Julie K. Andersen, Ph.D.

Professor
Buck Institute for Age Research
Novato, CA 94945

Laboratory Address
8001 Redwood Blvd
Novato, CA 94945
(415) 209-2070
jandersen@buckinstitute.org

PROFESSIONAL EXPERIENCE

1981-1983	**Undergraduate Technician**, W.S.U. Institute of Biological Chemistry, Pullman, WA (Clarence R. Ryan, Ph.D., NAS member).
1983-1984	**Intern**, University of Washington science intern program, Batelle Northwest Laboratories, Richland, WA (James Morris, Ph.D.).
1984	**Technician**, Department of Virology and Immunology, W.S.U. School of Veterinary Medicine, Pullman, WA (Tilahun Yilma, M.D., D.V.M.).
1984-1989	**Research Assistant**, Department of Biological Chemistry, UCLA School of Medicine, Los Angeles, CA (Bruce D. Howard, Ph.D.).
1989-1993	**Postdoctoral Fellow**, Molecular Neurogenetics Unit, Neurology Service, Massachusetts General Hospital East, and Neuroscience Program, Harvard Medical School, Boston, MA (Xandra O. Breakefield, Ph.D.).
1993-1999	**Assistant Professor**, Biogerontology Division, Andrus Gerontology Center, University of Southern California, Los Angeles, CA.
1999-2000	**Associate Professor**, Biogerontology Division, Andrus Gerontology Center, University of Southern California, Los Angeles, CA.
2000-2005	**Associate Professor**, Buck Institute for Age Research, Novato, CA.
2005-present	**Full Professor**, Buck Institute for Age Research, Novato, CA.
2008-present	**Adjunct Professor**, Dominican University
2013-present	**Adjunct Professor**, University of Southern California
2013-present	**Adjunct Professor**, Touro University

EDUCATION

Ph.D. (Neuromolecular Biology) University of California, Los Angeles (UCLA). Dissertation: "Evidence for a Novel Gs Alpha Protein in PC12 Cells and the Adrenal Gland".

B.S. (Biochemistry), cum laude, Washington State University.

AWARDS AND HONORS

Parkinson Pioneer award, National Parkinson's Foundation 2015
SAB, UPMC Basic Science of Aging program, 2015-present
Keynote address, Annual Basic Science of Aging meeting, U. Pitt, June 2015
Fellow of the Society for Free Radical Biology and Medicine, 2013
U. Washington Environmental Pathology/Toxicology T32 plenary speaker, 2012
XIX World Congress on Parkinson's disease Travel Award for scholarly contributions to the research field, 2011
U. Washington Environmental Pathology/Toxicology T32 plenary speaker, 2011
Brookdale Scholar plenary lecture, 2011
Initial Review Group, Ellison New Scholar Program, 2010
Invited Visiting Scholar, University of Melbourne, Australia, November 2010
Council Member, Neurotoxicity Society, 2007-2011
Glenn Award for Research in Biological Mechanisms in Aging, 2007
Invited Member, Brookdale Institute on Aging
AFAR National Scientific Advisory Council and Steering Committee
Work Group Scribe, Brookdale Foundation Millenium Retreat, 1999
Finalist, Fulbright Scholarship,1999
Glenn/AFAR Scholarship mentor, Summer 1999
McNair Scholarship mentor, Summer 1999
Paul F. Glenn Chair in Molecular and Cellular Gerontology, 1998-2000
1996 Walter Nicolai Prize, American Aging Association
Recipient, 1995 Gerontological Society Nathan Shock New Investigator Award
Inclusion in 1995 Sterling's Who's Who Directory
Recipient, 1994-1995 USC Gerontog Award
Brookdale National Fellow, Class of 1994
NIH post-doctoral NRSA fellowship # F32NSO8810-03, 1992-1993
United Parkinson Foundation grant, 1990-1992
NIH post-doctoral NRSA fellowship # F32NS08810-01, 1990-1992
NIMH pre-doctoral NRSA fellowship # SF31MNO 9514-03, 1986-1989
Lucille Markey UCLA graduate fellowship, 1984-1985
University of Washington science internship program, 1984
Phi Beta Kappa, 1983
W.S.U. Honor Roll, 1979-1983
Member, W.S.U. Honor Society, 1979-1983
Phi Lambda Upsilon National Honorary Chemistry Society, 1982
Phi Eta Sigma Freshman Honor Society, 1980
Bausch and Lomb Honorary Science Award, 1979

PROFESSIONAL ORGANIZATIONS

Society for Neuroscience
Gerontological Society of America
The Oxygen Club of California/Oxygen Society
Neurotoxicology Society
American Association for the Advancement of Science

PUBLICATIONS

Original Research

1) Walker-Simmons, M., Hollander-Cyzthko, H., **Andersen, J.K.**, and Ryan, C.A. (1984). Wound signals in plants: a systemic plant wound signal alters plasma membrane integrity. Proc. Natl. Acad. Sci. 81: 3737-3741.

2) Hollander-Cythko, H., **Andersen, J.K.**, and Ryan, C.A. (1985). Vacuolar localization of wound-induced carboxypeptidase inhibitor in potato leaves. Plant Physiology 78: 76-79.

3) **Andersen, J.K.**, Zhang, M.B., Zhong, X.H., Rosenberg, Y.Y., and Howard, B.D. (1990). 1-methyl-4-phenyl-1,2,3,6-tetrahdropyridine resistant flat PC12 variants have a partial loss of transformed phenotype. J. Neurochem. 55: 559-567.

4) Urban, P., **Andersen, J.K.**, Hsu, P.P., and Pompon, D. (1991). Comparative membrane localizations and activities of human monoamine oxidases expressed in yeast. FEBS Letters 286: 142-146.

5) **Andersen, J.K.**, Herrup, K., and Breakefield, X.O. (1992). Creation of transgenic mice that over-express MAO-B neuronally. Ann. N.Y. Acad. Sci. 648: 241-243.

6) Titlow, C.C.; **Andersen, J.K.**, Trofatter, J.A., and Breakefield, X.O. (1992). In vitro translation of truncated proteins using RNA generated by SP6 RNA polymerase transcription from PCR products, PCR Methods and Applications 2: 172-174.

7) **Andersen, J.K.**, Garber, D.A., Meaney, C.A., and Breakefield, X.O. (1992). Gene transfer into mammalian CNS using herpes virus vectors: long-term expression of lacZ using a mammalian neural promoter. Hum. Gene Therap. 3: 487-499.

8) **Andersen, J.K**; Frim, D.M., Isacson, O., and Breakefield, X.O. (1993). Herpes-virus mediated gene delivery into the rat brain: specificity and efficiency of the neuron-specific enolase promoter. Cell. Mol.Neurobiol. 13: 503-515.

9) **Andersen, J.K.**, Frim, D.M., Isacson, O., and Breakefield, X.O. (1993). Transgenic mice overexpressing monoamine oxidase B neuronally. Movement Disorders 8: 405.

10) Davar, G., Kramer, M.F., Garber, D., Roca, A.L., **Andersen, J.K.**, Bebrin, W., Coen, D.M., Kosz-Vnenchak, M., Knipe, D.M., and Breakefield, X.O. (1994). Gene transfer to sensory neurons using herpes virus vectors. Gene Therapy 1: S24.

11) Davar, G., Kramer, M.F., Garber, D., Roca, A.L., **Andersen, J.K.**, Bebrin, W., Coen, D.M., Kosz-Vnenchak, M., Knipe, D.M., and Breakefield, X.O. (1994). Comparative efficacy ofexpression of genes delivered to mouse sensory neurons with herpes virus vectors. J. Comp. Neurol. 339: 3-11.

12) **Andersen, J.K.**, Frim, D.M., Isacson, O., and Breakefield, X.O. (1994). Catecholaminergic cell atrophy in a transgenic mouse aberrently overexpressing MAO-B in neurons. Neurodegeneration 3: 97-109.

13) **Andersen, J.K.**, Frim, D.M., Isacson, O., Beal, M.F., and Breakefield, X.O. (1994). Elevation of MAO-B in a transgenic mouse model has no effect on MPTP sensitivity. Brain Res. 656: 108-114.

14) Mo, J.-Q., Hom, D.G., and **Andersen, J.K.** (1995). Oxidative damage in aged mouse brain correlates with decreases in protective enzymes. Mech. Aging Dev. 81: 73-82.

15) **Andersen, J.K.**, Mo, J.-Q., Koek, L.L., Hom, D.G., and McNeill, T.H. (1996). Effects of buthionine sulfoximide, a synthesis inhibitor of the antioxidant glutathione, on murine nigrostriatal neurons. J. Neurochem. 67: 2164-2171.

16) Wei, Q., Yeung, M., Jurma, O.P., and **Andersen, J.K.** (1996). Genetic elevation of monoamine oxidase levels in dopaminergic PC12 cells results in increased free radical damage and sensitivity to MPTP. J. Neurosci. Res. 46: 666-673.

17) Kang, Y., Qiao, X., Jurma, O.P., Knusel, B., and **Andersen, J.K.** (1997). Cloning of cDNA encoding the mouse glutamyl cysteine synthetase heavy chain subunit and localization of expression in the brain. NeuroReport 8: 2053-2060.

18) Hom D.G., Jiang, D.-M., Hong, E.-J., and **Andersen, J.K.** (1997). Elevated expression of glutathione peroxidase in PC12 cells results in protection against methamphetamine but notMPTP toxicity. Mol. Brain Res. 46: 154-160.

19) Jurma, O.P., Hom, D.G., and **Andersen, J.K.** (1997). Decreased glutathione results in calcium-mediated cell death in PC12. Free Rad. Biol. Med. 23: 1055-66.

20) Wei, Q., Jurma, O.P., and **Andersen, J.K.** (1997). Increased expression of monoamine oxidase-B results in enhanced neurite degeneration in methamphetamine-treated PC12 cells. J. Neurosci. Res. 50: 618-626.

21) Busculio, J., **Andersen, J.K.**, Schipper, H.M., Gilad, G.M., McCarty, R., Marzatico, F., and Toussaint, O. (1998). Stress, Aging, and Neurodegenerative Disorders: Molecular Mechanisms. In: Stress of Life from Molecules to Man. (ed.: P. Csermely) Annals of New York Academy of Sciences, vol. 851, pp. 429-444.

22) Kang, Y., Viswanath, V., Jha, N., Qiao, X.X., Mo, J.-Q., and **Andersen, J.K.** (1999). Neuronalglutamyl cysteine synthetase mRNA expression in the murine brain: comparison to regional-specific enzyme activity and GSH levels. J. Neurosci. Res. 58: 436-441.

23) Klivenyi, P., Andreassen, O.A., Ferrante, R.J., Dedeoglu, A., Mueller, G. Lancelot, E., Bogdanov, M., **Andersen, J.K.**, Jiang, D., and Beal, M.F. (2000). Mice deficient in cellular glutathione peroxidase show increased vulnerability to malonate, 3-nitroproprionic acid, and 1-methyl-4-phenyl-1,2,5,6-tetrahydropyridine. J. Neurosci. 20: 1-7.

24) Viswanath, V., Wu, Z., Wei, Q., Fonck, C., and **Andersen, J.K.** (2000). Transgenic mice neuronally expressing baculoviral p35 are resistant to diverse types of induced apoptosis including seizure-associated neurodegeneration. Proc. Natl. Acad. Sci. 97: 2270-2275.

25) Jiang, D.-M., Akopian, G., Qi., X., Ho, Y.-S., Walsh, J.P., and **Andersen, J.K.** (2000). Chronicbrain oxidation in a glutathione peroxidase knockout mouse model results in increased resistance to induced epileptic seizures. Exp. Neurol. 164: 257-268.

26) Jha, N., Liu, Y., Lalli, G., Jurma, O.P., and **Andersen, J.K.** (2000). Glutathione depletion in PC12 results in selective inhibition of mitochondrial complex I activity: implications for Parkinson's disease. J. Biol. Chem. 275: 26096-26101.

27) **Andersen, J.K.** (2000). What causes the build-up of ubiquitin-containing inclusions in Parkinson's disease? Mech. Ageing Dev. 118: 15-22.

28) Jiang, D.-M., Jha, N., Boonplueng, R., and **Andersen, J.K.** (2001). Caspase 3 inhibition attenuates hydrogen peroxide-induced DNA fragmentation but not cell death in neuronal PC12cells. J. Neurochem. 76: 1745-1755.

29) Yantiri, F., Gasparian, A., and **Andersen, J.K.** (2001). Glutamyl cysteine synthetase catalytic and regulatory subunits localize to dopaminergic nigral neurons as well as astrocytes. J. Neurosci. Res. 64: 203-206.

30) **Andersen, J.K.** (2001). Do alterations in glutathione and iron levels contribute to pathology associated with Parkinson's disease? "Ageing vulnerability: causes and interventions", Novartis Foundation Symposium 235, John Wiley and Sons, Inc., pp. 11-25.

31) Viswanath, V., Yantiri, F., Boonplueang, R., Yang, Y., Beal, M.F., and **Andersen, J.K.** (2001). Caspase-9 activation results in downstream caspase-8 mediated bid cleavage in toxin-induced Parkinson's disease. J. Neurosci. 21: 9519-9528.

32) Jha, N., and **Andersen, J.K**. (2002). Glutathione decreases in dopaminergic PC12 cells interfere with the ubiquitin protein degradation pathway: relevance for Parkinson's disease? J. Neurochem. 80: 555-561.

33) Bharath, S., Cochran, B.C., Hsu, M., Liu, J., Ames, B.N., and **Andersen, J.K.** (2002). Pretreatment with R-lipoic acid alleviates the effects of GSH depletion in PC12 cells: implications for Parkinson's disease therapy. Neurotoxicol. 23: 479-486.

34) Cudkowicz, M.E., Pastusza, K.A., Sapp, P.C. Mathews, R.K., Pasinelli, P., Francis, J.W., Jiang, D., **Andersen, J.K.**, and Brown, R.H. Jr. (2002). Survival in SOD1 ALS mice does not vary with CNS glutathione peroxidase activity. Neurology 59(5): 729-734.

35) Peng, J., Wu, Z., Wu, Y., Hsu, M., Stevenson, F.F., Boonplueang, R., Roffler-Tarlov, S.K., and **Andersen, J.K.** (2002). Inhibition of caspases protects cerebellar granule cells of the weaver mouse from apoptosis and improves behavioral phenotype. J. Biol. Chem. 277: 44285-44291.

36) Kaur, D., Yantiri, F., Rajagopalan, S., Kumar, J., Mo, J.Q., J., Boonplueang, R., Viswanath, V., Jacobs, R., Yang, L., Beal, M.F., DiMonte, D., Volitaskis, I., Ellerby, L., Cherney, R.A., Bush, A.I., and **Andersen, J.K.** (2003). Genetic or pharmacological iron chelation prevents MPTP-induced neurotoxicity in vivo: a novel therapy for Parkinson's disease. Neuron 37: 1-20.

37) Kumar, J., Nicholls, D.G., and **Andersen, J.K.** (2003). Oxidative alpha-ketoglutarate dehydrogenase inhibition via subtle elevations in monoamine oxidase B levels results in loss of spare respiratory capacity: implications for Parkinson's disease. J. Biol. Chem. 278: 46432-46439.

38) Peng, J., Stevenson, F.F., and **Andersen, J.K.** (2004). The herbicide paraquat induced dopaminergic nigral apoptosis through sustained activation of the JNK pathway. J. Biol. Chem. 279: 32626-32632.

39) Boonplueang, R., Acopian, G., Walsh, J.P., Liu, S., and **Andersen, J.K.** (2005). Increased susceptibility of glutathione peroxidase transgenic mice to kainic acid-related seizure activity and hippocampal neuronal cell death due to direct activation of the NMDA receptor via GSSG. Exp. Neurol., 192: 203-214.

40) Schilling, B., Srinivas, B., S, Row, R.H., Murray, J., Cusack, M.P., Roderick A. Capaldi, R.A., Freed, C.R., Prasad, K.N., **Andersen, J.K.,** and Gibson, B.W. (2005). Rapid purification and mass spectrometric characterization of mitochondrial NADH dehydrogenase (complex I) from rodent brain and a dopaminergic neuronal cell line. Mol. Cell. Proteomics 4: 84-96.

41) Hsu, M., Srinivas, B., Subramanian, R., and **Andersen, J.K.** (2005). Glutathione depletion resulting in selective mitochondrial complex I inhibition in dopaminergic cells is via an NO-

mediated pathway not involving peroxynitrite: implications for Parkinson's disease. J. Neurochem. 92: 1091-1103.

42) Bharath, S., and **Andersen, J.K.** (2005). Protein-S-thiolation: role in mitochondrial dysfunction associated with Parkinson's disease. Antioxid. Redox Signal 7: 900-910.

43) McCormack, A.L., Atienza, J.G., Johnston, L.C., **Andersen, J. K**., Vu, S., and Di Monte, D.A. (2005). Role of oxidative stress in paraquat-induced dopaminergic cell degeneration. J. Neurochem. 93: 1030-1037.

44) Peng, J., Stevenson, F.F., and **Andersen, J.K.** (2005). Superoxide dismutase/catalase mimetics are neuroprotective against selective paraquat-mediated dopaminergic neuron death in the substantia nigra: implications for Parkinson's disease. J. Biol. Chem: 280: 29194-29208.

45) Chinta SJ, Kumar MJ, Zhang H, Forman HJ and **Andersen J.K.** (2006). Up-regulation of γ-glutamyl transpeptidase (GGT) activity following GSH depletion has a compensatory rather than inhibitory effect on mitochondrial Complex I activity: implications for Parkinson's disease. FRBM 40:1557-1563.

46) Kaur D, Rajagopalan S**, Chinta S,** Kumar J, Di Monte D, Cherny RA, **Andersen J.K.** (2006). Chronic ferritin expression within murine dopaminergic midbrain neurons results in a progressive age-related neurodegeneration. Brain Res. 1140: 188-194.

47) Chinta SJ, Rajagopalan S, Butterfield DA, **Andersen J.K.** (2006). In vitro and in vivo neuroprotection by gamma-glutamylcysteine ethyl ester against MPTP: Relevance to the role of glutathione in Parkinson's disease. Neurosci Lett. Jul 10;402(1-2):137-41.

48) Kaur D, Peng J, Chinta SJ, Rajagopalan S, Di Monte DA, Cherny RA, **Andersen J.K.** (2006). Increased murine neonatal iron intake results in Parkinson-like neurodegeneration with age. Neurobiol Aging. 28: 907-913.

49) Chinta SJ and **Andersen, J.K.** (2006). Reversible inhibition of mitochondrial complex I activity following chronic glutathione depletion: Implications for Parkinson's disease. FRBM 41:1442-1448.

50) Peng J, Xie L, Stevenson FF, Melov S, Di Monte DA, **Andersen, J.K.** (2006). Nigrostriatal dopaminergic neurodegeneration in the weaver mouse is mediated via neuroinflammation and alleviated by minocycline administration. J. Neurosci. 26: 11644-11651.

51) Peng J, Peng L, Stevenson FF, Doctrow SR, **Andersen J.K.** (2007). Iron and paraquat as synergestic environmental risk factors in sporadic Parkinson's disease accelerate age-related neurodegeneration. J. Neurosci. 27:6914-6922.

52) Vali S, Mythri RB, Jagatha B, Jyothi Padiadpu J, Ramanujan KS, **Andersen J.K.**, Gorin F, Srinivas BMM (2007). Integrating glutathione metabolism and mitochondrial dysfunction with implications for Parkinson's disease: A dynamic model. Neurosci. 149: 917-930.

53) Chinta SJ, Kumar MJ, Hsu M, Rajagopalan S, Kaur D, Anand Rane A, Nicholls DG, **Andersen J.K.** (2007). Inducible alterations of glutathione levels in adult dopaminergic midbrain neurons results in nigrostriatal degeneration. J. Neuroscience 27: 13997-14006.

54) Mallajosyula JK, Kaur D, Chinta SJ, Rajagopalan S, Rane A, Nicholls DG, DiMonte D, Macarthur H, and **Andersen J.K.** (2008). MAO-B elevation in mouse brain astrocytes results in Parkinson's pathology. PLoS ONE 3: e1616.

55) Peng J, Xie L, Jin K, Greenberg DA, and **Andersen J.K.** (2008). Fibroblast growth factor 2 enhances striatal and nigral neurogenesis in the acute MPTP model of Parkinson's disease. Neurosci. 153(3): 664-670.

56) Chinta S, Rane A, Poksay KS, Bredesen DE, **Andersen J.K.**, and Rammohan R (2008). Coupling endoplasmic reticulum stress to the cell death program in dopaminergic cells: effects of paraquat. NeuroMol. Med. 10: 333-342.

57) Vali S, Chinta S, Peng J, Sultana Z, Singh N, Sharma P, Sharada S, **Andersen J.K.**, and Bharath MMS (2008). Insights into the effects of alpha-synuclein expression and proteasome Inhibition on glutathione metabolism through a dynamic in silico model of Parkinson's disease: validation by cell culture data FRBM 45: 1290-1301.

58) Peng J., Stevenson FF., Oo M., and **Andersen J.K.** (2009). Iron-enhanced paraquat-mediated dopaminergic cell death due to increased oxidative stress as a consequence of microglial activation. FRBM 46: 312-320.

59) Kaur D., Lee D., Ragapolan S., and **Andersen J.K.** (2009). Glutathione depletion in immortalized midbrain derived dopaminergic neurons results in increases in the labile iron pool: implications for Parkinson's disease. FRBM 46: 593-598.

61) Chinta SJ, Rane A, Yadava N., **Andersen J.K.**, Nicholls DG, and Polster BM (2009). Reactive oxygen species regulation by AIF- and complex I-depleted brain mitochondria. FRBM 46: 939-947.

62) Chinta SJ, Poksay KS, Kaundinya G, Hart M, Bredesen DE, **Andersen J.K.**, and Rao RV (2009). Endoplasmic reticulum stress-induced cell death in dopaminergic cells: Effect of resveratrol. J. Mol. Neurosci. 39: 157-168.

63) Lee DW, Kaur D, Chinta SJ, Rajagopalan S, and **Andersen J.K.** (2009). A disruption in iron-sulfur center biogenesis via inhibition of mitochondrial dithiol glutaredoxin 2 may contribute to mitochondrial and cellular iron dysregulation in mammalian glutathione-depleted dopaminergic cells: implications for Parkinson's disease . ARS Epub ahead of print, Mar 2009.

64) Mallajoysyula JK, Chinta SJ, Rajagoppalan S, Nicholls DG, and **Andersen J.K.** (2009). Metabolic control analysis in a cellular model of elevated MAO-B: relevance to Parkinson's disease. Neurotox Res. 16: 186-193.

65) Lee DW, Rajagopalan, Siddiqui A, Gwiazda R, Yang L, Beal MF, Ratan RR, and **Andersen J.K.** (2009). Inhibition of prolyl hydroxylase protects against MPTP-induced neurotoxicity: model for the potential involvement of the hypoxia-inducible factor pathway in Parkinson's disease. J. Biol.Chem. 284: 29065-29076.

66) Kaur D, Rajagopalan S, and **Andersen J.K.** (2009). Chronic expression of H-ferritin in dopaminergic midbrain neurons results in an age-related expansion of the labile iron pool and subsequent neurodegeneration: implications for Parkinson's disease. Brain Res. 1297: 17-22.

67) Danielson S, Held J, Schilling B, Oo M, Gibson B, and **Andersen J.K.** (2009). Preferentially increased nitration of alpha-synuclein at tyrosine-39 in a cellular oxidative model of Parkinson's disease. Anal. Chem. 81: 7823-7828.

68) Zhu W, Li X, Xie W, Luo F, Kaur D, **Andersen J.K.**, Jankovic J, Le W (2010). Genetic iron chelation protects against proteasome inhibition-induced dopamine neuron degeneration. Neurobiol. Dis. 37:307-313.

69) Siddiqui A, Mallajosyula JK, Rane A, **Andersen J.K.** (2010). Ability to delay neuropathological events associated with astrocytic MAO-B increase in a Parkinsonian mouse model: implications for early intervention on disease progression. Neurobiol. Dis. 40:444-448. PMID: 20655384.

70) Chinta S, Mallajoysyulla JM, Rane A, **Andersen J.K.** (2010). Mitochondrial alpha-synuclein accumulation impairs complex I function in dopaminergic neurons and results in increased mitophagy *in vivo.* Neurosci. Lett. 486:235-239. PMID: 20887775.

71) Peng J, Oo M, **Andersen J.K.** (2010). Synergistic effects of environmental risk factors and gene mutations in Parkinson's disease accelerate age-related neurodegeneration. J. Neurochem. 115:1363-1373. PMID: 21039522.

72) Abbott RD, Ross GW, Tanner CM, **Andersen J.K.**, Masaki KH, Rodriguez BL, White LR, Petrovitch H (2010). Late-life hemoglobin and the incidence of Parkinson's disease. Neurol. Aging 33: 914-920.

73) Ayala-Torres S, **Andersen J.K.**, Torres-Ramos CA, Nicholls DG, Acevedo-Torres K, Siddiqui A, Rivera S (2010). Mutant huntingtin leads to increased levels of mitochondrial DNA damage and mitochondrial dysfunction in mouse striatal cells. Mitochondrion 10:227-227.

74) Crawford CA, Akopian G, Ring J, Jakowec MW, Petzinger GM, **Andersen J.K.**, Vittozzi-Wong P, Wang K, Farley CM, Charnikov S, Mitroi D, Beal MF, Chow R, Walsh JP (2010). Acute and long-term response of dopamine nigrostriatal synapses to a single low dose episode of 3-nitropropionic acid-mediated chemical hypoxia. Synapse 65: 339-350.

75) Peng J and **Andersen J.K.** (2010). Mutant alpha-synuclein reduces neurogenesis in the acute MPTP model of Parkinson's disease. Aging Cell 10: 255-262.

76) Kim H, Lussier S, Rane A, Choi SW, **Andersen J.K.** (2011). Inducible dopaminergic glutathione depletion in an alpha-synuclein transgenic mouse model results in age-related olfactory dysfunction. Neuroscience 172: 379-386.

77) Danielson SR, Held JM, Oo M, Riley R, Gibson BW, **Andersen J.K.** (2011). Quantitative mapping of reversible mitochondrial Complex I cysteine oxidation in a Parkinson's disease mouse model. J Biol Chem 286: 7601-7608.

78) Choi SW, Gerencser AA, Lee DW, Rajagopalan S, Nicholls DG, **Andersen J.K.**, Brand MD (2011). Intrinsic bioenergetic properties and stress sensitivity of dopaminergic synaptosomes. J Neurosci. 31:4524-4534.

79) Kim YH, Rane A, Lussier S, **Andersen J.K.** (2011). Lithium protects against oxidative stress-mediated cell death in alpha-synuclein overexpressing *in vitro* and *in vivo* models of Parkinson's disease. J. Neurosci. Res.89: 1666-1675.

80) Gogoi S, Antonio T, Rajagopalan S, Reith M, **Andersen J**, Dutta AK (2011). Dopamine D2/D3 agonists with potent iron chelation, antioxidant, and neuroprotective properties: potential implications in symptomatic and neuroprotective treatment of Parkinson's disease. Chem. Med. Chem. 6: 991-995.

81) Siddiqui A, Hansen I, and **Andersen J.K.** (2012). MAO-B elevation decreases Parkinson's ability to efficiently clear damaged mitochondria: protective effects of rapamycin. Free Radic Res 46:1011-1018

82) Chinta SJ, Ganesan A, Reis-Rodrigues P, Lithgow G, and **Andersen J.K.** (2012). Anti-inflammatory role of the isoflavone diadzein in lipopolysaccharide-stimulated microglia:

implications for Parkinson's disease. Neurotox. Res. 23: 145-153.

83) Chinta SJ, Rajagopalan S, Ganesan A, and **Andersen J.K.** (2012). A possible novel anti-inflammatory mechanism for the pharmocological prolyl hydroxylase inhibitor, 3,4-dihydrobenzoate (DHB): implications for use a therapeutic for Parkinson's disease. Parkinsons disease doi: 10.1155/2012/364684.

84) Siddiqui A, Chinta S, Mallajosyula J, Rajagopalan S, Hanson I, Rane A, and **Andersen J.K.** (2012). Selective binding of nuclear alpha-synuclein to the PGC1alpha promoter under conditions of oxidative stress may contribute to losses in mitochondrial function: implications for Parkinson's disease. Free Radic Biol Med 53: 993-1003.

85) Siddiqui A, Rivera-Sánchez S, Acevedo-Torres K, Torres-Ramos CA, Nicholls DG, **Andersen J.K., and** and Ayala-Torres S (2012). Mitochondrial DNA damage is associated with reduced mitochondrial energetics in Huntington's disease. Free Radic Biol Med 53: 1478-1488.

86) Lieu CA, Chinta SJ, Rane A, **Andersen J.K.** (2013). Age-related behavioral phenotype of an astrocytic monoamine oxidase-B transgenic mouse model of Parkinson's disease. PLoS ONE 8: doi: 10.1371/journal.pone.0054200.

87) Neuhaus JF, Baris OR, Hess S, Moser N, Schroder H, Chinta SJ, Andersen JK, Kloppemburg P, and Weisner RJ (2013). Catecholamine metabolism drives generation of mitochondrial DNA deletions in dopaminergic neurons. Brain 137: 354-365.

88) Angeli S, Klang I, Sivapatham R, Mark K, Zucker D, Bhaumik D, Lithgow GJ, and **Andersen J.K.** (2013). A DNA synthesis inhibitor is protective against proteotoxic stressors via modulation of fertility pathways in *Caenorhabditis elegans.* Aging 5: 759-769.

89) Rajagopalan S, Chinta SJ, and **Andersen J.K.** (2014). Pharmacological prolyl hydroxylase domain inhibition as a therapeutic target for Parkinson's disease. CNS Neurol Disord Drug Targets 13:120-125.

90) Shah M, Rajagopalan S, Xu L, Voshaver C, Shurubor Y, Beal F, **Andersen J.K.***, and Dutta (2014). The high affinity D2/D3 agonist 512 protects PC12 cells from 6-OHDA induced apoptotic cell death and rescues dopaminergic neurons in the MPTP mouse model of Parkinson's disease. J Neurochem 131: 74-85. *co-corresponding author

91) Kang I, Schilling B, Sorensen DJ, Sahu AK, Kapahi P, **Andersen J.K.**, Swoboda P, Killilea DW, Gibson BW, and Lithgow GJ (2014). Iron promotes protein insolubility and aging in *C. elegans*. Aging 6: 975-991.

92) Angeli S, Barhydt T, Jacobs R, Killilea DW, Lithgow GJ, and **Andersen J.K.** (2014). Manganese disturbs metal and protein homeostasis in *C. elegans*. Metallomics 6: 1816-1823.

93) Lieu CA, Dewey CM, Chinta SJ, Rane A, Rajagopalan S, Batir S, Kim Y-H, and **Andersen J.K.** (2014). Lithium prevents parkinsonian behavioral and striatal phenotypes in an aged parkin transgenic mouse Model. Brain Res. 1591: 111-117.

94) Lazzara CA, Riley RR, Rane A, Andersen JK*, and Kim YH (2015). The combination of lithium and L-Dopa/Carbidopa reduces MPTP-induced abnormal involuntary movements (AIMs) via calpain-1 inhibition in a mouse model: relevance for Parkinson's disease therapy. In press, Brain Res. *co-corresponding author.

95) Aleyasin H, Karuppagounder SS, Kumar A, Sleiman S, Basso M, Ma T, Siddiq A, Chinta S, Brochier C, Langley B, Haskew-Layton R, Bane SL, Riggins GJ, Gazaryan I, Starkov AA,

Andersen J.K., and Ratan RR (2015). Antihelminthic benzimidazoles are novel HIF activators that prevent oxidative neuronal death via binding to tubulin. ARS 10: 121-134.

96) Siddiqui A, Bhaumik D, Chinta SJ, Rane A, Rajagopalan S, Lieu CA, Lithgow GJ, and **Andersen J.K.** (2015). Mitochondrial quality control via the PGC1alpha-TFEB signaling pathway is compromised by parkin mutation but independently restored by rapamycin. J Neurosci 35: 12833-12844.

97) Rajagopalan S, Rane A, Chinta SJ, and **Andersen J.K.** (2016). Regulation of ATP13A2 via PHD2-HIF1alpha signaling is critical for cellular iron homeostasis: implications for Parkinson's disease. J Neurosci 36: 1086-1095.

98) Siddiqui A, Rane A, Rajagopalan R, Chinta SJ, and **Andersen J.K.** (2016). Detrimental effects of oxidative loss in parkin activity in a model of sporadic Parkinson's disease are attenuated by restoration of PGC1∝. Neurobiol. Dis. 93: 115-120.

99) Leonoudakis D, Rane A, Angeli S, Lithgow GJ, **Andersen J.K.**, and Chinta SJ (2017). Anti-inflammatory and neuroprotective role of natural product securinine in activated glial cells: implication for Parkinson's disease Mediators Inflamm. Epub 2017 Apr 4: 8302636. doi: 10.1155/2017/8302636.

100) Das B, Rajagopalan S, Joshi GS, Xu L, Luo D, **Andersen J.K.**, Todi SV, and Dutta AK (2017). A novel iron (II) preferring dopamine agonist chelator D-607 significantly suppresses alpha-synuclein and MPTP-induced toxicities in vivo. Neuropharmacology 123: 88-99.

101) Borroni E, Bohrmann B, Grueninger F, PRinssen E, Nave S, Loetshder H, Chinta SJ, Rajagopalan R, Rane A, Siddiqui A, Ellenbroek B, Messer J, Pahler A, **Andersen J.K.**, Wyler R, and Cesura A (2017). Sembragiline: A Novel, Selective Monoamine Oxidase Type B Inhibitor for the Treatment of Alzheimer's disease. JPET 362: 413-423.

102) Haller S, Kapuria S, Riley R, O'Leary MN, Schreiber KH, **Andersen J.K.**, Simon Melov S, Que J, Rando TA, Rock J, Kennedy BK, Rodgers JT, and Jasper H (2017). mTORC1 activation during repeated regeneration impairs somatic stem cell maintenance. Cell Stem Cell 21:806-818.

103) Chinta SJ, Woods G, Demaria M, Rane A, Zou Y, McQuade A, Rajagopalan S, Limbad C, Madden DT, Campisi J, **Andersen J.K.** (2018). Cellular senescence is induced by the environmental neurotoxin paraquat and contributes to neuropathology linked to Parkinson's disease. Cell Rep. 22: 930-940.

104) Rane A, Rajagopalan S, Ahuja M, Thomas B, Chinta SJ, **Andersen J.K.** (2018). Hsp90 Co-chaperone p23 contributes to dopaminergic mitochondrial stress via stabilization of PHD2: Implications for Parkinson's disease. Neurotoxicology 65: 166-173.

105) Chamoli M, Chinta SJ, **Andersen J.K.** (2018). An inducible MAO-B mouse model of Parkinson's disease: a tool towards better understanding basic disease mechanisms and developing novel therapeutics. J. Neural Transm. Apr 30. doi: 10.1007/s00702-018-1887-z. [Epub ahead of print] Review.

106) Woods G, **Andersen J.K.** (2018). Screening method for identifying toxicants capable of inducing astrocyte senescence. Tox. Sci. (in press).

Chapters and Reviews

1) Breakefield, X.O; Huang, Q; **Andersen, J.K.**; Kramer, M.F; Bebrin, W.R; Davar, G.C; Vos, B.P; Garber, D.A; DiFiglia, M; and Coen, D. (1992). Gene transfer into neurons using herpes virus

vectors. In: Gene transfer and therapy in the nervous system, vol. 16:45-48, C.Gage (ed), Springer-Verlag, Heidelberg.

2) **Andersen, J.K.** and Breakefield, X.O. (1992). Herpes simplex virus and its use in neuroscience research. Suppl. to Encyclopedia of Neuroscience, 79-81, Birkhauser, Boston.

3) Frim, D.M; **Andersen, J.K.**; Schumaker, J.M; Short, M.P; Isacson, O; and Breakefield, X.O. (1993). Gene transfer into the central nervous system: neurotrophic factors. In: Growth factors, peptides, and receptors; T.W. Moody (ed), Plenum Press, New York, pp. 83-91.

4) Chiocca, E.A; **Andersen, J.K.**; Takamiya, Y; Martuza, R. and Breakefield, X.O. (1994). Virus-mediated genetic treatment of rodent gliomas. In: Gene Therapeutics, J.A. Wolff (ed), Birkhauser, Boston, pp. 245-262.

5) **Andersen, J.K.**; and Breakefield, X.O. (1994). Gene delivery to neurons of the adultmammalian nervous system using herpes and adenovirus vectors. In: Somatic Gene Therapy, P. Chang (ed).,CRC Press, Boca Raton, Florida, pp. 135-160.

6) **Andersen, J.K.** (1995). Transgenic animals as aging models. Encyclopedia of Aging (2nd edition), Springer Publishing Company, New York.

7) **Andersen, J.K.** and Jurma, O.P. (1996). The use of genetically engineered mice as models for understanding human neurodegenerative disease. JAGS 44: 717-722.

8) **Andersen, J.K.** (1998). Use of genetically engineered mice as models for exploring the role of oxidative stress in neurodegenerative disease. Frontiers in Bioscience 3: 8-16.

9) Yantiri, F., and **Andersen, J.K.** (1999). The role of iron in Parkinson's disease and MPTP toxicity, IUBMB Life 48: 1-3.

10) Viswanath, V., and **Andersen, J.K.** (1999). The interplay between oxidative stress and calcium homeostasis in acute neuronal damage and neurodegenerative disease, "Free Radicals in Brain Pathophysiology", Oxidative Stress and Disease series, Poli, G., Cadenase, E., and Packer, L. (eds), Marcel Dekker, pp. 197-216.

11) Jha, N., and **Andersen, J.K.** (1999). The mechanism of action of the glutathione system in the protection of dopaminergic neurons: involvement in Parkinson's disease, "Recent Research Developments in Neurochemistry", Pandalai, S.G. (ed), Research Signpost, USA, pp. 99-108.

12) Lithgow, G.J., and **Andersen, J.K.** (2000). The real Dorian Grey mouse. BioEssays 22: 410-414.

13) **Andersen, J.K.** (2000). The use of genetically engineered mice in aging research, "Aging Methods and Protocols", Methods in Molecular Medicine, The Humana Press, Inc., USA, pp. 361-377.

14) **Andersen, J.K.** (2001). Does neuronal loss in Parkinson's disease involve programmed cell death?, BioEssays 23: 640-646.

15) Subramanian, R., and **Andersen, J.K.** (2001). Alpha synuclein aggregation: is it the toxic gain of function responsible for neurodegeneration in Parkinson's disease? Mech. Ageing Dev. 122: 1499-1510.

16) **Andersen, J.K.** (2001). The hunt for a cure for Parkinson's disease: the race is on. Inaugural issue of Sci.Aging Knowledge Environ. (SAGE KE) (October).

17) **Andersen, J.K.** (2001). Genetically engineered mice and their use in aging research, Mol. Biotech. 19: 45-57.

18) De Grey, A.D.N.J., Ames, B.N., **Andersen, J.K.**, Bartke, A., Campisi, J., Heward, C.B., McCarter, R.J.M., and Stock, G. (2002). Time to talk SENS: Critiquing the immutability of human aging. Ann. N.Y. Acad. Sci. 959: 452-463.

19) Bharath, S., Kaur, D., Hsu, M., Subramanian, R., and **Andersen, J.K.** (2002). GSH, iron, and Parkinson's disease. Biochem. Pharmacol. 64: 1037-1048.

20) Kaur, D. and **Andersen, J.K.** (2002). Ironing out Parkinson's disease: Is therapeutic treatment with iron chelators a real possibility? Aging Cell 1: 17-26.

21) **Andersen, J.K.** (2003). Defects in dynein linked to motor neuron degeneration in mice: implications for human disease? Sci. Aging Knowledge Environ (SAGE KE) perspective, 18:PE10.

22) Peng, J., and **Andersen, J.K.** (2003). Role of c-jun N-terminal kinase (JNK) in Parkinson's disease. IUBMB Life 55: 267-271.

23) **Andersen, J.K.** (2003). Paraquat and iron exposure as possible synergetic environmental risk factors in Parkinson's disease. Neurotox. Res. 5: 313-320.

24) Bharath, S., and **Andersen, J.K.** (2004). Catecholamines and protein deposition in Parkinson's and Alzheimer's disease: old medicine, new targets. Rejuvenation Res. 7(2): 92-94.

25) Kumar, J., and **Andersen, J.K.** (2004). Perspectives on MAO-B in aging and neurological disease: where do we go from here? Mol. Neurobiol. 30: 77-89.

26) Kaur, D. and **Andersen, J.K.** (2004). Does cellular iron dysregulation play a causative role in Parkinson's disease? Aging Research Reviews, special issue on Iron in Aging and Age-related Diseases. 3: 327-343.

27) **Andersen, J.K.** (2004). Oxidative stress in Neurodegenerative Disease: cause or consequence? Nature Reviews Neuroscience, special issue on Oxidative Stress and Neurodegeneration Supp.: S18-25.

28) **Andersen, J.K.** (2004). Iron dysregulation and Parkinson's disease. Alzheimers Dis. 6:S47-S52.

29) Lithgow, G.J., and **Andersen, J.K.** (2005). Models of oxidative stress in the biology of aging. Drug Disc Today: Dis Models 2 (4): 273-277.

30) Chinta, S., and **Andersen, J.K.** (2005). Cells in Focus: Dopaminergic neurons. International Journal of Biochemistry and Cell Biology 37: 942-946.

31) Lee, D., and **Andersen, J.K.** (2006). Role of HIF-1 in iron regulation: potential therapeutic strategy for neurodegenerative disorders. Curr. Mol. Med. 6: 883-893.

32) Lee, D.W., **Andersen, J.K.,** and Kaur, D. (2006). Iron dysregulation and neurodegeneration: the molecular connection . Mol. Interv. 6: 89-97.

33) Chinta, S., and **Andersen, J.K.** (2008). Redox imbalance in Parkinson's disease. Biochim. Biophys. Acta 1780: 1362-1367.

34) Danielson, S., and **Andersen, J.K.** (2008). Oxidative and nitrosative protein modifications in Parkinson's disease. FRBM 44: 1787-1794.

35) Peng, J., and **Andersen, J.K.** (2008). Neurogenesis and Parkinson's disease. 'Adult neurogenesis and CNS diseases', (editor, Kunlin Jin), Research Signpost.

36) **Andersen, J.K.** (2009). Arvid Carlsson: An early pioneer in translational medicine. Sci. Transl. Med. 1: 2-3.

37) Lee, D.W., and **Andersen, J.K.** (2010). Iron elevations in the aging Parkinsonian brain: a consequence of impaired iron homeostasis? J. Neurochem. 112: 332-339. PMID: 20085612.

37) Siddiqui A, Chinta S, **Andersen J.K.**, Hanson I, Rane A (2011). Oxidative stress and Parkinson's: linking alpha-synuclein to epigenetics. FRBM 51:1-2.

38) Chinta S, and **Andersen J.K.** (2011). Nitrosylation and nitration of complex I: implications for Parkinson's disease. FRBM 45:53-58. PMID: 200815786.

39 Campisi J, **Andersen J.K.**, Kapahi P, Melov S (2011). Cellular senescence: A link between cancer and age-related degenerative disease? Semin Cancer Biol. PMCID: PMC Journal-in-Process. http://www.sciencedirect.com/science/article/pii/S1044579X11000502.

40) Chinta SJ and **Andersen J.K.** (2012). Prospects and challenges for the use of stem cell technologies to develop novel therapies for Parkinson's disease. Cell Cycle 10: 4179-4180.

41) **Andersen J.K.** and Dimonte DA (2012). Paraquat and Parkinson's disease. Encyclopedia of Neurological Sciences 2nd edition (Editors: Aminoff and Daroff).

42) Chinta SJ, Lieu CA, DeMaria M, Laberge R-M, Campisi J, **Andersen J.K.** (2013). Environmental stress, aging, and glial cell senescence: a new mechanistic link in Parkinson's disease? J. Intern. Med. 273: 429-436.

43) **Andersen J.K.**, Davies KJA, Forman HJ (2013). Reactive oxygen and nitrogen species in neurodegeneration. FRBM 62:1-3. Editors' introduction, special issue on Neurodegeneration.

44) Chinta SJ, Woods G, Rane A, Demaria M, Campisi J, and **Andersen J.K.** (2015). Cellular senescence and the aging brain. Exp Gerontol 68: 3-7.

45) "Parkinson's Disease and Aging". In 'Geroscience' (2015). Editor, Felipe Sierra, Springer.

PATENTS

Breakefield, X.O; **Andersen, J.K**; and Martuza, R.L. (1990). Transfer and expression of gene sequences into central nervous system cells using herpes simplex virus mutants with deletions in genes for viral replication. U.S. Serial No. 07/508, 731.

Ellerby, L.M., Greenberg, D.A., and **Andersen, J.K.** (2006). Fibroblast growth factor-2 promotes neurogenesis and neuroprotection and prolongs survival in Huntington's disease.

Andersen, J.K., and Jyothi Kumar Mallajosyulla (2008). MAO-B elevation as an early Parkinson's disease biomarker and target for prophalactic drug treatment.

FINANCIAL SUPPORT (last 3 years)

RF1 AG057358 9/15/17-6/30/22
NIA
A temporal bioenergenic, metabolomics, and proteomics map of Alzheimer disease in invertebrate models

R01 AG029631-09S1 9/15/17-4/30/18
NIA
Pharmacology of lifespan extension

MJFF 12113 7/1/16-6/30-18
Alpha-synuclein aggregates as inducers of glial senescence: potential role in Parkinson's disease progression

R21 NS095758 7/1/16-6/30/18
NINDS
The potential role of lysosomal ATP13A2 in cellular iron homeostasis

SENS Foundation 1/25/17-1/24/18
Creating a model system for testing lysomal rejuvenation in AD

R21 ES024357 (Andersen) 7/1/14-6/30/16
NIH/NIEHS
Environmental exposure and astrocyte senescence: novel link to PD?
We will perform small molecule screening of available toxicant chemical libraries in order to identify environmental agents capable of inducing astrocytic senescence in turn resulting in non-autonomous inflammatory affects on neural stem cells (NSCs) and dopaminergic neurons.

R01 NS047198 (Dutta) 7/1/12-6/30/16
NIH/NINDS
This grant will allow us to preclinically test the efficacy of multifunctional drugs that can potentially both slow the further progression of PD while being symptomatically beneficial in alleviating motor dysfunction as novel agents for treatment of the disorder.

Ellison Senior Scholar Award (Andersen) 10/1/11-9/30/15
In this grant, we will explore novel epigenetic mechanisms underlying effects of elevated neuronal alpha-synuclein levels: implications for aging and Parkinson's disease.

INVITED SCIENTIFIC PRESENTATIONS (selected)

1) "Gene transfer into neurons using recombinant herpes virus vectors", Cold Spring Harbor Molecular Genetics Course: Molecular Genetics of Human Neurological Disease, 7/5/91.

2) "Gene transfer into neurons using recombinant herpes virus vectors", International Society for Developmental Neurology, La Grande Motte, France, 6/15/92.

3) "Transgenic mice which overexpress MAO-B neuronally", University of Edinburgh International Symposium: From Transgene to Behavior, 6/22/92.

4) "Transgenic mice which overexpress MAO-B neuronally", 2nd Annual Berkshire Neuroscience Symposium: Mechanisms of Programmed Cell Death and their Implications for the Brain, 6/21/93.

5) "Transgenic mice which overexpress MAO-B neuronally", 7th Annual Meeting of the Parkinson's Study Group of the American Neurological Association (platform talk), Boston, MA 10/17/93.

6) "Catecholaminergic cell atrophy in a transgenic mouse overexpressing MAO-B in neurons", 23rd Annual Meeting of the Society for Neuroscience (slide presentation), Washington, D.C., 11/12/93.

7) "Transgenic mice overexpressing MAO-B neuronally", Transgenic Division, Hoecht-Roussel Pharmaceuticals, Somerville, N.J., 12/7/93.

8) "The role of free radicals in neurodegeneration during normal aging and in neurodegenerative disease", Brookdale National Fellowship Annual Retreat, Long Island, NY, 4/28/94.

9) "Neuronal atrophy in transgenic mice overexpressing MAO-B neuronally", 8th Annual NIA Summer Institute on Aging Research, Marin County, CA, 6/11/94.

10) "Effects of MAO-B overexpression in a transgenic mouse model", USC School of Medicine Departments of Pathology and Neurology (Carole Miller, sponser), Los Angeles, CA, 10/17/94.

11) "Elevation of neuronal MAO-B activity in a transgenic mouse model does not increase sensitivity to the neurotoxin MPTP", 24th Annual Meeting for the Society for Neuroscience, Miami Beach, FL, 11/15/94.

12) "Acute Treatment of Mice with Buthionine Sulfoximide, a Synthesis Inhibitor of the Antioxidant Glutathione, Causes Neuronal Damage Reminiscent of Parkinson's Disease", West Coast Regional Developmental Biology Conference, Lake Arrowhead, CA, 1/26/95.

13) "The role of free radicals in neurodegeneration during normal aging and in neurodegenerative disease", Brookdale National Fellowship Annual Retreat, Long Island, NY, 4/20/95.

14) "Effect on decreases in expression of GCS, the rat-limiting enzyme in glutathione synthesis, on neuronal vulnerability to free radicals", Gordon Research Conference on the Biology of Aging, Il Ciocco, Italy, 5/15/95.

15) "The effects of decreases in glutathione synthesis on neuronal health both in vitro and in vivo", USC Developmental Biology Retreat, Catalina Island, CA, 9/24/95.

16) "The effects of decreases in glutathione synthesis on neuronal health both in vitro and in vivo", UCSF School of Medicine Biology of Aging group, San Francisco, CA, 10/12/95.

17) "The effects of decreases in glutathione synthesis on neuronal health both in vitro and in vivo", 25th Annual meeting for the Society of Neuroscience, San Diego, CA, 11/15/95.

18) “An in vitro model to examine the effects of genetic decreases in glutathione synthesis on neuronal health", Annual Meeting of the Gerontological Society of America (Nathan Shock award talk and poster), Los Angeles, CA, 11/17/95.

19) "The role of free radicals in neurodegeneration during normal aging and in neurodegenerative disease", Brookdale National Fellowship Annual Retreat, Teaneck, NJ, 4/20/96.

20) "Antisense reduction of glutathione levels results in dopaminergic cell death via increased calcium influx", VIII Biennial Meeting of the International Society for Free Radical Research, Barcelona, Spain, 10/4/96.

21) "The role of the glutathione system in neuronal aging and disease", 26th Annual Meeting of the American Aging Association (poster, Walter Nicolai award in Biomedical Gerontology), San Francisco, CA, 10/5/96.

22) "The role of the glutathione system in aging and neurodegenerative disease", GSA Brookdale symposium, Washington, D.C., 11/21/96.

23) "The role of alterations in the glutathione system in PD", Biology of Aging Gordon Research Conference, Ventura, CA, 1/7/97.

24) "Genetic reduction of glutathione leads to calcium-mediated dopaminergic cell death: a model for Parkinson's disease?", Oxygen Club of California World Congress, Santa Barbara, CA, 2/28/97.

25) "The role of free radicals in neurodegeneration during normal aging and in neurodegenerative disease", Brookdale National Fellowship Annual Retreat, Teaneck, NJ, 4/21/97.

26) "The role of the glutathione system in aging and neurodegenerative disease", International Congress of Stress, Budapest, Hungary, 7/2/97.

27) “Oxidative stress and neurodegenerative diseases”, Joint UCI/USC Pre-Neuroscience Symposium (platform talk), Los Angeles, CA, 10/18/97.

28) “The role of free radicals in aging”, Children’s Hospital Research Institute, Los Angeles, CA, 10/21/97.

29) “The role of caspases in ischemia”, Brookdale National Fellowship Annual Retreat, Teaneck, NJ, 4/25/98.

30) "Glutathione and neurodegenerative disease", Biology of Aging Gordon Research Conference, Il Ciocco, Italy, 5/11/98.

31) “Role of oxidative stress and apoptosis in neuronal cell death”, 3rd European Congress of Gerontology, Denmark, 8/31/98.

32) “Transgenic expression of ferritin in the substantia nigra: use as a model for studying Parkinson’s disease”, Cal Tech Bioimaging Center, 10/15/98.

33) “Role of apoptosis in neurodegenerative disease”, Frontiers in aging research and age-related diseases (sponser: Cambridge Health Institute), San Diego, CA, 10/6/98.

34) “Oxidative stress and the aging brain”, UCLA Alzheimer’s disease Affinity Group, Los Angeles, CA, 11/16/98.

35) “The Role of Glutathione and Iron in Parkinson’s disease”, Oxygen Club of California World Congress, Santa Barbara, CA, 3/5/99.

36) “Use of genetically engineered mouse models to study the role of oxidative damage in neurodegeneration”, UCLA Alzheimer’s Disease Conference, Los Angeles, CA, 3/12/99.

37) "The role of oxidative stress and apoptosis in neuronal cell death", SFRR Europe Summer Meeting, Dresden, Germany, 7/4/99.

38) "Role of Glutathione and iron in Parkinson's disease", 4th European Congress of Gerontology, Berlin, Germany, 7/8/99.

39) "The effect of MAO-B levels on neurite degeneration following methamphetamine treatment", International Society for Neurochemistry Satellite meeting, Copenhagen, Denmark, 8/4/99.

40) "Role of oxidative stress and apoptosis in neuronal cell death", Novartis Foundation Symposium on ageing vulnerability: causes and interventions, London, UK, 2/28/00.

41) European Science Foundation Conference on the Biology of Aging, Spa, Belgium, 5/7/00.

42) 1st Annual International Conference on Metals and the Brain, Padova, Italy, 9/20/00.

43) Strategies for Engineering Negligible Senescence Workshop, Oakland, California, 10/1/00.

44) Gordon Conference on Oxidative Stress and Disease, Ventura, CA, 3/18-23/01.

45) Brown University colloquium on "The Biology of Human Aging", 5/21/01.

46) 3rd International Symposium on Trace Elements in Humans, Athens, Greece, 10/4-6/01.

47) "S-thiolation of the ubiquitin system in Parkinson's disease", 4th Annual Meeting of Molecular and Cellular Biology (Cell Signaling, Transcription, and Translation as Therapeutic Targets), Luxembourg, 1/30/02.

48) Buck Institute Aging Symposium, Novato, CA, 9/27/02.

49) Neurotoxicology Society, La Serena, Chile, 4/25-27, 2003.

50) Brookdale National meeting, New York, 4/28, 2003.

51) Women's Chemists Committee of the California Section of the American Chemical Society, Oakland, CA 5/5, 2003.

52) Neurotoxic models of neurodegenerative disease, IBRO, Prague, Czech Republic, July 2003.

53) CCPDER annual meeting, Napa, CA, July 2003.

54) 4th International Symposium on Trace Elements in Humans, Athens, Greece, 10/9-11, 2003.

55) 8th International NPF Parkinson's Disease Symposium, New Orleans, LA, 11/7-8, 2003.

56) Elan Pharmaceuticals Inc., South San Francisco, CA, 11/13, 2003.

57) Society for Free Radical Biology and Medicine, Seattle, WA, 11/23, 2003.

58) Gordon Conference on Oxygen Radicals in Biology, Ventura, CA, Feb. 8-13, 2004.

59) Encino-Tarzana Regional Medical Center, Tarzana, CA, March 2004.

60) Society for Free Radical Research International XII Biennial Meeting, Buenos Aires, May 2004.

61) CCPDER annual meeting, Atlanta, GA, May 2004.

62) Oklahoma Medical Research Foundation, Work-In-Progress seminar series, May 27, 2004.

63) NIEHS neurodegeneration meeting, Raleigh, NC, June 2004.

64) Neuroprotection Catalyst Conference, NYC, June 2004.

65) Alzheimer's Association, Philadelphia, PA, July 2004.

66) 7th Annual International Symposium on chelating agents in biomedicine, toxicology, and therapeutics (satellite meeting to the International Congress of Toxicology), Pilsen, Czech Republic, July 2004.

67) American Neurological Society, NYC, August 2004.

68) Minisymposium on "Redox Biology of Aging", Lincoln, NB, October 1, 2004.

69) Neurotoxicity Society-Society of Neuroscience satellite on "Iron and Parkinson's disease", October 2004.

70) Neurotoxicity Society Meeting: Mechanisms of Neurodegenerative Disorders, March, Vina del Mar, Chile, March 2005.

71) Brookdale Institute on Aging, Washington DC, May 2005.

72) Society for Neurochemistry, Wisconsin, June 2005.

73) GTCbio meeting on therapeutics in neurodegenerative disease, Waltham, MA, October 2005.

74) Nathan Shock symposium on protein aggregation in aging, San Antonio, Tx, October 2005.

75) SFRR-Austroasia annual meeting, The Gold Coast, Australia, December 2005.

76) Oxygen Club of California, Santa Barbara, CA, March 2006.

77) FASEB 2006, San Francisco, CA, April 2006.

78) Post-Genomics summit, Beijing, China, May 2006.

79) International Society of Radical Research, Davos, Switzerland, August 2006.

80) GTCbio symposium, Baltimore, MD, October 2006.

81) 16th Annual International Conference on Oral Chelators, Limassol, Cyprus, October 2006.

82) Annual FRBM meeting, Denver, CO, December 2006.

83) Annual Neurotoxicity Society meeting, Pucon, Chile, March 2007.

84) GTCbio symposium, San Francisco, September 2007.

85) International conference on antioxidants, Sousse, Tunisia, Oct 2008.

86) SFN satellite conference, Georgetown U., Oct 2008.

87) Havana Redox 2009, Cuba, Jan 2009.

88) Neurocon 2009, Calcutta, India, Feb 2009.

89) GRC on Oxidative Stress and Disease, Il Ciocco, Italy, Mar 2009.

90) Annual Neurotoxicity Society meeting, Acatama, Chile, April 2009.

91) First International Conference on Metal Chelation in Biology and Medicine, Bath, UK, Dec. 11-14th, 2009.

92) 51st Annual Neurology Conference of Japan, Tokyo, April 20-22nd 2010.

93) 2nd International Conference on Advances in Health and Medical Sciences, Paphos, Cyprus July 8-12th 2010.

94) Biology of Aging Gordon Research Conference, Les Diablerets, Switzerland, Aug. 22-27th 2010.

95) 20th Annual International Conference on Chelation, Grand Rapids, Michigan October 15-18th 2010.

96) 5th Annual Neurotoxicity Society Meeting, Uspallata, Mendoza, Argentina April 7-10th 2011.

97) 5th Biennial Society for Free Radical Research-Asia and Japan, Kagoshima, Japan, August 31-Sept 4, 2011.

98) Neurotoxicity Society SFN pre-meeting on 'Inflammation and Neurodegeneration', Georgetown, November 11th, 2011.

98) SFRBM Plenary Session on Oxidative Stress in Disease, Atlanta, GA, November 18th, 2011.

99) Grounds Rounds, UCSF Memory and Aging, December 9th, 2011.

100) XIX WFN World Congress on Parkinson's disease and related disorders, Shanghai, China, December 11-14th, 2011.

101) FENS 'Neurotoxicological aspects of neurological disorders', Barcelona, Spain, July 12-14th, 2012.

102) 10th Catecholamine Symposium, Asilomar, CA, Sept 10-13th, 2012.

103) Annual Neurotoxicity Society meeting, Easter Island/Chile, Mar 16-24th, 2013.

104) Alliance for Healthy Aging, Netherlands, Nov 7-9, 2013.

105) Gerontological Society of America, New Orleans, Nov 2013.

106) 11th International Symposium on Neurobiology and Neuroendocrinology of Aging, Bregenz, Austria, July 27-Aug 1, 2014.

107) University of Cologne Graduate Program in Aging Research, July 31, 2014.

108) SENS Research Foundation symposium, Santa Clara, CA, Aug 22, 2014.

109) 21st Annual SFRBM, Seattle, WA, Nov 19-23rd, 2014.

110) VII Annual Neurotoxicity Society meeting, Spain, April 11-19, 2015.

111) Society of Toxicity Annual meeting, New Orleans, March 15-17th, 2016.

112) Biogen, Cambridge, MA May 2016.

113) World Parkinson's Congress, Portland, OR September 2016.

114) 2nd International Conference on Aging, Stanford University, October 2016.

115) Annual Neurotoxicity Society, Florianopolis, Brazil May 2017.

116) International Conference on Aging, U. Sao Paulo, Brazil, August 2017.

117) The Secrets of Senescence, Buck Institute, Novato CA, May 2018.

118) MJFF PD Therapeutics Conference, New York, NY, Oct 2018.

119) GSA Presidential Symposium for the Biological Sciences, Boston, MA Nov 2018.

120) Society of Neuroimmune Pharmacology (SNIP), Portland, OR, April 2019.

121) Annual meeting of the Neurotoxicity Society, Netherlands, April 2019.

Other invited research seminars
Baylor University School of Medicine
Dartmouth College
Oregon State Health Sciences, Portland
Purdue University
Indiana University, Indianapolis
University of Pennsylvania, Hershey Medical Center
University of Rochester
University of Washington
Mt. Sinai
Washington and Lee, Virginia
Pierce College, Los Angeles
Vanderbilt University
Cal State, Los Angeles
University of California, Los Angeles
University of Manchester, UK
Imperial Cancer Research Fund, London
Emory University
Humboldt University, Berlin
University of Newcastle, UK
University of Michigan
University of Cambridge, UK
Parkinson's Institute, Sunnyvale, CA
Children's Hospital of Oakland Research Institute
Gladstone Institute, San Francisco
UC, Berkeley
Stanford University

Tarzana-Encino Medical Center
University of Texas, San Antonio
University of Idaho
Purdue
UMDMJ, Picataway
Medical College of Wisconsin
UC, Santa Cruz
Oklahoma State University
St. Jude Research Institute, Nashville
UCSF
Florida State University
UC Merced
University of Alabama, Birmingham
Sonoma State University
NIEHS
U. Wyoming
U. Nebraska-Lincoln
U. Puerto Rico
U. Washington
Howard University
Medical College of Georgia, Augusta
University of Cologne, Germany
Northeastern Ohio Medical University
Oregon State University
University of New York, Buffalo
U. Pitt. Medical Center
Delaware State U.
Iowa State U.

EDITORIAL BOARD MEMBERSHIP

eNeuro (J. Neurosci. E-journal)
Aging Cell
Free Radicals in Biology and Medicine
Mechanisms in Ageing and Development
IUBMB Life
Frontiers in Bioscience

JOURNAL REVIEWING

Science
Nature Biotechnology
Nature Neuroscience
Nature Medicine
Nature Communications
Journal of Neuroscience
Proceedings, National Academy of Sciences
PloS One
Experimental Neurology
Journal of Neurochemistry
Annals of Neurology
European Journal of Neuroscience
Neurobiology of Aging
Neurobiology of Disease
Journal of Inorganic Biological Chemistry
Journal of Neuroscience Research
Metallomics

FASEB Journal
Brain Research
Comparative Biochemistry and Physiology
Journal of Gerontology: Biological Sciences
Neuroscience Letters
Age and Ageing

GRANT REVIEWING

CNNT, standing member, 2015-2021
NOMD, ad hoc, February 2015
NOMD, June 2014
CNNT, ad hoc, January 2014
Junior Ellison award reviews, 2011-2013
AFAR grant reviews, 2011-2013
MDCN SEP, Dec 6, 2012
Chair, Michaelis PPG review (U Kentucky), Nov 7, 2012
AFAR review panel, 2010-2013
Chair, NIA Zigmond PPG review (U. Pitt.), July 1, 2010
NIH Udall Center Grants, May 2010
NINDS Earley PPG review (Johns Hopkins), September 2009
Member, Cell Death in Neurodegeneration Study Section, CSR, NIH (2007-2009)
Nathan Shock pilots, San Antonio
NIEH, site visit, Checkoway PPG review (U. Washington)
The Wellcome Trust, UK
Brookdale National Fellowship
Hereditary Disease Foundation
Ad Hoc Reviewer, NIH Neurological Sciences 1 Study Section
External Reviewer, Neuroscience, Veterans Administration
Alzheimer's Disease Program, Department of Health Services
Research into Ageing, UK
Michael J. Fox Foundation
BBSRC

MEETING ORGANIZATION/ SESSION CHAIR/INVITED WORKSHOPS

Chair, Oxygen Club of California session on redox regulation of cell signaling, February 6, 1998 (co-chair, Fulvio Ursini).

Steering committee, 2001 Gordon conference on "Oxidative Stress and Disease" (chairs, Joan Valentine and Simon Melov).

Chair, First International Meeting of Metals and the Brain, session on Neurodegenerative Disorders, September 20, 2000 (co-chair, Jim Connor).

Invited participant, NIEHS brain-storming session on gene-environment in the development of Parkinson's Disease, Colorado Springs, CO, August 24, 2001.

Invited participant, NIMH Indo-US workshop on establishing neuroscience research collaborations, Orlando, Fl, October 31st, 2002.

Chair, Gordon Conference on the Biology of Aging, 2004 (co-chairs, Gordon Lithgow and Thomas Zglinicki).

Steering Committee, NIEHS Collaborative Center for Parkinson's Disease Environmental Research, 2002-2007.

Faculty, NIA funded Annual Summer Training Course in Experimental Aging Research, 2003-2008.

Invited Chair, Oral presentation session at FRBM International meeting, Virgin, Islands, November 2004. Panel Judge for Young Investigator Award at same meeting.

Invited participant in Second NINDS Workshop on Neurodegeneration with Brain Iron Accumulation, May, 2005.

Lecturer, 6th Annual FASEB Mentoring Luncheon for Women in Science, San Francisco, CA, April 2006.

Co-chair of joint Buck/BioMarin symposium on "Free Radicals of the Heart and Mind", October 26-27th 2006.

Advisory Board, Oxygen Club of California, 2006.

Council Member, Neurotoxicity Society, 2007-2013.

Chair, Gordon Conference on Oxidative Stress and Disease, 2011.

Plenary Session Chair, Buck Stem Cell Symposium, March 1-2nd, 2012.

Program for Annual NTS meeting, Florianopolis, Brail Aug 2017.

Undergraduate courses

1992-1993	**Instructor**: Biology 99hf (Gene Transfer into the Nervous System), Harvard University.
1993-2004	**Instructor**: Gerontology 210 (Biology of Aging and Development), Gerontology 310 (Physiology of Aging), and Gerontology 200 (Science of Adult Development), USC. **Guest Lecturer**: Gerontology 414 (Neurobiology of Aging), Gerontology 499 (Demography of Aging), Gerontology 330 (Society and Adult Development), Gerontology 592 (Multidisciplinary Research Colloquium Series on Aging), USC. Bio C149 (Biology of Aging), UCLA, Spring 1998 (instructor, Rita Effros), Molecular Pharmacology of Aging, U Manchester, UK, Fall 1999, Berkeley Aging Course, Fall 2001, Spring/Fall 2002, Spring 2003, Spring 2004.

Graduate courses

1993-2000	**Team instructor**: BISC 542 (Molecular Genetics of Embryonic Development) and BISC 502b (Molecular Genetics and Biochemistry), USC.
2015-present	**Team instructor**: Gero 601 (joint USC-Buck Ph.D. program).

Additional teaching as part of Buck's postdoctoral training program and UC Berkeley, Gladstone, Dominican, and Touro graduate programs.

Ingrid Hansen, Dominican Biology of Aging MS program, 2010-2012.

Tracy Barhydt, Dominican MS Biology of Aging program, 2011-2013.
Dmitri Leonoudakis, Assistant Professor, CPMC Jr Faculty training program, 2011-2013.
Jennifer Grun, Kaiserslautern University of Technology MS program, summer of 2012.
Ross Jacobs, Autistry College Prep Program, 2013.
Sean Batir (MIT), SENS Foundation Scholarship program, summer of 2013.
Karalynn Yamashita, Touro Pharmacy School MS program, 2013-2014.
Thibaut Leycuras/Matthieu Gembara, MS training program, Universite Blaise Pascal, UFR Sciences and Technology, summer of 2014.
Remi Laberge, K99 mentor support, 2014-1016.
Sara Tom, Touro Pharmacy School MS Program, 2017-2018.
Mentor, COBRE program at Delaware State University, 2018.
Hwan Kim, COBRE program at Delaware State University, 2018.
Grace Porter, SENS Summer Scholar, 2018.
Zina Lanseur, MS training program, Faculte de Pharmacie de Paris, summer of 2018.
Guilaume Tricot, MS training program, Universite de Strasbourg, summer of 2018.
David Bagelman, SENS post-BS Scholar, 2019.
Nikhita Anand, Pharmacy Honors Program, Birla Institute of Technology and Science, Pilani, India, Spring 2019.

SUMMARY OF UNDERGRADUATE, GRADUATE AND POST-DOCTORAL STUDENT TRAINING

Faculty/post-doctoral fellows currently in lab:

1) Shankar Chinta, Ph.D. (National Brain Research Centre, India). Dr. Chinta joined my laboratory in November, 2002 (APDF funding). Promoted to Staff Scientist in 2008. Became adjunct faculty in 2014 (main appointment, Assistant professor, Touro University).
2) Suzanne Angeli, Ph.D. (UCSF). Dr. Angeli joined my lab in April 2010 (T32/F32 funding).
3) Georgia Woods, Ph.D. (UC Davis). Dr. Woods joined my laboratory in April 2013 (T32 funding).

Previous post-docs trained (and next position):

1) Qize Wei, M.D., Ph.D., Associate Professor, Fordham University, New York.
2) Jun Qin Mo, M.D., M.S., Physician in Pathology, Cincinnati Hospital.
3) Margaret Burnett, M.D., Physician in Neurology, USC County Hospital.
4) Yi Liu, M.D., Ph.D., Research Professor at UCLA School of Medicine.
5) Ferda Yantiri, Ph.D., Manager R&D, Quidel, La Jolla, CA.
6) Yongqin Wu, M.D., Ph.D., Physician, greater Boston Area.
7) Veronica Sanchez, Ph.D. (University of Madrid, Spain). Visiting Scientist.
8) Srinivas Bharath, Ph.D. (India Institute of Science). Professor, Dept. of Neurochem., NIMHANS. Bangalore, India.
9) Jyothi Kumar, Ph.D. (Jawaharlal Nehru U.). Scientist, Versatile Biotech, San Francisco.
10) Deepinder Kaur, Ph.D. (Jawaharlal Nehru U.). Computer Technologist, San Francisco.
11) Steve Danielson, Ph.D. (U. Davis). LC/MS Chemist, Thermo Fisher Scientific.
12) Donna Lee, Ph.D. (U. Rochester). Research Scientist, Genentech.
13) Jun Peng, Ph.D. (University of New England, Australia). Staff Scientist, Zeng laboratory, Buck Institute.
14) Kim Hwan, Ph.D. (UCLA/Johns Hopkins). Associate professor, Delaware State University.
15) Chris Lieu, Ph.D. (U. Penn). Scientist, AfaSci Research Laboratories, San Francisco.
16) Colleen Dewey, Ph.D. (UT Southwest). Postdoc, U. Iowa (Glenn fellowship funding).

PhD students currently in lab:

1) Minna Schmidt, joint USC-Buck PhD Program in the Biology of Aging.

Previous graduate students trained:

1) Lynne Hung (Neurobiology), M.A. awarded spring 1995; graduated from USC Medical

School in 1998.
2) Yiding Lei (Molecular biology). Rotated spring 1995.
3) Mark Snow (Molecular biology) Rotated fall 1995.
4) Dan Coulter (Neurobiology) Rotated spring 1996
5) Reshma Shringarpure (Molecular biology). Rotated fall 1996.
6) Yahui Song (Molecular biology) Rotated fall 1996.
7) Michael King (Neurobiology) Rotated spring 1997.
8) Ivan Lee (Molecular biology) Rotated fall 1997.
9) Giovanna Lalli (Molecular biology) Received masters degree fall 1997. Graduated with Ph.D. from Imperial Cancer Research Foundation and currently faculty at UC London, London, UK
11) Yisheng Kang (Molecular biology). Received masters degree fall 1997.
12) Octavian Jurma (Neurobiology). Masters fall 1997, currently faculty at National Science Research Laboratory, Romania.
13) Yunmei Ma (Molecular biology). Rotated spring 1998.
14) Jaichandar Subramanian (Molecular biology). Rotated fall 1998.
15) Cathryn Harris (Molecular biology). Rotated winter 1999.
16) Guang Shi (Molecular biology, USC). Rotated spring 1999.
17) Dongmei Jiang (Neurobiology, USC). Graduated spring 2000. Currently physician in Orange County.
18) 17) Zhijin Wu (Molecular biology, USC). Received masters degree summer 2000.
19) Veena Viswanath (Molecular biology, USC). Currently Research Scientist at Allergan, La Jolla, CA.
20) Nandita Jha (Molecular biology, USC). Currently faculty at Cal State, LA.
21) Rapee Boonplueang (Molecular biology, USC). Faculty in Dept of Biology, Mahidol University, Bangkok, Thailand.
22) Michael Hsu (Molecular biology, USC), Principle Clinical Research Scientist, Abbott Vascular, San Francisco, CA.

Previous undergraduates trained:
1) Erica Hong, work study (1994-1995); left to attend graduate school in Biology at Yale.
2) Denise Hom, BISC 490 independent research (1994-1996); left to attend graduate school at University of Chicago.
3) Melissa Tyson, BISC 490 independent research (Summer 1994); left to attend veterinary school at the University of California, Davis.
4) Shahriar Yaghouri, BISC 490 independent research (Fall 1994); completed degree in Biomedical Engineering in 1997.
5) May Yeishing, Merit research in Biomedical Engineering (1995-1996); completed degree in Biomedical Engineering in 1997.
6) Lavonne Sheng, BISC 490 independent research (Fall 1996); completed degree in Gerontology in 1998. Entered USC School of Medicine, fall 1998.
7) Brian Lee, Gero 490 independent research, spring 1998.
8) Don Truong, summer and fall 1999, spring 2000.
9) Anthony Callisto, fall 1999 and spring 2000. Left to attend medical school at USC, fall 2000.
10) Anna Gasparian, summer and fall 1999, spring 2000. Left to attend research program at the University of Washington.
11) Andrina Carlson, Berkeley, 2005-2009.

Member, graduate committees
1) Jay Struckhoff, Chemistry (advisors, G.K.S. Prakash and George Olah, USC). Passed away, 1997.
2) Yiding Lei, Molecular Biology (advisor, Rahul Warrior, USC). Graduated 2000.
3) Zhaohui Dong, Molecular Biology (advisor, Leslie Bell, USC). Graduated, 1997.

4) Xiang Yao, Molecular Biology (advisor, Norm Arnheim,USC). Graduated, 1998.
5) Michael Alikean, Molecular Biology (advisor, John Tower, USC). Graduated, 2000.
6) Jingtao Sun, Molecular Biology (advisor, John Tower, USC). Graduated, 2000.
7) Carlos Fonck, Neurobiology (advisor, Michel Baudry, USC). Graduated, 1999.
8) Jeff Coogan, Neurobiology (advisor, Tom McNeill, USC). Graduated, 1998.
9) DeeDee Tilley, Molecular Biology (advisor, Miriam Susskind, USC). Graduated 1997.
10) Jeff Bertram, Molecular Biology (advisor, Myron Goodman, USC). Graduated 2000.
11) Xhong Xie, Nuerobiology (advisor, Tuck Finch, USC). Graduated 2001.
12) Reeshma Shringapure, Molecular Biology (advisor, Kelvin Davies, USC). Graduated 2001.
13) John Wheeler, Molecular Biology (advisor, John Tower, USC). Graduated 1997.
14) Hui Wu, Molecular Biology (advisor, Pam Larsen, USC). Switched committee membership, fall 1998. Moved to Cal Tech, 1999.
15) Liz Foster, Neurobiology (advisor, Sarah Bottjer, USC). Graduated 1998.
16) Rui Li, Molecular Biology (advisor, Kelvin Davies, USC). Left program, spring 1998.
17) Samir Koirala, Neurobiology (advisor, Ching Ping Ko, USC). Graduated 2001.
18) Yubei Song, Neurobiology (advisor, Tuck Finch, USC). Left program, 1999.
19) Lin Gao, Pharmacy (advisor, Henry Forman, USC). Graduated 2000.
20) Aya Miyao , Molecular Biology (advisor, Tuck Finch, USC). Left program 2000.
21) Smitha Karunakaran, University of New Dehli, India. June 2009.
22) Sulay Rivera, University of Puerto Rico. May 2010.
23) Ingrid Hanson, Dominican University, September 2009-2011.
24) Kara Yamashita, Touro University, September 2013-2014.
25) Azar Shamirzadi, USC-Buck PhD student, summer 2016-present.
26) Courtney Hudson, USC-Buck PhD student, fall 2017-present.

COMMITTEES

Member, Buck Formal Research seminar series 2017-present
Member, Buck-USC Graduate Committee, 2013-present
Member, Buck AA Oversight Committee, 2014-present
Member, Buck Stem Cell Regulatory Committee, 2012-present
Member, Buck Conflict of Interest Committee, 2012
Member, Buck Faculty Executive Committee (CEO equivalent). Feb 2008-2010
Chair, Diseases of Aging Recruitment Committee
Chair, Buck Space Committee
Chair, Institutional Animal Care and Use Committee, Buck Institute (2001-2009)
Technology Transfer Committee, Buck Institute
Institutional Animal Care and Use Committee, USC
Undergraduate Health Science Track committee, School of Gerontology
Admissions and Graduate Student committees, Molecular Biology Program
Student Advisement committee, Neurobiology Program
Search committees, Biogerontology Division, School of Gerontology
Member, Neural, Informational, and Behavioral Sciences (NIBS) Program
Member, USC/Norris Comprehensive Cancer Center and Cell Biology Research Program
Co-organizer, USC Developmental Biology Group, 1996-1997
Affiliate, Neurobiology Graduate Program, Department of Biological Sciences
Affiliate, Molecular Biology Graduate Program, Department of Biological Sciences

SCHOOL, UNIVERSITY, OR INSTITUTE SERVICE

Panelist, 1995 Trustee Scholarship Interviews
Member, USC Faculty Women Association
Invited speaker, LDS day at the Andrus Center, 8/1/95.
Preceptor, Training grant in Endocrinology and Neurobiology of Aging, Gerontology (Tuck Finch)
Preceptor, Interdisciplinary Training grant, Gerontology (Vern Bengston)
Preceptor, Physician Scientist Award, Neurology (Les Weiner)

Advisor, Biological Sciences 490 Undergraduate Research Program
Advisor, Gerontology 490 Undergraduate Research Program
Advisor, Biomedical Engineering Undergraduate Honors Research Program
Advisor, Health Science Track Undergraduate Program, Gerontology
Member, LA Free Rads group
Invited speaker, Phi Sigma Biology Honor Society, 10/98
Buck SAB visit, 9/17/02
Buck staff talk, 9/18/02
Johnson & Johnson visit, 1/30/03
UCSF affiliation visit, 5/14/03
BVF visit, 5/21/03
Paul Genn visit, 9/16/03
Buck Community seminar, 12/4/03
Buck Board of Trustees, 12/5/03
Buck Staff Seminar, 3/21/06
Buck Acorn Society seminars, June 2006
American Association of University Women, January 2007
Lecturer, Gladstone Postdoc training symposium, San Francisco, CA, June, 2007
Women in Science, August 2007
Parkinson's Support Group (Bay Area), October 2007
Kaiser meeting, April 29 2008
Annual State of the Institute presentation, Dec 2008
Community Seminar, February 22nd 2008 and February 28, 2009
Buck Board of Trustees talk, February 2009
Mohammed Ali Foundation, March 15, 2010
Buck Development Search Firm Interview, Jun 15th, 2010
Faculty Board of Trustees Representative, 2009-2010
Chair, Core Evaluation Committee, 2007-2008
Buck State of the Institute Address, 2008
Honorary Faculty, Dominican University, 2010-present
Faculty, Touro University, 2013-present
Buck BAIT study participant, 2013-present
Women in Bio panelist, October 2014
Women in Science panelist, November 2014
Community Seminar on the 'Exposome', November 2014
R&D discussions with pharmaceutical companies/foundations: Akebia, Alere, Antoxis, Apotex, BioMarin, Evotec, Kinemed, Livionix, Retrotrope, Roche, Simon Foundation, Adelson Foundation.
Buck Student Symposium, April 2016.

SCIENCE COMMUNITY SERVICE

1) Search committee advisor, Director of Wolfson Centre for Gerontology and Neurodegenerative Diseases, Guy's Campus, King College, London (replacement for Dr. Leslie Iversen FRS).

2) Member, NINDS Committee to Identify Neuroprotective Agents in Parkinson's (CINAPS).

3) Consultant, RSAT BioVentures.

COMMUNITY SERVICE

1) Broadcasted interview on research on Beverly Hills cable new program "Longevity
2) Update", May 1994. Member of advisory council.
3) Judge, Zoology Division, Los Angeles County Science Fair, May 1994, 1995.
4) Invited lecture on "Genetic and environmental influences on neurodegenerative
5) "Diseases" for AARP Board, Andrus Center, June 1994.

6) Invited lecture to Parkinson's Support Group, USC University Hospital, 1/31/95.
7) Invited talk, "Antioxidants: Hope for the future" at the Westlake Tri-Valley Chapter Parkinson's
8) Symposium, 9/10/95.
9) Invited lecture to Parkinson's Support Group, USC University Hospital, 1/29/96.
10) Interviewed by USC Chronicle, Los Angeles Times, Philadelphia Enquirer, 1992 Society of
11) Neuroscience press conference.
12) Invited lecture to San Pedro Parkinson's Support Group, San Pedro Peninsula Hospital, 3/25/96.
13) Participation in workshop on “Future Directions of Alzheimer’s Disease Research in the Los
14) Angeles Basin”, 6/2/96.
15) Interviewed by Weems Elementary School Journalism class (grades 3-5), Los Angeles, 10/17/96.
16) Seminar for premed Health Science students, Leonard Davis School of Gerontology, 11/12/97.
17) Seminar for Andrus Board of Counselors, 1/13/98.
18) Invited speaker, Andrus Center Leadership Retreat, 3/21/98
19) Invited speaker, AARP Workshop, 6/14/99.
20) Invited lecture to Parkinson’s Support Group, USC University Hospital, 3/27/00.
21) Buck Institute Annual Public Forum, 12/1/00.
22) Invited speaker, Chevron retirement group, Novato, CA, 2/14/01.
23) Invited speaker, Marin Parkinson’s Support Group, 2/27/01.
24) Invited speaker, Santa Rosa Parkinson’s Support Group, 4/7/01.
25) Invited speaker, Buck community seminar on neurodegenerative diseases, 9/20/01.
26) Invited speaker, World Presidents’ Organization, 1/23/02.
27) Invited speaker, Association of University Women, 4/18/02.
28) Invited speaker, Marin Womens’ Organization, 6/25/02.
29) Interviewed by Stephanie Alderson, Novato Advance and Science Interchange, Inc, 8/02.
30) Interviewed for front page articles on Parkinson’s Center grant in Novato Advance, IJ, Santa Rosa newspapers, 12/02 (Parkinson’s Center grant).
31) Interviewed for article on iron and Parkinson’s disease in UK publication “Health and Aging”, 1/03.
32) Interviewed by Lancet, Science, Nature, Dallas Morning News, The Scientist, Neurology Reviews for March 2003 Neuron article.
33) Research on iron as causative factor in PD reviewed in November 2004 issue of *Neurology Reviews*.
34) Invited speaker, University of San Francisco Tri Beta National Biological Honor Society, ‘Exploring Careers in Biology’, Nov. 10th, 2004.
35) Gladstone Postdoctoral Training, Successful Fundraising, July 2007.
36) Invited Speaker, Sonoma Country Parkinson’s Support Group, May 2009.
37) Jackson Laboratories West, Ride for a Cure, May 15th 2010.
38) CIRM symposium, Sonoma State University, Feb, 2012.
39) Marin County Parkinson’s support group, September, 2012.
40) Partnership to fight chronic disease forum, San Jose, Nov 28th, 2012.
41) Sonoma County Parkinson’s support group, April, 2014.
42) Presentation at the Exploratorium’s Spring ‘After Dark’ adult lecture series.
43) Presentation, Parkinson’s Women Support Group, Redwood City CA Oct 2017.
44) Interviewed by The Scientist for Jan 2018 Cell Reports publication.

Last updated 6/28/18