DO NOT REPEAT PUBS AND GRANTS IN RESEARCH SECTION, ONLY CV

Summary of Contributions to Mercer University

As an Associate Professor in the Department of Biomedical Sciences, my primary responsibility is research (50%) and my secondary responsibilities are teaching (40%) and service (10%). Please see below for a summary, in outline form, of my contributions to Mercer University.

RESEARCH

Funding

- NIH R15 funded 2011 – 2014
- NIH R03 funded 2007 – 2009
- MedCen/Navicent Health Foundation grants funded 2014 – 2017
- Mercer University Seed grants funded annually 2007 – 2011; 2014, 2017
- NIH NRSA funded 2003 – 2006

Publications

- 51 peer-reviewed manuscripts
- 28 peer-reviewed abstracts
- 4 book chapters

TEACHING

- Tutor in 3 modules in revised curriculum
- Tutored in two phases per year since 2007
- Resource Faculty for approximately 3 phases per year since 2008
- Faculty Advisor for medical students since 2008
- Faculty Mentor for undergraduate, graduate, and medical student research

SERVICE

- Coordinator of DBMS Grant Review Program (GRiP) 2017 – present
- Block 3 committee 2016 – present
- Student Professionalism Committee 2016 – present
- P & T Committee 2014 – present
- Institutional Animal Care and Use Committee (IACUC) 2005 – present
- Non-committee Admissions Interviewer 2008 – present
- Physiology Search Committee – 2010
- Biochemistry Search Committee – 2008
- Numerous subcommittees 2007 – 2016

[redacted]

Mercer University School of Medicine

[redacted]

EDUCATION

Ph.D. 2001 Medical College of Georgia, Dept. of Cellular Biology & Anatomy (Mentor: Dr. Sylvia B. Smith), Augusta, GA

BS 1997 Berry College, Biology, Rome, GA

POSTGRADUATE TRAINING AND FELLOWSHIP APPOINTMENTS

2002 – 2006 Mercer University, Division of Basic Medical Sciences (Mentor: Dr. Rudy Zalups), Macon, GA

2001 – 2002 Medical College of Georgia, Dept. of Biochemistry & Molecular Biology (Mentor: Dr. Vadivel Ganapathy), Augusta, GA

FACULTY APPOINTMENTS

7/01/12 – present Associate Professor, Tenured, Mercer University, Division of Basic Medical Sciences, Macon, GA

7/1/07 – 6/30/12 Assistant Professor (Tenure-track), Mercer University, Division of Basic Medical Sciences, Macon, GA

7/1/06 – 6/30/07 Community Assistant Professor (Non-tenure track), Mercer University, Division of Basic Medical Sciences, Macon, GA

PROFESSIONAL SOCIETY MEMBERSHIPS

2004 – present	Society of Toxicology
2007 – present	Sigma Xi
2008 – present	American Society for Pharmacology and Experimental Therapeutics
2008 – 2009	National Kidney Foundation
1997 – 2000	Association for Research in Vision and Ophthalmology

HONORS AND AWARDS

Academic Awards

Who's Who Among American Colleges and Universities, 1999, Medical College of Georgia

Research Awards

ARVO/ National Eye Institute Travel Fellowship Grant, 2000
Excellence in Research Award, Graduate Research Day 2000, Medical College of Georgia
Excellence in Research Award, Graduate Research Day 1999, Medical College of Georgia

Research Awards – Students

Sarah Orr - Best Poster Award, Mercer Health Sciences Joint Research Conference, 2017

Honor Societies

Beta Beta Beta Biological Honor Society

EDITORIAL POSITIONS/INVITED REVIEWER

Editorial Positions

2014 – present	Associate Editor, Toxicology Reports, published by Elsevier
2016 – present	Editorial Board Member, Heliyon, published by Elsevier
2017 – present	Editorial Board Member, Journal of Toxicology and Environmental Health, Part A, published by Taylor & Francis

Invited Reviewer for the Following Journals:

I review approximately 20-25 manuscripts each year. I have reviewed manuscripts for the following journals:

Advanced Drug Delivery Reviews
Annals of Occupational Hygiene
Biochimica Biophysica Acta
Biochemical Pharmacology

Biological Trace Element Research
British Journal of Clinical Pharmacology
Cell Biochemistry and Function
Chemical Research in Toxicology
Comparative Biochemistry and Physiology
Environmental Health Perspectives
Environmental International
Environmental Toxicology
Experimental Eye Research
Food & Chemical Toxicology
International Journal of Molecular Sciences
Investigative Ophthalmology and Visual Science
Journal of Biological Chemistry
Journal of Pharmacology and Experimental Therapeutics
Journal of Medicinal Chemistry
Journal of Toxicology and Environmental Health, Part A
Journal of Toxicology and Environmental Health, Part B
Kidney International
Molecular and Cellular Endocrinology
Physiology & Behavior
Phytomedicine
PLOSone
Toxicology
Toxicology and Applied Pharmacology
Toxicology Reports
Toxicological Sciences
Toxicology Letters

Invited Reviewer for the Following Books:

Histology: A Text and Atlas, 5th Ed., (Ross and Pawlina); Reviewed chapter on gastrointestinal histology.

Introductory Histology and Pathology: A Concise Guide for Years I and II, 1st Ed. (Hansel and Dintzis); Reviewed chapters on cardiovascular and gastrointestinal histology.

Study Section Invitations

National Institutes of Health

February 22, 2016	*Ad hoc* reviewer for NIH Study Section: Special Emphasis Panel ZRG1 DKUS-A (82) Gastrointestinal, Kidney, Liver, Urology and Toxicology R15 Applications
November 17, 2015	*Ad hoc* reviewer for NIH Study Section: Xenobiotic and Nutrient Disposition (XNDA) (ZRG1 DKUS C 82 R15 Review)
July 29, 2015	*Ad hoc* reviewer for NIH Study Section: Xenobiotic and Nutrient Disposition (XNDA) (ZRG1 DKUS C 82 R15 Review)
October 14-15, 2014	*Ad hoc* reviewer for NIH Study Section: Special Emphasis Panel ZRG1 DKUS-A (82) Gastrointestinal, Kidney, Liver, Urology and Toxicology R15 Applications

June 25-26, 2014 *Ad hoc* reviewer for NIH Study Sections

- Special Emphasis Panel: ZRG1 DKUS C(90)S, Systemic Injury by Environmental Exposure (SIEE)
- ZRG1 DKUS-C (50) R PAR 14-050: Virtual Consortium for Translational/Transdisciplinary Environmental Research (ViCTER)

November 4-5, 2013 *Ad hoc* reviewer for NIH Study Section: Special Emphasis Panel ZRG1 DKUS-A (82) A "Gastrointestinal, Kidney, Liver, Urology and Toxicology R15 Applications

February 5-6, 2013 *Ad hoc* reviewer for NIH Study Section: Special Emphasis Panel C(90)S) Systemic Injury by Environmental Exposure (SIEE)

November 29, 2012 *Ad hoc* reviewer for NIH Study Section: Special Emphasis Panel (ZRG1 DKUS-C)

June 6, 2012 *Ad hoc* reviewer for NIH Study Section: Xenobiotic and Nutrient Disposition (XNDA)

February 7-8, 2012 *Ad hoc* reviewer for NIH Study Section: Xenobiotic and Nutrient Disposition (XNDA)

Italian Ministry of Health

November 2016 *Ad hoc* reviewer for the Italian Ministry of Health – Gastrointestinal Section

November 2014 *Ad hoc* reviewer for the Italian Ministry of Health – Gastrointestinal Section

September 2013 *Ad hoc* reviewer for the Italian Ministry of Health – Gastrointestinal Section

Research Council of Canada

January 2016 *Ad hoc* reviewer for Natural Sciences and Engineering Research Council of Canada (NSERC): Discovery Grants - Biological Systems and Functions Group

MEDICAL COLLEGE TEACHING

Medical Students – Biomedical Sciences

2017 – present **Faculty Facilitator, Problem-Based Learning Curriculum, Mercer University School of Medicine**

- Facilitator for Block 1, Module 2: Hematology
- Facilitator for Block 3, Module 3: Renal
- Facilitator for Block 4, Module 1: Gastrointestinal

2008-2017 **Tutor and Discipline Representative, Biomedical Problems Curriculum, Mercer University School of Medicine**

- Tutor for the Gastrointestinal and Renal phases
- Discipline Representative (Histology) for the Host Defense, Hematology, and Gastrointestinal phases
- Question-writer for Blocks 1 and 2 (revised curriculum 2016)

2007-2008 **Tutor and Discipline Representative, Biomedical Problems Curriculum, Mercer University School of Medicine**

- Tutor for the Gastrointestinal and Renal phases of study
- Discipline Representative (Histology) for the Host Defense, Pulmonology, and Gastrointestinal phases

2006-2007 **Tutor and Discipline Representative, Biomedical Problems Curriculum, Mercer University School of Medicine**

- Tutor for the Gastrointestinal and Renal phases of study
- Discipline Representative (Histology) for the Renal phase
- Responsible for Histology exam questions, study guides and any small group sessions for the following phases: Host Defense, Hematology, Pulmonology, Gastrointestinal, and Renal

2005-2006 **Co-Tutor and Resource Faculty, Biomedical Problems Curriculum, Mercer University School of Medicine**

- Co-tutor for the Renal phase
- Responsible for Histology exam questions, study guides and any small group sessions in the following phases: Host Defense, Hematology, Pulmonology, Gastrointestinal, and Renal

Medical Students – Histology

Fall 1998, Fall 1999 **Teaching Assistant, Medical College of Georgia School of Medicine, Department of Cellular Biology and Anatomy, Augusta, Georgia**

- Responsible for assisting medical students during laboratory sessions for Histology and Cell Biology

Graduate Students

2014 – present **Faculty Evaluator for Capstone Course in Preclinical Sciences Master's Program, Mercer University School of Medicine**

- Read and evaluate Capstone essays
- Evaluate Capstone presentations

2014 – present **Faculty Advisor for Capstone Course in Preclinical Sciences Master's Program, Mercer University School of Medicine**

- Assist students with preparing compositions
- Assist students with concerns related to their capstone topics
- Write letters of recommendation for admission into professional programs

MENTORING/ADVISING

Medical Students – Preclinical Advisor

2008 – present **Faculty Advisor, Mercer University School of Medicine**

- Faculty advisor for first and second year medical students
- Advise three first-year and three second-year students each year
- Write letters of recommendation for residency applications

Medical Students – Laboratory Training

2016 – 2017 Reneé Franklin

Undergraduate Students – Laboratory Training

2017 – present	Mary Catherine Barnes
2015 – present	Hannah George
2015 – present	Vaishnavi Narain
Summer 2017	Timothy Freeman
2015 – 2017	Sayna Nijhara
2015 – 2016	Rahdika Kamath
2013 – 2015	Joel Patterson
2011 – 2012	Courtney McWhorter
Summer 2011	Varun Kannan
2009 – 2010	Bryan Benton
2006 – 2009	Emilie Bullard
Summer 2006, 2007	Charles Terry
Fall 2004	Kalid Waliullah
Fall 2005	Paul Beach
2003 – 2006	Jamie Battle Givens

Graduate Students – Laboratory Training

2016 – present Sarah Orr, Master of Science in Biomedical Sciences Program, Mercer University

2013 - 2014	Allison Stahl, Master of Science in Biomedical Sciences Program, Mercer University
2014	Cláudia Oliveira, visiting Ph.D. student, Federal University of Santa Maria, Santa Maria, Brazil

Residents – Laboratory Training

July 2007	Sitharam Nandigam, MD
July 2007	Kabir Das, MD

MEDICAL SCHOOL COMMITTEES

Present Service

2017 – present	Coordinator, Grant-review panel (GRiP), Department of Biomedical Sciences, Mercer University
2016 – present	Revised Curriculum Committee - Organ Block 3, Mercer University
2016 – present	Student Professionalism Committee, Mercer University
2014 – present	Promotion and Tenure Committee, Mercer University
2008 – present	Non-committee interviewer for medical school applicants, Mercer University

Previous Service

2015	MS-BMS Review Committee, Mercer University
2015	Subcommittee of the Research Committee charged to develop strategies for faculty mentorship
2015	Subcommittee of the Research Committee charged to develop strategies for improved faculty success in publishing and receipt of funding
2014 – 2015	Subcommittee of the Research Committee charged to develop a Strategic Plan for Research, Mercer University
2014 – 2015	Subcommittee of IACUC charged to investigate the HVAC issues in the MUSM animal facility, Mercer University
2013, 2014	Anatomy Search Committee, Mercer University (Hired Janine Chalk, Francis Kierra)
2012 – 2015	Women in Medicine Committee, Mercer University
2012	Rules and Bylaws Committee, Mercer University
2010	Physiology Search Committee, Mercer University (Hired David Gu & E.S. Prakash)
2008	Biochemistry Search Committee, Mercer University (Hired Richard O. McCann)

2000 LCME Self-Study Committee, Student representative, Medical College of Georgia, Augusta, Georgia

1999 Graduate Student Organization, Department representative, Dept. of Cellular Biology and Anatomy, Medical College of Georgia, Augusta, Georgia

UNIVERSITY COMMITTEES

2005 – present Institutional Animal Care and Use Committee, Mercer University

RESEARCH GRANTS, PROJECTS, AWARDS

Current Research Support

Navicent Health Foundation ($14,000) Bridges (PI) 10/01/16-09/30/17
Impact of Maternal Renal Insufficiency on Fetal Accumulation and Toxicity of Methylmercury
The purpose of this project is to assess the effect of chronic kidney failure in mothers on the distribution and toxicity of methylmercury in rat pups exposed prenatally to this toxicant.

Pending Research Support

R15ES028915 (NIH/NIEHS $462,660) Bridges (PI) 11/1/17-10/31/20
Basolateral Uptake of Mercuric Species in Isolated Hypertrophied Proximal Tubules
Scored, Pending Council Review
The purpose of this project is to determine which transport mechanisms on the basolateral membrane of proximal tubules are responsible for the enhanced uptake of mercuric species in hypertrophied proximal tubules.

Cayman Chemical Company Undergraduate Research Award ($5,000) Bridges (PI)
Identification of novel basolateral mechanisms involved in the proximal tubular uptake of mercury.
Submitted
The purpose of this project is to identify novel mechanisms for the uptake of mercury at the basolateral membrane of proximal tubular cells.

Sigma Xi Graduate Student Research Award ($1,000) Bridges (PI)
Potential Mechanisms Involved in the Toxicity of Inorganic Mercury in Rat Kidney Cells
Submitted
The purpose of this project is to identify the intracellular mechanisms by which inorganic mercury leads to cellular intoxication.

Completed Research Support

MedCen Research Foundation ($20,000) Bridges (PI) 10/01/14-09/30/16
Handling and Toxicity of Methylmercury in Pregnant Rats and Neonates
The purpose of this project was to assess the effect of maternal exposure (prenatal and/or neonatal) to methylmercury on the developmental and behavioral aspects of fetuses.

Mercer University Seed Grant ($1,770) Bridges (PI) 07/01/14-06/30/15
Disposition and Toxicity of Inorganic Mercury in Pregnant Rats
The purpose of this project was to determine if inorganic mercury was capable of crossing the placenta and accumulating in fetal tissues.

R15ES019991-01 (NIH/NIEHS; $471,000) Bridges (PI) 01/01/11-12/31/14
Proximal Tubular Transport of Mercury and Effects of Reduced Renal Mass
The purpose of this project was to utilize isolated perfused proximal tubules from uninephrectomized rabbits to assess the effects of cellular hypertrophy on the tubular transport of mercuric ions.

Mercer University Seed Grant ($3,000) Bridges (PI) 07/01/10-06/30/11
Disposition of Mercuric Ions in Knock-out Mouse Models
The purpose of this project was to utilize Mrp2 knockout mice to confirm a role for Mrp2 in the renal disposition of mercuric ions.

Mercer University Seed Grant ($4,000) Bridges (PI) 07/01/09-06/30/10
Renal Insufficiency and Mechanisms of Mercury Secretion
The purpose of this project was to determine if a significant reduction in functional renal mass leads to alterations in the renal secretion of mercuric ions.

R03ES015511-01 (NIH/NIEHS; $146,200) Bridges (PI) 04/01/07-03/31/09
Role of Multidrug Resistance Proteins 2 and/or 4 in Renal Elimination of Mercury
The purpose of this project was to assess the roles of Mrp2 and Mrp4 in the transport of mercuric ions from within proximal tubular cells into the tubular lumen.

Mercer University Seed Grant ($4,080) Bridges (PI) 07/01/08-06/30/09
Effect of Chelation Therapy on Methylmercury Disposition in Placental and Fetal Tissues
The purpose of this project was to determine if the metal chelators, DMPS and DMSA were capable of facilitating the extraction of mercuric ions from placental and fetal tissues.

Mercer University Seed Grant ($3,500) Bridges (PI) 07/01/07-06/30/08
Transport of Mercury-Chelator Complexes by the Multidrug Resistance Protein 2
The purpose of this project was to assess the ability of MRP2 to mediate the export of mercury-chelator complexes from proximal tubular cells.

F32 ES012556-01 (NIH/NIEHS; $146,896) Bridges (PI) 07/01/03-06/30/06
Mechanisms for Renal Uptake of Mercury
The purpose of this project was to identify the mechanisms by which mercuric ions are taken up at the luminal membrane of proximal tubular cells.

Grants Submitted, Not Funded

March of Dimes ($300,000) Bridges (PI) Submitted 4/1/17
Chronic Kidney Disease and Placental Transport of Mercury

NIH R15ES027649 ($446,896) Bridges (PI) Submitted 02/25/16
Impact of Maternal Renal Insufficiency on Fetal Accumulation and Toxicity of Methylmercury

Kleberg Foundation ($300,000) Bridges (PI) Submitted 10/1/16
Impact of Maternal Renal Insufficiency on Fetal Accumulation and Toxicity of Methylmercury

Whitehall Foundation ($300,000) Bridges (PI) Submitted 12/1/16
Chronic Kidney Disease and Placental Transport of Mercury

PhRMA Foundation ($60,000) Bridges (PI) Submitted 08/25/09
Compensatory Renal Hypertrophy and the Secretion of Mercury

NIH R01ES019149 ($1,962,500) Bridges (PI) Submitted 09/24/09
Transmembrane Transport of Mercury in Models of Reduced Renal Mass

NIH RC1ES018214 ($ 663,618) Bridges (PI) Submitted 04/23/09
Renal Insufficiency and Mechanisms of Mercury Secretion

NIH R01ES017451 ($1,890,125) Bridges (PI) Submitted 10/06/08
Compensatory Tubular Hypertrophy and the Renal Secretion of Mercury

PUBLICATIONS

Peer-Reviewed Journal Articles (* denotes corresponding author)

1. Oliveira CS, Joshee L, **Bridges CC***. (2017) Transport kinetics of cysteine conjugates of inorganic mercury. *Biol Trace Elem Res. In press.* Impact factor 2.399

2. Oliveira CS, George H, Nijhara S, Joshee L, **Bridges CC***. (2017) Oral exposure to toxic doses of methylmercury alters fetal accumulation. *Reprod Toxicol* 69:265-275. PubMed ID 28341569 Impact factor 3.202

3. Orr SE, **Bridges CC***. (2017) Chronic kidney disease and the exposure to toxic metals. *Int J Mol Sci*. doi. 10.3390/ijms18051039. PubMed ID 28498320 Impact factor 3.226

4. **Bridges CC***, Zalups RK (2017) The aging kidney and the nephrotoxic effects of mercury. *J Toxicol Environ Health, Part B, Crit Rev.* 20:55-80. PMID 28339347 Impact factor 5.815

5. **Bridges CC***, Barfuss DW, Zalups RK (2016) Compensatory renal hypertrophy and the uptake of inorganic mercury in isolated proximal tubules. *Toxicol Sci.* 154:278-288. PubMed ID 27562559 Impact factor 4.081

6. **Bridges CC***, Zalups RK (2016) Mechanisms involved in the transport of mercuric ions in target tissues. *Arch Toxicol.* 91:63-81. Invited review PubMed ID 27422290 Impact factor 5.901

7. Oliveira CS, Joshee L, Zalups RK, **Bridges CC*.** (2016) Compensatory renal hypertrophy and the handling of an acute nephrotoxicant in a model of aging. *Exp Gerontol.* 75:16-23. PubMed ID 26768998 Impact factor 3.491

8. Oliveira CS, Joshee L, Zalups RK, **Bridges CC***. (2015) Disposition of inorganic mercury in pregnant rats and their offspring. *Toxicol.* 335: 62-71. PubMed ID 26196528 Impact factor 3.943

9. **Bridges C*C**, Zalups RK, Joshee L. (2015) Toxicological significance of renal Bcrp: Another transporter in the elimination of mercury from proximal tubular cells. *Toxicol Appl Pharmacol.* 285:110-117. PubMed ID 25868844 Impact factor 4.006

10. Zalups RK, Joshee L, **Bridges CC***. (2014) Novel Hg^{2+}-induced nephropathy in rats lacking Mrp2: Evidence for axial heterogeneity in the handling of Hg^{2+} along the proximal tubule. *Toxicol Sci.* 142:250-260. PubMed ID 25145654 Impact factor 4.081

11. **Bridges CC***, Joshee L, Zalups RK. (2014) Aging and the disposition and toxicity of mercury in rats. *Experimental Gerontology* 53:31-39. PubMed ID 24548775 Impact factor 3.491

12. Sattler W, Palmer JH, **Bridges CC**, Joshee L, Zalups RK, Parkin G*. (2013) Structural characterization of 1,3-propanedithiols that feature carboxylic acids: Homologues of mercury chelating agents. *Polyhedron* 64:268-279. PubMed ID 24187425 Impact factor 1.790

13. **Bridges CC***, Joshee L, van den Heuvel J, Russel FG, Zalups RK. (2013) Glutathione status and the renal elimination of inorganic mercury in the *Mrp2*$^{-/-}$ mouse. PLoS ONE 8(9):e73559. Doi:10.1371/journal/pone.0073559. PubMed ID 24039982 Impact factor 2.806

14. Uchakina ON, Castillejo CM, **Bridges CC**, McKallip RJ* (2013) The role of hyaluronic acid in SEB-induced acute lung inflammation. *Clin Immunol* 146:56-69. PubMed ID 23246605 Impact factor 3.891

15. **Bridges CC***, Joshee L, Zalups RK (2012) Placental and fetal disposition of mercuric ions in rats exposed to methylmercury: Role of Mrp2. *Reprod Toxicol.* 34:628-634. PubMed ID 23059061 Impact factor 3.202

16. Zalups RK*, **Bridges CC** (2012) Relationships between the renal handling of DMPS and DMSA and the renal handling of mercury. *Chem Res Toxicol.* 25:1825-1838. PubMed ID 22667351 Impact factor 3.278

17. Sun JP, Law GP, **Bridges CC**, McKallip RJ*. (2012) CD44 as a novel target for treatment of staphylococcal enterotoxin-B induced acute inflammatory lung injury. *Clin Immunol* 144:41-52. PubMed ID 22659034 Impact factor 3.891

18. **Bridges CC**, Krasnikov BF, Joshee L, Pinto JT, Hallen A, Li J, Zalups RK, Cooper ALJ*. (2012) New insights into the metabolism of organomercury compounds: Mercury-containing cysteine *S*-conjugates are substrates of human glutamine transaminase K and potent inactivators of cystathionine □-lyase. *Arch. Biochem. Biophys.* 517:20-29. PubMed ID 22093698 Impact factor 2.974

19. **Bridges CC***, Joshee L, Zalups RK. (2011) Role of MRP2 and the handling of mercuric in rats exposed acutely to mercury-thiol conjugates. *Toxicol. Appl. Pharmacol.* 251:50-58. PubMed ID 21134393 Impact factor 4.006

20. **Bridges CC*,** Zalups RK (2010) Transport of inorganic mercury and methylmercury in target tissues and organs. *J. Toxicol. Environ. Health B Crit. Rev*. 13:385-410. PubMed ID 20582853 Impact factor 5.815

21. Zalups RK*, **Bridges CC** (2010) 75% Nephrectomy and the Disposition of Inorganic Mercury in DMSA-Treated Rats Lacking Functional MRP2. *J. Pharmacol. Exp. Ther.* 332:866-875. PubMed ID 20032202 Impact factor 3.972

22. **Bridges CC***, Joshee L, Zalups RK. (2009) Effect of DMPS and DMSA on the placental and fetal accumulation of methylmercury. *Placenta* 30:800-805. PubMed ID 19615742 Impact factor 2.982

23. Zalups RK, **Bridges CC***. (2009) MRP2 involvement in renal proximal tubular elimination of methylmercury mediated by DMPS or DMSA. *Toxicol. Appl. Pharmacol.* 235:10-17. PubMed ID19063911 Impact factor 4.006

24. **Bridges CC***, Joshee L, Zalups RK. (2008) MRP2 and the DMPS- and DMSA-mediated elimination of mercury in TR$^-$ and control rats exposed to thiol *S*-conjugates of inorganic mercury. *Toxicol. Sci.* 105:211-220. PubMed ID 18511429 Impact factor 4.081

25. **Bridges CC***, Joshee L, Zalups RK. (2008) Multidrug resistance proteins and the renal elimination of inorganic mercury mediated by 2,3-dimercaptopropane-1-sulfonic acid and meso-2,3-dimercaptosuccinic acid. *J Pharmacol. Exp. Therap.* 324:383-390. PubMed ID 17940195 Impact factor 3.972

26. Keating E, Gonçalves P, Lemos C, Smith SB, **Bridges CC**, Azevedo I, Martel F*. (2007) Progesterone inhibits folate transport in human trophoblasts. *J. Memb. Biol.* 216:143-152. PubMed ID 17687501 Impact factor 1.696

27. **Bridges CC***, Battle JR, Zalups RK. (2007) Transport of thiol-conjugates of inorganic mercury in human retinal pigment epithelial cells. *Toxicol. Appl. Pharmacol.* 221:251-260. PubMed ID 17467761 Impact factor 4.006

28. **Bridges CC***, Zalups RK. (2006) Molecular mimicry as a mechanism for the uptake of cysteine s-conjugates of methylmercury and inorganic mercury. *Chem Res Toxicol.* 19:1117-8. PubMed ID 16978013 Impact factor 3.278

29. **Bridges CC***, Zalups RK. (2006) System $B^{0,+}$ and the transport of thiol-*S*-conjugates of methylmercury. *J Pharmacol Exp Ther*. 319:948-956. PubMed ID 16926263 Impact factor 3.972

30. **Bridges CC**, Zalups RK*. (2005) Molecular and ionic mimicry and the transport of toxic metals. *Toxicol. Appl. Pharmacol.* 204:274-308. PubMed ID 15845419 Impact factor 4.006

31. **Bridges CC**, Zalups RK*. (2005) Cystine and glutamate transport in renal epithelial cells transfected with human system x_c^-. *Kidney International.* 68:653-664. PubMed ID 16014042 Impact factor 8.563

32. **Bridges CC,** Bauch C, Verrey F, Zalups, RK*. (2004) Mercuric conjugates of cysteine are transported by the amino acid transporter, system $b^{0,+}$: Implications for molecular mimicry. *J. Am. Soc. Nephrol.* 15:663-673. PubMed ID 14978168 Impact factor 9.343

33. **Bridges CC**, Zalups RK*. (2004) Homocysteine, system $b^{0,+}$, and the renal epithelial transport and toxicity of inorganic mercury. *Am. J. Pathol.* 165:1385-1394. PubMed ID 15466402 Impact factor 4.766

34. **Bridges CC**, Hu H, Miyauchi S, Siddaramappa UN, Ganapathy ME, Ignatowicz L, Maddox DM, Smith SB, Ganapathy V*. (2004) Induction of Cystine-Glutamate Transporter x_c^- by human immunodeficiency virus type 1 transactivator protein Tat in retinal pigment epithelium. *Invest. Ophthalmol. Vis. Sci.* 45:2906-2914. PubMed ID 15326101 Impact factor 3.427

35. Huankai HU, Miyauchi S, **Bridges CC**, Smith SB, Ganapathy V*. (2003) Identification of a novel Na^+- and Cl^--coupled transport system for endogenous opioid peptides in retinal pigment epithelium and induction of the transport system by HIV-1 Tat. *Biochem. J.* 375:17-22. PubMed ID 12924983 Impact factor 4.396

36. Hatanaka T, Haramura M, Fei YJ, Miyauchi S, **Bridges CC**, Ganapathy PS, Smith SB, Ganapathy V, Ganapathy, ME*. (2003) Transport of amino acid-based prodrugs by the Na^+- and Cl^-- coupled amino acid transporter ATB0,+ and expression of the transporter in tissues amenable for drug delivery. *J Pharmacol. Exp. Ther.* 308:1138-1147. PubMed ID 11846403 Impact factor 3.972

37. **Bridges CC**, El-Sherbeny A, Ola MS, Ganapathy V, Smith SB*. (2002) Transcellular transfer of folate across the retinal pigment epithelium. *Curr. Eye Res.* 24:129-138. PubMed ID 12187485 Impact factor 1.639

38. Naggar H, Ola MS, Moore P, Huang W, **Bridges CC**, Ganapathy V, Smith SB*. (2002) Downregulation of the reduced-folate transporter by glucose in cultured retinal pigment epithelial cells and in streptozotocin-induced diabetic mice. *Invest. Ophthalmol. Vis. Sci.* 43: 556-563. PubMed ID 11818404 Impact factor 3.427

39. Hatanaka T, Huang W, Nakanishi T, **Bridges CC**, Smith SB, Prasad PD, Ganapathy V, Ganapathy ME*. (2002) Transport of D-serine via the amino acid transporter $ATB^{0,+}$ expressed in the colon. *Biochem Biophys Res Commun.* 291: 291-295. PubMed ID 11846403 Impact factor 2.354

40. **Bridges CC,** Kekuda R, Wang H, Prasad P, Mehta P, Huang W, Smith SB, Ganapathy V*. (2001) Structure, function and regulation of human cystine/glutamate transporter in retinal pigment epithelial cells. *Invest. Ophthalmol. Vis. Sci.* 42: 47-54. PubMed ID 11133847 Impact factor 3.427

41. Kutty RK, Kutty G, Samuel W, Duncan T, Jaworski C, **Bridges CC**, El-Sherbeny A, Nagineni CN, Smith SB, Wiggert B*. (2001) Molecular characterization and developmental expression of NORPEG: a novel gene induced by retinoic acid encodes a cytoskeletal protein. *J. Biol. Chem*. 276: 2831-2840. PubMed ID 11042181 Impact factor 4.125

42. Ling R, **Bridges CC**, Sugarwara M, Fujita T, Leibach FH, Prasad PD, Ganapathy V*. (2001) Involvement of transporter recruitment as well as gene expression in the substrate-induced regulation of amino acid transport system A. *Biochim. Biophys. Acta (Biomemb)* 1512: 15-21. PubMed ID 11334620 Impact factor 3.542

43. Friedrich A, George RL, **Bridges CC**, Leibach FH, Ganapathy V*. (2001) Transport of choline and its relationship to the expression of the organic cation transporters in a rat brain microvessel endothelial cell line (RBE4). *Biochim. Biophys. Acta (Biomemb)* 1512: 299-307. PubMed ID 11406107 Impact factor 3.542

44. **Bridges CC**, El-Sherbeny A, Roon P, Ola MS, Kekuda R, Ganapathy V, Cameron RS, Cameron PL, Smith SB*. (2001) A comparison of caveolae and caveolin-1 to folate receptor α in retina and retinal pigment epithelium. *Histochem. J.* 33: 149-158. PubMed ID 11508338 Impact factor 2.780

45. Seth P, Ganapathy ME, Chen J, Conway SJ, **Bridges CD**, Smith SB, Casellas P, Ganapathy V*. (2001) Structure-function relationship and tissue distribution pattern of the type 1 sigma receptor. *Biochim. Biophys. Acta (Mol Cell Res)* 1540: 59-67. PubMed ID 11476895 Impact factor 5.374

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50. Smith SB, Huang W, **Chancy CD,** Ganapathy V*. (1999) Regulation of the reduced-folate transporter by nitric oxide in cultured human retinal pigment epithelial cells. *Biochem. Biophys. Res. Commun.* 257: 279-283. PubMed ID 10198203 Impact factor 2.354

51. Wu X, Fei YJ, Huang W, **Chancy C**, Leibach FH, Ganapathy V*. (1999) Identity of the F52F12.1 gene product in *Caenorhabditis elegans* as an organic cation transporter. *Biochim. Biophys. Acta (Biomemb).* 1418: 239-244. PubMed ID 10209228 Impact factor 3.542

Manuscripts Submitted or In Preparation

1. Williams KG, Patel KT, Mathis MW, Stausmire JM, **Bridges CC**, Barkin JL. (2017) The Neonatal Intensive Care Unit: Environmental Stressors and Supports. *Submitted, under review.*

2. Orr SE, Joshee L, Barkin JL, **Bridges CC**. (2017) Disposition of methylmercury over time in a rat model of chronic kidney disease. *In preparation.*

3. Oliveira CS, Joshee L, Barkin JL, **Bridges CC**. (2017) Time- and dose-dependence of mercury accumulation. *In preparation.*

4. Barkin J, Bloch J, Telliard S, Rhoades, K, **Bridges CC** (2017) Understandings and Attitudes towards the Prospect of Home Visiting in a Low-Income, High-Risk Obstetric Population. *In Preparation*

5. Franklin R, Joshee L, George H, Nijhara S, **Bridges CC**. (2017) Disposition of methylmercury in pregnant rats with chronic kidney disease. *In preparation.*

Peer-Reviewed Abstracts

1. Barkin J, Bloch J, Telliard S, Rhoades K, Bridges CC (2017) High risk obstetrics patients' understanding of and attitudes towards the prospect of home vising. **Presented as an oral presentation by J. Barkin at the 2017 annual meeting of the American Public Health Association.**

2. **Bridges CC**, Oliveira CS, Joshee L, Zalups RK (2017) Multidrug Resistance-Associated Protein 2 and its Role in the Pharmacokinetics of Inorganic Mercury. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 141, Number 1, March 2017. **Presented as a poster presentation at the 2017 Society of Toxicology meeting.**

3. **Bridges CC**, Barfuss DW, Joshee L, Zalups RK (2016) Compensatory hypertrophy and the transport of inorganic mercury in isolated perfused proximal tubules. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 140, Number 1, March 2016. **Presented as a poster presentation at the 2016 Society of Toxicology meeting.**

4. **Bridges CC**, Oliveira CS, Joshee L, Zalups RK (2015) Effects of pregnancy and renal insufficiency on the disposition of mercuric ions. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 139, Number 1, March 2015. **Presented as a poster presentation at the 2015 Society of Toxicology meeting.**

5. **Bridges CC**, Joshee L, Zalups RK. (2014) Disposition and Toxicity of Mercury in Kidneys of Aging Rats. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 138, Number 1, pg. 531, March 2014. **Presented as a poster presentation at the 2014 Society of Toxicology meeting.**

6. Zalups RK, Joshee L, **Bridges CC**. (2013) Absence of Mrp2 leads to differences in severity and pattern of mercury nephrotoxicity in mice. *FASEB J .V*ol 27. **Presented as a poster presentation at the 2013 Experimental Biology meeting.**

7. **Bridges CC**, Barfuss DW, Joshee L, Zalups RK. (2013) Proximal tubular transport of mercuric species following compensatory tubular hypertrophy. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 132, Number 1, March 2013. **Presented as a poster presentation at the 2013 Society of Toxicology meeting.**

8. Castillejo C, Uchakina O, **Bridges CC**, McKallip RJ. (2012) The role of hyaluronic acid in SEB-induced acute lung inflammation. Annual Biomedical Research Conference for Minority Students (ABRCMS)

9. **Bridges CC**, Joshee L, van den Heuvel JJ, Frans FG, Zalups RK. (2012) Multidrug resistance-associated proteins and their role in the renal elimination of mercury. The Toxicologist CD – An official journal of the Society of Toxicology. Vol. 126, Number 1, March 2012. **Presented as a poster presentation at the 2012 Society of Toxicology meeting.**

10. McKallip RJ, **Bridges CC**, Law GP, Sun J (2012) Targeting CD44 in SEB-induced acute respiratory distress syndrome. (American Association of Immunologists Meeting)

11. **Bridges CC,** Joshee L, Zalups RK. (2011) Transport of mercuric species in rabbit renal brush-border membrane vesicles. The Toxicologist CD – An official journal of the Society of Toxicology. Vol. 100, Number 1, March 2011. **Presented as a poster presentation at the 2011 Society of Toxicology meeting.**

12. **Bridges CC,** Joshee L, Zalups RK. (2010) Placental and fetal disposition of mercuric ions following treatment with DMPS or DMSA. The Toxicologist CD – An official journal of the Society of Toxicology. Vol. 99, Number 1, March 2010. **Presented as a poster presentation at the 2010 Society of Toxicology meeting.**

13. **Bridges CC,** Joshee L, Zalups RK. (2009) Effect of DMPS and DMSA on the Disposition of Hg^{2+} in Models of Reduced Renal Mass. The Toxicologist CD – An official journal of the Society of Toxicology. Vol. 98, Number 1, March 2009. **Presented as a poster presentation at the 2009 Society of Toxicology meeting.**

14. **Bridges CC,** Joshee L, Zalups RK. (2008) Elimination of thiol conjugates of inorganic mercury and the role of the multidrug resistance protein 2. The Toxicologist CD – An official journal of the Society of Toxicology. Vol. 97, Number 1, March 2008. **Presented as a poster presentation at the 2008 Society of Toxicology meeting.**

15. **Bridges CC**, Zalups RK. (2007) Renal elimination of inorganic mercury and the role of the multidrug resistance protein 2. The Toxicologist CD – An official journal of the Society of Toxicology. Vol. 96, Number 1, March 2007. **Presented as a poster presentation at the 2007 Society of Toxicology meeting.**

16. Zalups RK, **Bridges CC**. (2007) The multidrug resistance protein 2 as a mechanism involved in the renal elimination of organic mercury. The Toxicologist CD – An official journal of the Society of Toxicology. Vol. 96, Number 1, March 2007. **Presented as a poster presentation at the 2007 Society of Toxicology meeting.**

17. **Bridges CC,** Zalups RK. (2006) Role of system $B^{0,+}$ in the transport of cysteine S-conjugates of methylmercury. FASEB J. 20:A1138. **Presented as a poster presentation at the 2006 Experimental Biology meeting.**

18. Zalups RK, **Bridges CC**, Battle, JR. (2006) Mercury is transported by the retinal pigment epithelium as an S-conjugate of cysteine. FASEB J. 20:A1137. **Presented as a poster presentation at the 2006 Experimental Biology meeting.**

19. **Bridges CC,** Zalups RK. (2005) Characterization of cystine and glutamate transport in a renal cell line stably transfected with system x_c^-. FASEB J. Vol 19. **Presented as a poster presentation at the 2005 Experimental Biology meeting.**

20. **Bridges CC,** Zalups RK. (2004) Transport of mercuric conjugates of homocysteine by the amino acid transporter, system $b^{0,+}$. The Toxicologist. 78:S89-90. **Presented as a poster presentation at the 2004 Society of Toxicology meeting.**

21. **Bridges CC**, Bauch C, Verrey F, Barfuss DW, Zalups RK. (2003) Transport of dicysteinylmercury in Madin-Darby Canine Kidney (MDCK) cells overexpressing system $b^{0,+}$. The Toxicologist. 77:S401. **Presented as a poster presentation at the 2003 Society of Toxicology meeting.**

22. Ganapathy V, **Bridges CC**, Subramanian R, Ganapathy ME, Smith SB. (2002) Induction of the cystine/glutamate transporter x_c^- by HIV-1 transactivator protein TAT in the human retinal pigment epithelial cell line ARPE-19. Invest. Ophthalmol. Vis. Sci. Vol. 43. **Presented as a poster presentation at the 2002 Association for Research in Vision and Ophthalmology meeting.**

23. Kutty R, Fariss RN, Chen S, Samuel W, Duncan T, **Bridges CC**, El-Sherbeny A, Smith SB, Wiggert B. (2002) Analysis of the expression of NORPEG protein in retinal pigment epithelium and other ocular tissues. Invest. Ophthalmol. Vis. Sci. Vol. 43. **Presented as a poster presentation at the 2002 Association for Research in Vision and Ophthalmology meeting.**

24. Smith SB, **Bridges CC**, Ola MS, El-Sherbeny A, Prasad P, Ganapathy V. (2001) Regulation of the taurine transporter by nitric oxide in cultured human retinal pigment epithelial (RPE) cells. Invest. Ophthalmol. Vis. Sci. 42: S757. **Presented as a poster presentation at the 2001 Association for Research in Vision and Ophthalmology meeting.**

25. Naggar HA, Ola MS, Huang W, Moore P, **Bridges CC**, Ganapathy V, Smith SB. (2001) Hyperglycemic downregulation of reduced-folate transporter (RFT-1) in cultured ARPE-19 cells and diabetic mice. Invest. Ophthalmol. Vis. Sci. 42: S502. **Presented as a poster presentation at the 2001 Association for Research in Vision and Ophthalmology meeting.**

26. **Chancy C,** Kekuda R, Huang W, Kuhnel J, Sirotnak FM, Ganapathy V, Smith SB. (2000) Expression and distribution of reduced-folate transporter (RFT-1) in RPE. Invest. Ophthalmol. Vis. Sci. 41: S521. **Presented as a poster presentation at the 2000 Association for Research in Vision and Ophthalmology meeting.**

27. Smith SB, **Chancy CD**, Kekuda R, Ganapathy V. (2000) Functional characterization and regulation of the cystine/glutamate transporter x_c^- in cultured human RPE cells. Invest. Ophthalmol. Vis. Sci. 41: S138. **Presented as a poster presentation at the 2000 Association for Research in Vision and Ophthalmology meeting.**

28. Smith SB, **Chancy CD**, Huang W, Ganapathy V. (1999) Nitric oxide (NO) regulates the activity of the reduced-folate transporter in cultured human RPE cells. Invest. Ophthalmol. Vis. Sci. 40: S929. **Presented as a poster presentation at the 1999 Association for Research in Vision and Ophthalmology meeting.**

Peer-Reviewed Book Chapters

1. Zalups RK and **Bridges CC** (2016) Mechanisms Involved in the Renal Handling and Toxicity of Mercury. In: Comprehensive Toxicology, Ed. Cummings, B. and Schnellman R., 3rd Ed. Elsevier. In press. Tentative publication date: December 2017

2. **Bridges CC** and Zalups RK (2013) The Aging Kidney and Exposure to the Nephrotoxic Metals Cadmium and Mercury. In: Aging and Vulnerability to Environmental Chemicals, Ed. Weiss, B., Royal Society of Chemistry, London, England. pp. 346-376.

3. **Bridges, CC** and Zalups, RK. (2010) Transport of Toxic Metals and Molecular and Ionic Mimicry. In: Cellular and Molecular Biology of Metals, Ed. Zalups RK, Koropatnick DJ. CRC Press, Boca Raton, FL, pp. 241-294.

4. Zalups, RK and **Bridges, CC**. (2010) Molecular and Cellular Biology of Mercury in the Kidneys. In: Cellular and Molecular Biology of Metals, Ed. Zalups RK, Koropatnick DJ. CRC Press, Boca Raton, FL, pp. 35-77.

Other Publications

Bridges CC. (2017) Benefits and risks of eating fish. Published 3-31-17 in The Macon Telegraph. http://www.macon.com/news/local/article141996404.html

PROFESSIONAL PRESENTATIONS

*National and International**

Bridges CC, Prasad PD, Ganapathy V. (2001) Osmoregulation of the amino acid transporter ATA2 in C6 glioma cells. FASEB Summer Research Conference. **Poster presentation**

Bridges, CC. (2014) Role of Breast Cancer Resistance Protein in the Proximal Tubular Transport of Mercury. Metal Carcinogenesis Conference, Albuquerque, NM. **Invited oral presentation**

* Most presentations at national meetings are listed under “Peer-Reviewed Abstracts”

Regional and Local Presentations

Bridges, CC. (2016) Transport and Toxicity of Mercury in a Model of Chronic Kidney Disease, Augusta University, Augusta, GA. **Invited oral presentation**

Bridges, CC. (2013) Transport and Toxicity of Mercury in the Placenta. Oak Ridge National Laboratory, Oak Ridge, Tennessee. **Invited oral presentation**

Bridges, CC. (2013) Transport and Toxicity of Mercury in the Kidney. Winthrop University Houlk Seminar Series **Invited oral presentation**

Bridges, CC. (2008) Transport and Toxicity of Mercury in the Proximal Tubule. Mercer University School of Medicine and Medical Center of Central Georgia Joint Research Conference. **Poster presentation**

Bridges, CC. (2006) Role of multidrug resistance proteins in renal elimination of mercury. Mercer University School of Medicine and Anderson Cancer Institute Joint Research Conference. **Oral presentation**

Bridges, CC. (2004) Mechanisms of mercury transport in renal proximal tubular cells: Implications for molecular mimicry. Mercer University School of Medicine. **Oral presentation**

Bridges, CC. (2002) Folate transport in the retinal pigment epithelium. Mercer University School of Medicine. **Oral presentation**

Bridges CC, Ganapathy V, Smith SB. (2000) Localization and characterization of reduced-folate transporter-1 in the retinal pigment epithelium. Graduate Research Day, Medical College of Georgia. **Poster presentation**

Chancy C, Huang W, Ganapathy V, Smith SB. (1999) Activity of the reduced-folate transporter (RFT) in retinal pigment epithelial (RPE) cells is regulated by nitric oxide (NO). University System of Georgia Research Symposium. **Poster presentation**

Chancy C, Ganapathy V, Smith SB. (1999) Expression and role of the folate receptor □ in the mammalian retinal pigment epithelium (RPE). Graduate Student Research Day, Medical College of Georgia. **Poster presentation**

PRESENTATIONS BY STUDENTS

Nijhara S, George H, **Bridges CC** (2017) Mercury accumulation in 75% nephrectomized Wistar rats and their fetuses. BEAR Day, Mercer University. Oral presentation

Orr SE, Joshee L, **Bridges CC**. (2017) Disposition of methylmercury over time in a rat model of chronic kidney disease. Mercer University Health Sciences Joint Research Conference. Poster presentation. (won award for best poster)

Nijhara S, George H, **Bridges CC** (2017) Mercury accumulation in 75% nephrectomized Wistar rats and their fetuses. Mercer University Health Sciences Joint Research Conference. Poster presentation.

Oliveira CS, Joshee L, Stahl A, Zalups RK, **Bridges CC**. (2014) Disposition and Toxicity of Inorganic Mercury in Pregnant Rats. Mercer University School of Medicine Joint Research Conference.

Teaching

I. PHILOSOPHY AND GOALS OF TEACHING

The majority of my teaching experience has been at Mercer University School of Medicine (MUSM). I have experience giving lectures to large groups, serving as a tutor in tutorial sessions, and interacting with students in groups of 2-3. I have found that I most enjoy the small-group interactions where I am able to make a personal connection with each student in the group. I get to know a little about each student's personality as well as understand each student's individual style of learning.

As a tutor, I have found that it is critical to maintain a positive attitude as students may often feel overwhelmed and overworked as the phase progresses. I try to make group process fun; I allow the students the freedom to laugh. Even so, I strive to create an environment that is conducive to learning by: 1) asking questions that facilitate critical thinking; 2) challenging students to search for answers on their own; 3) allowing students to direct group discussions; 4) admitting when I don't know the answer. In addition, I make sure that students know that I am accessible outside of the tutorial room and willing to answer their questions. I am committed to helping the students in my groups understand the basic science underlying the clinical aspects of our cases. I hope that my commitment to group process, in some small way, serves to motivate the students that I teach.

Teaching medical students in a multidisciplinary program like that of the patient based learning (PBL) curriculum is uniquely challenging in that when charged with leading a group of bright students it is often a challenge to stay ahead of them in every area of the curriculum. I work hard to read the assigned readings along with the students in my group so that I am able to assist them with issues and questions that may arise during group discussions. Teaching in the PBL curriculum is also rewarding in many ways. Not only is there a sense of accomplishment in being able to educate future physicians, but I feel like I am continuing my education as well. Not a year goes by that I don't learn something new, whether it is during my preparation for group discussions or from students during group discussions.

As I continue tutoring in the PBL curriculum, I expect my tutoring skills to continue to improve and my clinical knowledge to continue to grow. I look forward to participating in the PBL curriculum for years to come.

II. EDUCATIONAL CONTRIBUTIONS

A. INSTRUCTIONAL RESPONSIBILITIES

- Facilitator in Patient Based Learning (PBL) Curriculum, Mercer University

  Dates: 2017 – present

  Number of Learners: 7-8

  Number of Contact Hours/Year: approximately 100

  Duties Include:
  - Attendance at tutorial sessions with students on Mondays and Wednesdays from 8:45 am – 12:00 pm
  - Attendance at weekly tutor meetings
  - Preparation for tutorial sessions.

  Scheduled to participate in the following modules: Block 2, Module 2 (Hematology); Block 3, Module 3 (Renal); Block 4, Module 1 (Gastrointestinal)

- Discipline Representative in PBL Curriculum, Mercer University

  Dates: 2016 - present

  Number of Learners: 120 per class

  Number of Contact Hours/Year: No direct contact with students; approximately 40 hours for other duties

  Duties Include:
  - Reviewing and revising syllabi
  - Writing exam questions

  Experience in the following modules: Hematology, Host Defense, Gastrointestinal, Renal

- Tutor in Biomedical Problems (BMP) curriculum , Mercer University

  Dates: 2006 – 2017

  Number of Learners: 7-8

  Number of Contact Hours/Year: approximately 100

  Duties Include:
  - Attendance at tutorial sessions with students on Mondays, Wednesdays and Fridays from 9:00 am – 12:00 pm
  - Attendance at weekly tutor meetings
  - Preparation for tutorial sessions.

  Experience in the following phases: Gastrointestinal and Renal

- Discipline Representative in Three Phases Annually in the BMP curriculum, Mercer University

  Dates: 2007-2017

  Number of Learners: 120

Number of Contact Hours/Year: approximately 6 hours in direct contact with students; approximately 50 hours for other duties

Duties Include:

- Preparation of study guides
- Writing exam questions
- Preparing and presenting resource sessions.

Experience in the following phases: Host Defense, Hematology, Pulmonology, Gastrointestinal, and Renal.

- Discipline Assistant in the BMP curriculum, Mercer University

Dates: 2006-2007

Number of Learners: 60

Number of Contact Hours/Year: 30 hours with students; 20 hours for other duties.

Duties Include:

- Preparation of study guides
- Providing small-group microscope resource sessions
- Writing and reviewing test questions

Experience in the following phases: Host Defense, Pulmonology, Gastrointestinal, and Renal.

B. CURRICULUM DEVELOPMENT (SEE ALSO CURRICULUM DEVELOPMENT FORMS)

- Member of the Block 3 Committee, Mercer University
  2016 – present
  Duties include:
  - Preparation of curriculum for implementation in August 2017
  - Preparation of study guides for Modules 1, 2, and 3 in Block 3
  - Preparation of cases for Modules 1, 2, and 3 in Block 3
  - Review of questions submitted for quizzes and ranking each question according to the Angoff method.

- Created a written Hematology resource for Histology, Mercer University
  Fall 2013
  - Provided details regarding histological characteristics of individual cells
  - Provided numerous examples of various cell-types
  - Peer-reviewed by Dr. Balint Kacsoh
  - Placed on Blackboard for student use
  - Updated annually

- Created a written Q & A resource for each: Host Defense, Gastrointestinal, and Renal, Mercer University
  Fall 2010
  - Provided questions related to material covered in the respective phase

- Provided answers with detailed explanations
- Each resource was peer-reviewed by Dr. Balint Kacsoh
- Each resource was placed on Blackboard for student use
- Updated annually

C. LEARNER ASSESSMENT

- Question-Writer for the PBL curriculum, Mercer University
  2016 – present
  Number of learners: 120 per class
  Duties Include:
  - Writing questions for Modules containing Histology material related to: Hematology, Host Defense, Gastrointestinal, and Renal
  - Peer-review of questions for other Histology faculty

- Question-Writer for the BMP curriculum, Mercer University
  2007 – 2017
  Number of learners: 120 per class
  Duties Include:
  - Writing questions for three phases per year (Experience with Hematology, Host Defense, Pulmonology, Gastrointestinal, and Renal)
  - Peer-review of questions for other Histology faculty
  - Responding to student challenges

- SOCA Examiner for the BMP curriculum, Mercer University
  2007 – 2017
  Duties Include:
  - Preparation and review of the case used for the SOCA
  - Examination of 8-9 students per phase (Gastrointestinal and Renal phases)

D. STUDENT ADVISING AND MENTORING

- Faculty Advisor for Medical Students

  Dates: 2006 – present

  Number of Learners: 6 per year (3 freshmen; 3 sophomores)

  Duties Include:
  - Meeting with students on a regular basis
  - Working with an Academic Counseling Team (ACT) to assist struggling students

- Faculty Mentor for Medical Student Research
  - 2016-2017 Renee Franklin

- Faculty Mentor for Graduate Student Research
  - 2017 – present Sarah Orr (MS program) Mercer University
  - 2013 – 2014 Allison Stahl (MS program) Mercer University

- 2014 Cláudia Oliveria (visiting PhD student) Federal University of Santa Maria, Santa Maria, Brazil

- Faculty Mentor for Undergraduate Student Research
  - 2017 – present Mary Catherine Barnes
  - 2015 – present Hannah George
  - 2015 – present Vaishnavi Narain
  - Summer 2017 Timothy Freeman
  - 2015 – 2017 Sayna Nijhara
  - 2015 – 2016 Rahdika Kamath
  - 2013 – 2015 Joel Patterson
  - 2011 – 2012 Courtney McWhorter
  - Summer 2011 Varun Kannan
  - 2009 – 2010 Bryan Benton
  - 2006 – 2009 Emilie Bullard
  - Summer 2006, 2007 Charles Terry
  - Fall 2004 Kalid Waliullah
  - Fall 2005 Paul Beach
  - 2003 – 2006 Jamie Battle Givens

- Faculty Mentor for Resident Research
  - 2007 Kabir Das, MD, Medical Center of Central GA
  - 2007 Sitharam Nandigam, MD, Medical Center of Central GA

E. EDUCATIONAL LEADERSHIP AND ADMINISTRATION

- Discipline Representative

  Dates: 2007- present

  Duties Include:
  - Providing resource sessions for 1st- and 2nd-year medical students
  - Writing questions for multidisciplinary exams (MDE) for 1st- and 2nd-year medical students
  - Responding to student challenges regarding MDE questions

- Block 3 Committee Member

  Dates: 2016 – present

  Duties Include:
  - Assisting with development of new Patient-Based Learning Curriculum for Block 3 (Cardiology, Pulmonology, Renal)
  - Reviewing questions for quizzes and tests
  - Preparing study guides for Modules 1, 2, and 3 in Block 3
  - Preparing cases for Modules 1, 2, and 3 in Block 3
  - Reviewing questions submitted for quizzes and ranking each question according to the Angoff method.

III. PROFESSIONAL DEVELOPMENT

2017 Participation in Fall session of the MUSM Grant-Writing Panel (GRiP)
2017 Scholarly Teaching vs Scholarship of Teaching, Mercer University
2017 Activity Insights Faculty Development Workshop, Mercer University
2016 Women in Toxicology Webinar: Achieving Work-Life Balance across Career Stages
2016 Question-writing Workshop, Mercer University
2016 Women in Toxicology: Webinar on Career Development
2015 Kaplan Webinar – Faculty Item Writing Workshop

IV. EVALUATION OF TEACHING ABILITY

Appended, please find student evaluations from tutorial (2013-2017) and resource sessions (2010-2013). Please note that around 2013 recorded resource sessions from previous years were made available to students via Blackboard. Students preferred to watch these pre-recorded resources and thus, live resources were phased out slowly. A review of these evaluations will show that students have been satisfied with the quality of instruction that I have provided. **Of the 65 students that filled out tutorial evaluations over the past 5 years, 64 indicated that they would choose to have me again as a tutor.** Below, I have provided a brief summary of my tutorial evaluations according to category.

i. General comments

"Dr. Bridges was always very positive in group and she was very invested in our success."

"I really enjoyed having Dr. Bridges for the phase. I thought she was really knowledgeable of the phase's topics. She was also a really good facilitator of our group's discussions, and overall this one of my favorite groups since beginning BMP."

"Dr. Bridges is an excellent tutor. We had a quiet group, but she still encouraged us to talk and really helped us through some difficult material."

"Dr. Bridges was an awesome tutor! She helped us stay on topic, was involved the perfect amount, and very knowledgeable. I really enjoyed having her as a tutor and this was my favorite group!"

"Dr. Bridges was a great tutor. She kept us on a good pace and at an appropriate depth."

ii. Attitude

"Dr. Bridges had a positive, interested, and enthusiastic attitude."

"Dr. Bridges is always prepared for group, pleasant, and the most encouraging tutor I've had."

"She had a great attitude and was very supportive!"

"Dr. Bridges always came to group with a positive and encouraging attitude."

"She was very positive and promoted a constructive learning environment."

iii. Medical Knowledge

"Dr. Bridges was helpful for most subjects, particularly histology and physiology."

"Dr. Bridges was very knowledgeable. She was helpful in not just Histology, but all of the other disciplines as well."

"Dr. Bridges, as a histologist, helped walk us through interesting and complex images and concepts. She had a great knowledge of her discipline and we felt we could trust her opinions on confusing topics and images. She has a strong scientific foundation of the subject matter and came to group properly prepared. She understands that there are personal limitations and many times she helped us understand the connections between the material and the psychological aspects."

"Dr. Bridges was very well versed with the material for the GI phase, and her help in Histology, in particular, was a tremendous asset."

"Dr. Bridges was more than prepared for group. I know she had extensive notes and always came to group prepared to lead and answer any question. She's also a great histologist and her resources have always been excellent."

iv. Professionalism

"Dr. Bridges was always professional and respectful. I appreciated that and so much more about her."

"Dr. Bridges was very professional at all times."

"Very professional. Clearly put in effort to have a complete understanding of all disciplines."

"Dr. Bridges was very professional and organized. I could tell that she really wanted us to learn the material and retain it."

"Dr. Bridges was always professional and respectful. She was never late and was always prepared."

v. Suggestions

"I do not have any suggestions really. Overall, I thought she was great and I would love to have her as a tutor again."

"Keep doing what you are doing! You are fantastic."

"None! Continue to be an awesome tutor!!"

"I have no suggestions. In my opinion, Dr. Bridges is a great tutor. Some of her histology questions were tough but that's to be expected :D"

"Keep it up! I liked that you told us at the end of group that we did well in a particular session. It made me want to continue trying hard; it showed me that you were paying attention."

DO NOT REPEAT PUBS AND GRANTS IN THIS SECTION AS THEY ARE ALREADY IN CV. UNNECESSARY REDUNDANCY

Research/Scholarly Activity

I. GOALS OF RESEARCH/SCHOLARLY ACTIVITY

Inorganic and organic (e.g. methylmercury) forms of mercury (Hg) are found throughout our environment and thus, it is nearly impossible for humans to avoid exposure to some form of this metal. Consequently, it is of great importance to human health that we understand fully the mechanisms involved in the handling of Hg in target cells and organs.

My research focuses on the following topics:

1. Renal transport of mercuric species
2. Placental transport of mercuric species
3. Aging and the handling of nephrotoxicants

The generalized goals of my research are as follows:

1. To identify novel mechanisms on the basolateral plasma membrane of proximal tubular cells that are involved in the export of mercuric species.
2. To understand the effect(s) of chronic kidney disease on the uptake and export of mercuric species by proximal tubular cells.
3. To identify the intracellular effects of mercury accumulation in target cells.
4. To identify the transport mechanisms involved in the transport of mercury across placental syncytiotrophoblasts.
5. To assess the effects of chronic kidney disease on the placental transfer of mercury.
6. To determine how toxicants such as Hg are handled by aged kidneys.

II. HYPOTHESIS OF RESEARCH/SCHOLARLY ACTIVITY

Topic 1: Renal Transport of Mercuric Species

General Hypothesis: Mercuric ions are taken up at the luminal and basolateral plasma membranes of proximal tubular cells and are exported into tubular fluid via carriers in the luminal plasma membrane.

Topic 2: Placental Transport of Mercuric Species

General Hypothesis: Alterations in the renal function of mothers enhances the placental transfer of toxicants and increases the exposure of the fetus to these toxicants. Fetal health may be compromised as a result of the increased exposure to toxicants.

Topic 3: Aging and the Handling of Nephrotoxicants

General Hypothesis: Owing to structural and physiological changes in kidneys of aged individuals, we hypothesize that the handling of nephrotoxicants (and other xenobiotics) in kidneys of aged individuals is significantly different than that in kidneys of younger individuals.

III. FINANCIAL SUPPORT

Current Research Support

Navicent Health Foundation ($14,000) Bridges (PI) 10/01/16-09/30/17
Impact of Maternal Renal Insufficiency on Fetal Accumulation and Toxicity of Methylmercury
The purpose of this project is to assess the effect of chronic kidney failure in mothers on the distribution and toxicity of methylmercury in rat pups exposed prenatally to this toxicant.

Pending Research Support

R15ES028915 (NIH/NIEHS $462,660) Bridges (PI) 11/01/17-10/31/20
Basolateral Uptake of Mercuric Species in Isolated Hypertrophied Proximal Tubules
Scored, Pending Council Review
The purpose of this project is to determine which transport mechanisms on the basolateral membrane of proximal tubules are responsible for the enhanced uptake of mercuric species in hypertrophied proximal tubules.

Cayman Chemical Company ($5,000) Bridges (PI) 10/01/17-09/30/18
Identification of novel basolateral mechanisms involved in the proximal tubular uptake of mercury. (Undergraduate research award)
Submitted
The purpose of this project is to identify novel mechanisms for the uptake of mercury at the basolateral membrane of proximal tubular cells.

Sigma Xi Graduate Student Research Award ($1,000) Bridges (PI)
Potential Mechanisms Involved in the Toxicity of Inorganic Mercury in Rat Kidney Cells
Submitted
The purpose of this project is to identify the intracellular mechanisms by which inorganic mercury leads to cellular intoxication.

Completed Research Support

MedCen Research Foundation ($20,000) Bridges (PI) 10/01/14-09/30/16
Handling and Toxicity of Methylmercury in Pregnant Rats and Neonates
The purpose of this project was to assess the effect of maternal exposure (prenatal and/or neonatal) to methylmercury on the developmental and behavioral aspects of fetuses.

Mercer University Seed Grant ($1,770) Bridges (PI) 07/01/14-06/30/15
Disposition and Toxicity of Inorganic Mercury in Pregnant Rats
The purpose of this project was to determine if inorganic mercury was capable of crossing the placenta and accumulating in fetal tissues.

R15ES019991-01 (NIH/NIEHS; $471,000) Bridges (PI) 01/01/11-12/31/14
Proximal Tubular Transport of Mercury and Effects of Reduced Renal Mass
The purpose of this project was to utilize isolated perfused proximal tubules from uninephrectomized rabbits to assess the effects of cellular hypertrophy on the tubular transport of mercuric ions.

Mercer University Seed Grant ($3,000) Bridges (PI) 07/01/10-06/30/11
Disposition of Mercuric Ions in Knock-out Mouse Models
The purpose of this project was to utilize Mrp2 knockout mice to confirm a role for Mrp2 in the renal disposition of mercuric ions.

Mercer University Seed Grant ($4,000) Bridges (PI) 07/01/09-06/30/10
Renal Insufficiency and Mechanisms of Mercury Secretion
The purpose of this project was to determine if a significant reduction in functional renal mass leads to alterations in the renal secretion of mercuric ions.

R03ES015511-01 (NIH/NIEHS; $146,200) Bridges (PI) 04/01/07-03/31/09
Role of Multidrug Resistance Proteins 2 and/or 4 in Renal Elimination of Mercury
The purpose of this project was to assess the roles of Mrp2 and Mrp4 in the transport of mercuric ions from within proximal tubular cells into the tubular lumen.

Mercer University Seed Grant ($4,080) Bridges (PI) 07/01/08-06/30/09
Effect of Chelation Therapy on Methylmercury Disposition in Placental and Fetal Tissues
The purpose of this project was to determine if the metal chelators, DMPS and DMSA were capable of facilitating the extraction of mercuric ions from placental and fetal tissues.

Mercer University Seed Grant ($3,500) Bridges (PI) 07/01/07-06/30/08
Transport of Mercury-Chelator Complexes by the Multidrug Resistance Protein 2
The purpose of this project was to assess the ability of MRP2 to mediate the export of mercury-chelator complexes from proximal tubular cells.

F32 ES012556-01 (NIH/NIEHS; $146,896) Bridges (PI) 07/01/03-06/30/06
Mechanisms for Renal Uptake of Mercury
The purpose of this project was to identify the mechanisms by which mercuric ions are taken up at the luminal membrane of proximal tubular cells.

Grants Submitted, Not Funded

March of Dimes ($300,000) Bridges (PI) Submitted 4/1/17
Chronic Kidney Disease and Placental Transport of Mercury

R15 (NIH/NIEHS; $446,896) Bridges (PI) Submitted 02/25/16
Impact of maternal renal insufficiency on fetal accumulation and toxicity of methylmercury

Kleberg Foundation ($300,000) Bridges (PI) Submitted 10/1/16
Prepared grant for submission in October 2016. One week prior to due date, the Grants & Contracts office received an email from the Kleberg Foundation asking that we not submit the grant because the likelihood of funding was minimal.

Whitehall Foundation ($300,000) Bridges (PI) Submitted 12/1/16
Submitted a letter of intent in December 2016. I received notification that the foundation was not currently funding research in my area of interest.

PhRMA Foundation ($60,000) Bridges (PI) Submitted 08/25/09
Compensatory Renal Hypertrophy and the Secretion of Mercury

R01ES019149 ($1,962,500) Bridges (PI) Submitted 09/24/09
Transmembrane Transport of Mercury in Models of Reduced Renal Mass

RC1ES018214 ($ 663,618) Bridges (PI) Submitted 04/23/09
Renal Insufficiency and Mechanisms of Mercury Secretion

R01ES017451 ($1,890,125) Bridges (PI) Submitted 10/06/08
Compensatory Tubular Hypertrophy and the Renal Secretion of Mercury

IV. UNFUNDED PROJECTS

All of my research projects that are active currently are funded.

V. MAJOR ACCOMPLISHMENTS/CONTRIBUTIONS IN SCHOLARSHIP

Topic 1: Renal Transport of Mercuric Species

General Hypothesis: Mercuric ions are taken up at the luminal and basolateral plasma membranes of proximal tubular cells and are exported into tubular fluid via carriers in the luminal plasma membrane.

My Contributions: My research has focused on the specific cellular mechanisms that are involved in the transport of mercuric species into and out of proximal tubular cells. Using a variety of *in vivo* and *in vitro* methods we have shown that the amino acid transporter, system $b^{0,+}$, mediates the uptake of mercuric ions at the luminal membrane of proximal tubular cells. In addition, we have shown that the multidrug resistance-associated protein 2 (MRP2) and breast cancer resistance protein (BCRP) mediate the export of mercuric species from proximal tubular cells into the tubular lumen.

Using animal models of reduced renal mass (to mimic different stages of kidney disease), we have shown that a reduction in renal mass and subsequent compensatory hypertrophy of remaining tubular cells leads to enhanced uptake of mercuric ions into proximal tubular cells.

Future Directions: We plan to expand upon these studies in the following ways:

1. Identify novel mechanisms for the uptake of mercuric species at the basolateral membrane of proximal tubular cells.

2. Characterize the transport of mercuric species at the site of individual transporters (e.g., MRP2, BCRP)
3. Identify and characterize the intracellular effects of mercuric species once they are taken up into proximal tubular cells.
4. Characterize the effects of renal tubular hypertrophy in a model of kidney disease on the cellular handling of mercuric species.

Topic 2: Placental Transport of Mercuric Species

General Hypothesis: Alterations in the renal function of mothers enhances the placental transfer of toxicants and increases the exposure of the fetus to these toxicants. Fetal health may be compromised as a result of the increased exposure to toxicants.

My Contributions: My laboratory has shown that inorganic and organic forms of mercury are transported across the placenta and that both forms accumulate in fetal organs. We have shown that MRP2, located on the maternal side of the placenta, mediates the movement of mercuric species from within placental syncytiotrophoblasts into maternal blood. In addition, we have preliminary data suggesting that fetuses of mothers with renal insufficiency are exposed to greater levels of toxicants such as mercury.

Future Directions: We plan to expand upon these studies in the following ways:

1. Continue studying the effects of maternal renal insufficiency on fetal accumulation of environmental toxicants.
2. Identify specific mechanisms involved in the placental transfer of mercuric species.

Topic 3: Aging and the Handling of Nephrotoxicants

General Hypothesis: Owing to structural and physiological changes in kidneys of aged individuals, we hypothesize that the handling of nephrotoxicants (and other xenobiotics) in kidneys of aged individuals is significantly different than that in kidneys of younger individuals.

My Contributions: My laboratory has shown that the handling and disposition of mercuric species differs significantly in aged animals compared with younger animals. We have also shown that the kidneys of an aged rat have a reduced ability to compensate for a reduction in renal mass.

Future Directions:

We plan to expand upon these studies by continuing to assess the disposition and effects of mercuric species in aged animals.

Published Contributions to the Literature:

Peer-Reviewed Manuscripts (* denotes corresponding author)

1. Oliveira CS, Joshee L, **Bridges CC***. (2017) Transport kinetics of cysteine conjugates of inorganic mercury. *Biol Trace Elem Res. In press.* Impact factor 2.399

2. Oliveira CS, George H, Nijhara S, Joshee L, **Bridges CC***. (2017) Oral exposure to toxic doses of methylmercury alters fetal accumulation. *Reprod Toxicol* 69:265-275. PubMed ID 28341569

3. Orr SE, **Bridges CC***. (2017) Chronic kidney disease and the exposure to toxic metals. *Int J Mol Sci*. doi. 10.3390/ijms18051039. PubMed ID 28498320

4. **Bridges CC***, Zalups RK (2017) The aging kidney and the nephrotoxic effects of mercury. *J Toxicol Environ Health, Part B, Crit Rev.* 20:55-80.

5. **Bridges CC***, Barfuss DW, Zalups RK (2016) Compensatory renal hypertrophy and the uptake of inorganic mercury in isolated proximal tubules. *Toxicol Sci.* 154:278-288. PubMed ID 27562559

6. **Bridges CC***, Zalups RK (2016) Mechanisms involved in the transport of mercuric ions in target tissues. *Arch Toxicol.* 91:63-81. Invited review PubMed ID 27422290

7. Oliveira CS, Joshee L, Zalups RK, **Bridges CC*.** (2016) Compensatory renal hypertrophy and the handling of an acute nephrotoxicant in a model of aging. *Exp Gerontol.* 75:16-23. PubMed ID 26768998

8. Oliveira CS, Joshee L, Zalups RK, **Bridges CC***. (2015) Disposition of inorganic mercury in pregnant rats and their offspring. *Toxicol.* 335: 62-71. PubMed ID 26196528

9. **Bridges CC***, Zalups RK, Joshee L. (2015) Toxicological significance of renal Bcrp: Another transporter in the elimination of mercury from proximal tubular cells. *Toxicol Appl Pharmacol.* 285:110-117. PubMed ID 25868844

10. Zalups RK, Joshee L, **Bridges CC***. (2014) Novel Hg^{2+}-induced nephropathy in rats lacking Mrp2: Evidence for axial heterogeneity in the handling of Hg^{2+} along the proximal tubule. *Toxicol Sci.* 142:250-260. PubMed ID 25145654

11. **Bridges CC***, Joshee L, Zalups RK. (2014) Aging and the disposition and toxicity of mercury in rats. *Experimental Gerontology* 53:31-39. PubMed ID 24548775

12. Sattler W, Palmer JH, **Bridges CC**, Joshee L, Zalups RK, Parkin G*. (2013) Structural characterization of 1,3-propanedithiols that feature carboxylic acids: Homologues of mercury chelating agents. *Polyhedron* 64:268-279. PubMed ID 24187425

13. **Bridges CC***, Joshee L, van den Heuvel J, Russel FG, Zalups RK. (2013) Glutathione status and the renal elimination of inorganic mercury in the *Mrp2*$^{-/-}$ mouse. PLoS ONE 8(9):e73559. Doi:10.1371/journal/pone.0073559. PubMed ID 24039982

14. Uchakina ON, Castillejo CM, **Bridges CC**, McKallip RJ* (2013) The role of hyaluronic acid in SEB-induced acute lung inflammation. *Clin Immunol* 146:56-69. PubMed ID 23246605

15. **Bridges CC***, Joshee L, Zalups RK (2012) Placental and fetal disposition of mercuric ions in rats exposed to methylmercury: Role of Mrp2. *Reprod Toxicol.* 34:628-634. PubMed ID 23059061

16. Zalups RK, **Bridges CC*** (2012) Relationships between the renal handling of DMPS and DMSA and the renal handling of mercury. *Chem Res Toxicol.* 25:1825-1838. PubMed ID 22667351

17. Sun JP, Law GP, **Bridges CC**, McKallip RJ* (2012) CD44 as a novel target for treatment of staphylococcal enterotoxin-B induced acute inflammatory lung injury. *Clin Immunol* 144:41-52. PubMed ID 22659034

18. **Bridges CC**, Krasnikov BF, Joshee L, Pinto JT, Hallen A, Li J, Zalups RK, Cooper ALJ*. (2012) New insights into the metabolism of organomercury compounds: Mercury-containing cysteine *S*-conjugates are substrates of human glutamine transaminase K and potent inactivators of cystathionine □-lyase. *Arch. Biochem. Biophys.* 517:20-29. PubMed ID 22093698

19. **Bridges CC***, Joshee L, Zalups RK. (2011) Role of MRP2 and the handling of mercuric in rats exposed acutely to mercury-thiol conjugates. *Toxicol. Appl. Pharmacol.* 251:50-58. PubMed ID 21134393

20. **Bridges CC*,** Zalups RK (2010) Transport of inorganic mercury and methylmercury in target tissues and organs. *J. Toxicol. Environ. Health B Crit. Rev*. 13:385-410. PubMed ID 20582853

21. Zalups RK*, **Bridges CC** (2010) 75% Nephrectomy and the Disposition of Inorganic Mercury in DMSA-Treated Rats Lacking Functional MRP2. *J. Pharmacol. Exp. Ther.* 332:866-875. PubMed ID 20032202

22. **Bridges CC***, Joshee L, Zalups RK. (2009) Effect of DMPS and DMSA on the placental and fetal accumulation of methylmercury. *Placenta* 30:800-805. PubMed ID 19615742

23. Zalups RK, **Bridges CC***. (2009) MRP2 involvement in renal proximal tubular elimination of methylmercury mediated by DMPS or DMSA. *Toxicol. Appl. Pharmacol.* 235:10-17. PubMed ID19063911

24. **Bridges CC***, Joshee L, Zalups RK. (2008) MRP2 and the DMPS- and DMSA-mediated elimination of mercury in TR^- and control rats exposed to thiol *S*-conjugates of inorganic mercury. *Toxicol. Sci.* 105:211-220. PubMed ID 18511429

25. **Bridges CC***, Joshee L, Zalups RK. (2008) Multidrug resistance proteins and the renal elimination of inorganic mercury mediated by 2,3-dimercaptopropane-1-sulfonic acid and meso-2,3-dimercaptosuccinic acid. *J Pharmacol. Exp. Therap.* 324:383-390. PubMed ID 17940195

26. Keating E, Gonçalves P, Lemos C, Smith SB, **Bridges CC**, Azevedo I, Martel F*. (2007) Progesterone inhibits folate transport in human trophoblasts. *J. Memb. Biol.* 216:143-152. PubMed ID 17687501

27. **Bridges CC***, Battle JR, Zalups RK. (2007) Transport of thiol-conjugates of inorganic mercury in human retinal pigment epithelial cells. *Toxicol. Appl. Pharmacol.* 221:251-260. PubMed ID 17467761

28. **Bridges CC***, Zalups RK. (2006) Molecular mimicry as a mechanism for the uptake of cysteine s-conjugates of methylmercury and inorganic mercury. *Chem Res Toxicol.* 19:1117-8. PubMed ID 16978013

29. **Bridges CC***, Zalups RK. (2006) System $B^{0,+}$ and the transport of thiol-*S*-conjugates of methylmercury. *J Pharmacol Exp Ther*. 319:948-956. PubMed ID 16926263

30. **Bridges CC**, Zalups RK*. (2005) Molecular and ionic mimicry and the transport of toxic metals. *Toxicol. Appl. Pharmacol.* 204:274-308. PubMed ID 15845419

31. **Bridges CC**, Zalups RK*. (2005) Cystine and glutamate transport in renal epithelial cells transfected with human system x_c^-. *Kidney International.* 68:653-664. PubMed ID 16014042

32. **Bridges CC,** Bauch C, Verrey F, Zalups, RK*. (2004) Mercuric conjugates of cysteine are transported by the amino acid transporter, system $b^{0,+}$: Implications for molecular mimicry. *J. Am. Soc. Nephrol.* 15:663-673. PubMed ID 14978168

33. **Bridges CC**, Zalups RK*. (2004) Homocysteine, system $b^{0,+}$, and the renal epithelial transport and toxicity of inorganic mercury. *Am. J. Pathol.* 165:1385-1394. PubMed ID 15466402

34. **Bridges CC**, Hu H, Miyauchi S, Siddaramappa UN, Ganapathy ME, Ignatowicz L, Maddox DM, Smith SB, Ganapathy V*. (2004) Induction of Cystine-Glutamate Transporter x_c^- by

human immunodeficiency virus type 1 transactivator protein Tat in retinal pigment epithelium. *Invest. Ophthalmol. Vis. Sci.* 45:2906-2914. PubMed ID 15326101

35. Huankai HU, Miyauchi S, **Bridges CC**, Smith SB, Ganapathy V*. (2003) Identification of a novel Na^+- and Cl^--coupled transport system for endogenous opioid peptides in retinal pigment epithelium and induction of the transport system by HIV-1 Tat. *Biochem. J.* 375:17-22. PubMed ID 12924983

36. Hatanaka T, Haramura M, Fei YJ, Miyauchi S, **Bridges CC**, Ganapathy PS, Smith SB, Ganapathy V, Ganapathy, ME*. (2003) Transport of amino acid-based prodrugs by the Na^+- and Cl^-- coupled amino acid transporter ATB0,+ and expression of the transporter in tissues amenable for drug delivery. *J Pharm. Exp. Thera.* 308:1138-1147. PubMed ID 11846403

37. **Bridges CC**, El-Sherbeny A, Ola MS, Ganapathy V, Smith SB*. (2002) Transcellular transfer of folate across the retinal pigment epithelium. *Curr. Eye Res.* 24:129-138. PubMed ID 12187485

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40. **Bridges CC,** Kekuda R, Wang H, Prasad P, Mehta P, Huang W, Smith SB, Ganapathy V*. (2001) Structure, function and regulation of human cystine/glutamate transporter in retinal pigment epithelial cells. *Invest. Ophthalmol. Vis. Sci.* 42: 47-54. PubMed ID 11133847

41. Kutty RK, Kutty G, Samuel W, Duncan T, Jaworski C, **Bridges CC**, El-Sherbeny A, Nagineni CN, Smith SB, Wiggert B*. (2001) Molecular characterization and developmental expression of NORPEG: a novel gene induced by retinoic acid encodes a cytoskeletal protein. *J. Biol. Chem*. 276: 2831-2840. PubMed ID 11042181

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brain microvessel endothelial cell line (RBE4). *Biochim. Biophys. Acta.* 1512: 299-307. PubMed ID 11406107

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47. Rajan DP, Kekuda R, **Chancy CD**, Ganapathy V, Smith SB*. (2000) Expression of the extraneuronal monoamine transporter in ocular tissues. *Curr. Eye Res.* 20: 195-204. PubMed ID 10694895

48. **Chancy CD**, Kekuda R, Huang W, Prasad P, Kuhnel JM, Sirotnak FM, Roon P, Ganapathy V, Smith SB*. (2000) Expression and differential polarization of the reduced-folate transporter-1 and the folate receptor α in mammalian retinal pigment epithelium. *J. Biol. Chem.* 275: 20676-20684. PubMed ID 10787414

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Peer-Reviewed Book Chapters

1. Zalups RK and **Bridges CC** (2016) Mechanisms Involved in the Renal Handling and Toxicity of Mercury. In: Comprehensive Toxicology, Ed. Cummings, B. and Schnellman R., 3rd Ed. Elsevier. In press. Tentative publication date: December 2017

2. **Bridges CC** and Zalups RK (2013) The Aging Kidney and Exposure to the Nephrotoxic Metals Cadmium and Mercury. In: Aging and Vulnerability to Environmental Chemicals, Ed. Weiss, B., Royal Society of Chemistry, London, England. pp. 346-376.

3. **Bridges, CC** and Zalups, RK. (2010) Transport of Toxic Metals and Molecular and Ionic Mimicry. In: Cellular and Molecular Biology of Metals, Ed. Zalups RK, Koropatnick DJ. CRC Press, Boca Raton, FL, pp. 241-294.

4. Zalups, RK and **Bridges, CC**. (2010) Molecular and Cellular Biology of Mercury in the Kidneys. In: Cellular and Molecular Biology of Metals, Ed. Zalups RK, Koropatnick DJ. CRC Press, Boca Raton, FL, pp. 35-77.

Peer-Reviewed Abstracts

1. Barkin J, Bloch J, Telliard S, Rhoades K, Bridges CC (2017) High risk obstetrics patients' understanding of and attitudes towards the prospect of home vising. **Presented as an oral presentation by J. Barkin at the 2017 annual meeting of the American Public Health Association.**

2. **Bridges CC**, Oliveira CS, Joshee L, Zalups RK (2017) Multidrug Resistance-Associated Protein 2 and its Role in the Pharmacokinetics of Inorganic Mercury. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 141, Number 1, March 2017. **Presented as a poster presentation at the 2017 Society of Toxicology meeting.**

3. **Bridges CC**, Barfuss DW, Joshee L, Zalups RK (2016) Compensatory hypertrophy and the transport of inorganic mercury in isolated perfused proximal tubules. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 140, Number 1, March 2016. **Presented as a poster presentation at the 2016 Society of Toxicology meeting.**

4. **Bridges CC**, Oliveira CS, Joshee L, Zalups RK (2015) Effects of pregnancy and renal insufficiency on the disposition of mercuric ions. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 139, Number 1, March 2015. **Presented as a poster presentation at the 2015 Society of Toxicology meeting.**

5. **Bridges CC**, Joshee L, Zalups RK. (2014) Disposition and Toxicity of Mercury in Kidneys of Aging Rats. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 138, Number 1, pg. 531, March 2014. **Presented as a poster presentation at the 2014 Society of Toxicology meeting.**

6. Zalups RK, Joshee L, **Bridges CC**. (2013) Absence of Mrp2 leads to differences in severity and pattern of mercury nephrotoxicity in mice. *FASEB J .V*ol 27. **Presented as a poster presentation at the 2013 Experimental Biology meeting.**

7. **Bridges CC**, Barfuss DW, Joshee L, Zalups RK. (2013) Proximal tubular transport of mercuric species following compensatory tubular hypertrophy. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 132, Number 1, March 2013. **Presented as a poster presentation at the 2013 Society of Toxicology meeting.**

8. Castillejo C, Uchakina O, **Bridges CC**, McKallip RJ. (2012) The role of hyaluronic acid in SEB-induced acute lung inflammation. Annual Biomedical Research Conference for Minority Students (ABRCMS)

9. **Bridges CC**, Joshee L, van den Heuvel JJ, Frans FG Zalups RK. (2012) Multidrug resistance-associated proteins and their role in the renal elimination of mercury. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 126, Number 1, March 2012. **Presented as a poster presentation at the 2012 Society of Toxicology meeting.**

10. McKallip RJ, **Bridges CC**, Law GP, Sun J (2012) Targeting CD44 in SEB-induced acute respiratory distress syndrome. (American Association of Immunologists Meeting)

11. **Bridges CC,** Joshee L, Zalups RK. (2011) Transport of mercuric species in rabbit renal brush-border membrane vesicles. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 100, Number 1, March 2011. **Presented as a poster presentation at the 2011 Society of Toxicology meeting.**

12. **Bridges CC,** Joshee L, Zalups RK. (2010) Placental and fetal disposition of mercuric ions following treatment with DMPS or DMSA. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 99, Number 1, March 2010. **Presented as a poster presentation at the 2010 Society of Toxicology meeting.**

13. **Bridges CC,** Joshee L, Zalups RK. (2009) Effect of DMPS and DMSA on the Disposition of Hg^{2+} in Models of Reduced Renal Mass. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 98, Number 1, March 2009. **Presented as a poster presentation at the 2009 Society of Toxicology meeting.**

14. **Bridges CC,** Joshee L, Zalups RK. (2008) Elimination of thiol conjugates of inorganic mercury and the role of the multidrug resistance protein 2. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 97, Number 1, March 2008. **Presented as a poster presentation at the 2008 Society of Toxicology meeting.**

15. **Bridges CC**, Zalups RK. (2007) Renal elimination of inorganic mercury and the role of the multidrug resistance protein 2. *The Toxicologist CD* – An official journal of the Society of Toxicology. Vol. 96, Number 1, March 2007. **Presented as a poster presentation at the 2007 Society of Toxicology meeting.**

16. Zalups RK, **Bridges CC**. (2007) The multidrug resistance protein 2 as a mechanism involved in the renal elimination of organic mercury. *The Toxicologist CD* – An official journal of the

Society of Toxicology. Vol. 96, Number 1, March 2007. **Presented as a poster presentation at the 2007 Society of Toxicology meeting.**

17. **Bridges CC,** Zalups RK. (2006) Role of system $B^{0,+}$ in the transport of cysteine *S*-conjugates of methylmercury. *FASEB J.* 20:A1138. **Presented as a poster presentation at the 2006 Experimental Biology meeting.**

18. Zalups RK, **Bridges CC**, Battle, JR. (2006) Mercury is transported by the retinal pigment epithelium as an *S*-conjugate of cysteine. *FASEB J.* 20:A1137. **Presented as a poster presentation at the 2006 Experimental Biology meeting.**

19. **Bridges CC,** Zalups RK. (2005) Characterization of cystine and glutamate transport in a renal cell line stably transfected with system x_c^-. *FASEB J.* Vol 19. **Presented as a poster presentation at the 2005 Experimental Biology meeting.**

20. **Bridges CC,** Zalups RK. (2004) Transport of mercuric conjugates of homocysteine by the amino acid transporter, system $b^{0,+}$. *The Toxicologist*. 78:S89-90. **Presented as a poster presentation at the 2004 Society of Toxicology meeting.**

21. **Bridges CC**, Bauch C, Verrey F, Barfuss DW, Zalups RK. (2003) Transport of dicysteinylmercury in Madin-Darby Canine Kidney (MDCK) cells overexpressing system $b^{0,+}$. *The Toxicologist*. 77:S401. **Presented as a poster presentation at the 2003 Society of Toxicology meeting.**

22. Ganapathy V, **Bridges CC**, Subramanian R, Ganapathy ME, Smith SB. (2002) Induction of the cystine/glutamate transporter x_c^- by HIV-1 transactivator protein TAT in the human retinal pigment epithelial cell line ARPE-19. *Invest. Ophthalmol. Vis. Sci.* Vol. 43. **Presented as a poster presentation at the 2002 Association for Research in Vision and Ophthalmology meeting.**

23. Kutty R, Fariss RN, Chen S, Samuel W, Duncan T, **Bridges CC**, El-Sherbeny A, Smith SB, Wiggert B. (2002) Analysis of the expression of NORPEG protein in retinal pigment epithelium and other ocular tissues. *Invest. Ophthalmol. Vis. Sci.* Vol. 43. **Presented as a poster presentation at the 2002 Association for Research in Vision and Ophthalmology meeting.**

24. Smith SB, **Bridges CC**, Ola MS, El-Sherbeny A, Prasad P, Ganapathy V. (2001) Regulation of the taurine transporter by nitric oxide in cultured human retinal pigment epithelial (RPE) cells. *Invest. Ophthalmol. Vis. Sci.* 42: S757. **Presented as a poster presentation at the 2001 Association for Research in Vision and Ophthalmology meeting.**

25. Naggar HA, Ola MS, Huang W, Moore P, **Bridges CC**, Ganapathy V, Smith SB. (2001) Hyperglycemic downregulation of reduced-folate transporter (RFT-1) in cultured ARPE-19 cells and diabetic mice. *Invest. Ophthalmol. Vis. Sci.* 42: S502. **Presented as a poster presentation at the 2001 Association for Research in Vision and Ophthalmology meeting.**

26. **Chancy C,** Kekuda R, Huang W, Kuhnel J, Sirotnak FM, Ganapathy V, Smith SB. (2000) Expression and distribution of reduced-folate transporter (RFT-1) in RPE. *Invest. Ophthalmol. Vis. Sci.* 41: S521. **Presented as a poster presentation at the 2000 Association for Research in Vision and Ophthalmology meeting.**

27. Smith SB, **Chancy CD**, Kekuda R, Ganapathy V. (2000) Functional characterization and regulation of the cystine/glutamate transporter x_c^- in cultured human RPE cells. *Invest. Ophthalmol. Vis*. *Sci.* 41: S138. **Presented as a poster presentation at the 2000 Association for Research in Vision and Ophthalmology meeting.**

28. Smith SB, **Chancy CD**, Huang W, Ganapathy V. (1999) Nitric oxide (NO) regulates the activity of the reduced-folate transporter in cultured human RPE cells. *Invest. Ophthalmol. Vis. Sci.* 40: S929. **Presented as a poster presentation at the 1999 Association for Research in Vision and Ophthalmology meeting.**

Presentations before Peer-Groups

National* and International

Bridges CC, Prasad PD, Ganapathy V. (2001) Osmoregulation of the amino acid transporter ATA2 in C6 glioma cells. FASEB Summer Research Conference. Poster presentation

Bridges, CC. (2014) Role of Breast Cancer Resistance Protein in the Proximal Tubular Transport of Mercury. Metal Carcinogenesis Conference, Albuquerque, NM. Invited oral presentation

* The majority of national presentations are listed under "Peer-reviewed abstracts"

Regional and Local Presentations

Bridges, CC. (2016) Transport and Toxicity of Mercury in a Model of Chronic Kidney Disease, Augusta University, Augusta, GA. Invited oral presentation

Bridges, CC. (2013) Transport and Toxicity of Mercury in the Placenta. Oak Ridge National Laboratory, Oak Ridge, Tennessee. Invited oral presentation

Bridges, CC. (2013) Transport and Toxicity of Mercury in the Kidney. Winthrop University Houlk Seminar Series Invited oral presentation

Bridges, CC. (2008) Transport and Toxicity of Mercury in the Proximal Tubule. Mercer University School of Medicine and Medical Center of Central Georgia Joint Research Conference. Poster presentation

Bridges, CC. (2006) Role of multidrug resistance proteins in renal elimination of mercury. Mercer University School of Medicine and Anderson Cancer Institute Joint Research Conference. Oral presentation

Bridges, CC. (2004) Mechanisms of mercury transport in renal proximal tubular cells: Implications for molecular mimicry. Mercer University School of Medicine. Oral presentation

Bridges, CC. (2002) Folate transport in the retinal pigment epithelium. Mercer University School of Medicine. Oral presentation

Bridges CC, Ganapathy V, Smith SB. (2000) Localization and characterization of reduced-folate transporter-1 in the retinal pigment epithelium. Graduate Research Day, Medical College of Georgia. Poster presentation

Chancy C, Huang W, Ganapathy V, Smith SB. (1999) Activity of the reduced-folate transporter (RFT) in retinal pigment epithelial (RPE) cells is regulated by nitric oxide (NO). University System of Georgia Research Symposium. Poster presentation

Chancy C, Ganapathy V, Smith SB. (1999) Expression and role of the folate receptor □ in the mammalian retinal pigment epithelium (RPE). Graduate Student Research Day, Medical College of Georgia. Poster presentation

Extramural Activities

- Associate Editor for *Toxicology Reports*, which is published by Elsevier
- Member of the editorial board for the Journal of Toxicology and Environmental Health, Part A, which is published by Taylor & Francis
- Member of the editorial board for Heliyon, which is also published by Elsevier
- *Ad hoc* reviewer for numerous journals, including *Biochemical Pharmacology*, *Chemical Research and Toxicology*, *Molecular Pharmacology, Placenta, Toxicology and Applied Pharmacology,* and *Toxicological Sciences* (see CV for complete list).
- *Ad hoc* grant reviewer for the National Institutes of Health (NIH), Italian Ministry of Health, and Natural Sciences and Engineering Research Council of Canada (NSERC)
- Member of the Society of Toxicology
- Member of the American Society for Pharmacology and Experimental Therapeutics

Clinical Practice

Not applicable

Administrative Service

Not applicable

Institutional and Academically-Related Public Service

I. PHILOSOPHY AND GOALS OF SERVICE

I am committed to serving Mercer University in a capacity that promotes excellence in teaching and research. I have served on faculty search committees and I have worked diligently with the members of those committees to hire faculty that uphold the strong academic standards of Mercer University. I also serve on the Promotion and Tenure committee where I am able to ensure that the review of faculty for promotion and tenure issue is rigorous. In addition, I serve on the Institutional Animal Care and Use Committee, through which I can facilitate excellence in research by ensuring that animal protocols are carried out properly. Recently, I have been asked to coordinate the Department of Biomedical Sciences Grant Review Program (GRiP). In this capacity, I have the opportunity to assist other faculty members with the grant-writing and submission process. I believe this is an important program that will make a significant difference in the viability of biomedical research in our department. I look forward to identifying additional service opportunities that will allow me to make a difference in the research and teaching environment at Mercer University.

II. SPECIFIC CONTRIBUTIONS

INSTITUTIONAL: MEDICAL SCHOOL COMMITTEES

Present Service

2017 – present	Coordinator of Department of Biomedical Sciences Grant Review Program (GRiP), Mercer University
2016 – present	Revised Curriculum Committee - Organ Block 3, Mercer University
2016 – present	Student Professionalism Committee, Mercer University
2014 – present	Promotion and Tenure Committee, Mercer University
2008 – present	Non-committee interviewer for medical school applicants, Mercer University

Previous Service

2015	MS-BMS Review Committee, Mercer University
2015	Subcommittee of the Research Committee charged to develop strategies for faculty mentorship
2015	Subcommittee of the Research Committee charged to develop strategies for improved faculty success in publishing and receipt of funding
2014 – 2015	Subcommittee of the Research Committee charged to develop a Strategic Plan for Research, Mercer University
2014 – 2015	Subcommittee of IACUC charged to investigate the HVAC issues in the MUSM animal facility, Mercer University
2013, 2014	Anatomy Search Committee, Mercer University (Hired Janine Chalk, Francis Kierra)

2012 – 2015 Women in Medicine Committee, Mercer University

2012 Rules and Bylaws Committee, Mercer University

2010 Physiology Search Committee, Mercer University (Hired David Gu & E.S. Prakash)

2008 Biochemistry Search Committee, Mercer University (Hired Richard O. McCann)

2000 LCME Self-Study Committee, Student representative, Medical College of Georgia, Augusta, Georgia

1999 Graduate Student Organization, Department representative, Dept. of Cellular Biology and Anatomy, Medical College of Georgia, Augusta, Georgia

INSTITUTIONAL: UNIVERSITY COMMITTEES

2005 – present Institutional Animal Care and Use Committee, Mercer University

PROFESSIONAL SERVICE

Editorial Positions

2017 – present Editorial Board Member, Journal of Toxicology and Environmental Health, Part A, published by Taylor & Francis

2016 – present Editorial Board Member, Heliyon, published by Elsevier

2014 – present Associate Editor, Toxicology Reports, published by Elsevier

Invited reviewer for the following journals:

I review approximately 20-25 manuscripts each year. I have reviewed manuscripts for the following journals:

Advanced Drug Delivery Reviews
Annals of Occupational Hygiene
Biochimica Biophysica Acta
Biochemical Pharmacology
Biological Trace Element Research
British Journal of Clinical Pharmacology
Cell Biochemistry and Function
Chemical Research in Toxicology
Comparative Biochemistry and Physiology
Environmental Health Perspectives
Environmental International
Environmental Toxicology
Experimental Eye Research
Food & Chemical Toxicology
International Journal of Molecular Sciences
Investigative Ophthalmology and Visual Science
Journal of Biological Chemistry
Journal of Pharmacology and Experimental Therapeutics
Journal of Medicinal Chemistry

Journal of Toxicology and Environmental Health, Part A
Journal of Toxicology and Environmental Health, Part B
Kidney International
Molecular and Cellular Endocrinology
Physiology & Behavior
Phytomedicine
PLOSone
Toxicology
Toxicology and Applied Pharmacology
Toxicology Reports
Toxicological Sciences
Toxicology Letters

Invited Reviewer for the following books:

Histology: A Text and Atlas, 5th Ed., (Ross and Pawlina); Reviewed chapter on gastrointestinal histology.

Introductory Histology and Pathology: A Concise Guide for Years I and II, 1st Ed. (Hansel and Dintzis); Reviewed chapters on cardiovascular and gastrointestinal histology.

Study Section Invitations

National Institutes of Health

February 22, 2016	*Ad hoc* reviewer for NIH Study Section: Special Emphasis Panel ZRG1 DKUS-A (82) Gastrointestinal, Kidney, Liver, Urology and Toxicology R15 Applications
November 17, 2015	*Ad hoc* reviewer for NIH Study Section: Xenobiotic and Nutrient Disposition (XNDA) (ZRG1 DKUS C 82 R15 Review)
July 29, 2015	*Ad hoc* reviewer for NIH Study Section: Xenobiotic and Nutrient Disposition (XNDA) (ZRG1 DKUS C 82 R15 Review)
October 14-15, 2014	*Ad hoc* reviewer for NIH Study Section: Special Emphasis Panel ZRG1 DKUS-A (82) Gastrointestinal, Kidney, Liver, Urology and Toxicology R15 Applications
June 25-26, 2014	*Ad hoc* reviewer for NIH Study Sections • Special Emphasis Panel: ZRG1 DKUS C(90)S, Systemic Injury by Environmental Exposure (SIEE) • ZRG1 DKUS-C (50) R PAR 14-050: Virtual Consortium for Translational/Transdisciplinary Environmental Research (ViCTER)
November 4-5, 2013	*Ad hoc* reviewer for NIH Study Section: Special Emphasis Panel ZRG1 DKUS-A (82) A "Gastrointestinal, Kidney, Liver, Urology and Toxicology R15 Applications
February 5-6, 2013	*Ad hoc* reviewer for NIH Study Section: Special Emphasis Panel C(90)S) Systemic Injury by Environmental Exposure (SIEE)

November 29, 2012 *Ad hoc* reviewer for NIH Study Section: Special Emphasis Panel (ZRG1 DKUS-C)

June 6, 2012 *Ad hoc* reviewer for NIH Study Section: Xenobiotic and Nutrient Disposition (XNDA)

February 7-8, 2012 *Ad hoc* reviewer for NIH Study Section: Xenobiotic and Nutrient Disposition (XNDA)

Italian Ministry of Health

November 2016 *Ad hoc* reviewer for the Italian Ministry of Health – Gastrointestinal Section

November 2014 *Ad hoc* reviewer for the Italian Ministry of Health – Gastrointestinal Section

September 2013 *Ad hoc* reviewer for the Italian Ministry of Health – Gastrointestinal Section

Research Council of Canada

January 2016 *Ad hoc* reviewer for Natural Sciences and Engineering Research Council of Canada (NSERC): Discovery Grants - Biological Systems and Functions Group

COMMUNITY SERVICE

2014 – present Science fair judge, Springdale Elementary, Macon, GA

2016 – present Science fair mentor for students at local middle schools

2016 Interactive Presentation: "Cells," Kings Chapel Elementary School*

2015 Interactive Presentation: "Physical and Chemical Change," Kings Chapel Elementary School*

2013 Interactive Presentation: "Tools that are Used by Scientists," Kings Chapel Elementary School*

2013 Presentation: "Tips for Getting Into Medical School," Mercer University Pre-Med Club

* Kings Chapel Elementary School is a Title I school in a rural and underserved area of Houston County, GA

Referees

Dr. Sylvia B. Smith

Dr. Vadivel Ganapathy

Dr. Larry Lash

Dr. Balint Kacsoh

Dr. Ron Garner

Dr. Jeff Ignatoff

Validation

AREA OF GENERAL AND FOCAL PROFESSIONAL EXPERTISE

My area of expertise relates to mercury transport and intoxication in various target organs.

PROVIDE EVIDENCE OF RECOGNITION OF PROFESSIONAL EXPERTISE

Local

My expertise in the local area and community is evidenced by my following activities:

- I am frequently asked to advise local middle school students regarding science fair projects.
- I speak at local schools regarding biology and chemistry topics.
- I have served as a judge for elementary school science fairs for three years.

State

My expertise within the state is evidenced by the following:

- I consulted Bryan Adams, with Gautreaux & Adams, regarding an environmental intoxication case and prosecution of Georgia Power.

National/International

My national/international reputation is evidenced by the following activities:

- I have served as an *ad hoc* grant reviewer for various NIH study sections (served 10 times).
- I have served as an *ad hoc* grant reviewer for Gastrointestinal unit - Italian Ministry of Health (served three times).
- I have served as an *ad hoc* grant reviewer for Biological Systems & Functions Group - Natural Sciences and Engineering Research Council of Canada (NSERC) (served one time).
- I am currently consulting Joey James, with Bunch & James, regarding a mercury intoxication case and prosecution of Olin Chlor Alkali.
  My name was given to Joey James by Philippe Grandjean, an environmental toxicologist at Harvard University.
- I serve as an Associate Editor for Toxicology Reports.
  I interact regularly with other Associate Editors and Editorial Board members from all over the world. In addition, I am responsible for reviewing manuscripts as well as sending manuscripts to international scientists for peer-review.
- I serve as a member of the Editorial Board for the Journal of Toxicology and Environmental Health, Part A.
  I am in regular contact with the journal Editor, who is based in Ottawa, Canada.

- I serve as a member of the Editorial Board for Heliyon.
  I am in regular contact with the journal Editor, who is based in London, England
- I serve as an *ad hoc* reviewer for numerous scientific journals.
  I am frequently asked to review manuscripts submitted to various toxicology journals.
- I serve as a judge for student research presentations submitted to the Sigma Xi Student Showcase.
  I participate in judging presentations submitted by high school and undergraduate students across the United States.