

Resident Status:

US Citizen

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Education

Bachelor of Science (Honors) in Human Physiology, University of Calcutta, India (1995)

Master of Science in Human Physiology (with specialization in Immunology and Microbiology), University of Calcutta, India (1997)

PhD in Life Sciences, University of Mumbai, India (2006)

Dissertation: "Modulation of radiation and other stressors induced host injury by biological response modifiers: Its implication in health & disease"

Advisor: Dr. T.B.Poduval

Professional Experience**1. Associate Professor (Tenured), May 2016-Present**

University of South Carolina, Arnold School of Public Health, Department of Environmental Health Sciences, 915 Greene Street Suite 333, Discovery I Bldg, Columbia, SC 29208-0001

2. Adjunct Associate Professor August 2015-Present

Department of Cell Biology and Anatomy, USC School of Medicine

3. **Adjunct Associate Professor**, Department of Biological Sciences, Clemson University, Employment Period: **July 1, 2017 - Present**

4. Assistant Professor

University of South Carolina, Arnold School of Public Health, Department of Environmental Health Sciences, 921 Assembly Street, Public Health Research Center 477, Columbia, SC 29208-0001

Phone: 803-777-4615

Employment Period: **July 1, 2012 – May 2016**

5. Research Scientist: (FTE)

National Institutes of Health, National Institute of Environmental Health Sciences, Division of Intramural Research, Laboratory of Toxicology and Pharmacology, 111 T.W. Alexander Drive, Research Triangle Park, NC 27709

Supervisor: Dr. Ronald P. Mason

Feb 21 2011 to June 30th 2012

Duties: Scientific research on environmental toxicity and its effect on human health. The work particularly focuses on free radical metabolism of environmental toxicants especially carbon tetrachloride and trihalomethanes and their role in liver diseases.

Postdoctoral Experience:

1. **National Institutes of Health, National Institute of Environmental Health Sciences**, Division of Intramural Research, Laboratory of Toxicology and Pharmacology, 111 T.W. Alexander Drive, Research Triangle Park, NC 27709

Phone: 919-541-2687

Employment Period: **February 21, 2007 – Feb 20 2011**

Hours per week: 40

Mentor / Supervisor: Dr. Ronald P. Mason

Duties: Conducted research on environmental toxicity and its effect on human health, with a focus on free radical metabolism of environmental toxicants, especially endotoxin

concentrations in air and water and the role of peroxidases in systemic inflammatory diseases.

2. Division of Gastroenterology, Duke University,

Durham NC 27709

Supervisor / Collaborator : Dr. Anna Mae Diehl

Period: January 2011-June 2012, A committed time period under the K99 program.

Courses Offered

- 1. ENHS 660: Concepts of Environment health**
- 2. ENHS 592: Environment-linked Inflammatory Diseases**
- 3. ENHS 324: Environment and Obesity**
- 4. ENHS 790: Immune and Epigenome modulations in NASH**
- 5. ENHS 793: Molecular techniques in Toxicology**

Current Research Interests

1. Role of Microbiome (Liver-Gut-Brain Axis) in environmental-linked NAFLD
2. Microbiome alterations, gut-brain axis and Gulf War Illness Pathology
3. Exploring oxidative stress-epigenome signaling (DNA methylation, Histone modifications, micro RNAs) in obesity associated inflammatory liver diseases following environmental toxin and Gulf War Chemical exposure
4. Role of cationic channel protein TRPV4 in metabolic reprogramming of environment-linked nonalcoholic steatohepatitis (Chronic liver inflammation)
5. Exploring the role of pattern recognition receptors (TLRS and NALP3) and Damage Associated Molecular Patterns (DAMPs, HMGB1, NAD) in toxicity associated nonalcoholic steatohepatitis.
6. Role of adipocytokine leptin in redox-signaling and immune modulation in obesity associated disease

7. Modulation of Nonalcoholic Fatty Liver disease (NAFLD) by alternative medicinal compounds and methods

Total Career Peer-Reviewed Research Publications (2003-Present): 54; Pubmed

Publications while at USC: 2012-present: 40

Please access the Pubmed database (My Bibliography) via the following link:

<http://www.ncbi.nlm.nih.gov/sites/myncbi/saurabh.chatterjee.1/bibliography/44194934/public/?sort=date&direction=ascending>

1. Dattaroy D, Seth RK, Sarkar S, Kimono D, Albadrani M, Chandrashekar V, Hasson FA, Singh UP, Seth RK, Scappin E, Tucker JC, Fan D, Nagarkatti M, Nagarkatti P, Diehl AM, **Chatterjee S**. Sparstolonin B (SSnB) attenuates liver fibrosis via a parallel conjugate pathway involving P53-P21 axis, TGF- β signaling and focal adhesion that is TLR4 dependent. *Eur J Pharmacol*. 2018 Sep 5. pii: S0014-2999(18)30503-X. doi: 10.1016/j.ejphar.2018.08.040. [Epub ahead of print] PubMed PMID: 30194936.
2. Seth RK, Kimono D, Alhasson F, Sarkar S, Albadrani M, Lasley SK, Horner R, Janulewicz P, Nagarkatti M, Nagarkatti P, Sullivan K, **Chatterjee S**. Increased butyrate priming in the gut stalls microbiome associated-gastrointestinal inflammation and hepatic metabolic reprogramming in a mouse model of Gulf War Illness. *Toxicol Appl Pharmacol*. 2018 Jul 1;350:64-77. doi:10.1016/j.taap.2018.05.006. Epub 2018 May 9. PubMed PMID: 29751049 PubMed Central PMCID: PMC6121708.
3. Alhasson F, Seth RK, Sarkar S, Kimono DA, Albadrani MS, Dattaroy D, Chandrashekar V, Scott GI, Raychoudhury S, Nagarkatti M, Nagarkatti P, Diehl AM, **Chatterjee S**. High circulatory leptin mediated NOX-2-peroxynitrite-miR21 axis activate mesangial cells and promotes renal inflammatory pathology in nonalcoholic fatty liver disease. *Redox Biol*. 2018 Jul;17:1-15. doi:10.1016/j.redox.2018.04.002. Epub 2018 Apr 7. PubMed PMID: 29660503; PubMed Central PMCID: PMC6006523.
4. Alghetaa H, Mohammed A, Sultan M, Busbee P, Murphy A, **Chatterjee S**, Nagarkatti M, Nagarkatti P. Resveratrol protects mice against SEB-induced acute lung injury and mortality

by miR-193a modulation that targets TGF- β signalling. *J Cell Mol Med*. 2018 Mar 7. doi: 10.1111/jcmm.13542.

5. Kenne GJ, Gummadidala PM, Omebeyinje MH, Mondal AM, Bett DK, McFadden S, Bromfield S, Banaszek N, Velez-Martinez M, Mitra C, Mikell I, **Chatterjee S**, Wee J, Chanda A. Activation of Aflatoxin Biosynthesis Alleviates Total ROS in *Aspergillus parasiticus*. *Toxins (Basel)*. 2018 Jan 29;10(2). pii: E57. doi: 10.3390/toxins10020057.
6. Gängler S, Charisiadis P, Seth R, **Chatterjee S**, Makris KC. Time of the day dictates the variability of biomarkers of exposure to disinfection byproducts. *Environ Int*. 2017 Dec 13;112:33-40. doi: 10.1016/j.envint.2017.12.013. [Epub ahead of print]
7. Chandrashekar V, Seth RK, Dattaroy D, Alhasson F, Ziolenka J, Carson J, Berger FG, Kalyanaraman B, Diehl AM, **Chatterjee S**. HMGB1-RAGE pathway drives peroxynitrite signaling-induced IBD-like inflammation in murine nonalcoholic fatty liver disease. *Redox Biol*. 2017 Oct;13:8-19. doi: 10.1016/j.redox.2017.05.005. Epub 2017 May 10.
8. Chitrala KN, Guan H, Singh NP, Busbee B, Gandy A, Mehrpouya-Bahrami P, Ganewatta MS, Tang C, **Chatterjee S**, Nagarkatti P, Nagarkatti M. CD44 deletion leading to attenuation of experimental autoimmune encephalomyelitis results from alterations in gut microbiome in mice. *Eur J Immunol*. 2017 Jul;47(7):1188-1199. doi: 10.1002/eji.201646792. Epub 2017 Jun 6.
9. Alhasson F, Das S, Seth R, Dattaroy D, Chandrashekar V, Ryan CN, Chan LS, Testerman T, Burch J, Hofseth LJ, Horner R, Nagarkatti M, Nagarkatti P, Lasley SM, Chatterjee S. Altered gut microbiome in a mouse model of Gulf War Illness causes neuroinflammation and intestinal injury via leaky gut and TLR4 activation. *PLoS One*. 2017 Mar 22;12(3):e0172914. doi: 10.1371/journal.pone.0172914. eCollection 2017.
- 10.** Seth RK¹, Das S, Dattaroy D, Chandrashekar V, Alhasson F, Michelotti G, Nagarkatti M, Nagarkatti P, Diehl AM⁵, Bell PD, Liedtke W, **Chatterjee S**. TRPV4 activation of endothelial nitric oxide synthase resists nonalcoholic fatty liver disease by blocking CYP2E1-mediated redox toxicity. *Free radical Biology and Medicine*, 2016 (**Last, Senior Author and Corresponding author**). **Impact Factor: 6**
- 11.** Shamran H¹, Singh NP¹, Zumbrun EE¹, Murphy A¹, Taub DD², Mishra MK³, Price RL⁴, **Chatterjee S**⁵, Nagarkatti M¹, Nagarkatti PS¹, Singh UP⁶. Fatty acid amide hydrolase (FAAH) blockade ameliorates experimental colitis by altering microRNA expression and suppressing inflammation. *Brain Behav Immun*. 2016 Jun 17. pii: S0889-1591(16)30188-X. doi: 10.1016/j.bbi.2016.06.008. [Epub ahead of print] **Impact Factor: 6.020**
- 12.** Makris KC, Andrianou, XD, Pantelis Charisiadis P, Burch JB, Seth RK, Androniki Ioannou A, Michael Picolos M, Costas Christophi C, and **Chatterjee S**. Association between exposures to brominated trihalomethanes, hepatic injury and type II diabetes

- mellitus. *Environ Int.* 2016 May 9;92-93:486-493. doi: 10.1016/j.envint.2016.04.012. [Epub ahead of print]. **(Last, Senior Author and Corresponding author). Impact factor: 5.56**
13. Kaur K, Fayad R, Saxena A, Frizzell N, Chanda A, Das S, Chatterjee S, Hegde S, Baliga MS, Ponemone V, Rorro M, Greene J, Elraheb Y, Redd AJ, Bian J, Restaino J, Norris LB, Qureshi ZP, Love BL, Brookstaver B, Georgantopoulos P, Sartor O, Raisch DW, Rao G, Lu K, Ray P, Hrusheshky W, Schulz R, Ablin R, Noxon V, Bennett CL; Southern Network on Adverse Reactions (SONAR) project. Fluoroquinolone-related neuropsychiatric and mitochondrial toxicity: a collaborative investigation by scientists and members of a social network. *J Community Support Oncol.* 2016 Feb;14(2):54-65. doi: 10.12788/jcso.0167.PMID:26955658
14. Klionsky DJ, Abdelmohsen K, Abe A, Abedin MJ, Abeliovich H, Acevedo Arozena A, Adachi H, Adams CM, Adams PD, Adeli K, Adihetty PJ, Adler SG, Agam G, Agarwal R, Aghi MK, Agnello M, **Chatterjee S.** et al. Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). *Autophagy.* 2016 Jan 2;12(1):1-222. No abstract available. **Impact factor : 11.751**
15. Dattaroy D, Seth RK; Chandrashekar V; Das S; Alhasson F; Michelotti GA; Fan D, Nagarkatti M; Nagarkatti P; Diehl AM; **Chatterjee S.** Sparstolonin B attenuates early liver inflammation in experimental NASH by modulating TLR4-trafficking in lipid rafts via NADPH oxidase activation. *American Journal of Physiology*, 2015. **(Last, Senior Author and Corresponding author). Impact factor : 3.8**
16. Singh NP, Singh UP, Rouse M, Zhang J, **Chatterjee S,** Nagarkatti PS, Nagarkatti M. Dietary Indoles Suppress Delayed-Type Hypersensitivity by Inducing a Switch from Proinflammatory Th17 Cells to Anti-Inflammatory Regulatory T Cells through Regulation of MicroRNA. *J Immunol.* 2015 Dec 28. pii: 1501727. **Impact factor : 5.7**
17. Chandrashekar V, Das S, Seth RK, Dattaroy D, Alhasson F, Michelotti G, Nagarkatti M, Nagarkatti P, Diehl AM, **Chatterjee S.** Purinergic receptor X7 mediates leptin induced GLUT4 function in stellate cells in nonalcoholic steatohepatitis. *Biochim Biophys Acta.* 2016 Jan;1862(1):32-45. doi: 10.1016/j.bbadis.2015.10.009. Epub 2015 Oct 22.PMID:26474534**(Last, Senior Author and Corresponding author) Impact factor : 4.9**
18. Alhasson F, Dattaroy D, Das S., Seth R.K., Chandrasekharan V., Schnellmann R.G., **Chatterjee S.** NKT cell modulates NAFLD potentiation of metabolic oxidative stress-induced

- mesangial cell activation and proximal tubular toxicity. American Journal of Physiology, Renal, 2015. **(Last, Senior Author and Corresponding author)** **Impact factor : 3.6**
19. Sofia V. Zaichick SV, Baig SM, Mao M, DeAbreu AL, Bakhshi FR, Hart PC, Saqib U, Deng J, **Chatterjee S**, Block ML, Vogel SM, Malik AB, Consolaro MEL, Christman JW, Minshall RD, Ganter BN and Bonini MG. NOS1-derived nitric oxide promotes NFκB transcriptional activity through inhibition of Suppressor of Cytokine Signaling (SOCS-1). Journal of Experimental Medicine, 2015. **Impact factor : 13.92**
20. **Chatterjee S.**, and Das S. Oxidative Medicine and Cellular Longevity, 2015. P2X7 receptor as a key player in oxidative stress-driven cell fate in nonalcoholic steatohepatitis. **(First Author and Corresponding author)**. **Impact factor : 3.5**
21. Burch JM, Everson T, Seth RK, Wirth M and **Chatterjee S**. Exposure to Trihalomethanes and Biomonitoring for the Chronic Liver Disease Indicator, Alanine Aminotransferase, in the United States Population (NHANES 1999-2006). Science of the Total Environment. 2014. **(Last, Senior Author and Corresponding author)**. **Impact factor : 4.1**
22. Role of Cachexia Progression on Liver Function in the ApcMin/+ Mouse" Narsale A, Enos R, Puppa M, Chatterjee S, Murphy AE, Fayad R, Pena M, Durstine LJ and Carson J. PLOS ONE,2014. . **Impact factor : 3.3**
23. Das S, Seth RK, Dattaroy D, Alhasson F, Pourhoseini S, Nagarkatti M, Nagarkatti P, Michelotti GA, Diehl AM, **Chatterjee S**. NADPH Oxidase-Derived Peroxynitrite Drives Inflammation in Mice and Human Nonalcoholic Steatohepatitis via TLR4-Lipid Raft Recruitment. American J Pathology. 2015. **(Last, Senior Author and Corresponding author)**. **Impact factor : 4.6**
24. Dattaroy D, Pourhosseini S, Das S, Alhasson F, Seth RK, Nagarkatti M, Michelotti GA, Diehl AM, **Chatterjee S**. Micro RNA 21 inhibition of SMAD 7 enhances fibrogenesis via leptin mediated NADPH oxidase in experimental and human nonalcoholic steatohepatitis. Am J Physiol, Liver and Gastrointestinal Physiology. 2014 . **(Last, Senior Author and Corresponding author)**. **Impact factor : 3.8**
25. Pourhoseini S, Seth RK, Das S, Dattaroy D, Kadiiska MB, Xie G, Nagarkatti M, Michelotti GA, Diehl AM, **Chatterjee S**. Upregulation of miR21 and repression of Grhl3 by leptin mediates sinusoidal endothelial injury in experimental nonalcoholic steatohepatitis. PlosOne. 2014 (Accepted). **(Last, Senior Author and Corresponding author)**. **Impact factor : 3.2**

26. Seth RK, Das S, Pourhoseini S, Dattaroy D, Igwe S, Basuray J, Fan D, Michelotti GA, Diehl AM, **Chatterjee S**. M1 Polarization bias and subsequent NASH progression is attenuated by nitric oxide donor DETA NONOate via inhibition of CYP2E1 induced oxidative stress in obese mice. *J Pharmacol Exp Ther*. 2014 Oct 27. pii: jpet.114.218131. [Epub ahead of print] **(Last, Senior Author and Corresponding author). Impact factor : 4**
27. Jia X, Iwanowycz S, Wang J, Saaoud F, Yu F, Wang Y, Hu J, **Chatterjee S**, Wang Q, Fan D., Emodin attenuates systemic and liver inflammation in hyperlipidemic mice administrated with lipopolysaccharides. *Exp Biol Med (Maywood)*. 2014 Apr 16. [Epub ahead of print] **Impact factor : 2.2**
28. Seth RK, Das S, Kumar A, Chanda A, Kadiiska MB, Michelotti G, Manautou J, Diehl AM and **Chatterjee S**. CYP2E1-Dependent and Leptin-Mediated Hepatic CD57 Expression on CD8+ve T Cells aid Progression of Environment-Linked Nonalcoholic Steatohepatitis" has been received for consideration in *Toxicology and Applied Pharmacology*. *Toxicol Appl Pharmacol*. 2013 (epub ahead of print) **(Last, Senior Author and Corresponding author). Impact factor : 3.9**
29. Das S, Seth RK, Kumar A, Kadiiska MB, Michelotti G, Diehl AM and **Chatterjee S**. Purinergic Receptor X7 is a Key Modulator of Metabolic Oxidative Stress- Mediated Autophagy and Inflammation in Experimental Nonalcoholic Steatohepatitis. *AJP Gastrointestinal and Liver Physiology* 2013 epub **(Last, Senior Author and Corresponding author). Impact factor : 3.8**
30. Miriyala S, Panchatcharam M, Landar A, Ramanujam M, **Chatterjee S**, Muthuswamy A. The janus of oxidative stress signaling in different pathophysiological conditions. *Oxid Med Cell Longev*. 2013 doi: 10.1155/2013/708796. Epub 2013 Jun 19. **Impact factor : 3.5**
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32. Seth RK, Kumar A, Das S, Michelotti G, Kadiiska MB, Diehl AM and **Chatterjee S**. Environmental toxin-linked nonalcoholic steatohepatitis and hepatic metabolic reprogramming in obese mice. *Toxicol Sci*. (2013) 134(2):291-303 **(Last, Senior Author and Corresponding author). Impact factor : 3.9**

33. Kumar A, Ganini D, Deterding LJ, Ehrenshaft M, **Chatterjee S**, Mason RP. Immuno-spin trapping of heme-induced protein radicals: Implications for heme oxygenase-1 induction and heme degradation. *Free Radic Biol Med*. 2013 Apr 25;61C:265-272. **Impact factor : 5.7**
34. Das S., Kumar A., Seth R., Tokar EJ., Waalkes MP., Kadiiska MB., Mason RP., **Chatterjee S***. Proinflammatory Adipokine Leptin Mediates Disinfection Byproduct Bromodichloromethane-induced Early Steatohepatic Injury in Obesity. *Toxicol Appl Pharmacol*. 2013 Jun 15;269(3):297-306 (**Last, Senior Author and Corresponding author**) **Impact factor : 3.8**
35. Sinha BK, Bhattacharjee S, **Chatterjee S**, Jiang J, Motten AG, Kumar A, Espey MG, Mason RP. Role of nitric oxide in the chemistry and anticancer activity of etoposide (VP-16,213). *Chem Res Toxicol*. 2013 Mar 18;26(3):379-87 **Impact factor : 3.6**
36. **Chatterjee S***, Ganini D, Tokar EJ, Kumar A, Das S, Corbett J, Kadiiska M, Waalkes M, Diehl AM, Mason RP. Leptin is key to peroxynitrite-mediated oxidative stress and Kupffer cell activation in experimental nonalcoholic steatohepatitis. *J Hepatol*. 2013 Apr;58(4):778-84 (**Corresponding Author**) **Impact factor : 11.46**
37. Uehara T, Kosyk O, Jeannot E, Bradford BU, Tech K, Macdonald JM, Boorman GA, **Chatterjee S**, Mason RP, Melnyk SB, Tryndyak VP, Pogribny IP, Rusyn I. Acetaminophen-induced acute liver injury in HCV transgenic mice. *Toxicol Appl Pharmacol*. 2013 Jan 15;266(2):224-32 **Impact factor : 3.8**
38. Ansenberger-Fricano K, Ganini D, Mao M, **Chatterjee S**, Dallas S, Mason RP, Stadler K, Santos JH, Bonini MG. The peroxidase activity of mitochondrial superoxide dismutase. *Free Radic Biol Med*. 2013 Jan;54:116-24. **Impact factor : 5.7**
39. Bhattacharjee S, **Chatterjee S**, Jiang J, Sinha BK and Mason RP. Detection and imaging of the free radical DNA in cells--site-specific radical formation induced by Fenton chemistry and its repair in cellular DNA as seen by electron spin resonance, immuno-spin trapping and confocal microscopy. *Nucleic Acids Res*. 2012 Jul;40(12):5477-86 **Impact factor : 9.1**
40. **Chatterjee S***, Rana R, Corbett J, Kadiiska MB, Goldstein J, Mason RP. P2X7 receptor-NADPH oxidase axis mediates protein radical formation and Kupffer cell activation in carbon tetrachloride-mediated steatohepatitis in obese mice. *Free Radic Biol Med*. 2012 May 1;52(9):1666-79. (**Corresponding Author**) **Impact factor : 5.7**

41. Bhattacharjee S, Deterding LJ, **Chatterjee S**, Jiang J, Ehrenshaft M, Lardinois O, Ramirez DC, Tomer KB, and Mason RP. Site-specific radical formation in DNA induced by Cu(II)-H₂O₂ oxidizing system, using ESR, Immunospin trapping, LC/MS and MS/MS. *Free Radic Biol Med*. 2011 Jun 1;50(11):1536-45. **Impact factor : 5.7**
42. **Chatterjee S***, Lardinois O, Bhattacharjee S, Tucker CJ, Corbett J, Deterding L, Ehrenshaft M, Bonini M.G. and Mason RP. Oxidative stress induces protein and DNA radical formation in follicular dendritic cells of the germinal center and modulates its cell death patterns in late sepsis. *Free Radic Biol Med*. 2011 Apr 15;50(8):988-99. **(Corresponding Author) Impact factor : 5.7**
43. Lardinois OM, **Chatterjee S**, Mason RP, Tomer KB, Deterding LJ. Biotinylated Analogue of the Spin-Trap 5,5-Dimethyl-1-pyrroline-N-oxide for the Detection of Low-Abundance Protein Radicals by Mass Spectrometry. *Anal Chem*. 2010 Nov 15;82(22):9155-8. **Impact factor : 5.7**
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45. **Chatterjee S***, Lardinois O, Bonini MG, Bhattacharjee S, Stadler K, Corbett J, Deterding L, Kadiiska M, Tomer KB and Mason RP. Site-specific carboxypeptidase B1 tyrosine nitration and pathophysiological implications following its physical association with nitric oxide synthase-3 in experimental sepsis. *J Immunol*. 2009 Sep 15;183(6):4055-66 **(Corresponding Author) Impact factor : 5.1**
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48. **Chatterjee S**, Premachandran S, Shukla J, Poduval TB. Synergistic therapeutic potential of dexamethasone and L-arginine in lipopolysaccharide-induced septic shock. J Surg Res. 2007 Jun 1;140(1):99-108 **Impact factor : 2.0**
49. **Chatterjee S**, Premachandran S, Bagewadikar RS, Bhattacharya S, Chattopadhyay S, and Poduval TB: Arginine metabolic pathways determine its therapeutic benefit in experimental heatstroke: Role of Th₁/Th₂ cytokine Balance. Nitric Oxide. 2006 Dec;15(4):408-16. **Impact factor : 3.5**
50. **Chatterjee S**, Premachandran S, Sharma D, Bagewadikar RS, Poduval TB. Therapeutic treatment with L-arginine rescues mice from heat stroke-induced death: physiological and molecular mechanisms. Shock. 2005 Oct;24(4):341-7. **Impact factor : 3.1**
51. **Chatterjee S**, Premachandran S, Bagewadikar RS, Poduval TB. The use of ELISA to monitor amplified hemolysis by the combined action of osmotic stress and radiation: potential applications. Radiat Res. 2005 Mar;163(3):351-5. **Impact factor : 2.5**
52. **Chatterjee S**, Poduval TB, Tilak JC, Devasagayam TP. A modified, economic, sensitive method for measuring total antioxidant capacities of human plasma and natural compounds using Indian saffron (*Crocus sativus*). Clin Chim Acta. 2005 Feb;352(1-2):155-63. **Impact factor : 2.82**
53. Thakur VS, Shankar B, **Chatterjee S**, Premachandran S, Sainis KB. Role of tumor-derived transforming growth factor-beta1 (TGF-beta1) in site-dependent tumorigenicity of murine ascitic lymphosarcoma. Cancer Immunol Immunother. 2005 Sep;54(9):837-47 **Impact factor : 3.95**
54. Poduval TB, **Chatterjee S**, Sainis KB. Effect of nitric oxide on mortality of mice after whole body hyperthermia. Int J Hyperthermia. 2003 Jan-Feb;19(1):35-44. **Impact factor : 2.7**

Submitted or manuscripts under review

Peer Reviewed Journal Conference Proceedings-Abstracts.

Journal name: Hepatology (Impact Factor: 11.46) and Toxicological Sciences (Impact Factor 4.33)

1. Das S., Kumar A., Ganini D., Tokar E.J., Corbett J., Kadiiska M., Waalkes M., Diehl A.M., Mason R.P. and **Chatterjee S.** Leptin is key to peroxynitrite-mediated oxidative stress and Kupffer cell activation in experimental non-alcoholic steatohepatitis. SOT-2013; 52nd Annual Meeting at San Antonio, Texas. March, 10-14: 2013. *The toxicologist (Suppl to Toxicological Sciences), 2013; 132 (1); 138.*
2. Seth R.K., Kumar A., Das S., Kadiiska M., Tokar E.J., Waalkes M., Michelotti G., Diehl A.M., and **Chatterjee S.** Chronic Exposure of Disinfectant Byproduct Bromodichloromethane Causes Nonalcoholic Steatohepatitis, a Hepatic Manifestation of the Metabolic Syndrome. SOT-2013; 52nd Annual Meeting at San Antonio, Texas. March, 10-14: 2013. *2013 Annual Meeting Abstract Supplement (Suppl to Toxicological Sciences), page 34.*
3. Seth, R.K., Das, S., Kumar, A., Chanda A., Kadiiska, M.B., Michelotti, G., Diehl, A.M. and **Chatterjee, S.** CYP2E1-dependent and Leptin-induced CD57-positive cytotoxic T cells are crucial for progression of nonalcoholic steatohepatitis. The Liver meeting 2013: The 64th Annual Meeting of the American Association for the Study of Liver Diseases at Washington DC. November 1-5, 2013. *Hepatology, 2013; 58 (S1); 538A*
4. Das, S., Seth, R.K., Kumar, A., Kadiiska, M.B., Michelotti, G., Diehl, A.M. and **Chatterjee, S.** Purinergic receptor X7 is a Key Modulator of Metabolic Oxidative Stress-Mediated Autophagy and Inflammation in Experimental Non-alcoholic Steatohepatitis. The Liver meeting 2013: The 64th Annual Meeting of the American Association for the Study of Liver Diseases at Washington DC. November 1-5, 2013. *Hepatology, 2013; 58 (S1); 538A*
5. Das, S., Seth, R.K., Michelotti, G., Diehl, A.M. and **Chatterjee, S.** Hepatic Vascular Endothelial Dysfunction in Environmental Toxin-Induced Nonalcoholic Steatohepatitis Is Regulated by TLR4-miR21-GRHL3 Axis. SOT-2014; 53rd Annual Meeting at Phoenix, Arizona. March, 23-27: 2014. *The Toxicologist (Suppl to Toxicological Sciences), 2014; 138 (1); 313-314.*
6. Seth, R.K., Das, S., Kumar, A., Chanda A., Kadiiska, M.B., Michelotti, G., Manautou, J.E., Diehl, A.M. and **Chatterjee, S.** Leptin Mediated CD57 Expression on CD8+ve

Cytotoxic T Cells Are Crucial for Toxicity-Induced Nonalcoholic Steatohepatitis. *SOT-2014; 53rd Annual Meeting at Phoenix, Arizona. March, 23-27: 2014. The Toxicologist (Suppl to Toxicological Sciences), 2014; 138 (1); 535.*

7. Dattaroy, D., Seth, R.K., Das, S., Pourhosseini, S., Nagarkatti, M., Michelotti, G., Diehl, A.M. and **Chatterjee, S.** Micro RNA 21 inhibition of SMAD 7 enhances fibrogenesis via leptin mediated NADPH oxidase in experimental nonalcoholic steatohepatitis. The Liver meeting 2014: The 65th Annual Meeting of the American Association for the Study of Liver Diseases at Boston , MA. November 7-11, 2014. *Hepatology, 2014; 60 (S1); 249A*
8. Seth, R.K., Das, S., Pourhosseini, S., Dattaroy, D., Igwe, S., BasuRay, J., Michelotti, G., Diehl, A.M. and **Chatterjee, S.** M1 Polarization bias and subsequent NASH progression is attenuated by nitric oxide donor DETA NONOate via inhibition of CYP2E1 induced oxidative stress. The Liver meeting 2014: The 65th Annual Meeting of the American Association for the Study of Liver Diseases at Boston , MA. November 7-11, 2014. *Hepatology, 2014; 60 (S1); 762A*
9. Das, S., Seth, R.K., Pourhosseini, S., Dattaroy, D., Alhasson, A., Nagarkatti, M., Michelotti, G., Diehl, A.M. and **Chatterjee, S.** NADPH oxidase-induced TLR4 recruitment to hepatic lipid rafts mediates NASH progression. The Liver meeting 2014: The 65th Annual Meeting of the American Association for the Study of Liver Diseases at Boston , MA. November 7-11, 2014.

Peer reviewed Abstracts presented (Last 3 years)

1. Das S., Seth R.K., Kadiiska M.B. and Chatterjee S. Free Radical Metabolism Promotes Autophagy in Environment-Associated Steatohepatitic Lesions. *North Carolina Society of Toxicology Regional Chapter; Spring meeting - February 21, 2013 at the U.S. EPA in Research Triangle Park.*
2. Seth R.K., Kumar A., Das S., Kadiiska M.B., Tokar E.J., Waalkes M.P., Michelotti G., Diehl A.M. and Chatterjee S. Cytochrome P450 2E1, modulates disinfection byproduct bromodichloromethane induced Nonalcoholic Steatohepatitis. *North Carolina Society of Toxicology Regional Chapter; Spring meeting - February 21, 2013 at the U.S. EPA in Research Triangle Park*

3. Das S., Kumar A., Ganini D., Tokar E.J., Corbett J., Kadiiska M., Waalkes M., Diehl A.M., Mason R.P. and Chatterjee S. Leptin is key to peroxynitrite-mediated oxidative stress and Kupffer cell activation in experimental non-alcoholic steatohepatitis. SOT-2013; 52nd Annual Meeting at San Antonio, Texas. March, 10-14: 2013. *The toxicologist (Suppl to Toxicological Sciences)*,2013; 132 (1); 138.
4. Seth R.K., Kumar A., Das S., Kadiiska M., Tokar E.J., Waalkes M., Michelotti G., Diehl A.M., and Chatterjee S. Chronic Exposure of Disinfectant Byproduct Bromodichloromethane Causes Nonalcoholic Steatohepatitis, a Hepatic Manifestation of the Metabolic Syndrome. SOT-2013; 52nd Annual Meeting at San Antonio, Texas. March, 10-14: 2013. *2013 Annual Meeting Abstract Supplement (Suppl to Toxicological Sciences)*, page 34.
5. Das S., Seth R.K., Kadiiska M.B. and Chatterjee S. Exposure to Drinking Water Contaminants Promotes Autophagy in NASH of Obesity: It Takes Two to Tango! (Oral presentation at the Graduate Student Day of the University of South Carolina held on April 12, 2013 in USC, Columbia, South Carolina).
6. Seth, R.K., Kumar, A., Das, S., Kadiiska, M.B., Michelotti, G., Diehl, A.M. and Chatterjee, S. Environmental Toxin-Linked Nonalcoholic Steatohepatitis and Hepatic Metabolic Reprogramming in Obese Mice. *Gordon Research Conference on Cellular & Molecular Mechanisms of Toxicity, Proctor Academy in Andover NH United States. Aug 11-16:2013*
7. Seth, R.K., Das, S., Kumar, A., Chanda A., Kadiiska, M.B., Michelotti, G., Diehl, A.M. and Chatterjee, S. CYP2E1-dependent and Leptin-induced CD57-positive cytotoxic T cells are crucial for progression of nonalcoholic steatohepatitis. The Liver meeting 2013: The 64th Annual Meeting of the American Association for the Study of Liver Diseases at Washington DC. November 1-5, 2013. *Hepatology*, 2013; 58 (S1); 538A
8. Das, S., Seth, R.K., Kumar, A., Kadiiska, M.B., Michelotti, G., Diehl, A.M. and Chatterjee, S. Purinergic receptor X7 is a Key Modulator of Metabolic Oxidative Stress-Mediated Autophagy and Inflammation in Experimental Non-alcoholic Steatohepatitis. The Liver meeting 2013: The 64th Annual Meeting of the American Association for the Study of Liver Diseases at Washington DC. November 1-5, 2013. *Hepatology*, 2013; 58 (S1); 538A
9. Das, S., Seth, R.K., Michelotti, G., Diehl, A.M. and Chatterjee, S. Hepatic Vascular Endothelial Dysfunction in Environmental Toxin-Induced Nonalcoholic

Steatohepatitis Is Regulated by TLR4-miR21-GRHL3 Axis. Henry M. and Lillian Stratton Basic Research Single Topic conference (AASLD): 'Non-coding RNAs in Liver Disease' at Miami, Florida, on March 8, 2014

10. Das, S., Seth, R.K., Michelotti, G., Diehl, A.M. and Chatterjee, S. Hepatic Vascular Endothelial Dysfunction in Environmental Toxin-Induced Nonalcoholic Steatohepatitis Is Regulated by TLR4-miR21-GRHL3 Axis. *SOT-2014; 53rd Annual Meeting at Phoenix, Arizona. March, 23-27: 2014. The Toxicologist (Suppl to Toxicological Sciences), 2014; 138 (1); 313-314.*
11. Seth, R.K., Das, S., Kumar, A., Chanda A., Kadiiska, M.B., Michelotti, G., Manautou, J.E., Diehl, A.M. and Chatterjee, S. Leptin Mediated CD57 Expression on CD8+ve Cytotoxic T Cells Are Crucial for Toxicity-Induced Nonalcoholic Steatohepatitis. *SOT-2014; 53rd Annual Meeting at Phoenix, Arizona. March, 23-27: 2014. The Toxicologist (Suppl to Toxicological Sciences), 2014; 138 (1); 535.*
12. Das, S., Seth, R.K., Michelotti, G., Diehl, A.M. and Chatterjee, S. Hepatic Vascular Endothelial Dysfunction in Environmental Toxin-induced Nonalcoholic Steatohepatitis is regulated by TLR4-miR21-GRHL3 axis. University of South Carolina Graduate Student Day Oral presentation, at USC Columbia Campus, South Carolina, in April 2014.
13. Pourhosseini, S., Seth, R.K., Das, S., Kadiiska, M.B., Michelotti, G., Nagarkatti, M., Diehl, A.M. and Chatterjee, S. Novel upregulation of miR21 and repression of its target protein GRHL3 by leptin is strongly associated with sinusoidal endothelial dysfunction and nonalcoholic steatohepatitis progression in obese mice. University of South Carolina Graduate Student Day Oral presentation, at USC Columbia Campus, South Carolina, in April 2014.
14. Das, S., Seth, R.K., Pourhosseini, S., Dattaroy, D., Alhasson, A., Nagarkatti, M., Michelotti, G., Diehl, A.M. and Chatterjee, S. TLR4 Recruitment in Hepatic Lipid Rafts following BDCM-Exposure: Role of Redox Signaling in NASH progression. Vernberg Lecture Series at Arnold School of Public Health, USC in October 2014.
15. Seth, R.K., Das, S., Kumar, A., Chanda A., Kadiiska, M.B., Michelotti, G., Manautou, J.E., Diehl, A.M. and Chatterjee, S. Leptin Mediated CD57 Expression on CD8+ve Cytotoxic T Cells Are Crucial for Toxicity-Induced Nonalcoholic Steatohepatitis. Vernberg Lecture Series at Arnold School of Public Health, USC in October 2014.

16. Pourhosseini, S., Seth, R.K., Das, S., Dattaroy, D., Kadiiska, M.B., Michelotti, G., Nagarkatti, M., Diehl, A.M. and Chatterjee, S. Mir21-induced sinusoidal injury following disinfection byproduct toxicity in obesity. Vernberg Lecture Series at Arnold School of Public Health, USC in October 2014.
17. Dattaroy, D., Pourhosseini, S., Das, S., Alhasson, A., Seth, R.K., Michelotti, G., Nagarkatti, M., Diehl, A.M. and Chatterjee, S. Mechanisms of environmental toxin-induced fibrogenesis in fatty liver disease. Vernberg Lecture Series at Arnold School of Public Health, USC in October 2014.
18. Dattaroy, D., Seth, R.K., Das, S., Pourhosseini, S., Nagarkatti, M., Michelotti, G., Diehl, A.M. and Chatterjee, S. Micro RNA 21 inhibition of SMAD 7 enhances fibrogenesis via leptin mediated NADPH oxidase in experimental nonalcoholic steatohepatitis. The Liver meeting 2014: The 65th Annual Meeting of the American Association for the Study of Liver Diseases at Boston , MA. November 7-11, 2014. *Hepatology, 2014; 60 (S1); 249A*
19. Seth, R.K., Das, S., Pourhosseini, S., Dattaroy, D., Igwe, S., BasuRay, J., Michelotti, G., Diehl, A.M. and Chatterjee, S. M1 Polarization bias and subsequent NASH progression is attenuated by nitric oxide donor DETA NONOate via inhibition of CYP2E1 induced oxidative stress. The Liver meeting 2014: The 65th Annual Meeting of the American Association for the Study of Liver Diseases at Boston , MA. November 7-11, 2014. *Hepatology, 2014; 60 (S1); 762A*
20. Das, S., Seth, R.K., Pourhosseini, S., Dattaroy, D., Alhasson, A., Nagarkatti, M., Michelotti, G., Diehl, A.M. and Chatterjee, S. NADPH oxidase-induced TLR4 recruitment to hepatic lipid rafts mediates NASH progression. The Liver meeting 2014: The 65th Annual Meeting of the American Association for the Study of Liver Diseases at Boston , MA. November 7-11, 2014.
21. Seth, R.K., Das, S., Pourhosseini, S., Dattaroy, D., Igwe, S., BasuRay, J., Fan, D., Michelotti, G., Diehl, A.M. and Chatterjee, S. M1 Polarization Bias and Subsequent Toxicity-Induced NASH Progression Is Attenuated by Nitric Oxide Donor DETA NONOate. SOT-2015; 54th Annual Meeting at San Diego, CA. March, 22-26: 2015. Abstract# 147
22. Pourhosseini, S., Seth, R.K., Dattaroy, D., Das, S., Alhasson, F., Nagarkatti, M., Michelotti, G., Diehl, A.M. and Chatterjee, S. miR21 facilitated cyclin D1 protein surge is crucial for leptin mediated fibrogenesis in disinfection byproduct (DBP) -

- induced hepatotoxicity. SOT-2015; 54th Annual Meeting at San Diego, CA. March, 22-26: 2015. Abstract # 157
23. Dattaroy, D., Pourhosseini, S., Das, S., Alhasson, F., Seth, R.K., Nagarkatti, M., Michelotti, G., Diehl, A.M. and Chatterjee, S. Mechanism of environmental toxin induced fibrogenesis in fatty liver disease. SOT-2015; 54th Annual Meeting at San Diego, CA. March, 22-26: 2015. Abstract# 122
24. Das, S., Seth, R.K., Pourhoseini, S., Dattaroy, D., Alhasson, F., Nagarkatti, M., Michelotti, G., Diehl, A.M. and Chatterjee, S. "Redox Signaling-Induced TLR4 Activation Is Crucial for Disinfection Byproduct (DBP)-Mediated NASH Progression". SOT-2015; 54th Annual Meeting at San Diego, CA. March, 22-26: 2015. Abstract #148.
25. Alhasson, F., Dattaroy, D., Das, S., Seth, R.K., Pourhoseini, S., Schnellmann, R.G., Chatterjee, S. "Nonalcoholic Fatty Liver Disease Potentiates Disinfection Byproduct Induced Proximal Tubular Immunotoxicity by Mesangial Cell Mediated Suppression of NKT Cells". SOT-2015; 54th Annual Meeting at San Diego, CA. March, 22-26: 2015. Late breaking submission
26. Chandrashekar, V., Das, S., Seth, R.K., Nagarkatti, P.S., Nagarkatti, M., Michelotti, G., Diehl, A.M., Chatterjee, S. "Purinergic Receptor X7 Modulates Glut4 Induction and Stellate Cell Activation Following Disinfection Byproduct-Mediated Potentiation of NAFLD". . SOT-2015; 54th Annual Meeting at San Diego, CA. March, 22-26: 2015. Late breaking submission
27. Chandrashekar, V., Das, S., Seth, R.K., Nagarkatti, P.S., Nagarkatti, M., Michelotti, G., Diehl, A.M., Chatterjee, S. "Purinergic Receptor X7 Modulates Glut4 Induction and Stellate Cell Activation Following Disinfection Byproduct-Mediated Potentiation of NAFLD". SOT-2015; 54th Annual Meeting at San Diego, CA. March, 22-26: 2015. Late breaking submission
28. Dattaroy, D., Seth, R.K., Das, S., Chandrashekar, V., Alhasson, F., Michelotti, G., Fan, D., Nagarkatti, M., Nagarkatti, P.S. Diehl, A.M., and Chatterjee, S. Administration of Sparstolonin B Attenuates Early Steatohepatic Injury. Graduate Student day, University of South Carolina, April 10, 2015.
29. Alhasson, F., Dattaroy, D., Das, S., Seth, R.K., Pourhoseini, S., Schnellmann, R.G., Chatterjee, S. "Nonalcoholic Fatty Liver Disease Potentiates Disinfection Byproduct Induced Proximal Tubular Immunotoxicity by Mesangial Cell Mediated

- Suppression of NKT Cells". Graduate Student day, University of South Carolina, April 10, 2015.
30. Chandrashekar V, Das S, Seth RK, Nagarkatti P, Nagarkatti M, Michelotti G, Diehl A, Chatterjee S. "Purinergic receptor X7 modulates GLUT4 induction and stellate cell activation following disinfection by-product mediated potentiation of NAFLD. Graduate Student day, University of South Carolina, April 10, 2015.
 31. Alhasson F, Dattaroy D, Das S, Chandrashekar V, Seth R, Schnellmann R, and Chatterjee S. " Environmental Liver Disease and ectopic glomerular dysfunction". Presented in ENHS seminar series, University of South Carolina, October 30, 2015
 32. Seth, R.K., Das, S., Dattaroy, D., Alhasson, F., Bell, D.P., Michelotti, G., Nagarkatti, M., Nagarkatti, P.S., Liedtke, W., Diehl, A.M. and Chatterjee, S. TRPV4 regulates inflammation and Kupffer cell activation in nonalcoholic steatohepatitis by attenuation of CYP2E1-mediated oxidative stress. The Liver meeting 2015: The 66th Annual Meeting of the American Association for the Study of Liver Diseases at San Francisco, CA. November 13-17, 2015
 33. Das, S., Seth, R.K., Chandrashekar, V., Alhasson, F., Dattaroy, D., Michelotti, G., Nagarkatti, M., Nagarkatti, P.S., Bell, D.P., Liedtke, W., Diehl, A.M. and Chatterjee, S. TRPV4 deficiency enhances TLR4 recruitment to lipid rafts and exhibits exacerbated stellate cell activation and fibrosis in experimental nonalcoholic steatohepatitis. The Liver meeting 2015: The 66th Annual Meeting of the American Association for the Study of Liver Diseases at San Francisco, CA. November 13-17, 2015
 34. Dattaroy, D., Seth, R.K., Das, S., Alhasson, F., Fan, D., Nagarkatti, M., Nagarkatti, P.S. and Chatterjee, S. Sparstolinin B, a TLR4-antagonist attenuates early steatohepatic injury in progressive nonalcoholic steatohepatitis. The Liver meeting 2015: The 66th Annual Meeting of the American Association for the Study of Liver Diseases at San Francisco, CA. November 13-17, 2015
 35. Dattaroy, D., Chandrashekar, V., Seth, R.K., Alhasson, F., Michelotti, G., Daping F., Nagarkatti, M., Nagarkatti, P.S., Diehl, A.M. and Chatterjee, S. Sparstolonin B Attenuates Liver Fibrosis Induced By Cyp2e1 Mediated Redox Toxicity In Obese Liver. SOT-2017; 56th Annual Meeting at Baltimore, MD. March, 12-16: 2017.
 36. Seth, R.K., Dattaroy, D., Chandrashekar, V., Alhasson, F., Michelotti, G., Nagarkatti, M., Nagarkatti, P.S., Liedtke, W., Bell, D.P., Diehl, A.M. and Chatterjee, S. TRPV4 attenuates M1 polarization and subsequent NASH progression by stalling

- CYP2E1-mediated redox toxicity via eNOS. Immunology 2016: The Annual Meeting of the American Association of Immunologist as Washington DC, May 12-16, 2017
37. Chandrashekar V, **Seth RK**, Dattaroy D, Alhasson F, Zielonka J, Carson J, Berger F, Kalyanaraman B, Diehl AM and Chatterjee S. High mobility group box 1 (HMGB1)-RAGE interaction mediates ectopic Intestinal inflammation in NAFLD. Immunology 2016: The Annual Meeting of the American Association of Immunologist as Washington DC, May 12-16, 2017.
 38. Dattaroy, D., Chandrashekar V., Seth, R.K., Alhasson, F., Daping F., Nagarkatti, M., Nagarkatti, P.S., Diehl, A.M. and Chatterjee, S. Administration of Sparstolonin B- a TLR4 antagonist, attenuates hepatic fibrosis by inhibiting TLR4 mediated hepatic fibroblast proliferation. Immunology 2016: The Annual Meeting of the American Association of Immunologist as Washington DC, May 12-16, 2017.
 39. Alhasson, F; Das, S; Chandrashekar V; Dattaroy, D; Seth, R; Nagarkatti, M, Nagarkatti, P; Chatterjee, S. Adipokine Leptin mediated NOX-2 promotes kidney inflammation in nonalcoholic fatty liver disease via miR21 dependent mesangial cell immune activation. The Annual Meeting of the American Association of Immunologist as Washington DC, May 12-16, 2017.
 40. Alhasson, F; Chandrashekar V; Albadrani M; Seth, R; Nagarkatti, M, Nagarkatti, P; Chatterjee, S. Microcystin activates renal NOX2 and exacerbates nonalcoholic fatty liver disease-induced ectopic glomerulonephritis. The Society for Redox Biology and Medicine's 24th Annual Meeting (SfRBM 2017) November 29 – December 2, 2017 in Baltimore, MD, USA.
 41. Albadrani M, Alhasson, F; Dattaroy D; Chandrashekar V; Seth, R; Nagarkatti, M, Nagarkatti, P; Chatterjee, S. Microcystin exposure exacerbates nonalcoholic fatty liver disease (NAFLD) via NOX2 dependent activation of miR21-induced inflammatory pathways. The Society for Redox Biology and Medicine's 24th Annual Meeting (SfRBM 2017) November 29 – December 2, 2017 in Baltimore, MD, USA.
 42. Chandrashekar V; Johnson, S; Sarkar, S; Alhasson, F; Seth, R; Nagarkatti, M, Nagarkatti, P; Chatterjee, S. P2X7 receptor-NOX2 Axis mediates Tryptophan oxidation in murine and human non alcoholic fatty liver disease. The Society for Redox Biology and Medicine's 24th Annual Meeting (SfRBM 2017) November 29 – December 2, 2017 in Baltimore, MD, USA.

Research Grants:

Chatterjee Share as PI or Project PI; Completed and Current: \$7,564,895 million
Extramural: \$7,300,895 ; NIH (P20, P01), DOD (IIRFA), VA (Merit)
Intramural: 264,000 ; USC VPR, USC Pilot Grants

Federal Grants:

1. **Completed:** PD/PI for NIH Pathway to Independence Award (K99/R00);
IC:NIEHS, 2011
ES19875-A (2011-2017) Total \$249,000/year
<http://www.nhlbi.nih.gov/funding/training/redbook/phdk99r00.htm>
2. PI for NIH R00 Research Grant, IC: NIEHS, 2012-2017, \$746,000
3. PI for NIH P20 (COBRE Pilot Program), IC: NIGMS, 2013-2015, \$206,000 Total Costs
4. PI for NIH P20(COBRE Pilot Program) IC: NCI, Total Cost 58,000, Center for colon cancer research (CCCR) 2015-2016

Active:

1. NIH P01, Role: CO-Project Leader, (PI: Nagarkatti Prakash) Total Costs \$ 8,000,000 (Co-PL, Chatterjee share: 865,000) 2014-2019.
2. DOD CDMRP Pilot funding, Role Project PI: \$26895.00 2017-2018
3. DOD Investigator Initiated Research Focus Award, \$ 857,000 (2018-2022)
4. NIH P01 OHHI Center Grant, Role Project PI: \$ 1,100,000 (2018-2022)
5. NIH P 20 , Role Project Lead, PI: Nagarkatti P.: \$ 1,125,000 (2018-2023)
6. VA Merit Award, Role: PI: \$ 2,422,000 (2019-2024)

Internal Grants:

7. ASPIRE-I Grant USC, \$14990 (2014-2016), Completed
8. ASPIRE-I Grant: USC, \$15000 (2013-2014), Completed
9. Seed Grant: CAM Center USC School of Medicine, \$10,000 (Completed)

Pending Grants:

1. DOD-GWI-IIFRA Role: PI, Total Costs \$ 375,000, 2019-2021

Honors and Awards (Awards in bold and italics)

- **Veterans Affairs Merit Awardee (2018)**
- Appointed member, Veterans Affairs strategic Group on Gulf War Veterans Illness
- Panelist, **US National Academy of Sciences (Science, Engineering and Medicine)**, Ford Foundation Review Board, 2017-Present
- Chaired session at the NIH Obesity Grantee Meeting, Natcher Conference Center, National Institutes of Health, Bethesda, September 21-22, 2016.

- Named **Breakthrough Star**, the highest research award for junior faculty at the University of South Carolina, 2016
- Elected to the Program committee of the Immunotoxicology Specialty Section, Society of Toxicology, 2015
- Elected as a council member and Board of Directors, Association of Scientists of Indian Origin, Society of Toxicology, 2015.
- **Outstanding Young Investigator Award 2015**, Society of Toxicology, Immunotoxicology SS, recognizing the contributions to the field of immunotoxicology in the last 10 years
- **Society of Toxicology Board of Publications Honorable Mention Award (3 out of 300 publications (2013-2014))**
- **ASPIRE-I** (Advanced Support Program for Innovative Research Excellence) award from the office of Vice President of Research, USC, 2014
- **ASPIRE-I** award from the office of Vice President of Research, USC, 2013
- **Fellows Award for Research Excellence (FARE)**, National Institutes of Health, 2012
- **Best Postdoctoral Abstract Award**, Association of Scientists of Indian Origin (ASIO), 50TH Annual Meeting of Society of Toxicology, 2011
- **Young Investigator Award**, Society for Free Radical Biology and Medicine, 2010
- **Fellows Award for Research Excellence (FARE)**, National Institutes of Health, 2010

- **Intramural Research Training Award**, National Institutes of Health, 2007
- **Research Fellowship Award** , University of Brighton, UK-India Education and Research Initiative, British Council (*not accepted*), 2006
- **National Scholarship**, Department of Science & Technology, Government of India, 1997
- **National Talent Scholarship**, Department of Education, Government of India, 1996

Invited Talks (2008-Present)

- “Tolls take its toll in Gulf War Illness Pathology, Boston University School of Medicine, BUSPH, Boston, April 2018, Host Dr. Kim Sullivan
- ‘Microbiome in gut system health and probiotics for cure in Gulf War Veterans’ illness. Dr. Saurabh Chatterjee, Military Health System Research Symposium, Orlando August 2017. Sponsored by Department of Defense
- Probiotic protection of Neurocognitive disturbances in Gulf War Chemical Exposures” GWVI Field Meeting at Palo Alto, CA. Organized by the Veterans Affairs Administration.
- Colonic Inflammation in Nonalcoholic Fatty Liver Disease: 2nd Southeast Cancer Immunology, Immunotherapy and Inflammation Research Retreat September 2017 (SCIIIR Retreat), Medical University of Georgia (Formerly Georgia Regents University).
- Clemson University, Environmental Toxicology Program, November, 2016. Host: Dr. Bill Baldwin, Professor
- National Institutes of Health, Obesity Grantee meeting, September 21-22,2016 Bethesda MD. Host Dr. Jerry Heindel
- Department of Cancer Biology and Pharmacology, University of Illinois College of Medicine, August 2016. Host: Dr. Stephen Lasley
- Department of Molecular Biology and Biophysics, University College of Science and Technology, University of Calcutta, June, 2016. Host: Professor (Dr.) Sharmistha Raychowdhury.
- Society of Toxicology, 2016, Advance CE Course speaker. Session AM002, New Orleans, LA. <http://www.toxicology.org/pubs/docs/Prog/2016overview.pdf>
- Department of Drug Discovery and Biomedical Sciences, Medical University of South Carolina, October 14, 2014 Host: Dr. Rick Schnellmann, Chair.
- NIEHS sponsored Tamburro Environmental Liver Disease Symposium, University of Louisville, School of Medicine. September 9-11, 2014. Louisville, KY

- Society of Toxicology 2014: Special symposium: “Does this chemical make my liver look fat”. March 25 2014, Phoenix Arizona
- Department of Pathology, Microbiology and Immunology, University of South Carolina School of Medicine, Host : Dr. Mitzi Nagarkatti, October 2012
- Department of Exercise Science, Arnold School of Public Health, University of South Carolina, Host: Dr. James Carson, Chair. November 2012
- Department of Cell Biology and Pharmacology, College of Medicine, Florida International University, Miami FL, 2012. Host: Dr. George Petroianu, Chair.
- Invited Presentation at the Division of Digestive Diseases, Department of Medicine, Emory University School of Medicine, Atlanta, GA, 2011. Host: Dr. Frank Anania, MD, FACP
- Division of Digestive Diseases, Department of Medicine, Emory University, 2011
- Department of Physiological Sciences, Oklahoma State University, 2011
- Department of Environmental Health, Division of Molecular Toxicology, University of Cincinnati, Ohio, 2011
- Division of Cardiology, University of Illinois at Chicago, 2010
- 16th Annual Meeting and Conference of Society for Free Radical Biology and Medicine, Orlando, Florida, 2010
- Session Chair, International Conference on Advances in Free Radicals, Natural Products, Antioxidants and Radioprotectors in Health & Ninth Annual Meeting of the Society of Free Radical Research, Hyderabad, India, 2010
- NIEHS Annual Science Day, 2009
- 16th Annual Meeting and Conference of Society for Free Radical Biology and Medicine, San Francisco, CA, 2009
- American Association of Immunologists conference (AAI), Seattle, WA, 2009
- North Carolina Academy of Sciences Symposium, University of North Carolina at Greensboro, 2008

Journal Reviewer

- Toxicological Sciences
- Drug Dis. Metab.
- Experimental Biol. Med.
- Free Radical Biology and Medicine
- Medical Principles and Practice

- PloS ONE
- Toxicology and Applied Pharmacology
- Current Medicinal Chemistry
- Chemical Researches in Toxicology
- Laboratory Investigation
- World Journal of Gastroenterology
- Hepatology
- Journal of Clinical and Experimental Gastroenterology
- World Journal of Hepatology
- British Journal of Pharmacology
- Nutrition Research
- BBA-Gene Regulatory Mechanisms
- BBA-Molecular Basis of Disease
- Molecular Immunology
- Scientific Reports
- European Journal of Pharmacology
- The Journal of Pathology
- Oncotarget

Editorial Board Member

- World Journal of Hepatology, 2013-present
- Oxidative Medicine and Cellular Longevity, 2013-Present

Professional Society Memberships

Full Member, American Association for the study of Liver Diseases (AASLD), 2012-Present

Full Member Society of Toxicology (SOT), 2010-present

Regular Member, American Association of Immunologists (AAI), 2008-present

Regular Member, American Physiological Society (APS), 2007-present

Full Member, Society for Free Radical Biology and Medicine, 2007-present

Grant Review Panels:

- Ford Foundation, National Academy of Sciences, Jan 2017-Present

- Swiss National Foundation, July 2016
- Medical Research Council, United Kingdom, August 2015
- NIH K99/R00 23RD July 2015, Special Emphasis Panel
- NIH K99/R00 **(ZES1 LWJ-K (K9) 2, November 2014**
- Department of Science Education, Czech republic, Consortium of Science Development, European Union, 2013-2014
- SC Space Grant & SC NASA EPSCoR
- University of South Carolina, Office of the vice president of Research, ASPIRE Track II review Panel
- University of South Carolina, School of Medicine internal funding competition.

Research Collaborations

1. Dr. Anna Mae Diehl, Division of Gastroenterology, Duke University School of Medicine, Durham, NC.
2. Dr. Maria Kadiiska, Laboratory of Toxicology and Pharmacology, National Institute of Environmental Health Sciences, NC 27709.
3. Dr. Mitzi Nagarkatti, Pathology, Immunology and Microbiology, USCMED.
4. Dr. Jose Manautou, Department of Pharmaceutical Sciences, University of Connecticut.
5. Dr. Darwin Bell, University of Alabama at Birmingham
6. Dr. Wolfgang Liedtke, Duke University
7. Dr. Daping Fan, USC, SOM
8. Dr. Angela Murphy, USC, SOM
9. Dr. Konstantinos Makris, Harvard University
10. Dr. James Burch, Epidemiology and Biostatistics, USC.
11. Dr. Stephen Lasley, UIC Peoria
12. Dr. Ronnie Horner, USC Columbia
13. Dr. William Baldwin, Clemson University.
14. Dr. Kim Sullivan, Boston University
15. Dr. Patricia Janulewicz, Boston University
16. Dr. Nancy Klimas, Nova South Eastern
17. Dr. Giulio Pasinetti, Mount Sinai, New York