

CURRICULUM VITAE

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Nuran Ercal, MD PhD

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EDUCATION

- 1990** PhD, Physiology, Hacettepe University, Ankara, Turkey.
Dissertation: Comparison of the Effects of Somatostatin and VIP on Human Platelet Aggregation and ATP Release: Possible Mechanism of Action of VIP.
- 1988** MS, Physiology, Ohio State University, Columbus, OH.
Completed all the coursework required for PhD
Thesis: VIP Receptors in Human Platelet Membrane: Characterization of Binding and Functional Activity
Advisors: Professors Dr. Thomas O'Dorisio and Sue O'Dorisio
- 1981** MD, Istanbul Medical Faculty, Istanbul, Turkey

ACADEMIC AND WORK EXPERIENCE

Missouri University of Science and Technology (Formerly University of Missouri-Rolla):

- 2009-** Richard K. Vitek/FCR Endowed Chair of Biochemistry
- 2005-** Professor, Department of Chemistry
- 2001-2005** Associate Professor
- 1999-2000** Associate Professor
- 1993-1999** Assistant Professor
- 1992-1993** Adjunct Professor
- 1990-1993** Research Associate

Other Institutions:

- 2000-2001** Visiting Research Professor, Washington University, St. Louis, MO.
- 1988-1990** Teaching and Research Associate, Department of Physiology, Hacettepe University, Ankara, Turkey.
- 1985-1988** Research and Teaching Assistant, Department of Physiology, Ohio State University
- 1981-1982** Teaching Assistant and Research Associate, Department of Physiology and Biophysics, Cerrahpasa Faculty of Medicine, Istanbul, Turkey.

RESEARCH INTERESTS

- Free radicals in biological systems
- Method development for thiol analysis in biological samples.
- Benefits of thiol antioxidants oxidative stress-related conditions including
- Cataracts, medicinal drug-induced toxicity, metal toxicity (particularly lead), radiation exposure, alcohol overuse

HONORS AND AWARDS

Awarded by University of Missouri-Rolla/Missouri University of Science and Technology

Chemistry Department Outstanding Teaching Award for **1994-1995**

Outstanding Teacher Award for **1996-1997**

Outstanding Teacher Award for **1998-1999**

Faculty Excellence Award for **1997**

Faculty Excellence Award for **1998**

Faculty Excellence Award for **1999**

Faculty Performance Shares Award for **2001**

Recognition of Teaching Excellence for **2002-2003**

Woman of the Year Award for **2003**

Excellence in Teaching 300-Level Chemistry Award for **2004**

UMR Faculty Excellence Award for **2004**

UMR Faculty Excellence Award for **2006**

Special Recognition Award for receiving five Faculty Excellence Awards **2006**

Chemistry Department Excellence in Teaching 400-Level Chemistry Award for **2007**

Chemistry Department Excellence in Teaching 300-Level Chemistry Award for **2008**

Missouri University of Science & Technology Faculty Excellence Award for **2008**

Claypool Award **2008**

Office of Graduate Studies Outstanding Contribution Award for **2009**

Chemistry Department Excellence in Teaching 300-level Chemistry Award for **2009-2010**

Named to the Missouri S&T Academy of Chemistry and Biochemistry **2009**

Tappmeyer Teaching Award **2017, 2018**

Outstanding Teaching Award **2019**

PROFESSIONAL ACTIVITIES

Honorary member of Phi Eta Sigma

American Chemical Society member

Society for Redox Biology and Medicine member

American Chemical Society South Central Missouri Local Section, Chair and Chair-elect

Oxygen Society member

International Congress on Free Radicals in Health and Disease in Istanbul, Turkey, Session Chair

Midwest ACS Meeting Biochemistry, Medicinal Chemistry, and Free Radicals in Biological Systems Symposium, Program Chair

Sigma Xi Scientific Research Society Member

Ozark Biomedical Initiative Chair (2017) and member

Reviewer

Proposals:

NIH NeuroAIDS and other End-Organ Diseases (NAED) Study Section, Grant Agency of the Czech Republic, University of Missouri System Research Board, Center for Biomedical Research (Missouri S&T), Broad Agency Announcement peer review panel of the FY18 Medical Research and Material Command for the Department of Defense Congressionally Directed Medical Research Programs (and the U.S. Army), several other national and international agencies and foundations, Netherlands Organization for Health Research and Development (ZonMw)

Textbooks: 9th edition of Stryer's *Biochemistry*

Journals:

Scientific World Journal (Editor), *Amino Acids, Molecular and Cellular Biochemistry, Biochemical Pharmacology, Toxicology Letters, Free Radical Biology & Medicine, Toxicology, Environmental Toxicology and Pharmacology, Free Radical Research, Journal of Chromatography, Chirality, Neurochemistry International, Biochemical Pharmacology, Environmental Research, Brain Research, Brain Research Bulletin, Annals of Occupational Hygiene, Journal of Neurochemistry, General Physiology and Biophysics, Peptides, Biochimica et Biophysica Acta-Molecular Basis of Disease, Biofactors, Journal of Veterinary Science & Animal Husbandry (JVSAH), Fundamental & Clinical Pharmacology, PLOS One, Current Eye Research, and Current Medicinal Chemistry*

FUNDED RESEARCH PROJECTS AND GRANTS

As Principal Investigator

Completed:

1. "Liposomal Delivery of PDE Inhibitors and UT-15C To Human Erythrocytes: Role in the Treatment of PAH," Co-PI: Elizabeth Bowles, United Therapeutics, Project Period: 2015-2017
2. "Therapeutic Effect of Novel Antioxidant Eye Drops in Animal Models of Degenerative Eye Disorders," NIH Academic Research Enhancement Award Grant (R15), \$478,750, credit =100% 2012-2015
3. "A New Antioxidant Prevents Toxicity of HIV Proteins with Methamphetamine," NIH Academic Research Enhancement Award Grant (R15), \$225,750, credit =100%, 2007-2009
4. "Role of Selenocystine in Lead Toxicity," NIH Academic Research Enhancement Award Grant (R15), \$146,750 (\$35,000 match from MST), credit = 100%, 2004-2006
5. UM Research Board Award, "Role of N-Acetylcysteine in Copper Intoxication," \$38,034, Principal Investigator: Nuran Ercal, credit =100%, 2001-2002
6. "Therapeutic Role of Natural Antioxidants in Lead Poisoning," NIH Academic Research Enhancement Award Grant (R15), \$111,000, credit = 100%, 2000-2002
7. "Therapeutic Role of Natural Antioxidants in Lead Poisoning," NIH Academic Research Enhancement Award Grant (R15), \$148,810 (\$40,000 from CEST), shared credit = 95%, 1998-2000
8. "Therapeutic Role of N-Acetylcysteine in Lead Poisoning," NIH Academic Research Enhancement Award Grant (R15), \$104,300, shared credit = 90%, 1996-1998
9. "Bio-analytic Assay for Compound X," Chiroscience Limited in England, \$13,281, shared credit = 100%, 1997-98
10. "Thiol Antioxidants in Ethanol-induced Oxidative Stress," CEST, \$20,000, shared credit = 100%, 1997
11. "Assessment of Oxidative Stress to Lymphocytes in Lead Poisoning," UM Research Board Award, \$49,885, shared credit = 100%, 1995-1996
12. "Assessment of Oxidative Stress to Lymphocytes in Dioxin Toxicity," CEST, \$6,000, shared credit = 50%, 1995
13. "Quantitative Assessment of Interspecies Variations in Chemical Toxicity," CEST, \$15,000 shared credit = 50%, 1993

Active:

1. "Enhancing ocular uptake of thiol antioxidants with nanodiamonds," NIH Academic Research Enhancement Award Grant (R15), PI: Nuran Ercal, Co-PI: Vadym Mochalin, 2019-2022

As Co-PI

1. Leonard Wood Institute, "Development of vibrational spectroscopic imaging of traumatic brain and spinal cord injury," PI: Jie Gao (49%), Co-PI: Nuran Ercal (27%) and Xiaodong Yang (24%), \$403,996, April 2019-June 2021
2. Leonard Wood Institute, "Evaluation of Antioxidant Therapy and Oxidative Stress Biomarkers after Blast-Induced Traumatic Brain Injury in Rat Models," PI: Paul Nam (28%), Co-PIs: Nuran Ercal (24%), Honglan Shi (24%), Catherine Johnson (24%), \$412,261, April 2019-March 2021
3. New Biomedical Research Core Facility: The Bio-CURE Lab at S&T, Co-PIs: Nuran Ercal, Vadym Mochalin, Rainer Glaser, Risheng Wang, Thomas Schuman, Anthony Convertine, Keith R. Buszek. Missouri University of Science & Technology, Office of Research. Award: \$400,000, 07/01/2019-06/31/2021.
4. Bass Pro, "Side-Effects of Ozone Treatment and Irritant Detection in Modern Aquariums," PI: Honglan Shi, Co-PIs: Nuran Ercal, Paul Nam, December 2020-December 2021

Completed:

1. Center for Research in Energy and Environment (CREE) Seed Fund, "Establishment of whole body exposure chambers and effects of jet fuel exhaust on pulmonary mechanics and functions in mice," PIs: Yue-Wern Huang and Nuran Ercal, 2018-2019, \$18,540
2. The University of Missouri Center of Excellence for Aerospace Particulate Emissions Reduction Research, NASA Glenn Research Center, \$2,700,302, Principal Investigator: Philip D. Whitefield, shared credit = 2%, 2003-2004
3. "Evaluation of β -Carotene Isomers and Retinol as Anti-carcinogens," NIH Academic Research Enhancement Award Grant (R15), \$111,000, Principal Investigator: Chariklia Sotiriou-Leventis, shared credit= 20%, 2001-2003
4. "Identification of Enantiomeric Compounds in Smokeless Tobacco and Their Biological Effects in Cells," Smokeless Tobacco Research Council, \$150,000, Principal Investigator: Daniel Armstrong, shared credit = 50%, 1996-1999
5. "Evaluation of Comparative Mutagenicity of Soybean and Petroleum Fog Oil Smokes," Missouri Soybean Association, \$45,791, Principal Investigator: S. Kapila, shared credit = 30%, 1998-1999
6. Radiosensitizer Development Fund, Private donation from Drs. Richard H. Matthews and Barbara Matthews, \$25,000, 1993-present.

As Research Advisor

Opportunities for Undergraduate Research Experience, Missouri S&T/UMR, 1997-present

INVITED TALKS

1. "Administration of N-Acetylcysteine Reduces Indices of Oxidative Stress in Lead-Exposed Animals," University of Missouri-Kansas City, October 3, 1996
2. "Oxidative Stress and Lead Poisoning," Department of Physiology, Cerrahpasa Faculty of Medicine, Turkey, June 12, 1996
3. Presented the results of lead-induced oxidative stress and therapeutic implications at Frontiers in Chemistry Invitational Seminars, MS&T, 1997-present
4. Invited panelist, "Expanding Your Horizons in Mathematics and Science," St. Louis, MO, March 12, 1996-2004
5. "Lead-Induced Toxicity," Stanford University, November 19, 1998
6. "Lead Poisoning and Oxidative Stress," Hacettepe University, Turkey, June 15, 1998
7. "Therapeutic Role of Natural Antioxidants in Lead Poisoning," Villanova University,

Villanova, PA, October 15, 1998

8. "Lead and Oxidative Stress," Washington University, Lipid Research Department, May 2001
9. "Toxicity of Oxidized Amino Acids," Lipid Research Department, Washington University, St. Louis, MO, June 2001
10. "Lead Poisoning and Oxidative Stress," Southwest Missouri State University, Chemistry Department, Springfield, MO, September 17, 2001
11. "Mechanisms for Toxicity of Oxidized Amino Acids," UMR Chemistry Departmental Seminar Series, November 4, 2002
12. "Lead Toxicity, Oxidative Stress and Antioxidants," UMR Chemistry Departmental Seminar Series, February 14, 2006
13. "Antioxidants in Oxidative Stress-Related Disorders" MS&T Chemistry Departmental Seminar Series, April 13, 2007
14. "Investigation of *In Vitro* and *In Vivo* Radioprotection by a Newly Designed Thiol Antioxidant, N-Acetylcysteine Amide (NACA)" MS&T Biological Sciences Departmental Seminar Series February 26, 2007
15. "N-Acetylcysteine amide (NACA) and Oxidative Stress" Karolinska University Hospital, Stockholm, Sweden, May 13-14, 2007
16. "A New Antioxidant Prevents Toxicity of HIV Proteins and Methamphetamine" SNIP 14th Annual Conference, Charleston, SC, March 11-14, 2008
17. "Oxidative Stress related Disorders and role of a Novel Antioxidant N-Acetylcysteine Amide (NACA)", Visiting Scientist Seminar, Institute of Lung Biology and Disease, Helmholtz Zentrum Munchen, Neuherberg, Germany, June 24, 2009
18. "Oxidative Stress in the Blood Brain Barrier Induced by Numerous Toxins and Its Consequences, "The RCMI Program and the Administrative Supplement to Advance Translational (T1 & T2) Research Invitation, Puerto Rico, September 9, 2010
19. "N-Acetylcysteine Amide (NACA), a Derivative of N-Acetylcysteine, Its Role in Various Oxidative Stress-Related Disorders", Institute of Pharmacology and Toxicology, Bundeswehr, Neuherberg, Munich, Germany January 13, 2011
20. "Role of N-Acetylcysteine Amide in BSO-induced Cataracts" Haydarpasa Eye Institute, Istanbul, Turkey, January 10, 2011
21. "Effects of Glutathione Pro-drugs in Eye Disorders", Nutrition and the Eye VI Symposium, College of Optometry, University of Missouri-St. Louis, MO, April 14, 2013
22. "The Effect of a Novel Thiol Antioxidant N-acetylcysteineamide (NACA) on Various Oxidative Stress-induced Disorders", University of Hacettepe, Faculty of Medicine, Ankara-Turkey, June 1, 2015.
23. "Role of N-acetylcysteineamide in Oxidative Stress-related Disorders", Uludag University, School of Medicine, Bursa-Turkey, June 16, 2015.
24. "A New Antioxidant Therapy for Oxidative Stress-Induced Disorders." Ozark Biomedical Initiative. Rolla, MO. February 26, 2016.
25. "Effects of N-Acetylcysteine amide (NACA), A Novel Thiol Antioxidant in Various Oxidative Stress-Induced Disorders." MIMH. St. Louis, MO. 2016
26. "Evaluation of Antioxidant-based Formulations for Potential Cataract Treatment," International Society of Antioxidants, 19th International Conference on Oxidative Stress Reduction, Redox Homeostasis & Antioxidants, Paris, France, June 26-27, 2017
27. "Glutathione Prodrugs and Oxidative Stress-Related Disorders." Oral presentation given at: Missouri S&T Dean's Leadership Council Meeting: 2017 Oct 26; Rolla, MO.
28. "Role of Thiol Antioxidants in Prevention and Treatment of Cataract." Presented at: ISER 2018; 2018 Sept 9-13; Belfast Ireland.

29. “Glutathione Prodrugs and Oxidative Stress-Related Disorders.” Virtual meeting as part of graduate recruitment for University of Nebraska at Omaha on Jan 24, 2022.

UNIVERSITY SERVICE

UMR/Missouri S&T and University of Missouri System

Missouri S&T Graduate Faculty **2010-present**
Animal Care and Use Committee **1994-present**
Pre-Med Advisory Committee

Intercultural Community Development Program **1994-1996**
Environmental Training Program for Thai Teachers, Participant **1995**
Faculty Conduct Committee **1997-1998**
Tenure and Promotion Committee **2001-2003**
Academic Council Tenure Committee **2006-2007, 2008-2009** (alternate), **2010-2011** (alternate)
Academic Council Grievance Hearing Panel **2007-2008, 2010-2011**
Woman of the Year Selection Committee, Chair **2007**
Student Conduct Committee, Chancellor’s Appointee **2010-2011, 2014-2015**
Academic Council Promotion and Tenure Review Committee **2010-2011, 2015-2016**
Discipline Specific Curricula Committee **2012**
Academic Freedom and Standards Committee **2015-2016**
Tenure Policy Committee **2018-2019**

Presidential Teaching Award Selection Committee **2002**
Advisory Committee for Presidential Award for Innovative Teaching, President’s Award for Inter-Campus Collaboration, and Student Entrepreneur of the Year Award **2017-2018**
Curators’ Distinguished Teaching Professor Selection Committee
Faculty Excellence Award Committee
Faculty Teaching Award Committee
Faculty Service Award Committee

Environmental Research Center Senior Investigator
Center for Biomedical Research (CBR) Strategic Planning Committee
Translational Precision Medicine Complex Planning Committee **2018**
Strategic Planning Committee **2014**

Department of Chemistry

Graduate Faculty member
Undergraduate Recruiting/Affairs Committee
Graduate Affairs Committee
Chair of Graduate Affairs Committee **2009**
Chair of Personnel Committee **2018-2019**
Served in several Search Committees
Organized weekly student/faculty Journal Club meetings
Arranged for many internationally known scientists to present their studies in Chemistry
Departmental Seminars

TEACHING and STUDENT SUPERVISION

Courses Taught at Missouri S&T

Introduction to Biochemistry (Chem 4610/5610)

Textbook: *Biochemistry*, Eighth Edition by Jeremy M. Berg, John L. Tymoczko, Gregory J. Gatto, Jr., and Lubert Stryer.

Biochemistry Laboratory (Chem 4619)

Textbook: *Biochemical Techniques: Theory, and Practice* by John F. Robyt and Bernard J. White.

Metabolism (Chem 4620/5620)

Textbook: *Lehninger Principles of Biochemistry*, Seventh Edition by David L. Nelson and Michael M. Cox.

New Courses Developed

Free Radicals in Biochemistry (Chem 6650)

This course is based on recently published papers and relevant books. This course was adapted from that of Dr. Cadenas of University of Southern California, with his permission.

Neurochemistry with Clinical Correlations (Chem 5640)

Academic Advising (1993-present)

Completed: 21 PhD and 11 MS

Co-advised and served on numerous MS and PhD committees

Students Receiving PhD Degrees

1. Piyanee Treeratphan, "Assessment of Oxidative Stress in Lead-Poisoning and Therapeutic Implications," 1996
2. Hande Gurer-Orhan, "Importance of Lipid Peroxidation and Antioxidants in Lead Toxicity" (**co-advised with Prof. Hilal Ozgunes**), 1999
3. Rachel Neal, "The Radio-Protective Effects of N-Acetylcysteine Isomers," 2000
4. Deniz Yildiz, "Nicotine, Oxidative Stress and Apoptosis," 2000
5. Nukhet Aykin-Burns, "New Treatment for an Old Problem: Lead Poisoning," 2002
6. Suman Penugonda, "Role of Glutamate in Lead-Induced Toxicity: Protection by N-Acetylcysteine Amide (NACA), a Novel Thiol Antioxidant," 2006
7. Wei Wu, "Effects of N-Acetylcysteine Amide, a Novel Thiol Antioxidant, on Radiation-Induced Oxidative Stress," 2006
8. Suneetha Mare, "Changes in the Thiol Status of Neurodegenerative Disorders and the Effects of Copper on the Amyloid Beta Peptide Clearance," 2006
9. Tulin Otamis Price, "The Roles of HIV-1 Viral Proteins (gp120 and Tat)-induced Oxidative Stress in Blood-Brain Barrier", (**co-advised with Prof. Fikriye Uras**), 2006
10. Joshua Ogony, "Effects of Combined Exposure to Ethanol and Ionizing Radiation on the Antioxidant Status of *In Vitro* and *In Vivo* Models," 2007
11. Linu S. Abraham "A Study of the Beneficial Role of Thiol Antioxidant Supplementation in Various Forms of Glutathione Deficiency," (**co-advised with Dr. Paula Lutz**), 2009
12. Manda Kalyan C. Reddy, "HAART Drugs Induce Oxidative Stress and Mitochondrial Dysfunction in Blood Brain Barrier," 2010
13. Xincheng Zhang, "Nano-particles Induced Oxidative Stress in Immortalized Human Brain Endothelial Cells," 2011

14. Joshua W. Carey, "Therapeutic Effects of N-Acetylcysteine Amide in the Treatment of Eye Disorders," 2012
15. Weili Fan "The Role of Potential Antioxidant in Medicinal Drug-Induced Toxicity," 2014
16. Adam Martin, "Constitutive Activity in Orphan G Protein Coupled Receptors," 2015
17. Yasaswi Maddirala, "Effects of N-Acetylcysteine Amide in Preventing/Treating Cataracts," 2015
18. Ahdab Khayyat, "Contribution of New Thiol-antioxidant in the Treatment of Acetaminophen Toxicity," 2016
19. Elizabeth Bowles, "Liposomal Delivery of PDE5 Inhibitors and UT-15C to Human Erythrocytes," 2016
20. Hsiu-Jen Wang, "The Maculoprotective Effect of a Thiol Antioxidant in Retinal Degeneration Models," 2017
21. Justin Edward Beltz, "Tools to Evaluate Nanodiamond-mediated Delivery of Tiopronin for Cataract Prevention," 2020

Students Receiving MS Degrees

1. Xiang Luo, "The *In Vitro* Study of Metabolic Effects of D- and L- Forms of Amino Acids on Tumor Cell Growth." 1995
2. Deniz Yildiz "The Effects of 4-Hydroxynonenal and N-Acetyl-L-Cysteine on c-Myc Induced Apoptosis." 1996
3. Ping Yang "Determination of Biological Thiols by HPLC Following Derivatization by ThioGlo™ Maleimide Reagents." 1998
4. Mozow Yusof "Plausible Antioxidant Functions of N-acetylcysteine and D-penicillamine in the Treatment of Copper Toxicity." 2000
5. Douglas Krutil "Catalytic Effect of Copper Ions on Homocysteine Auto-oxidation to Induce Oxidative Stress." 2001
6. Wei Wu "A Study of *in vitro* Toxicity of 3-Nitro-L-Tyrosine." 2003
7. Rong Shi (co-advised with Dr. Yue-wern Huang), "Effects of a Newly Synthesized Thiol Antioxidant on Doxorubicin-induced Oxidative Stress," 2006
8. Xincheng Zhang, "N-Acetylcysteine Amide Protects Against Methamphetamine-induced Oxidative Stress in Human Brain Endothelial Cells," 2008
9. Weiqing Chen, "Comparing the Chelating Abilities of N-Acetylcysteine and N-Acetylcysteine Amide *in vitro* for Lead Poisoning Treatment," 2010
10. Ahdab Naeem Khayyat, "Comparative Evaluation of N-Acetylcysteine and N-acetylcysteine amide in Acetaminophen-induced Oxidative Stress," 2013
11. Rakesh Kacham, "Role of Nicotine in Oxidative Stress," 2013

PUBLICATIONS

1. Ercal N, O'Dorisio MS, Vinik A, O'Dorisio TM, Kadrofske M. Vasoactive intestinal peptide receptors in human platelet membrane: characterization of binding and functional activity. *Ann N Y Acad Sci.* **1988** Jun; 527: 663-666.
2. Ercal N, O'Dorisio S. Covalent - crosslinking of vasoactive intestinal polypeptide to its receptors on human platelet membranes. *Biyokimya Dergisi.* **1990**; 15(3):1-12.
3. Ercal N, Matthews RH, Zukowski J, Armstrong DW, Winters R. Effects of whole abdomen irradiation on glutamine in C57BL/6 mice. *Trans Mo Acad Sci.* **1992**; 26: 59-63.
4. Matthews RH, Ercal N. Nodular poorly differentiated lymphocytic lymphoma of the thyroid. *Mo Med.* **1992** Dec; 89(12):846-9.
5. Matthews RH, Ercal N, Murrell HJ. Transvaginal electron beam cone used in treating an

- advanced squamous cell carcinoma of the cervix. *Mo Med*. **1993** Apr; 90(4):188-90.
6. Armstrong DW, Gasper MP, Lee SH, Ercal N, Zukowski J. Factors controlling the level and determination of D-amino acids in the urine and plasma of laboratory rodents. *Amino Acids*. **1993** Jun; 5(2):299-315.
 7. Armstrong DW, Zukowski J, Ercal N, Gasper M. Stereochemistry of pipercolic acid found in the urine and plasma of subjects with peroxisomal deficiencies. *J Pharm Biomed Anal*. **1993** Oct; 11(10):881-6.
 8. Armstrong DW, Gasper M, Lee SH, Zukowski J, Ercal N. D-amino acid levels in human physiological fluids. *Chirality*. **1993**; 5(5):375-8.
 9. Winters R, Matthews R, Ercal N, Krishnan K. Glutamine protects Chinese hamster ovary cells from radiation killing. *Life Sci*. **1994**; 55(9):713-20.
 10. Winters RA, Zukowski J, Ercal N, Matthews RH, Spitz DR. Analysis of glutathione, glutathione disulfide, cysteine, homocysteine, and other biological thiols by high-performance liquid chromatography following derivatization by N-(1-pyrenyl)maleimide. *Anal Biochem*. **1995** Apr 1; 227(1):14-21.
 11. Ercal N, Oztezcan S, Hammond TC, Matthews RH, Spitz DR. High-performance liquid chromatography assay for N-acetylcysteine in biological samples following derivatization with N-(1-pyrenyl)maleimide. *J Chromatogr B Biomed Appl*. **1996** Oct 25; 685 (2): 329-34
 12. Ercal N, Treeratphan P, Hammond TC, Matthews RH, Grannemann NH, Spitz DR. In vivo indices of oxidative stress in lead-exposed C57BL/6 mice are reduced by treatment with meso-2,3-dimercaptosuccinic acid or N-acetylcysteine. *Free Radic Biol Med*. **1996**; 21(2):157-61.
 13. Ercal N, Luo X, Matthews RH, Armstrong DW. In vitro study of the metabolic effects of D-amino acids. *Chirality*. **1996**; 8(1):24-9.
 14. Matthews RH, Ercal N. Prevention of mucositis in irradiated head and neck cancer patients. *J Exp Ther Oncol*. **1996** Mar; 1(2):135-8.
 15. Ercal N, Treeratphan P, Lutz P, Hammond TC, Matthews RH. N-acetylcysteine protects Chinese hamster ovary (CHO) cells from lead-induced oxidative stress. *Toxicology*. **1996** Apr 15; 108(1-2):57-64.
 16. Ercal N, Le K, Treeratphan P, Matthews R. Analysis of thiol-containing compounds in biological samples by capillary zone electrophoresis. *Biomed Chromatogr*. **1996** Jan-Feb; 10(1):15-8.
 17. Park SK, Olson TA, Ercal N, Summers M, O'Dorisio MS. Characterization of vasoactive intestinal peptide receptors on human megakaryocytes and platelets. *Blood*. **1996** Jun 1; 87(11):4629-35.
 18. Yildiz D, Erçal N, Frank RL, Matthews RH. Effects of 4-hydroxynonenal and N-acetyl-L-cysteine on Myc-induced apoptosis. *Toxicol Lett*. **1996** Dec 31; 89(3):215-21.
 19. Neal R, Yang P, Fiechtl J, Yildiz D, Gurer H, Ercal N. Pro-oxidant effects of delta-aminolevulinic acid (delta-ALA) on Chinese hamster ovary (CHO) cells. *Toxicol Lett*. **1997** May 3; 91(3):169-78.
 20. Gürer H, Özgünes H, Neal R, Spitz DR, Erçal N. Antioxidant effects of N-acetylcysteine and succimer in red blood cells from lead-exposed rats. *Toxicology*. **1998** July 17; 128(3):181-9.
 21. Armstrong DW, Wang XI, Ercal N. Enantiomeric composition of nicotine in smokeless tobacco, medicinal products, and commercial reagents. *Chirality*. **1998**; 10(7): 587-91.
 22. Yildiz D, Ercal N, Armstrong DW. Nicotine enantiomers and oxidative stress. *Toxicology*. **1998** Sep 15; 130(2-3):155-65.
 23. Neal R, Cooper K, Gurer H, Ercal N. Effects of N-acetylcysteine and 2,3-dimercaptosuccinic acid on lead induced oxidative stress in rat lenses. *Toxicology*. **1998** Sep 15; 130(2-3):167-74.
 24. Ridnour LA, Winters RA, Ercal N, Spitz DR. Measurement of glutathione, glutathione disulfide, and other thiols in mammalian cell and tissue homogenates using high-performance

- liquid chromatography separation of N-(1-pyrenyl)maleimide derivatives. *Meth Enzymol.* **1999**; 299(Pt A):258-67.
25. Neal R, Cooper K, Kellogg G, Gurer H, Ercal N. Effects of some sulfur-containing antioxidants on lead-exposed lenses. *Free Radic Biol Med.* **1999** Jan; 26(1-2):239-43.
 26. Yildiz D, Liu YS, Ercal N, Armstrong DW. Comparison of pure nicotine- and smokeless tobacco extract-induced toxicities and oxidative stress. *Arch Environ Contam Toxicol.* **1999** Nov; 37(4):434-9.
 27. Gurer H, Ozgunes H, Oztezcan S, Ercal N. Antioxidant role of alpha-lipoic acid in lead toxicity. *Free Radic Biol Med.* **1999** Jul; 27(1-2):75-81.
 28. Yusof M, Yildiz D, Ercal N. N-acetyl-L-cysteine protects against delta-aminolevulinic acid-induced 8-hydroxydeoxyguanosine formation. *Toxicol Lett.* **1999** May 20; 106(1):41-7.
 29. Gurer H, Neal R, Yang P, Oztezcan S, Ercal N. Captopril as an antioxidant in lead-exposed Fischer 344 rats. *Hum Exp Toxicol.* **1999** Jan; 18(1):27-32.
 30. Ercal N, Neal R, Treeratphan P, Lutz PM, Hammond TC, Dennery PA, Spitz DR. A role for oxidative stress in suppressing serum immunoglobulin levels in lead-exposed Fisher 344 rats. *Arch Environ Contam Toxicol.* **2000** Aug; 39(2):251-6.
 31. Yusof M, Neal R, Aykin N, Ercal N. High performance liquid chromatography analysis of D-penicillamine by derivatization with N-(1-pyrenyl)maleimide (NPM). *Biomed Chromatogr.* **2000** Dec; 14(8):535-40.
 32. Gurer H, Ercal N. Can antioxidants be beneficial in the treatment of lead poisoning? *Free Radic Biol Med.* **2000** Nov 15; 29(10):927-45.
 33. Kullman JP, Yu T, Chen X, Neal R, Ercal N, Armstrong DW. Resolution of chiral compounds derivatized with N-(1-pyrenyl)maleimide and ThioGloTM3. *J Liq Chromatogr Relat Technol.* **2000** Jul 15; 23(13): 1941-1952.
 34. Güreer H, Ozgünes H, Saygin E, Ercal N. Antioxidant effect of taurine against lead-induced oxidative stress. *Arch Environ Contam Toxicol.* **2001**; 41(4):397-402.
 35. Ercal N, Yang P, Aykin N. Determination of biological thiols by high-performance liquid chromatography following derivatization by ThioGlo maleimide reagents. *J Chromatogr B Biomed Sci Appl.* **2001** Apr 5; 753(2):287-92.
 36. Aykin N, Neal R, Yusof M, Ercal N. Determination of captopril in biological samples by high-performance liquid chromatography with ThioGloTM3 derivatization. *Biomed Chromatogr.* **2001** Nov; 15(7):427-32.
 37. Ercal N, Gurer-Orhan H, Aykin-Burns N. Toxic metals and oxidative stress part I: mechanisms involved in metal-induced oxidative damage. *Curr Top Med Chem.* **2001** Dec; 1(6):529-39.
 38. Ercal N, Aykin-Burns N, Gurer-Orhan H, McDonald JD. Oxidative stress in a phenylketonuria animal model. *Free Radic Biol Med.* **2002** May 1; 32(9):906-11.
 39. Neal R, Matthews RH, Lutz P, Ercal N. Antioxidant role of N-acetyl cysteine isomers following high dose irradiation. *Free Radic Biol Med.* **2003** Mar 15; 34(6):689-95.
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40. Collins C, Neal RE, Ercal N. Oxidative stress as a function of age in rat lenses. Presented at: 32nd Annual Midwest Regional Meeting of the ACS; 1997 Nov; Osage Beach, MO.
41. Gurer H, Ozgunes H, Ercal N. Lead-induced changes in oxidative status of red blood cells in Rats. Presented at: 32nd Annual Midwest Regional Meeting of the ACS; 1997 Nov; Osage Beach, MO.
42. Yildiz D, Gurer H, Ercal N, Armstrong DW. Enantiomers of nicotine and oxidative stress. Presented at: 32nd Annual Midwest Regional Meeting of the ACS; 1997 Nov; Osage Beach, MO.
43. Neal R, Treeratphan P, Lutz PM, Hammond TC, Spitz DR, Ercal N. Administration of N-acetylcysteine reduces indices of oxidative stress and immunosuppression in lymphocytes of lead-exposed rats. Presented at: 32nd Annual Midwest Regional Meeting of the ACS; 1997 Nov; Osage Beach, MO.
44. Ercal N, Yildiz D, Gurer H. and Armstrong D. Effects of nicotine enantiomers on CHO Cells. Presented at: 4th Annual Meeting of the Oxygen Society; Nov 1997; San Francisco, CA.
45. Neal R, Matthews RH, Lutz P, Ercal N. Role of N-acetylcysteine in irradiated C57BL/6 mice. Presented at: 4th Annual Meeting of the Oxygen Society; Nov 1997; San Francisco, CA.
46. Neal R, Cooper K, Ercal N. Effects of various antioxidants on lead-induced oxidative stress in lenses of Fisher 344 Rats. Presented at: 4th Annual Meeting of the Oxygen Society; Nov 1997; San Francisco, CA.
47. Gurer H, Ozgunes H, Ercal N. Antioxidant role of lipoic Acid and taurine in lead toxicity. Presented at: 4th Annual Meeting of the Oxygen Society; Nov 1997; San Francisco, CA.
48. Neal R, Cooper K, Gurer H, Ercal N. Effects of N-acetylcysteine and succimer on lead induced oxidative stress in rat lenses. Presented at 33rd Annual Midwest Regional Meeting of the ACS; 1998 Nov; Wichita, KS.
49. Yildiz D, Yosuf M, Ercal N. Delta-aminolevulinic acid-induced DNA Damage in Chinese hamster ovary (CHO) cells. Presented at 33rd Annual Midwest Regional Meeting of the ACS; 1998 Nov; Wichita, KS.
50. Yosuf M, Neal R, Ercal N. Analysis of D-penicillamine in biological samples by fluorescence derivatization with N-(1-pyrenyl)maleimide and HPLC. Presented at 33rd Annual Midwest Regional Meeting of the ACS; 1998 Nov; Wichita, KS.
51. Ptacek J, Krutil D, Birge JE, Ercal N. Oxidative stress in mutant SOD1 cells. Presented at: 6th Annual Meeting of the Oxygen Society; 1999 Nov 18-22; New Orleans, LA.
52. Aykin N, Yang P, Ercal N. Determination of biological thiols by HPLC following derivatization by ThioGlo maleimide reagents. Presented at: 6th Annual Meeting of the Oxygen Society; 1999 Nov 18-22; New Orleans, LA.
53. Ercal N, Gurer H, Ozgunes H. Taurine and lead poisoning. Presented at: 6th Annual Meeting of the Oxygen Society; 1999 Nov 18-22; New Orleans, LA.
54. Gurer H, Ercal N, Ozgunes H. Antioxidant effects of N-acetylcysteine, lipoic acid, and taurine in lead-exposed erythrocytes in vitro and in vivo. Presented at: 4th Congress of Toxicology in Developing Countries; 1999 Nov 6-10; Antalya, Turkey.
55. Ercal N, Aykin N, Yang P. Analysis of biothiols by HPLC using Thioglo maleimide reagents. Presented at: 219th National Meeting of the ACS; 2000 Mar 26-30; San Francisco, CA.
56. Ercal N, Yildiz D, Armstrong D. Nicotine enantiomers and oxidative stress. Presented at: 219th National Meeting of the ACS; 2000 Mar 26-30; San Francisco, CA.
57. Ercal N, Aykin-Burns N, Gurer-Orhan H. Assessment of lead toxicity in PC-12 cells. Presented at: 8th Annual Meeting of the Oxygen Society; 2001 Nov 15-19; Research Park Triangle, NC.
58. Aykin-Burns N, Lawson L, Ercal N. Effects of selenocysteine on lead-exposed Chinese hamster ovary cells (CHO). Presented at: 8th Annual Meeting of the Oxygen Society; 2001

- Nov 15-19; Research Park Triangle, NC.
59. Neal R, Aykin-Burns N, Ercal N, Zigler JS Jr. In vivo Pb²⁺ exposure alters lens structural protein profiles. Presented at: National Center for Toxicogenomics Symposium on Gene Expression and Proteomics in Environmental Health Research. NIEHS/NIH; 2001 Dec 3-4; Bethesda, MD.
 60. Wu W, Aykin-Burns N, Ercal N. Toxicity of 3-nitro-L-tyrosine to Chinese hamster ovary cells and its possible mechanism. Presented at: 37th Annual Midwest Regional Meeting of the ACS; 2002 Oct 23-25; Lawrence, KS.
 61. Franklin E, Aykin-Burns N, Ercal N. NAC protects against lead induced oxidative stress in PC-12 cells. Presented at: Undergraduate Program. 37th Annual Midwest Regional Meeting of the ACS; 2002 Oct 23-25; Lawrence, KS.
 62. Ercal N. (Invited Lecturer). Lead poisoning, oxidative stress and antioxidants. Presented at: 7th International Symposium on Pharmaceutical Sciences; 2003 Jun 24-27; Ankara, Turkey.
 63. Penugonda S, Ercal N. Toxicity of airborne particles. Presented at: MS&T Center of Excellence for Aerospace Particulate Emissions Reduction Research Kick Off Meeting; 2003 July; St. Louis, MO.
 64. Wu W, Ercal N. Determination of thiocyl in biological samples by HPLC with ThioGloTM3 derivatization. Presented at: 38th Annual Midwest Regional Meeting of the ACS; 2003 Nov 5-7; Columbia, MO.
 65. Mare S, Ercal N. Analysis of MESNA (2-mercaptoethane sulfonate) in the biological samples by HPLC using fluorescence detection. Presented at: 38th Annual Midwest Regional Meeting of the ACS; 2003 Nov 5-7; Columbia, MO.
 66. Penugonda S, and Ercal N. HPLC analysis of N-(2-mercaptopropionyl)-glycine in biological samples by ThioGloTM3 derivatization. Presented at: 38th Annual Midwest Regional Meeting of the ACS; 2003 Nov 5-7; Columbia, MO.
 67. Penugonda S, Ercal N. High performance liquid chromatography analysis of mercaptopropionyl glycine in biological samples by ThioGlo-3 derivatization. Presented at: 38th Annual Midwest Regional Meeting of the ACS; 2003 Nov 5-7; Columbia, MO.
 68. Penugonda S, Ercal N. Effects of N-acetylcysteine amide (NACA), a novel thiol antioxidant against glutamate-induced cytotoxicity in neuronal cell line PC12. Presented at: 39th Annual Midwest Regional Meeting of the ACS; 2004 Oct 20-24; Manhattan, KS.
 69. Penugonda S, Ercal N. Potentiation of lead-induced cell death in PC12 cells by glutamate: protection by N-acetylcysteine amide (NACA), a novel thiol antioxidant. Presented at: 12th Annual Meeting of the Society for Free Radical Biology and Medicine; 2005 Nov 17; Austin, Texas.
 70. Penugonda S, Ercal N. Comparative evaluation of effects of N-acetylcysteine (NAC) and N-acetylcysteine amide (AD4) on lead-induced oxidative stress. Presented at: Annual Meeting & Exposition of the American Association of Pharmaceutical Scientists; 2005 Nov 6-10; Nashville, TN.
 71. Ercal N. Lead poisoning, oxidative stress and antioxidants. Presented at: Marmara University, Faculty of Pharmacy, Department of Biochemistry; 2006 Jun 21; Istanbul, Turkey.
 72. Ercal N. N-acetylcysteine amide (NACA) and oxidative stress. Presented at: Karolinska University Hospital; 2007 May 13-17; Stockholm, Sweden.
 73. Schimel AM, Abraham LS, Ercal N, Apte RS. Protection of retinal pigment epithelial cells from oxidative injury by N-acetylcysteine amide, a novel thiol antioxidant. Presented at: Annual Meeting of the Association for Research in Vision and Ophthalmology (ARVO); 2008 Apr 27-May 1; Fort Lauderdale, FL.

74. Ates B, Abraham L, Ercal N. In vitro antioxidant and free radical scavenging properties of N-acetylcysteine amide (NACA). Presented at: Oxygen radicals. Gordon Research Conference, 2008 Feb 2-8; Ventura, CA.
75. Abraham LS, Schimel AM, Apte RS, Ercal BC, Ercal N. Tert-butyl hydroperoxide induced oxidative damage in ARPE-19 cells and protection by N-acetylcysteine amide, a low molecular weight thiol antioxidant. Presented at: Oxygen radicals. Gordon Research Conference, 2008 Feb 2-8; Ventura, CA.
76. Ates B, Ercal BC, Manda K, Ercal N. Simple determination of glutathione disulfide (GSSG) by dithiothreitol (DTT) thiol-disulfide exchange reactions. Presented at: Oxygen radicals. Gordon Research Conference, 2008 Feb 2-8; Ventura, CA.
77. Ercal N, Otamis-Price T, Banks WA, Abraham L. A new antioxidant prevents toxicity of HIV proteins with methamphetamine. Presented at: Oxygen radicals. Gordon Research Conference, 2008 Feb 2-8; Ventura, CA.
78. Carey J, Banerjee A, Banks WA, Ercal N. Lead induced oxidative stress decreases the effectiveness of the blood brain barrier. Presented at: 15th Annual Meeting of the Society for Free Radical Biology and Medicine; 2008 Nov 19-23; Indianapolis, IN.
79. Abraham LS, Schimel AM, Apte RS, Ercal N. Tert-butyl hydroperoxide induced oxidative damage in ARPE-19 cells and protection by N-acetylcysteine amide, a low molecular weight thiol antioxidant. Presented at: 15th Annual Meeting of the Society for Free Radical Biology and Medicine; 2008 Nov 19-23; Indianapolis, IN.
80. Banerjee A, Zhang X, Manda K, Banks WA, Ercal N. N-acetylcysteine amide (NACA): a thiol antioxidant protects blood brain barrier from oxidative stress induced damage in animals challenged with Gp120, tat and methamphetamine. Presented at: 15th Annual Meeting of the Society for Free Radical Biology and Medicine; 2008 Nov 19-23; Indianapolis, IN.
81. Manda K, Banerjee A, Banks WA, Ercal N. Thiol antioxidant N-acetylcysteine amide protects against HAART drugs inducing oxidative stress in the blood brain barrier cells –its role in HIV associated dementia. Presented at: 15th Annual Meeting of the Society for Free Radical Biology and Medicine; 2008 Nov 19-23; Indianapolis, IN.
82. Zhang X, Banks WA, Ercal N. Thiol antioxidant N-acetylcysteine amide protects against methamphetamine-induced oxidative stress in human brain endothelial cells. Presented at: 15th Annual Meeting of the Society for Free Radical Biology and Medicine; 2008 Nov 19-23; Indianapolis, IN.
83. Chen W, Ercal N, Chusuei CC. X-Ray photoelectron and UV-Vis spectroscopy studies of antioxidants chelating to Pb(II). Presented at: 15th Annual Meeting of the Society for Free Radical Biology and Medicine; 2008 Nov 19-23; Indianapolis, IN.
84. Chen W, Ercal N, Chusuei CC. Comparing the chelating abilities of EDTA, N-acetylcysteine and N-acetylcysteine amide to Pb(II) by X-ray photoelectron (XPS) and UV-vis spectroscopies. Presented at: 238th National Meeting of the ACS; 2009 Aug 16-20; Washington, DC.
85. Chen C, Chusuei CC, Ercal N. Chelating ability of selected antioxidants to Pb(II). Presented at: 16th Annual Meeting of the Society for Free Radical Biology and Medicine; 2009 Nov 18-22; San Francisco, CA.
86. Zhang X, Banerjee A, Banks WA, Ercal N. N-acetylcysteine amide protects against methamphetamine-induced oxidative stress in mice. 16th Annual Meeting of the Society for Free Radical Biology and Medicine; 2009 Nov 18-22; San Francisco, CA.
87. Carey JW, Pinarci EY, Ercal N. *In vivo* inhibition of L-buthionine-(S,R)-sulfoximine (BSO)-induced cataracts by a novel antioxidant, N-acetylcysteine amide. Presented at: 17th Annual Meeting of the Society for Free Radical Biology and Medicine; 2010 Nov 18-20; Orlando, FL.

88. Carey JW, Banerjee A, Pinarci EY, Zhang X, Karacal H, Ercal N. N-Acetylcysteine amide protects against methamphetamine-induced oxidative stress in retinal cells. Presented at: 17th Annual Meeting of the Society for Free Radical Biology and Medicine; 2010 Nov 18-20; Orlando, FL.
89. Zhang X, Banerjee A, Banks WA, Ercal N. Diesel exhaust particles from diesel engines induced oxidative stress in immortalized human brain endothelial cells. Presented at: 17th Annual Meeting of the Society for Free Radical Biology and Medicine; 2010 Nov 18-20; Orlando, FL.
90. Beard RS, Henry JN, Price TO, Ercal N, Banks WA, Bearden SE. Homocysteine disrupts NO metabolism in brain microvascular endothelial cells by an mGluR5-dependent mechanism. Presented at FASEB National Meeting; 2011
91. Price TO, Sheibani N, Patrick P, Ercal N, Shah GN. Attenuation of high glucose-induced oxidative stress in brain pericytes by ethoxycarbonyl succinyl-L-cysteine, a mitochondrial carbonic anhydrase inhibitor. Presented at: ENDO 2012. The 94th Annual Meeting and Expo of the Endocrine Society; 2012 Jun 23-26. Houston, TX.
92. Carey JW, Tobwala S, Karacal H, Ercal N. Therapeutic effects of N-acetylcysteine amide eyedrops on cataracts induced by glutathione depletion. Presented at: Gordon Research Conference; 2012 Feb 5-10; Ventura, CA.
93. Khayyat A, Fan W, Tobwala S, Ercal N. Comparative evaluation of N-acetylcysteine and N-acetylcysteine Amide in acetaminophen-induced oxidative stress. Presented at: 19th Annual Meeting of the Society for Free Radical Biology and Medicine; 2012 Nov 14-18; San Diego, CA.
94. Schugar RC, D'Avignon DA, Moll AR, Weinheimer C, Kovacs A, Tobwala S, Ercal N, Lewandowski ED, Crawford PA. Roles of ketone bodies and CoA transferase in myocardial response to pressure overload-induced remodeling. Presented at: Washington University Cardiology Symposium; 2013; St. Louis, MO.
95. Maddirala SY, Tobwala S, Ercal N. Effects of the novel thiol antioxidant N-acetylcysteine amide (NACA) on reversing sodium selenite-induced cataracts in Wistar rats. Presented at: MS&T Graduate Research Showcase; 2013 Apr 10; Rolla, MO.
96. Khayyat A, Fan W, Tobwala S, Ercal N. Comparative Evaluation of N-Acetylcysteine and N-Acetylcysteine Amide in Acetaminophen-Induced Oxidative Stress. Presented at: MS&T Graduate Research Showcase; 2013 Apr 10; Rolla, MO.
97. Simone L, Maddirala SY, Tobwala S, Ercal N. Effects of the novel thiol antioxidant N-acetylcysteine amide (NACA) on reversing sodium selenite-induced cataracts in Wistar rats. Presented at: 9th Annual Undergraduate Research Conference; 2013 Apr 3, Rolla, MO.
98. Tobwala S, Maddirala SY, Ercal N. Effects of the novel thiol antioxidant N-acetylcysteine amide (NACA) on reversing sodium selenite-induced cataracts in Wistar rats. Presented at: 48th Midwest Regional Meeting of the ACS; 2013 Oct 16-19; Springfield, MO.
99. Khayyat A, Fan W, Tobwala S, Ercal N. Comparative evaluation of N-acetylcysteine and N-acetylcysteine amide in acetaminophen-induced oxidative stress. Presented at: 48th Midwest Regional Meeting of the ACS; 2013 Oct 16-19; Springfield, MO.
100. Wang HJ, Tobwala S, Ercal N. N-acetylcysteine amide (NACA) prevents retinal degeneration induced by sodium iodate in C57BL/6 mice. Presented at: 48th Midwest Regional Meeting of the ACS; 2013 Oct 16-19; Springfield, MO.
101. Kacham R, Tobwala S, Ercal N. Role of nicotine in oxidative stress. Presented at: 48th Midwest Regional Meeting of the ACS; 2013 Oct 16-19; Springfield, MO.
102. Fan W, Tobwala S, Ercal N. N-acetylcysteine amide (NACA) protects human hepatic cell (HepaRG) from nitrofurantoin (NFT)-induced oxidative stress. Presented at: 48th Midwest Regional Meeting of the ACS; 2013 Oct 16-19; Springfield, MO.

103. Fan W, Tobwala S, Ercal N. Antioxidant potency of *Sutherlandia Frutescens*. Presented at: 48th Midwest Regional Meeting of the ACS; 2013 Oct 16-19; Springfield, MO.
104. Maddirala SY, Tobwala S, Ercal N. Effects of N-acetylcysteine amide eye drops on acetaminophen-induced cataracts in C57BL/6 mice. Presented at: 48th Midwest Regional Meeting of the ACS; 2013 Oct 16-19; Springfield, MO.
105. Tobwala S, Maddirala SY, Ercal N. Effects of the novel thiol antioxidant N-acetylcysteine amide (NACA) on reversing sodium selenite-induced cataracts in Wistar rats. Presented at: 20th Annual Meeting of the Society for Free Radical Biology and Medicine; 2013 Nov 20-24; San Antonio, TX.
106. Wang HJ, Tobwala S, Ercal N. N-acetylcysteine amide (NACA) prevents retinal degeneration induced by sodium iodate in C57BL/6 mice. Presented at: 20th Annual Meeting of the Society for Free Radical Biology and Medicine; 2013 Nov 20-24; San Antonio, TX.
107. Fan W, Tobwala S, Ercal N. N-acetylcysteine amide (NACA) protects human hepatic cell (HepaRG) from Nitrofurantoin (NFT)-induced oxidative stress. Presented at: 20th Annual Meeting of the Society for Free Radical Biology and Medicine; 2013 Nov 20-24; San Antonio, TX.
108. Fan W, Tobwala S, Ercal N. Antioxidant potency of *Sutherlandia frutescens*. Presented at: 20th Annual Meeting of the Society for Free Radical Biology and Medicine; 2013 Nov 20-24; San Antonio, TX.
109. Maddirala SY, Tobwala S, Ercal N. Effects of N-acetylcysteine amide eye drops on acetaminophen-induced cataracts in C57BL/6 mice. Presented at: 20th Annual Meeting of the Society for Free Radical Biology and Medicine; 2013 Nov 20-24; San Antonio, TX.
110. Wang HJ, Tobwala S, Lindgren D, Aronstam RS, Karacal H, Ercal N. N-acetylcysteineamide (NACA) prevents retina degeneration in mice models. Presented at: 49th Midwest Regional Meeting of the ACS; 2014 Oct 14; Columbia, MO.
111. Maddirala SY, Tobwala S, Karacal H, Ercal N. Reversing selenite-induced cataractogenesis in rats by N-acetylcysteineamide eye drops. Presented at: 21st Annual Meeting of the Society for Free Radical Biology and Medicine; 2014 Nov 19-23; Seattle, WA.
112. Khayyat A, Tobwala S, Hart M, Ercal N. 196-Contribution of N-Acetylcysteineamide as a New Thiol-Antioxidant in the Treatment of Acetaminophen Toxicity. Presented at: 22nd Annual Meeting of the Society for Free Radical Biology and Medicine; 2015 Nov 18-21; Boston, MA.
113. Wang HJ, Tobwala SB, Lindgren D, Dana B, Doggett T, Aronstam RS, Karacal H, Ercal N. 217-Therapeutic Role of N-Acetylcysteineamide (NACA) in Retinal Degeneration. Presented at: 22nd Annual Meeting of the Society for Free Radical Biology and Medicine; 2015 Nov 18-21; Boston, MA.
114. Bowles E, Ercal N, Sprague R. Application of Flow Cytometry for Liposomal Analysis. Presented at: Graduate Fellows Poster Session. 2016 Feb 22. Missouri S&T, Rolla, MO.
115. Beltz J, Kopel J, Ercal N. Evaluation of the Antioxidant Potential of an Under-Investigated Thiol. Presented at: CGS Graduate Research Showcase. 2016 Apr 7. Missouri S&T, Rolla, MO.
116. Bowles E, Sprague R, Ercal N. Liposomal delivery of a phosphodiesterase 5 inhibitor enhances prostacyclin-mediated ATP release from human red blood cells. Presented at: 51st Midwest Regional Meeting of the ACS. 2016 Oct 26-28; Manhattan, KS.
117. Wang HJ, Tobwala SB, Pfaff AR, Aronstam RS, Ercal N. N-Acetylcysteine amide, a thiol antioxidant, protects against tBHP-induced oxidative stress in primary human retinal pigment epithelium cell culture. Presented at: SFRBM Redox Symposium; 10 June 2016; Chicago, IL.
118. Beltz J, Kopel J, Ercal N. Evaluation of the Antioxidant Potential of an Under-Investigated Thiol. Presented at: SFRBM Redox Symposium; 10 June 2016; Chicago, IL.

119. Wang HJ, Tobwala SB, Pfaff A, Aronstam RS, Ercal N. N-Acetylcysteine amide protects against tBHP-induced oxidative stress in primary human retinal pigment epithelium cells. Presented at: 23rd Annual Meeting of the Society for Redox Biology and Medicine; 2016 Nov 18; San Francisco, CA.
120. Beltz J, Pfaff A, Ercal N. A Dual Therapeutic Approach for the Reversal of Cataracts. Presented at: 23rd Annual Meeting of the Society for Redox Biology and Medicine; 2016 Nov 18; San Francisco, CA.
121. Ercal N, Beltz J, Maddirala Y. Evaluation of antioxidant-based formulations for potential cataract treatment. Presented at: Paris Redox World Congress; 2017 Jun 26; Paris, France.
122. Beetner J, Stutts S, Ercal N. Penetration of Thiol Antioxidants in Rat Lens. Presented at: Ozark Biomedical Initiative Research Symposium; 2017 Aug 19; Rolla, MO.
123. Beltz J, Ercal N. HPLC Analysis of Medicated Lens Tissues. Presented at: Ozark Biomedical Initiative Research Symposium; 2017 Aug 19; Rolla, MO.
124. Beltz J, Pfaff A, Ercal N. HPLC Determination of Thiol Drug Penetration in Ocular Tissues for Development of Non-invasive Cataract Treatment. Presented at: Pittcon 2018; 2018 Feb 27; Orlando, FL.
125. Beltz J, Pfaff A, Ercal N. HPLC determination of thiol drug penetration in ocular tissues for development of non-invasive cataract treatment. Presented at: Ozark Biomedical Initiative Research Symposium; 2018 Aug 18; Rolla, MO
126. Cunningham L, Beltz J, Pfaff A, Ercal N. Antioxidant Capabilities of Various Thiol Drugs. Presented at: Ozark Biomedical Initiative Research Symposium; 2018 Aug 18; Rolla, MO
127. Beltz J, Pfaff A, Ercal N. Nanodiamonds as antioxidant carriers: applications for drug delivery. Presented at: 25th Annual Meeting of the Society for Redox Biology and Medicine; 2018 Nov 15; Chicago, IL.
128. Chernatynskaya A, Beltz J, Cristea A, Pfaff A, Ercal N. Tiopronin-mediated protection of A549 cells against tBHP-induced oxidative stress. Abstract accepted for presentation at LPI 10th International Conference and SfrBM Regional Symposium; 2019 Aug 14-16; Portland, OR.
129. Bose M, Sigler A, Pfaff A, Rutter B, Wenyan Liu, Shi H, Ercal N, Johnson C, Nam P. Development of UFLC-MS/MS methods for oxidative stress biomarkers from explosive blast-induced traumatic brain injury. Presented at Ozark Biomedical Initiative Research Symposium; 2019 Sept. 14; Rolla, MO
130. Bose M, Sigler A, Pfaff A, Rutter B, Liu W, Shi H, Ercal N, Johnson C. UFLC-MS/MS Analysis of Oxidative Stress Biomarkers from Explosive Blast- Induced Traumatic Brain Injury. Oral presented at: Pittcon 2020; 2020 Mar 3; Chicago, IL.
131. Pfaff A, Chernatynskaya A, Ercal N. Investigation of a thiol antioxidant and a novel nanodelivery platform for the prevention of cataract in whole lens cultures. Poster presentation at 28th Annual Meeting of the Society for Redox Biology and Medicine, Nov 16, 2021, Virtual
132. Cortner L, Lee K, Pfaff A, Chernatynskaya A, Ercal N. Development and application of a high-throughput method for determination of total antioxidant capacity in suspensions of thiol antioxidants and nanodelivery platforms. Poster presentation at 28th Annual Meeting of the Society for Redox Biology and Medicine, Nov 16, 2021, Virtual