disease and chemobrain (anti-cancer drug induced memory loss). A number of in vitro and in vivo models were utilized to accomplish the research goal. Proteomics and pull down assays were heavily utilized to identify post-translational protein modifications. Biochemical and histological techniques, imaging, and other in-vivo and in-vitro techniques, culturing of primary neurons and basic molecular biology were also used. Promoted from postdoctoral scholar to Research Associate. Trained visiting faculty, graduate, and undergraduate in laboratory science methodologies, interpretation and manuscript preparation(s).

Exchange Visiting Doctoral Scholar • Lexington, KY 11/2002 – 10/2004
Major research focus was on Neurobiology involving the role of oxidative stress in Alzheimers disease. A number of in vitro and in vivo models were utilized to accomplish the research goal.

Proteomics and pull down assays were heavily utilized to identify post-translational protein modifications. Biochemical and histological techniques, imaging, culturing of primary neurons, and basic molecular biology were also used. Trained graduate, and undergraduate in laboratory science methodologies, interpretation and manuscript preparation(s)..

University of Hyderabad
Doctoral Scholar • Hyderabad, Andhra Pradesh, India 06/1998 – 04/2004
Proposed a mechanism for Alcohol-induced liver damage using an animal model. Chromatography, differential centrifugation, Mass spectrometry, and molecular biology and histological techniques were heavily utilized. Trained, taught and supervised new laboratory personals and graduate students. Designed, performed troubleshooting of experiments independently with minimal or no supervision. Preparation of original scientific papers, and progress reports. Discussed and communicated experimental data, independent thinking, and innovations.

Research Assistant • Hyderabad, Andhra Pradesh, India 06/1997 – 05/1998
Conducted cytotoxicity research involving karyotyping to identify individuals with genetic disorders, assayed for single strand DNA damage caused by environment toxicants like lead. Designed, performed troubleshooting of experiments independently with minimal or no supervision. Preparation of original scientific papers, and progress reports. Discussed and communicated experimental data.

Honors and Awards

1. Nominee, UT Dallas President's Teaching Excellence Award 2022
2. Nominee, Regents' Outstanding Teaching Award, The University of Texas System 2022
3. Nominee, Regents' Outstanding Teaching Award, The University of Texas System 2021
4. Nominee, UT Dallas President's Teaching Excellence Award 2021
5. Senior Research Scholarship from Ministry of Health and Family Welfare, Delhi, India, June 1999-June 2002.
6. Member of Alzheimer's Association study section. January 2008-Current.
7. Editorial Board of TheScientificWorldJOURNAL, journal's Biochemistry Domain, Oct 2011- current.
8. My paper entitled "Identification of nitrated proteins in Alzheimer's disease brain using a redox proteomics approach "in Neurobiology of Disease, Volume 22, Issue 1, 2006 was one of the tops cited articles from the year 2006-2010.
9. Editorial Board member of the Journal of Alzheimer's Disease (January 2013- January 2014).

Service to the Department or University of Texas

1. Member of the Curriculum Education Policy member committee
2. Tenure track faculty Search Committee member, Behavioral and Brain sciences
3. Teaching Faculty Promotional Committee member, Behavioral and Brain Sciences
4. Advisor for "Memory Matters" student organization
5. Contributed to the creation of the BBS Workload Policy
6. *Ph.D. dissertation committees member*
7. Conducted HPE interviews for pre-med students.
8. Research Advisor for undergraduate independent research
9. *Career advice/Mentored undergraduate and grade students*

10. Served as the Second reader of thesis (undergraduate, honors thesis) and the capstone project.

Peer Reviewed Articles (a total of 152 publications)

As of February 2nd, 2023: My publications were cited 18,061 times and have an h-index of 86 and an i10-index 142 (google scholar)

1. J. Kanski, **R. Sultana**, W. Klunk, and D.A. Butterfield, "Antioxidant Activity of X-34 inSynaptosomal and Neuronal Systems," *Brain Research* **988**, 173-179 (2003).

2. J. Drake, **R. Sultana**, M. Aksenova, V. Calabrese, and **D.A. Butterfield**, "Elevation ofMitochondrial Glutathione by gamma-Glutamylcysteine Ethyl Ester Protects Mitochondria Against Peroxynitrite-Induced Oxidative Stress," *J. Neuroscience Res.* **74**, 917-927 (2003).

3. **R. Sultana**, Babu PP. Ethanol-induced alteration in N-methyl-D-aspartate receptor 2A C-terminus and protein kinase C activity in rat brain. Neurosci Lett. 2003 Sep 25;349(1):45-8. doi: 10.1016/s0304-3940(03)00755-9. PMID: 12946583

4. **R. Sultana**, S. Newman, H. Mohmmad-Abdul, J.N. Keller, and D.A. Butterfield, "Protective Effect of the Xanthate, D609, on Alzheimer's Amyloid β-Peptide (1-42)- Induced Oxidative Stress in Primary Neuronal Cells," *Free Radical Research* **38**, 449-458(2004).

5. G. Scapagnini, D.A. Butterfield, C. Colombrita, **R. Sultana**, A. Pascale, and V. Calabrese,"Ethyl Ferulate, a Lipophilic Polyphenol, Induces HO-1 and Protects Rat Neurons AgainstOxidative Stress," *Antioxidants and Redox Signaling* **6**, 811-818 (2004).

6. C.B. Pocernich, **R. Sultana**, E. Hone, J. Turchan, R.N. Martins, V. Calabrese, A. Nath, and D.A. Butterfield, "Effects of Apolipoprotein E on the Human Immunodeficiency Virus Protein Tat in Neuronal Cultures and Synaptosomes," *J. Neurosci. Res.* **77**, 532-539(2004).

7. H.F Poon, G. Joshi, **R. Sultana**, S.A. Farr, W.A. Banks, J.E. Morley, V. Calabrese, and D.A. Butterfield, "Antisense Directed at the A β Region of APP Decreases Brain Oxidative Markers in Aged Senescence Accelerated Mice," *Brain Research* **1018**, 86-96(2004).

8. D. Boyd-Kimball, **R. Sultana**, H. Mohmmad-Abdul, and D.A. Butterfield, "Rodent Aβ(1-42) Exhibits Oxidative Stress Properties Similar to Those of Human Aβ(1-42): Implications for Proposed Mechanisms of Toxicity," *Journal of Alzheimer's Disease* **6**, 515-525 (2004).

9. **R. Sultana** and D.A. Butterfield, "Oxidatively Modified GST and MRP1 in Alzheimer's Disease Brain: Implications for Accumulation of Reactive Lipid Peroxidation Products,"*Neurochemical Research* **29**, 2215-2220 (2004).

10. D. Boyd-Kimball, H. Mohmmad-Abdul, T. Reed, **R. Sultana**, and D.A. Butterfield, Roleof Phenylalanine 20 in Alzheimer's Amyloid β -Peptide (1-42)-Induced Oxidative Stress and Neurotoxicity," *Chem. Res. Toxicol.* **17**, 1743-1749 (2004).

11. **R. Sultana**, SR Bhupanapadu Sunkesula, V Sharma, P Reddanna, P.P Babu. Formation of acetaldehyde adducts of glutathione S-transferase A3 in the liver of rats administered alcohol chronically. Alcohol. 2005 Jan;35(1):57-66. doi: 10.1016/j.alcohol.2004.12.004. PMID: 15922138

12. **R. Sultana**, A. Ravagna, H. Mohmmad-Abdul, V. Calabrese, and D.A. Butterfield, "Ferulic Acid Ethyl Ester Protects Neurons Against Amyloid β -Peptide (1-42)-Induced Oxidative Stress and Neurotoxicity: Relationship to Antioxidant Activity," *J. Neurochemistry* **92**, 749-758 (2005)

13. D. Boyd-Kimball, **R. Sultana**, H. Mohammad-Abdul, and D.A. Butterfield, "γ-Glutamylcysteine Ethyl Ester Induced Upregulation of Glutathione Protects Neurons Against Aβ(1-42)-Mediated Oxidative Stress and Neurotoxicity: Implications for Alzheimer's Disease," *J. Neuroscience Res.* **79**, 700-706 (2005).

14. D. Boyd-Kimball, **R. Sultana**, H.F. Poon, H. Mohammad-Abdul, B.C. Lynn, J.B. Klein, and D.A. Butterfield, "γ-Glutamylcysteine Ethyl Ester Protection of Proteins From Aβ(1-42)-Mediated Oxidative Stress in Neuronal Cell Culture: A Proteomics Approach," *J. Neuroscience Res.* **79**, 707-713 (2005).

15. D. Boyd-Kimball, **R. Sultana**, H. Mohmmad-Abdul, and D.A. Butterfield, "Neurotoxicityand Oxidative Stress in D1M-Substituted Alzheimer's Aβ (1-42): Relevance to N- Terminal Methionine Chemistry in Small Model Peptides," *Peptides* **26**, 665-673 (2005).

16. G. Joshi, **R. Sultana**, M. Perluigi, and D.A. Butterfield, "*In Vivo* Protection of Synaptosomes From Oxidative Stress Mediated by Fe^{2+}/H_2O_2 or 2,2-Azobis (2-amidinopropane) dihydrochloride by the Glutathione Mimetic Tricyclodecan-9-yl-xanthogenate," *Free Radical Biology & Medicine* **38**, 1023-1031 (2005).

17. D. Boyd-Kimball, **R. Sultana**, H.F. Poon, B.C. Lynn, F. Casamenti, G. Pepeu, J.B. Klien, and D.A. Butterfield, "Proteomic Identification of Proteins Specifically Oxidized by Intracerebral Injection of Aβ (1-42) into Rat Brain: Implications for Alzheimer's Disease," *Neuroscience* **132**, 313-324 (2005).

18. D. Boyd-Kimball, A. Castegna, **R. Sultana**, H.F. Poon, R. Petroze, B.C. Lynn, J.B. Klein,and D.A. Butterfield, "Proteomic Identification of Proteins Oxidized by Aβ (1-42) in Synaptosomes: Implications for Alzheimer's Disease," *Brain Research* **1044**, 206-215 (2005).

19. C.B. Pocernich, **R. Sultana**, H. Mohmmad-Abdul, A. Nath, and D.A. Butterfield, "HIV-Dementia, Tat-Induced Oxidative Stress, and Antioxidant Therapeutic Considerations," *Brain Res. Rev.* **50**, 14-26 (2005).

20. G. Joshi, **R. Sultana**, J. Tangpong, M.P. Cole, D.K. St. Clair, M. Vore, S. Estus, and D.A. Butterfield, "Free Radical Mediated Oxidative Stress and Toxic Side Effects in Brain Induced by the Anti Cancer Drug Adriamycin: Insight into Chemobrain," *Free Radical Research* **39**, 1147-1154 (2005).

21. D.A. Butterfield, H.F. Poon, and **R. Sultana**, "Proteomic Identification of OxidativelyModified Proteins in Alzheimer's Disease Brain and Models Thereof: Insights

into Potential Mechanisms of Neurodegeneration," in *Oxidative Stress and Age-Related Neurodegeneration* (Y. Luo and L. Packer, Eds.), CRC Press/Taylor and Francis Publishers, Boca Raton, FL, pp. 1-25 (2006).

22. G. Joshi, M. Perluigi, **R. Sultana**, R. Agrippino, V. Calabrese, and D.A. Butterfield, "*In Vivo* Protection of Synaptosomes by Ferulic Acid Ethyl Ester (FAEE) From Oxidative Stress Mediated by 2,2-Azobis (2-Amidino-propoane) Dihyrochloride (AAPH) or Fe^{2+}/H_2O_2: Insight into Mechanisms of Neuroprotection and Relevance to Oxidative Stress-Related Neurodegenerative Disorders," *Neurochemistry International* **48**, 318-327 (2006).

23. H. Mohmmad-Abdul, **R. Sultana**, J.N. Keller, D.K. St. Clair, W.R. Markesbery, and D.A. Butterfield, "Mutations in Amyloid Precursor Protein and Presenilin-1 Genes Increase theBasal Oxidative Stress in Murine Neuronal Cells and Lead to Increased Sensitivity to Oxidative Stress Mediated by Amyloid □-Peptide (1-42), H_2O_2 and Kainic Acid: Implications for Alzheimer's Disease," *Journal of Neurochemistry* **96**, 1322-1335 (2006).

24. D.A. Butterfield, **R. Sultana**, and H.F. Poon, "Redox Proteomics: A New Approach to Investigate Oxidative Stress in Alzheimer's Disease," in *Redox Proteomics: From Protein Modifications to Cellular Dysfunction and Diseases*, (I. Dalle-Donne, A. Scaloni and D.A. Butterfield, Eds.), Wiley Press, New York, pp. 563-603 (2006).

25. O. Bartov, **R. Sultana**, D.A. Butterfield, and D. Atlas, "Low Molecular Weight ThiolAmides Attenuate MAPK Activity and Protect Primary Neurons From Aβ(1-42) Toxicity," *Brain Research* **1069**, 198-206 (2006).

26. D.A. Butterfield, T. Reed, M. Perluigi, C. De Marco, R. Coccia, C. Cini, and **R. Sultana**, "Elevated Protein-Bound Levels of the Lipid Peroxidation Product, 4-Hydroxy-2-Nonenal,in Brain From Persons with Mild Cognitive Impairment," *Neuroscience Letts.* **397**, 170- 173 (2006).

27. M. Perluigi, G. Joshi, **R. Sultana**, V. Calabrese, C. De Marco, R. Coccia, and D.A. Butterfield, "*In Vivo* Protection by the Xanthate Tricyclodecan-9-YL-Xanthogenate Against Amyloid β-Peptide (1-42)-Induced Oxidative Stress: Implications for Alzheimer's Disease," *Neuroscience* **138**, 1161-1170 (2006).

28. **R. Sultana**, D. Boyd-Kimball, H.F. Poon, J. Cai, W.M. Pierce, J.B. Klein, W.R. Markesbery, and D.A. Butterfield, "Identification of Nitrated Proteins in Alzheimer's Disease Brain Using a Redox Proteomics Approach," *Neurobiology of Disease* **22**, 76-87(2006).

29. **R. Sultana**, M. Perluigi, and D.A. Butterfield, "Redox Proteomics Identification of Oxidatively Modified Proteins in Alzheimer's Disease Brain and *In Vivo* and *In Vitro* Models of AD Centered Around A β (1-42)," *J. Chromatogr. B Anaylt. Technol. Biomed. Life Sci.* **833**, 3-11 (2006).

30. V. Calabrese, C. Colombrita **R. Sultana**, G. Scapagnini, M. Calvani, and D.A. Butterfield,"Redox Modulation of Heat Shock Protein Expression by Acetylcarnitine in Aging Brain: Relationship to Antioxidant Status and Mitochondrial Function," *Antioxidants and Redox Signaling* **8**, 404-416 (2006).

31. **R. Sultana**, D. Boyd-Kimball, H.F. Poon, J. Cai, W.M. Pierce, J.B. Klein, W.R.

Markesbery, X.Z. Zhou, K P. Lu, and D.A. Butterfield, "Oxidative Modification and Down-Regulation of Pin 1 in Alzheimer's Disease Hippocampus: A Redox ProteomicsAnalysis," *Neurobiology of Aging* **27**, 918-925 (2006).

32. J. Tangpong, M.P. Cole, **R. Sultana**, G. Joshi, S. Estus, M. Vore, W. St. Clair, S. Ratanachaiyavong, D. St. Clair, and D.A. Butterfield, "Adriamycin-Induced, TNF-α-Mediated Central Nervous System Toxicity," *Neurobiology of Disease* **23**, 127-139 (2006).

33. **R. Sultana**, S.F. Newman, H. Mohmmad-Abdul, J. Cai, W.M. Pierce, J.B. Klein, M. Merchant, and D.A. Butterfield, "Protective Effect of D609 Against A β (1-42)-Induced Oxidative Modification of Neuronal Proteins: Redox Proteomics Study," *J. Neuroscience Res.* **84**, 409-417 (2006).

34. M. Perluigi, G. Joshi, **R. Sultana**, V. Calabrese, C. De Marco, R. Coccia, C. Cini, and D.A. Butterfield, "*In Vivo* Protective Effects of Ferulic Acid Ethyl Ester Against Amyloid β -Peptide (1-42)-Induced Oxidative Stress," *J. Neuroscience Res.* **84**, 418-426 (2006).

35. D.A. Butterfield and **R. Sultana**, "Redox Proteomics Analysis of Oxidatively Modified Brain Proteins in Alzheimer's Disease," in *Proteomics of Neurodegenerative Disease*, T. J. Montine, Ed., Transworld Research Network Publishers, Trivandrum, India, pp. 95-113 (2006).

36. D.A. Butterfield, M. Perluigi, and **R. Sultana**, "Oxidative Stress in Alzheimer's DiseaseBrain: New Insights From Redox Proteomics," *Eur. J. Pharmacol.* **545**, 39-50 (2006).

37. D.A. Butterfield, H. Mohmmad Abdul, W. Opii, S.F. Newman, G. Joshi, M.A. Ansari, and **R. Sultana**, "Pin 1 in Alzheimer's Disease," *Journal of Neurochemistry* **98**, 1697-1706 (2006).

38. V. Calabrese, **R. Sultana**, G. Scapagnini, E. Guagliano, M. Sapienza, R. Bella, J. Kanski, G. Pennisi, C. Mancuso, A.M. Giuffrida Stella, and D.A. Butterfield, "Nitrosative Stress, Cellular Stress Response, and Thiol Homeostasis in Patients with Alzheimer's Disease," *Antioxidants and Redox Signaling* **8**, 1975-1986 (2006).

39. **R. Sultana**, M. Perluigi, and D.A. Butterfield, "Protein Oxidation and Lipid Peroxidationin Brain of Subjects with Alzheimer's Disease: Insights into Mechanism of Neurodegeneration From Redox Proteomics," *Antioxidants and Redox Signaling* **8**, 2021-2037 (2006).

40. **R. Sultana**, D. Boyd-Kimball, H.F. Poon, J. Cai, W.M. Pierce, J.B. Klein, M. Merchant, W.R. Markesbery, and D.A. Butterfield, "Redox Proteomics Identification of Oxidized Proteins in Alzheimer's Disease Hippocampus and Cerebellum: An Approach to Understand Pathological and Biochemical Alterations in AD," *Neurobiology of Aging* **27**, 1564-1576 (2006).

41. M.A. Ansari, G. Joshi, Q. Huang, W.O. Opii, H. Mohmmad Abdul, **R. Sultana**, and D.A. Butterfield, "*In Vivo* Administration of D609 Leads to Protection of Subsequently Isolated Gerbil Brain Mitochondria Subjected to *In Vitro* Oxidative Stress Induced by Amyloid Beta-Peptide and Other Oxidative Stressors: Relevance to Alzheimer's Disease and Other

Oxidative Stress-Related Neurodegenerative Disorders," *Free Radial Biology &Medicine* **41**, 1694-1703 (2006).

42. P. Jungsuwadee, M.P. Cole, **R. Sultana**, G. Joshi, J. Tanpong, D.A. Butterfield, D.K. St.Clair, and M. Vore, "Increase in Mrp1 Expression and 4-Hydroxy-2-Nonenal Adduction in Heart Tissue of Adriamycin-Treated C57BL/6 Mice," *Molecular Cancer Therapeutics* **5**, 2851-60. (2006).

43. J. Tangpong, M.P. Cole, **R. Sultana**, S. Estus, M. Vore, W. St. Clair, S. Ratanachaiyavong, D.K. St. Clair, and D.A. Butterfield, "Adriamycin-Mediated Nitrationof Manganese Superoxide Dismutase in the Central Nervous System: Insight into the Mechanism of Chemobrain," *Journal of Neurochemistry* **100**, 191-201 (2007).

44. G. Joshi, S. Hardas, **R. Sultana**, M. Vore, D. St. Clair, and D.A. Butterfield, "GlutathioneElevation by Gamma-Glutamylcysteine Ethyl Ester as a Potential Therapeutic Strategy Towards Preventing Oxidative Stress in Brain Mediated by *In Vivo* Administration of Adriamycin: Implications for Chemobrain," *Journal of Neuroscience Research* **85**, 497-503 (2007).

45. W.O. Opii, **R. Sultana**, H. Mohmmad Abdul, M. Ansari, A. Nath, and D.A. Butterfield, "Oxidative Stress and Toxicity Induced by the Nucleoside Reverse Transcriptase Inhibitor (NRTI) - 2',3'-Dideoxycytidine (ddC): Relevance to HIV Dementia," *Experimental Neurology* **204**, 29-38 (2007).

46. C.F. Mello, M.A. Rubin, **R. Sultana**, S. Barron, J.M. Littleton, and D.A. Butterfield, "Difluoromethylornithine (DFMO) Decreases Long-Lasting Protein Oxidation Induced by Neonatal Ethanol Exposure in the Hippocampus of Rats," *Alcoholism: Clinical and Experimental Research* **31**, 887-894 (2007).

47. D.A. Butterfield, T. Reed, M. Perluigi, Carlo De Marco, Raffaella Coccia, J.N. Keller, W.R. Markesbery, and **R. Sultana**, "Elevated Levels of 3-Nitrotyrosine in Brain From Subjects with Amnestic Mild Cognitive Impairment: Implications for the Role of Nitrationin the Progression of Alzheimer's Disease," *Brain Res.* **1148**, 243-248 (2007).

48. S. Newman, **R. Sultana**, M. Perluigi, R. Coccina, J. Cai, W. Pierce, J. Klein, and D.A. Butterfield, "An Increase in S-Glutathionylated Proteins in the Alzheimer's Disease Inferior Parietal Lobule, a Proteomics Approach," *J Neurosci. Res*. **85**, 1506-1514 (2007).

49. **R. Sultana** and D.A. Butterfield, "Regional Expression of Key Cell Cycle Proteins inBrain From Subjects with Amnestic Mild Cognitive Impairment," *Neurochemical Research* **32**, 655-662 (2007).

50. **R. Sultana**, D. Boyd-Kimball, J. Cai, W.M. Pierce, J.B. Klein, M. Merchant, and D.A. Butterfield, "Proteomics Analysis of the Alzheimer's Disease Hippocampal Proteome,"*Journal of Alzheimer's Disease* **11**, 153-164 (2007).

51. W. Opii, V. Nukala, **R. Sultana**, J. Pandya, K. Day, M. Merchant, J. Klein, P. Sullivan,and D.A. Butterfield, "Proteomic Identification of Oxidized Mitochondrial Proteins Following Experimental Brain Injury," *Journal of Neurotrauma* **24**, 772-789 (2007).

52. **R. Sultana** and D.A. Butterfield, "Redox Proteomics Analysis of Oxidatively Modified Brain Proteins in Alzheimer's Disease and Mild Cognitive Impairment: Insights into theProgression of this Dementing Disorder," in *Clinical Proteomics: From Diagnosis to Therapy*, J. Van Eyk and M. Dunn, Eds., Wiley VCH Publishers, Weinheim, 381-401 (2007).

53. C.F. Mello, **R. Sultana**, M. Piroddi, J. Cai, W.M. Pierce, J.B. Klein, and D.A. Butterfield,"Acrolein Induces Selective Protein Carbonylation in Synaptosomes," *Neuroscience* **147**, 674-679 (2007).

54. D.A. Butterfield, T. Reed, S. F. Newman, and **R. Sultana**, "Roles of Amyloid β-Peptide-Associated Oxidative Stress and Brain Protein Modifications in the Pathogenesis of Alzheimer's Disease and Mild Cognitive Impairment," *Free Radical Biology & Medicine***43**, 658-677 (2007). PMCID: 2031860.

55. **R. Sultana**, T. Reed, M. Perluigi, R. Coccia, W.M. Pierce, and D.A. Butterfield, "Proteomic Identification of Nitrated Brain Proteins in Amnestic Mild CognitiveImpairment: A Regional Study," *J. Cell. Molec. Med.* **11**, 839-851 (2007).

56. D.A. Butterfield and **R. Sultana**, "Redox Proteomics Identification of Oxidatively Modified Brain Proteins in Alzheimer's Disease and Mild Cognitive Impairment: Insightsinto the Progression of this Dementing Disorder," *Journal of Alzheimer's Disease* **12**, 61-72 (2007).

57. D.A. Butterfield and **R. Sultana**, "Proteomics Analysis in Alzheimer's Disease: New Insights into Mechanisms of Neurodegeneration," *Handbook of Neurochemistry and Molecular Neurobiology*, *3rd Edition*: *Degenerative Diseases of the Nervous System*, A. Lajtha, Ed., and M.B.H. Youdim, P. Riederer, S.A. Mandel, and L. Battistin, Volume Eds., Springer, New York, pps. 233-252 (2007).

58. **R. Sultana** and D.A. Butterfield, "Alterations of Some Membrane Transport Proteins inAlzheimer's Disease: Role of Amyloid Beta-Peptide," *Molecular BioSystems* **4**, 36-41 (2008). PMID: 18075672.

59. D.A. Butterfield and **R. Sultana**, "Identification of 3-Nitrotyrosine-Modified Brain Proteins by Redox Proteomics," *Methods of Enzymology* **440**, 295-308 (2008). PMID: 18423226.

60. **R. Sultana** and D.A. Butterfield, "Slot Blot Analysis of 3-Nitrotyrosine-Modified BrainProteins," *Methods of Enzymology* **440**, 309-316 (2008). PMID: 18423227.

61. **R. Sultana**, T. Reed, and D.A. Butterfield, "Redox Proteomics and Metabolic Proteins inBrain of Subjects with Alzheimer's Disease, Mild Cognitive Impairment, and Models Thereof," in *Neural Degeneration and Repair Gene Expression Profiling, Proteomics, Glycomics and Systems Biology*, H.W. Muller, Ed., Wiley/VCH Publishers, Heidelberg, pps. 181-207 (2008).

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135. D.A. Butterfield**,** A. Swomley, and **R. Sultana**, "Amyloid β-Peptide 1-42-inducedOxidative Stress in Alzheimer Disease: Importance in Disease Pathogenesis and Progression," *Antioxidant Redox Signal* **19**, 823-835 (2013). PMCID: 3749710.

136. **R. Sultana**, M. Baglioni, R. Cecchetti, J. Cai, J.B. Klein, P. Bastiani, C. Ruggiero, P. Mecocci, and D.A. Butterfield, "Lymphocyte Mitochondria: Toward Identification ofPeripheral Biomarkers in Progression of Alzheimer Disease," *Free Radical Biology &Medicine* **65**, 595-606 (2013). PMCID: 3849349.

137. **R. Sultana**, G. Cenini, and D.A. Butterfield, "Biomarkers of Oxidative Stress in Neurodegenerative Diseases," in *Molecular Basis of Oxidative Stress: Chemistry, Mechanisms, and Disease Pathogenesis*, F.A. Villamena, Editor, John Wiley & Sons, Inc., Hoboken, New Jersey, pps. 359-376 (2013).

138. **R. Sultana**, A.M. Swomley, and D.A. Butterfield, "Brain Oxidative Stress in the Pathogenesis and Progression of Alzheimer Disease," in *Studies on Alzheimer's Disease,* D. Pratico and P. Mecocci, Eds., Humana Press/Springer, New York, pp. 99-118 (2013).

139. V. Makani, **R. Sultana**, K. Sie, D. Orjiako, M. Tat, A. Dowling, J. Cai, WM Pierce, D.A. Butterfield, J.W. Hill, and J. Park, "Annexin A1 Complex Mediates Oxytocin Vesicle Transport" *Journal of Neuroendocrinology* **25**, 1241-1254 (2013). PMCID: 3975805.

140. **R. Sultana** and D.A. Butterfield, "Oxidative Modification of Brain Proteins in AlzheimerDisease: Prespective on Future Studies Based on Results of Redox Proteomics Studies," *Journal of Alzheimer's Disease* **33**, S243-S251 (2013). PMID: 22683528.

141. S.A. Farr, J.L. Ripley, **R. Sultana**, Z. Zhang, M.L. Niehoff, T.L. Platt, M.P. Murphy, J.E. Morley, V. Kumar, and D.A. Butterfield, "Antisense Oligonucleotide Against GSK-3β in

Brain of SAMP8 Mice Improves Learning and Memory and Decreases Oxidative Stress: Involvement of Transcription Factor Nrf2 and Implications for Alzheimer Disease," *Free Radical Biology and Medicine* **67**, 387-395 (2014). PMCID: 3945161.

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143. Y. Zhao, S. Miriyala, L. Miao, M. Mitov, D. Schnell, S. Dhar, J. Cai, J.B. Klein, **R. Sultana**, D.A. Butterfield, M. Vore, S. Bondada, and D.K. St. Clair, "Redox Proteomic Identification of HNE-bound Mitochondrial Proteins in Cardiac Tissues Reveals a Systemic Effect on Energy Metabolism after Doxorubicin Treatment," *Free Radical Biology & Medicine* **72**, 55-65 (2014). PMCID: 4053505.

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146. U.M. Graham, M.T. Tseng, J.B. Jasinski, R.A. Yokel, J.M. Unrine, B.H. Davis, A.K. Dozier, S.S. Hardas, **R. Sultana**, E.A. Grulke, and D.A. Butterfield, "In Vivo Processingof Ceria Nanoparticles Inside Liver: Impact on Free Radical Scavenging Activity and Oxidative Stress," *ChemPlusChem* **79**, 1083-1089 (2014). PMCID: PMC4551665.

147. S.S. Hardas, **R. Sultana**, G. Warrier, M. Dan, P. Wu, E. Grulke, M. Tseng, J. Unrine, U.Graham, R. Yokel, and D.A. Butterfield, "Rat Hippocampal Responses Up to 90 Days after a Single Nanoceria Dose Extends a Hierarchical Oxidative Stress Model for Nanoparticle Toxicity," *Nanotoxicology* **81**, 155-166 (2014). PMID: 24350865.

148. G. Cenini, A. Fiorini, **R. Sultana**, M. Perluigi, J. Cai, J.B. Klein, E. Head, and D.A. Butterfield, "An Investigation of the Molecular Mechanisms Engaged Before and Afterthe Development of Alzheimer Disease Neuropathology in Down Syndrome: A Proteomics Approach," *Free Radical Biology & Medicine* **76**, 89-95 (2014). PMCID: 4252833.

149. Triplett, Z. Zhang, **R. Sultana**, J. Cai, J. Klein, H. Büeler, and D.A. Butterfield, "Quantitative Expression Proteomics and Phosphoproteomics Profiles of Brain from PINK1 Knockout Mice: Insights into Mechanisms of Familial Parkinson Disease," *J Neurochem* **133**, 750-765 (2015). PMID: 25626353.

150. Hayslip, E.V. Dressler, H. Weiss, T.J. Taylor, M. Chambers T. Noel, S. Miriyala, J.T.R.Keeney, X. Ren, **R. Sultana**, M. Vore, D.A. Butterfield, D. St. Clair, and J.A. Moscow, "Plasma TNF-a and Soluble TNF Receptor Levels after Doxorubicin with or without Co- administration of Mesna—A Randomized Cross-over Clinical Study," *PLoS One* **10**, e124988 (2015). PMCID: PMC4409356.

151. C.–H. Chen, W. Li, **R. Sultana**, M.-H. You, A. Kondo, K. Shahpasand, B.M. Kim, M. Luo, M. Nechama, Y.-M. Lin, Y. Yao, T.H. Lee, X.Z. Zhou, A.M. Swomley, D.A. Butterfield, Y. Zhang, and K.P. Lu, "Pin 1 Cysteine-113 Oxidative Inhibits Its Catalytic Activity and Cellular Function in Alzheimer's Disease," *Neurobiology of Disease* **76**, 13-23 (2015). PMCID: 4423621.

152. J.T.R. Keeney, X. Ren, G. Warrier, T. Noel, D.K. Powell, J.M. Brelsfoard, **R. Sultana**, K.E. Saatman, D.K. St. Clair, and D.A. Butterfield, **"**Doxorubicin-induced ElevatedOxidative Stress and Neurochemical Alterations in Brain and Cognitive Decline: Protection by MESNA and Insights into Mechanisms of Chemotherapy-induced Cognitive Impairment ("Chemobrain")," *Oncotarget* **9**, 30324-30339 (2018). PMCID: PMC6084398

153. Pohlkamp T, Xiao L, **Sultana, R**., Bepari A, Bock HH, Henkemeyer M, Herz J. Ephrin Bs and canonical Reelin signaling. **Nature**. 2016 Nov 24; 539(7630).

154. D.A. Butterfield, M. Bing, Q. Peng, S. Hardas, J. Unrine, E. Grulke, U. Graham, M. Tseng, J. Cai, J.B. Klein, D. Pears, R.A. Yokel, and **R. Sultana**, "Identification of Serumor Plasma Proteins Bound to Nanoceria Using a Proteomics Approach: Insights into Potential Pathways by which Ceria NPs May Exert Beneficial or Deleterious Effects *in vivo*," Journal of Nanomedicine and Nanotechnology. (July 2020). 11:545 doi: 10.35248/2157-7439.19.11.545.

Invited Chapters, Reviews, Responses and Special Topics Issues

1. **Sultana R**, G. Cenini, and D.A. Butterfield, "SAMP8: A Model to Understand the Role of Oxidative Stress in Age-Related Diseases Including Alzheimer's Disease," in The Senescence Accelerated Mouse (SAM): Achievements and Future Directions, (T. Takeda, Ed.), SAM Foundation Press, Tokyo, in press (2011).

2. Aluise C.D, **Sultana R,** Tangpong J, Vore M, Clair D.S, Moscow J.A, Butterfield D.A, "Chemobrain (Chemofog) as a Potential Side Effect of Doxorubicin Administration: Role of Cytokine-Induced, Oxidative/Nitrosative Stress in Cognitive Dysfunction" **Chemofog: Cancer Chemotherapy-Induced Cognitive Deficits** In Press, 2011.

3. **Sultana R**, D.A. Butterfield**, "**Brain protein oxidation and modification for good or for bad in Alzheimer's disease**"** in *Advances in Neurobiology* **1**, 585-605 (2011).

4. **Sultana R**, Newman SN, and D.A. Butterfield**,** "Redox Proteomics: Applications to Age-related Neurodegenerative Disorders" in **Neuroproteomics**, in press (2011).

5. D.A. Butterfield and **Sultana R**. Proteomics Identification of Carbonylated and HNE-Bound Brain Proteins in Alzheimer's Disease, in *Neuroproteomics Methods in Molecular Biology* 566, 123-135 (2009).

6. **Sultana R**, T. Reed, and D.A. Butterfield**, "**Detection of Carbonylated Proteins in 2D SDS-PAGE," in ***Two Dimensional Electrophoresis Protocols*** (D. Sheehan and R. Tyther, Eds.), Humana Press, Totowa, NJ, in press (2011).

7. **Sultana R**, T. Reed and D. A. Butterfield, "Redox Proteomics and Metabolic Proteins in Brain of Subjects with Alzheimer's Disease, Mild Cognitive Impairment, and Models Thereof," in ***Neural Degeneration and Repair Gene Expression Profiling, Proteomics, Glycomics and Systems Biology*****,** H.W. Muller, Ed., Wiley/VCH Publishers, Heidelberg, 181-207 (2008).

8. **Sultana R**, H. F. Poon and D. A. Butterfield**,** "Redox Proteomics Identification of Oxidatively Modified Proteins in Alzheimer's Disease Brain and in Brain from a Rodent Model of Familial Parkinson's Disease," in *Adv. Behav. Biol.* **57**, 149-167 (2008).

9. **Sultana R.** and D. A. Butterfield, "Redox Proteomics Analysis of Oxidatively Modified Brain Proteins in Alzheimer's Disease and Mild Cognitive Impairment: Insights into the Progression of this Dementing Disorder," in ***Clinical Proteomics: From Diagnosis to Therapy***, J. Van Eyk and M. Dunn, Eds., Wiley VCH Publishers, Weinheim, 379-399, 2007.

10. Butterfield D.A., and **Sultana R.**, "Redox Proteomics Analysis of Oxidatively Modified Brain Proteins in Alzheimer's Disease," in ***Proteomics of Neurodegenerative Disease***, T. J. Montine, Ed., Transworld Research Network Publishers, Trivandrum, India, 2006, pp. 95-113.

11. Butterfield D.A., **Sultana R.** and H. F. Poon, "Redox Proteomics: A New Approach to Investigate Oxidative Stress in Alzheimer's Disease," in **Redox Proteomics: From Protein Modifications to Cellular Dysfunction and Diseases** , (I. Dalle-Donne, A. Scaloni, and D. A. Butterfield, Eds.), Wiley Press, New York, 2006, pp. 563-603.

12. Butterfield D.A. , H. F. Poon and **Sultana R.** "Proteomic Identification of Oxidatively Modified Proteins in Alzheimer's Disease Brain and Models Thereof: Insights into Potential Mechanisms of Neurodegeneration," **in Oxidative Stress and Age-Related Neurodegeneration** , (Y. Luo and L. Packer, Eds.), CRC Press/Taylor and Francis Publishers, Boca Raton, FL, 2006, pp. 1-25

Scientific Addresses and Abstracts

1. **Sultana, R**., "Role of CRMP2 in the progression and pathogenesis of Alzheimer's disease" Invited oral Presentation at the ASN conference, March 3-7, 2012. (**Invited speaker**).

2. **Sultana, R**., Perluigi M., William Pierce., Butterfield. Redox proteomic analysis of oxidatively modified brain proteins in Mild cognitive impairment: Role oxidative Stress in The Pathogenesis of Alzheimer's Disease Presented at Society for Neuroscience, Oct 15-21, 2009, Chicago, USA.

3. Yokel, R.A., Florence, R.L., Tseng, M.T., Graham, U.M., **Sultana, R**., Butterfield, D.A., Wu, P., Grulke, E. A. Ceria nanoparticle neurotoxicity assessment. Presented at the Nanotoxicology 2007 Conference, April 19-21, 2007, Venice, Italy.

4. Yokel, R.A., Florence, R.L., Tseng, M.T., Graham, U.M., **Sultana, R**., Butterfield, D.A., Wu, P., Grulke, E. A. Neurotoxicity assessment of systemic ceria nanoparticles.

Presented at the 11th International Neurotoxicology Association Meeting, June 10-15, 2007, Pacific Grove, CA.

5. Tseng, M.T., Florence, R.L., Graham, U.M., **Sultana, R.**, Butterfield, D.A., Calabrese, V., Wu, P., Grulke, E.A. Yokel, R.A., Toxicological assessment of vascular infused ceria nanoparticle in rat. Presented at the 2nd International Congress of Nanobiotechnology and Nanomedicine, June 18-21, 2007, San Francisco, CA.

6. Yokel, R.A., Florence, R.L., Tseng, M.T., **Sultana, R**., Butterfield, D.A., Calabrese, V., Wu, P., Grulke, E.A. Neurotoxicity assessment of ceria nanoparticles. Presented at the 16th International Symposium on Microencapsulation, September, 9-12, 2007, Lexington, KY.

7. Yokel, R.A., Florence, R.L., Tseng, M.T., Graham, U.M., **Sultana, R**., Butterfield, D.A., Wu, P., Grulke, E.A. Systemic ceria nanoparticles and blood-brain barrier integrity. Presented at the 14th Annual Blood-Brain Barrier Consortium Meeting, March 12-15, 2008, Stevenson, WA.

8. Yokel, R.A., Florence, R.L., Tseng, M.T., Graham, U.M., **Sultana, R.**, Butterfield, D.A., Wu, P., Grulke, E.A. Toxicity assessment of systemically-introduced ceria engineered nanomaterial. Presented at KYNANOMAT 2008, March 16-18, 2008, Louisville, KY.

9. Yokel, R.A., Florence, R.L., Tseng, M.T., Graham, U.M., **Sultana, R.**, Butterfield, D.A., Wu, P., Grulke, E.A. Biodistribution and toxicity assessment of systemic ceria nanoparticles, to be presented at the U.S. Thai Consortium Meeting, July 15-18, 2008, Madison, WI.

10. Yokel, R.A., Florence, R.L., Tseng, M.T., Graham, U.M., **Sultana, R**., Butterfield, D.A., Wu, P., Grulke, E.A. Biodistribution and toxicity of systemically-introduced nanoscale ceria, abstract accepted for presentation at Nanotoxicology – 2nd International Conference, September 7-10, 2008, Zurich, Switzerland.

11. Poster presentation at the Society of Neurosciences entitled “Protective effect of FAEE on β-Amyloidinduced oxidative stress in neuronal cells “ held at San Diego-USA (Oct, 2004).

12. Poster presentation at Society for Free Radical Biology and Medicine entitled “ Methionine is critical to Amyloid β (1-42)-mediated toxicity in primary neuronal cell cultures” (Nov, 2003).

13. Poster presentation at the Society of Neurosciences entitled “Protective effect of D609 on β-Amyloidinduced oxidative stress in neuronal cells “ held at New Orleans-USA (Nov 7-14,2003).

14. Given an Oral Presentation at the 9th South Asian Pacific Congress of Clinical Biochemistry entitled “ Alterations in NR2A expression and phosphorylation upon chronic ethanol administration and restoration by aqueous extract of *phyllanthus fraternus*” held at Ashoka hotel- New Delhi-India. (March9-14, 2002)

15. Presented a poster at the 9th South Asian Pacific Congress of Clinical Biochemistry entitled " Alterations in NR2A expression and phosphorylation upon chronic ethanol administration and restoration by aqueous extract of *phyllanthus fraternus*" held at Ashoka hotel- New Delhi-India. (March 9-14, 2002).

16. Presented a poster at the Indo-US symposium entitled " Protective effect of *phyllanthus fraternus* against alcohol induced cognitive impairment", organized by NBRC at INSA, New Delhi-India. (Jan 10-12, 2002) Presented a poster at International conference of Neuroscience entitled "Protective role of *phyllanthus fraternus* on brain GST's upon chronic ethanol exposure", organized by NBRC at INSA, New Delhi-India. (Oct 1-3, 1999)

17. Presented a poster at the ITREID-1999 workshop entitled "Purification and partial characterization of infected RBC membrane glycoproteins during plasmodium berghi infection." New Delhi, India. (Dec 1999).

18. Presented a poster at International conference on Life sciences in the next millennium, entitled "Protective role of *phyllanthus fraternus* on plasma membrane proteins upon chronic ethanol exposure in rat cerebellum", organized by University of Hyderabad, India. (Dec 11-14, 1999).Presented a poster at 70th Annual meeting of society of Biological Chemist (India) entitled "Induction of mu-class of GST upon alcohol exposure in rat liver", held at Department of Biochemistry, Osmania University, Hyderabad, India. (Dec 27-29, 2001).

19. Attended a second-hand workshop on "FISH Applications in cancer diagnosis", organized by Mahavir Hospital, Hyderabad, Vysis, U.K. Darbara singh and Sons, New Delhi, India. (June 1998).

Students/faculty Mentored

Research Assistants

1. Amy Clark, Department of Chemistry, University of Kentucky- June 2012- June 2013. Earned an MD degree from the University of Louisville.
2. Govind Warrier, Department of Chemistry, University of Kentucky 395, Jan 2012-June 2013- Earned an MD degree from the University of Louisville.

Undergraduate students

1. Revant Gattamaraju: Collegium V Honors Capstone Project supervisor. Honors Capstone project entitled "Solutions to Alzheimers: Microglial amyloid phagocytosis. (Fall 2022)
2. Yasir Mian Honor thesis (second reader)- University of Texas at Dallas. (Spring 2022).
3. Ruchita Mahesh Kumar - Honor thesis (second reader)- University of Texas at Dallas. (Fall 2021)
4. Alex Collin- Externship in Neuroscience- University of Texas at Dallas. (Fall 2018)
5. Nazia Ejaz Ahmed, Honor thesis (second reader)- University of Texas at Dallas. (2019)
6. Michelia Dunn, Department of Chemistry, University of Kentucky, 395 Research credit, 2008-2009-Earned a doctorate from the University of Cincinnati, Ohio.
7. Nicole Scheff , Department of Chemistry, University of Kentucky, 395 Research credit, 2008-2009- Earned a doctorate from the University of Pittsburg

8. Georgianne Tu, Department of Chemistry, University of Kentucky, 395 Research credit, 2008-2009-Earned a doctorate from the University of Cincinatti.
9. Yuyun Rahmasari, Department of Chemistry, University of Kentucky, 395 Research credit, 2009-2010- Earned a doctorate from the University of Kentucky.
10. Michael Goodman, Department of Chemistry, University of Kentucky, 395 Research credit, 2009-2011- Earned a doctorate from the Vanderbilt.
11. Sudipa Chowdhary, Department of Chemistry, University of Kentucky, 395 Research credit, 2010-2013, Earned an MD degree from the University of Louisville.
12. Govind Warrier, Department of Chemistry, University of Kentucky 395 Research credit, Jan 2010-Jan 2012- Earned an MD degree from the University of Louisville.
13. Austin Baker-395 Research credit, undergraduate student – Jan 2010-June 2012- Earned a doctorate from the University of Pittsburg.
14. Andrew Welleford, Research Assistant- April 2012-2013. Earned a doctorate from the Univ. of Kentucky.

Masters/Doctoral Students

1. Namrata Das Ph.D Student- University of Texas at Dallas (2018-2021) (Doctoral committee members).
2. Harris, Jessica Ph.D. Student – Department of Chemistry, University of Kentucky – 2010-June 2013
3. Zhaoshu Zhang-Department of Chemistry, University of Kentucky – 2011- August 2013 Doctorate students (PhD)
4. Wycliff Opii- Department of Chemistry, UK- 2003-2006
5. Gururaj Joshi- Department of Chemistry, UK- 2003-2006
6. Tanea Reed- Department of Chemistry, UK- 2004-2007-Currently Assistant professor at Eastern Kentucky University.
7. Shelley F. Newman- Department of Chemistry, UK- 2004-2007.
8. Miranda Lange- Ph.D. Student – Department of Chemistry, UK – 2006-2010.
9. Joshua Owen– Ph.D. Student – Department of Chemistry, UK – 2006-2010-Currently teaching facultyGeneral Chemistry at University of Kentucky.
10. Christopher Aluise- Ph.D. Student – Department of Chemistry, UK – 2006-2010.
11. Sarita Hardas- Ph.D. Student – Department of Chemistry, UK – 2006-2012.
12. Keeney, Jeriel T- Ph.D. Student – Department of Chemistry, University of Kentucky – 2009-August 2013
13. Swomley, Aaron M - Ph.D. Student – Department of Chemistry, University of Kentucky – 2010- August 2013
14. Judy Triplett, Ph.D. Student – Department of Chemistry, University of Kentucky – 2011-August 2013

Visiting Doctorate Students

1. Marta Pirrodi- Visiting Ph.D. Student- Department of Internal Medicine, Section of Applied Biochemistry, University of Perugia, Perugia, Italy-2005-2006. Currently postdoctoral scholar at University of Perugia
2. Giovanna Cenini- Visiting Ph.D. Student- Department of Biomedical Sciences and Biotechnologies, University of Brescia, Viale Europa 11, Brescia, 25124, Italy- 2006-2007-Currently postdoctoral scholar at University of Bonn, Germany.
3. Fabio Di Domenico, Visiting Ph.D. Student- Department of Biochemical Sciences, University of Rome “La Sapienza”, Rome, Italy 2006-2007. Currently Instructor at University of Rome “La Sapienza

4. Eugenio Barone, Visiting Ph.D. Student- Institute of Pharmacology, Catholic University School of Medicine, Roma, Italy. 2009-2010.
5. Ada Fiorini, Visiting Ph.D. Student- Department of Biochemical Sciences, University of Rome "La Sapienza", 00185 Rome, Italy 2011-2011
6. Sarah Foster- visiting Ph.D. Student from Univ. of Bonn, Germany- March 2012- August 2013

Postdoctoral scholars

1. Mohammed Abdul Hafiz- University of Kentucky-2004-2011. Currently working at Proteosis Therapeutics, Inc, Boston.
2. Mohammed Mubeen Ansari- University of Kentucky-2005-2006.
3. Marzia Perluigi- Department of Biochemical Sciences, University of Rome "La Sapienza", Rome, Italy 2006-2007. Currently Instructor at University of Rome "La Sapienza.
4. Rena Sowell- Department of Chemistry, UK – 2007-2009- Associate Professor, Vanderbilt University
5. Giovanna Cenini- Postdoctoral student- Department of Chemistry, UK – 2009-2011.
6. Michael Mihail- Research Associate- Department of Chemistry, UK – 2011- August 2013

Visiting Faculty

1. Dr. Carlos Fernandez Mello, Visiting faculty, Departamento de Fisiologia e Farmacologia, Universidade. Federal de Santa Maria, Santa Maria, RS 97105-900, Brazil– 2005-2006

Manuscript Reviewed for:

- Journal of Alzheimer's disease
- Brain Research
- BMC Medical Genomics
- BMC Neuroscience
- Expert Review of Proteomics
- Journal of Neuroscience
- Neurobiology of Aging

Grant Reviewed for:

- Wellcome Foundation
- Alzheimer's Association
- Austrian Science Fund (FWF)