

Curriculum Vitae

Sanjay Batra, MS, Ph.D.

10611 Hillbrooke Avenue, Baton Rouge, LA, 70810

✉ sanjay_batra@subr.edu; sanjaybatra100@hotmail.com

Cell: 614-806-4064

A. Personal Statement

Dedicated and experienced researcher with stellar academic background, including recognition of merit through undergraduate and graduate school. Recipient of Regional Service Award (Asia-Pacific), Bursary Award and Young Investigator award for contributions in the field of Clinical Biochemistry, Immunology and Lung Biology. Background includes continuing work in the field of innate immunity, immuno-toxicology, molecular biology, microbiology, bacteriology, epigenetics using human and murine cell systems and animal model. **My current focus is to delineate the molecular mechanisms associated with innate immunity/inflammatory responses following exposure to variety of environmental pollutants.** My research group is currently focusing to determine the role of lipid rafts and epigenetic signatures in regulating the expression and/or function of membrane and cytosolic receptors, immune related proteins and transcription factors during exposure to above mentioned environmental pollutants. We also focus on immunoproteasomes and autophagic mechanisms which play critical role in maintaining cellular homeostasis in stress/infection related models. As an intervention strategy we are using flavonoids and ellagitannins in our study models. Regulating the membrane lipid rafts assembly is also being used as a tool to modulate inflammatory responses by my research group. These approaches have the potential to be translated to a broad spectrum of diseases.

B. Positions and Honors

Positions and Employment

2020-Contd	BASF Endowed Professor & Chair, Department of Environmental Toxicology, Southern University and A&M College, Baton Rouge, Louisiana 70813.
2019-Contd	Chair, Department of Environmental Toxicology, Southern University and A&M College, Baton Rouge, Louisiana 70813.
2018-Contd	Professor, Department of Environmental Toxicology, Southern University and A&M College, Baton Rouge, Louisiana 70813.
2014- 2018	Associate Professor, Department of Environmental Toxicology, Southern University and A&M College, Baton Rouge, Louisiana 70813.
2012- 2014	Assistant Professor (Research Track), Department of Pathobiological Sciences, Louisiana State University, Baton Rouge, Louisiana 70803.
2006-2011	Training Positions (Enlisted below).
2001- 2006	Biochemist (Senior Grade)/In-charge, Dept. of Biochemistry, Kalawati Saran Children's Hospital (KSCH)/Lady Hardinge Medical College (LHMC), New Delhi, India.
1993- 2000	Biochemist (Junior Grade)/In-charge, Dept. of Biochemistry, KSCH/LHMC, New Delhi, India.

Training

Senior Research Associate

: 01/2009-12/2011

Department of Pathobiological Sciences, Louisiana State University, Baton Rouge, LA

FIELD OF STUDY: Inflammation and Infection in the lungs

- Design and perform experiments to elucidate molecular mechanisms associated with host defense during Gram-negative bacterial infection of lungs.
 - Review grants and manuscripts.
 - Training graduate students.
-

Post Doctoral Research Associate**: 08/2007- 12/31/2008**

Department of Pharmaceutical Sciences, Texas Tech University, Amarillo, TX

FIELD OF STUDY: Cancer & Inflammation and Chemoprevention

- Design and perform experiments to study *in vivo* and *in vitro* effect of benzyl-isothiocyanate in pancreatic cancer
- Review grants and manuscripts.
- Training graduate student.

Post Doctoral Researcher**: 05/2006 – 07/2007**

Davis Heart & Lung Research Institute, The Ohio State University, Columbus, Ohio, USA

FIELD OF STUDY: Cancer & Inflammation and Chemoprevention

Design and perform experiments to determine the interaction of Heat shock protein 27 (Hsp27) with caspase-3 and its role in apoptosis.

- Write manuscripts;
- Supervising and training graduate students.

Visiting Scientist (Post Doctoral Researcher)**: 01/2002 – 01/2004**

Department of Molecular & cellular Biochemistry and Davis Heart & Lung Research Institute, The Ohio State University, Columbus, Ohio, USA

FIELD OF STUDY: Cancer & Inflammation and Chemoprevention

- Design and perform experiments to determine the interaction of Heat shock protein 27 (Hsp27) with caspase-3 and its role in apoptosis.
- Write manuscripts.
- Supervising and training graduate students.

Junior/ Senior Research Fellow (Ph.D.)**: 06/1987 – 01/1993**

Department of Biochemistry, Central Drug Research Institute (CDRI), Lucknow, India

FIELD OF STUDY: Role and Metabolism of oxygen in helminth parasites and their hosts

- Design and perform experiments to determine the role oxygen metabolism and study the effect of CDRI based compounds during filarial infection.
- Write manuscripts.

Honors and Other Experience

- 1988 – 1990 **Junior Research Fellowship**, Indian Council of Medical Research, New Delhi, India.
- 1990 – 1993 **Senior Research Fellowship**, Council of Scientific and Industrial Research, New Delhi, India.
- 1998 **Regional Service Award** for contribution in the field of Clinical Biochemistry during 1997-1998, 8th Asian Pacific Congress of Clinical Biochemistry, Kuala Lumpur, Malaysia.
- 1999 **Bursary Award (Contributions in Clinical Biochemistry)-XVII IFCC-World Lab, Firenze, Italy.**
- 2000 **Silver Medal** at 37th National Conference of Pediatrics, Hyderabad, India.
- 2007 **Oral Presentation Winner** at The Ohio State University, Columbus, Ohio.
- 2012 **Young Investigator Award** and **Highlighted presentation** at IDeA Meeting, Washington DC.
- 2013 **Highlighted Speaker** at IDeA Meeting, Little Rock, AR.
- 2014 **Member-Grant Review Panel**-AIBS (FAMRI), Washington DC.
- 2014 **Invited Speaker at Department of Anesthesiology**, University of Alabama, Birmingham, AL.
- 2014 **Invited Speaker at ‘The 2014 Innate Immunity Summit’** London, UK.
- 2014-Contd **Level II Graduate Faculty Member, Southern University, Baton Rouge, Louisiana.**
- 2015 **Rising Star of Southern University System** for achievements during 2014-2015.
-

2015 **Member-Grant Review Panel-AIBS (FAMRI)**
2015 **Member-Grant Review Panel-LBCRP.**
2015 **Member-Grant Review Panel** - Welsh Government's Sêr Cymru II Programme
2016-2017 **Member-Deans Advisory Committee/Council**
2016 **Member-Grant Review Panel-AIBS (FAMRI)**
2017 **Member--Grant Review Panel-AIBS (FAMRI)**
2017-Contd **Member-Assessment Committee/College**
2017-Contd **Member-Accreditation Committee/University**
2017-2018 **Chair-Curriculum Graduate Committee-College**
2018 **Guest Lecture** at Department of Pediatrics, Kalawati Saran Children's Hospital, Bangla Sahib Marg, New Delhi, India.
2018 **Member--Grant Review Panel-AIBS (FAMRI)**
2018 **Member-Grant Review Panel-French National Cancer Institute**
2018 **Member-Grant Review Panel-National Institutes of Health**
2019 **Member-Grant Review Panel-Louisiana Biomedical Research Network (LBRN)**
2019 **Panelist-Panel Discussion for R15 Grant Writing - LBRN Annual Meeting**
2019 **Guest Lecture** at Grambling State University, Grambling, USA
2019 **Chair-IRB Recombinant DNA Committee, SUBR**
2019 Outstanding Researcher of the Year, Southern University System
2019 **Grant Reviewer**-American University of Beirut
2019 **Grant Reviewer**-UK Research and Innovation (Future Leaders Fellowships)
2019 **Grant Reviewer**-National Science Foundation
2020 **Grant Reviewer**-Neurological Foundation, NewZealand
2020 **Grant Reviewer**-British Lung Foundation, UK
2020 **BASF Endowed Professorship Award**
2020 Invited Speaker-International Webinar on Grant Writing
2021 **Grant Reviewer**-Dutch Research Council (**Health Research and Development**)
2021 **Member-Grant Review Panel-National Institutes of Health**
2021-2022 **Grant Reviewer**-Neurological Foundation, NewZealand
2022 **Grant Reviewer**-Flight Attendant Medical Research Institute
2022-2023 **Member-Graduate Council, SUBR**
2022-2023 **Member-Committee on Graduate Faculty Affairs, Research, Grants, & PD, SUBR**
2023 **Member-Graduate School Research Symposium, SUBR**
2023 **Member-Grant Review Panel-National Institutes of Health**
2023 **Member-U.S. Department of Education Borrower Defense Committee**
2023 **Member- Graduate School Grievance Committee**
2023 Outstanding Researcher Award, Southern University and A&M College, Baton Rouge.

C. Memberships

1999 – Present Member, National Accreditation Board for Testing and Calibration Laboratories of India.
2007 – 2009 Member of American Association of Cancer Research.
2009 – Present Member of the American Thoracic Society
2015- Contd Society of Toxicology
2015-Contd South Central-Society of Toxicology

D. Professional Activities

2006 - Present *Adhoc Reviewer*, The Journal of Postgraduate Medicine (Biochemistry)
2010 - Present *Adhoc Reviewer*, International Journal of Biomedical Science
2010 - Present *Adhoc Reviewer*, Journal of Cancer Research and Clinical Oncology
2010 - Present *Editorial Board Member*, ISRN Vascular Medicine

2012 - Present	<i>Adhoc Reviewer, British Journal of Medicine and Medical Research</i>
2013 - Present	<i>Editorial Board Member, World journal of Respiriology</i>
2013 - Present	<i>Adhoc Reviewer, Journal of Microbial & Biochemical Technology</i>
2014 - Present	<i>Adhoc Reviewer, Veterinary Microbiology</i>
2015 - Present	<i>Editorial Board Member, Honorary Editor, Journal of Bacteriology & Mycology</i>
2015 - Present	<i>Advisory Board Member, Nutrition and Food Sciences.</i>
2015 - Present	<i>Adhoc Reviewer, Biochemistry and Biophysics Reports</i>
2015 - Present	<i>Editorial Board Member, EC Bacteriology and Virology Research</i>
2015 - Present	<i>Adhoc Reviewer, PLoS One</i>
2017 - Present	<i>Editorial Board Member, Toxicology</i>
2018 - Present	<i>Adhoc Reviewer, American Journal of Respiratory And Critical Care Medicine</i>
2018 - Present	<i>Adhoc Reviewer, Cell Biology and Toxicology</i>
2022 - Present	<i>Adhoc Reviewer, Free Radical Biology and Medicine</i>
2022 - Present	<i>Adhoc Reviewer, Food and Chemical Toxicity</i>
2022 - Present	<i>Adhoc Reviewer, Environmental Research</i>
2023 - Present	<i>Adhoc Reviewer, Toxicology in vitro</i>

- **Teaching-** Human Anatomy and Physiology- International Center for Alternative Healing, Delhi.
- **Trained and Advised-** Young Scientists in techniques used for Nutrition Research at the Workshop on Nutrition Research for Capacity Building of Young Scientists especially of the North-East Region at North-Eastern Indira Gandhi Regional Institute of Health & Medical Sciences, Shillong, Meghalaya, India.
- **Teaching-** ENTX722 Principles of Toxicology II; ENTX731 Animal Physiology; ENTX799 Environmental Toxicology Research Practicum; ENTX755 Molecular Immunology; ENTX736 Immuno-Toxicology; ENTX700 Bioethics; ENTX 800 Dissertation Research
- **Current Ph.D. Advisor-** FIVE Ph.D. students in Environmental Toxicology
- **Major Advisor** -SIX Ph.D. Graduates from Environmental Toxicology
- **Member Graduate (Ph.D.) Committee-** FIVE Ph.D. Students from the Environmental Toxicology Department.

E. Publications and Presentations

Peer Reviewed Publications **TOTAL RESEARCH CITATIONS > 5000**

Publications from my work conducted in United States (Since 2006-Contd)

a. Publications from my group at Southern University and A&M College, Baton Rouge (2014-onward)

1. Thota S, Begum R, Muthyala D, Bidarimath N, Obuya, J, and **Batra S.** (2023 Fall) Anti-inflammatory effects of melatonin in cigarette smoke extract induced inflammation: Role of DAMPs and Autophagy. *Archives of Toxicology.* (**Manuscript under internal review before submission**).
 2. Begum R, Thota S, and **Batra S.** (2023 Fall) Impact of membrane rafts in compartmentalization/activation of proteasomes/immunoproteasomes. *Journal of Cell Biology.* (**Manuscript being finalized for submission**).
 3. Thota S, **Begum R,** Bidarimath N, and Batra S. (2023) PCP exposure compromises immunologic functions of lung epithelial cells during the rSARS-CoV-2 S protein challenge. *digitalcommons.subr.edu*
-

4. Begum, R., Thota, S., and **Batra, S.** (2023) Interplay between proteasome function and inflammatory responses in e-cigarette vapor condensate-challenged lung epithelial cells. *Archives of Toxicology*. DOI: [10.1007/s00204-023-03504-5](https://doi.org/10.1007/s00204-023-03504-5). **IMPACT FACTOR- 6.168**
 5. Thota, S., Begum, R., Kaur, G., Bagam, P., Dorsey, W., and **Batra, S.** (2022) Pentachlorophenol mediated regulation of DAMPs and inflammation: In vitro study. *Toxicology in vitro*. DOI: [10.1016/j.tiv.2022.105378](https://doi.org/10.1016/j.tiv.2022.105378). **IMPACT FACTOR- 3.685**
 6. Begum, R., Thota, S., Abdulkadir, A., Kaur, G., Bagam, P., and **Batra, S.** (2022) NADPH Oxidase family proteins: signaling dynamics to disease management. *Cellular & Molecular Immunology*. DOI: [10.1038/s41423-022-00858-1](https://doi.org/10.1038/s41423-022-00858-1) **IMPACT FACTOR- 22.1**
 7. Singh, D.P., Begum, R., Kaur, G., Bagam, P., Kambiranda, D., Singh, R. and **Batra, S.** (2021) E-cig vapor condensate alters proteome and lipid profiles of membrane rafts: impact on inflammatory responses. *Cell Biology and Toxicology*. DOI:[10.1007/s10565-020-09573-x](https://doi.org/10.1007/s10565-020-09573-x). **IMPACT FACTOR- 6.819**
 8. Begum, R., Kaur, G., Singh, D.P., and **Batra, S.** (2020) In vitro study of the role of FOXO transcription factors in regulating cigarette smoke extract-induced autophagy. *Cell Biology and Toxicology*. DOI: [10.1007/s10565-020-09556-y](https://doi.org/10.1007/s10565-020-09556-y). **IMPACT FACTOR- 6.819**
 9. Kaur G, **Batra S.** (2020) Regulation of DNA methylation signatures on NF-κB and STAT3 pathway genes and TET activity in cigarette smoke extract-challenged cells/COPD exacerbation model in vitro. *Cell Biology and Toxicology*. 2020 Oct;[36\(5\):459-480](https://doi.org/10.1007/s10565-020-09556-y). PubMed PMID: 32342329. **IMPACT FACTOR- 6.819**
 10. Kaur, G., Begum, R., Thota, S., and **Batra, S.** (2019) A systematic review of smoking-related epigenetic alterations. *Archives of Toxicology*. DOI: [10.1007/s00204-019-02562-y](https://doi.org/10.1007/s00204-019-02562-y). **IMPACT FACTOR- 6.168.**
 11. Kaur, G., Bagam, P., Pinkston, R., Singh, D.P., and **Batra, S.** (2018) Cigarette smoke-induced inflammation: NLRP10-mediated mechanisms. *Toxicology*. DOI: [10.1016/j.tox.2018.02.010](https://doi.org/10.1016/j.tox.2018.02.010). **IMPACT FACTOR- 3.8.**
 12. Singh, D.P., Kaur, G., Bagam, P., Pinkston, R. and **Batra, S.** (2018) Membrane microdomains regulate NLRP10- and NLRP12- dependent signaling in A549 cells challenged with cigarette smoke extract. *Archives of Toxicology*. DOI: [10.1007/s00204-018-2185-0](https://doi.org/10.1007/s00204-018-2185-0). **IMPACT FACTOR- 6.168.**
 13. Kaur, G., McLemore, B., Pinkston, R., Dorsey, W.C. and **Batra, S.** (2017) Immunological and Toxicological risk assessment of E-cigarettes. *European Respiratory Review*. DOI [10.1183/16000617.0119-2017](https://doi.org/10.1183/16000617.0119-2017). **IMPACT FACTOR- 9.553**
 14. Singh, D.P., Bagam, P., Sahoo, M.K. and **Batra, S.** (2017). Immune-related gene polymorphisms in pulmonary diseases. *Toxicology*. DOI: [10.1016/j.tox.2017.03.020](https://doi.org/10.1016/j.tox.2017.03.020). **IMPACT FACTOR- 4.571**
 15. Bagam, P., Singh, D.P., and **Batra, S.** (2017) Unravelling the role of membrane microdomains during microbial infections. *Cell Biology and Toxicology*. DOI: [10.1007/s10565-017-9386-9](https://doi.org/10.1007/s10565-017-9386-9). **IMPACT FACTOR- 6.819**
 16. Kaur, G. and **Batra, S.** (2016). Emerging role of Immunoproteasomes in pathophysiology. *Immunology and Cell Biology*. DOI: [10.1038/icb.2016.50](https://doi.org/10.1038/icb.2016.50). **[FEATURED ARTICLE] IMPACT FACTOR- 5.853**
 17. Panday, A., Inda E. M., Bagam, P., Sahoo, M.K., Osorio, D. and **Batra, S.** (2016) Transcription factor NF-κB: an update on intervention strategies. *Archivum Immunologiae et Therapiae Experimentalis*. DOI: [10.1007/s00005-016-0405-y](https://doi.org/10.1007/s00005-016-0405-y). **IMPACT FACTOR- 3.831**
 18. Panday, A., Sahoo, M.K., Osorio, D. and **Batra, S.** (2015). NADPH oxidase: an overview- from structure to pathogenesis. *Cellular & Molecular Immunology*. 12(1):5-23. **IMPACT FACTOR- 22.1**
-

b. Publications from my work at Ohio Sate University, Texas Tech University Health Sciences Center, and Louisiana State University (2006-2014)

19. Liliang, J., **Batra, S.**, and Jeyaseelan S. (2017) Diminished neutrophil extracellular trap (NET) formation is a novel innate immune deficiency induced by acute ethanol exposure in polymicrobial sepsis, which can be Rescued by CXCL1. *Plos Pathogen*. DOI: **10.1371/journal.ppat.1006637**.
 20. Cai, S., **Batra, S.**, Del Piero F., and Jeyaseelan S. (2015). NLRP12 modulates host defense through IL-17A-CXCL1 axis. *Mucosal Immunology*. 9(2): 503-14.
 21. Cai, S., **Batra, S.**, Langohr, I, Iwakura, Y., and Jeyaseelan S. (2015). IFN- γ induction by neutrophil-derived IL-17A homodimer augments pulmonary antibacterial defense. *Mucosal Immunology*. doi: 10.1038/mi.2015.95.
 22. Baral, P., **Batra, S.**, Zemans, R.L., Downey, D.P., and Jeyaseelan S. (2014). Divergent functions of Toll-Like Receptors during bacterial lung infections. *American Journal of Respiratory and Critical Care Medicine*. 190(7): 722-32.
 23. Liliang, J., **Batra, S.**, and Jeyaseelan S. (2014). Deletion of CXCL1 attenuates neutrophil recruitment and function in mouse Polymicrobial Sepsis. *Journal of Immunology*. 193 (7): 3549-58.
 24. Cai, S.*, **Batra, S.***, Wakamatsu, N. and Jeyaseelan S. (2012). NLR4-mediated production of IL-1 β modulates mucosal immunity in the lung against Gram-negative bacterial infection. *Journal of Immunology*. 188(11):5623-35. **[*Shared First Authorship]**
 25. **Batra, S.**, Cai, S., Balamayooran, G., Kolls, J. K. and Jeyaseelan S. (2012). Intrapulmonary administration of leukotriene B4 augments neutrophil accumulation and responses in the lung to *Klebsiella* Infection in CXCL1 Knockout Mice. *Journal of Immunology*. 188(7):3458-68.
 26. Balamayooran, G., **Batra, S.**, Cai, S., Penn, A. and Jeyaseelan S. (2012). Role of CXCL5 in leukocyte recruitment to the lungs during secondhand smoke exposure. *American Journal of Respiratory Cell and Molecular Biology*. 47(1): 104-11.
 27. Balamayooran, G., **Batra, S.**, Balamayooran, T., Cai, S. and Jeyaseelan S. (2012). Intrapulmonary G-CSF reverses neutrophil recruitment to the lung and neutrophil release to blood to Gram-negative bacterial infection in MCP-1^{-/-} mice. *Journal of Immunology*. 189(12): 5849-59.
 28. **Batra, S.#**, Balamayooran, G., Sahoo M.K. (2011). Nuclear Factor- κ B; a key regulator in health & disease of lungs. *Archivum Immunologiae et Therapiae Experimentalis*. 2011 Jul 26. [Epub ahead of print] . 59(5): 335-51. **[# Corresponding Author][Listed in Top 20 articles published in this domain since its publication: Reported by BIOMEDLIB]**.
 29. Balamayooran, T., **Batra, S.**, Balamayooran, G., Cai, S., Kobayashi, K.S., Flavell, R.A. and Jeyaseelan S. (2011) Receptor-interacting protein 2 controls pulmonary host defense to *Escherichia coli* infection via the regulation of interleukin-17A. *Infection and Immunity*. 79(11), 4588-4599. **[SPOT LIGHT IN Infection & Immunity, (IAI5641-11)] . doi:10.1128/IAI.05641-11**
 30. Balamayooran, G., **Batra, S.**, Balamayooran, T., Cai, S. and Jeyaseelan S. (2010). Mice lacking MCP-1 show impaired neutrophil-mediated host defense in the lung against *E. coli*. *Infection and Immunity*. **79(7)**, 2567-77.
 31. Cai, S., **Batra, S.**, Sergio A. Lira, Jay K. Kolls and Jeyaseelan S. (2010). CXCL1 induced by IL-17 regulates NF- κ B, MAP Kinases, CXCL2 and CXCL5 in the lungs during *Klebsiella* pneumonia. *Journal of Immunology*. 185(10): 6214-25.
 32. **Batra, S.**, Ravi P. S., Khandala, P.K. and Srivastava, S.K. (2010). Benzyl isothiocyanate mediated inhibition of histone deacetylase leads to NF- κ B turnoff in human pancreatic carcinoma cells. *Molecular Cancer Therapeutics*. 9(6): 1596-608. **[Featured IN NUTRITION FRONTIERS, Volume 1, Issue 4, An NSRG, NCI, NIH Publication.]**
 33. Ravi P.S., **Batra, S.**, Brown T.L. and Srivastava, S.K. (2010). Mutation in K-Ras gene is associated with resistance to TRAIL-induced apoptosis in pancreatic and lung cancer cell lines. *Cancer Chemotherapy and Pharmacology*. 67(2): 481-7.
-

34. Wood, K.L., Nunley, D.R., Bruce, S.M., Harman, A.P., Huang, Q., Shamo, E.N., Philips, G.S., Baran, C., **Batra, S.**, Marsh, C.B. and Doseff, A.I. (2010). The Role of heat shock protein 27 in bronchiolitis obliterans syndrome after lung transplantation. *Journal of Heart and Lung Transplantation*. 29(7): 786-91.
35. Wood, K.L., Voss, O.H., Huang, Q., Parihar, A., Mehta, N., **Batra, S.**, Porcu, P. and Doseff, A.I. (2010). The small heat shock protein 27 is a key regulator of CD8+CD57+ lymphocyte survival. *Journal of Immunology* . 184(10): 5582-8. **[Featured IN THIS ISSUE of Journal of Immunology, 184, 5421-5422].**
36. Ravi P.S., **Batra, S.**, and Srivastava, S.K. (2009). Activation of ATM/Chk1 by curcumin causes cell cycle arrest and apoptosis in human pancreatic cancer cells. *British Journal of Cancer*. 100, 1425-1433.
37. Ravi P.S., Zhang, R., **Batra, S.**, Shi, Y and Srivastava, S.K. (2009). Benzyl isothiocyanate mediated generation of reactive oxygen species causes cell cycle arrest and induces apoptosis via activation of MAPK in human pancreatic cancer cells *Carcinogenesis*. 30(10): 1744-53.
38. Balamayooran, G., **Batra, S.**, Fessler, M.B., Happel, K.H. and Jeeyaseelan, S. (2009). Mechanisms of neutrophil accumulation in the lungs against bacteria. *American Journal of Respiratory Cell and Molecular Biology*. 43(1): 5-16.
39. Cai , S., **Batra, S.**, Shen, L., Wakamatsu, N., and Jeyaseelan S. (2009). Both TRIF-dependent and independent signaling contribute to survival and bacterial clearance in pulmonary *Klebsiella* infection. *Journal of Immunology*. 183(10): 6629-38.
40. Nicholas, C.*, **Batra, S. ***, Vargo, M.A. *, Voss, O.H., Gavrilin, M.A., Wewers, M.D., Guttridge, D., Grotewold, E., and Doseff, A.I. (2007). Apigenin blocks lipopolysaccharide-induced lethality in vivo and proinflammatory cytokines expression by inactivating NF- κ B through the suppression of p65 phosphorylation . *Journal of Immunology*. 179 (10), 7121-7127. **[*Contributed equally]**
41. Voss, O.H. *, **Batra, S. ***, Kolattukudy, S.J., and Doseff, A.I. (2007). Binding of caspase-3 prodomain to heat shock protein 27 regulates monocyte apoptosis by inhibiting caspase-3 proteolytic activation. *Journal of Biological Chemistry*. 282 (34), 25088-25099. **[*Contributed equally]**

c. Publications from my work conducted in United States as a Visiting Scientist at The Ohio State University, Columbus, Ohio (2002-2003)

42. Huang, W., **Batra, S.**, Korrapati, S., Mishra, V., and Mehta, K.D. (2006). Selective repression of low-density lipoprotein receptor expression by SP600125: coupling of histone H3-ser10 phosphorylation and Sp1 occupancy. *Molecular and Cellular Biology*. 26(4): 1307-1317.
43. Huang, W., **Batra, S.**, Atkins, B.A., Mishra, V., and Mehta, K.D. (2005). Increases in intracellular calcium dephosphorylate histone H3 at Serine 10 in human hepatoma cells: potential role of protein phosphatase 2A-protein kinase CII complex. *Journal of Cellular Physiology*. 205(1): 37-46.
44. Huang, W., Mishra, V., **Batra, S.**, Dillon I., and Mehta, K.D. (2005). Phorbol ester promotes histone H3-Ser10 phosphorylation at low density lipoprotein receptor promoter in a protein kinase C-dependent manner in human hepatoma HepG2 cells. *Journal of Lipid Research*. **45**: 1519-1527.

Publications from Kalawati Saran Children's Hospital, New Delhi, India (1993-2006)

45. Chandra, J., Jain, V., Narayan, S., Sharma, S., Singh, V., **Batra, S.** and Dutta, A.K. (2006). Tremors and thrombocytosis during treatment of megaloblastic anaemia. *Annals of Tropical Pediatrics*. 26(2), 101-105.
-

46. Ojha, R.K., Singh, S.K., **Batra, S.**, Sreenivas, V. and Puliyeel, J.M. (2006). Lactate: creatinine ratio in babies with thin meconium staining of amniotic fluid. *BMC Pediatrics*. 6(13), 1-9.
 47. Arora, P., Kumar, V., **Batra, S.** (2002). Vitamin A status in children with asthma. *Pediatric Allergy and Immunology*. 13: 223-226.
 48. Chandra, J., Jain, V., Narayan, S., Sharma, S., Singh, V., Kapoor, A.K., **Batra, S.** (2002). Folate and cobalamin deficiency in megaloblastic anemia in children. *Indian Pediatrics*. 39: 453-457.
 49. Dubey, N.K., Dey, P.K., Saxena, S., **Batra, S.**, Khapekar, P., Gupta, A. (2001). Serum nitrite and urinary nitrite excretion in nephrotic syndrome. *Indian Pediatrics*. 38(9): 1025-1029.
 50. **Batra, S[#].**, Kumar, R., Seema, A.K., Kapoor, A.K., Ray, G.N. (2000). Alterations in antioxidant status during neonatal sepsis. *Annals of Tropical Pediatrics*. 20: 27-33. [**# Corresponding Author**]
 51. Ray, G.N., Aneja, S., Jain, M., **Batra, S[#].** (2000). Status of free radicals in childhood meningitis *Annals of Tropical Pediatrics*. 20: 115-120. [**# Corresponding Author**]
 52. Ray, G.N., **Batra, S.**, Shukla, N.K., Deo, S., Raina, V., Ashok, S., Husain, S.A. (2000). Lipid peroxidation, free radical production and antioxidant status in Breast Cancer. *Breast Cancer Research and Treatment*. 1586: 1-10.
 53. Dubey, N.K., Yadav, P., Dutta, A.K., Kumar, V., Ray, G.N., **Batra, S.** (2000). Free oxygen radicals in acute renal failure. *Indian Pediatrics*. 37: 153-158.
 54. Dutta, A.K., Aggarwal, A., Kapoor, A.K., Ray, G.N., **Batra, S.** (2000). Seroepidemiology of Hepatitis A in children in Delhi. *Indian Journal of Pediatrics*. 67(2): 77-79.
 55. Jain, M., Aneja, S., Mehta, G., Ray, G.N., **Batra, S.**, Randhava, V.S. (2000). CSF interleukin-1 beta, tumor necrosis factor alpha and free radical's production in relation to clinical outcome in acute bacterial meningitis. *Indian Pediatrics*. 37(6): 608-614.
 56. Kumar, S, Mandal, R., Tandon, R.N., Randhawa, V.S., Mehta, G., **Batra, S.**, Ray, G.N., Kapoor, A.K. (1999). Serum TNF-alpha and free radical scavengers in neonatal septicemia. *Indian Journal of Pediatrics*. 66(4): 511-516.
 57. Singh, S.K., Dua, T., Tandon, A., Kumari, S., Ray, G.N., **Batra, S.** (1999). Status of lipid peroxidation and antioxidant enzymes in Hypoxic- Ischemic Encephalopathy. *Indian Pediatrics*. 36: 561-566.
 58. Ray, G.N., **Batra, S.**, Kumar, A., Husain, S.A. (1999). Free radical production and antioxidant status in Breast Cancer. *Toxicology and Environmental Health*. 231-237.
 59. Ray, G.N., Kumar, V., Kapoor, A.K., Dutta, A.K., **Batra, S.** (1999). Status of antioxidants and other biochemical abnormalities in children with Dengue fever. *Journal of Tropical Pediatrics*. 45: 4-7.
 60. **Batra, S[#].**, Ray, G.N., Singh, S.K., Kumari, S., Ravi, R.N.M., Tandon, A. (1998). Respiratory diseases in children are associated in serum free radical scavenging activity. *Medical Science Research*. 26(5): 357- 359. [**#Corresponding Author**]
 61. **Batra, S[#].**, Ray G.N., Dutta, A.K. (1998). Free radical production during perinatal birth asphyxia. *Medical Science Research*. 26(5): 323- 325. [**#Corresponding Author**]
 62. Ray, G.N., Husain, S.A., Dutta, A.K., **Batra, S.** (1998). Lipid peroxidation and antioxidant status in asphyxiated neonates. *Medical Science Research*. 26(3): 2001-2002. [**# Corresponding Author**]
 63. Nangia, S., Saili, A., Dutta, A.K., **Batra, S.**, Ray, G.N. (1998). Free oxygen radical as predictors of neonatal outcome following perinatal asphyxia. *Indian Journal of Pediatrics*. 65: 419-427.
 64. Singh, S.K., Tandon, A., Kumari, .S. Ravi, R.N.M., Ray, G.N., **Batra, S.** (1998). Changes in antioxidant enzymes and lipid peroxidation in hyaline membrane disease. *Indian Journal of Pediatrics*. 65: 609-615.
-

Publications as a Graduate (Ph.D.) student at Central Drug Research Institute, Lucknow, India (1987-1993)

65. **Batra, S.**, Singh, S.P., Fatma, N., Sharma, S., Chatterjee, R.K., Srivastava, V.M.L. (1994). Effect of 2,2'-dicarbomethoxylamino-5,5'-dibenzimidazolyl ketone on antioxidant defences of *Acanthocheilonema viteae* and its laboratory host *Mastomys natalensis* : (Pt) Effect of C.D.R.I. based compounds. Proceedings of CSIR Golden Jubilee Symposium on Tropical Diseases. ***Molecular Biology and Control Strategies***. 29-33.
66. **Batra, S.**, Srivastava, J.K., Gupta, S., Katiyar, J.C., Srivastava, V.M.L. (1993). Role of reactive oxygen intermediates in expulsion of *Nippostrongylus brasiliensis* from rat. ***Parasitology***. **106**: 185-192
67. **Batra, S.**, Singh, S.P., Fatma, N., Chatterjee, R.K., Srivastava, V.M.L. (1992). Effect of 2, 2'-dicarbomethoxylamino-5, 5'- dibenzimidazolyl Ketone on antioxidant defences of *Acanthocheilonema viteae* and its laboratory host *Mastomys natalensis* . ***Biochemical Pharmacology***. **44**: 727-731.
68. **Batra, S.**, Chatterjee, R.K., Srivastava, V.M.L. (1992). Antioxidant system of *Litomosoides carinii* and *Setaria cervi*: effect of a microfilaricidal agent. ***Veterinary Parasitology***. **143**: 93-103.
69. Singh, S.P., **Batra, S.**, Gupta, S., Katiyar, J.C., Srivastava, V.M.L. (1992). Effect of *Ancylostoma ceylanicum* infection on antioxidant system in hamster tissues. ***Medical Science Research***. **20**: 605-608.
70. Srivastava, J.K., **Batra, S.**, Gupta, S., Katiyar, J.C., Srivastava, V.M.L. (1992). Effect of anthelmintics on the antioxidant system of *Nippostrongylus brasiliensis*. ***Biochemical Pharmacology***. **43(2)**: 289-293.
71. **Batra, S.**, Chatterjee, R.K., Srivastava, V.M.L. (1990). Antioxidant enzymes in *Acanthocheilonema viteae* and effect of antifilarial agents. ***Biochemical Pharmacology***. **40(10)**: 2363-2369.
72. **Batra, S.**, Singh, S.P., Gupta, S., Katiyar, J.C., Srivastava, V.M.L. (1990). Reactive oxygen intermediates metabolizing enzymes in *Ancylostoma ceylanicum* and *Nippostrongylus brasiliensis* . ***Free Radical Biology and Medicine***. **8**: 271-274.
73. Jain, M.K., **Batra, S.**, Gupta, S., Katiyar, J.C., Srivastava, V.M.L. (1989). Impact of *Cysticercus fasciolaris* infection on reactive oxygen intermediates metabolizing enzymes in rat liver. ***Medical Science Research***. **17**: 1051-1053.
74. Singh, S.P., **Batra, S.**, Gupta, S., Katiyar, J.C., Srivastava, V.M.L. (1989). Effect of *Ancylostoma ceylanicum* infection in hamsters on enzymes that metabolize reactive oxygen intermediates. ***Medical Science Research***. **17**: 493-495.
75. **Batra, S.**, Singh, S.P., Srivastava, V.M.L., Chatterjee, R.K. (1989). Xanthine oxidase, superoxide dismutase, catalase and lipid peroxidation in *Mastomys natalensis*: Effect of *Dipetalonema viteae* infection. ***Indian Journal of Experimental Biology***. **27**: 1067-1070.
76. Singh, S.P., **Batra, S.**, Gupta, S., Katiyar, J.C., Srivastava, V.M.L. (1989). Leucine amino peptidase in host tissues during *Ancylostoma ceylanicum* and *Dipetalonema viteae* infection. ***Indian Journal of Parasitology***. **13(2)**: 187-190.

Presentations at National & International Meetings from Southern University and A&M College (TOTAL PRESENTATIONS >200)

Presentations from my group at Southern University and A&M College, Baton Rouge, Louisiana

- 2023 S. Thota, R. Begum, N. Bidarimath, **S. Batra**. "PCP exposure compromises immunologic functions of lung epithelial cells during the rSARS-CoV-2 S protein challenge". **1st Annual Graduate Student Research Symposium, Southern University, Baton Rouge, LA**

- 2023 R Begum and S. Batra. "Lipid rafts and their role in modulating cannabinoid receptor signaling". **1st Annual Graduate Student Research Symposium, Baton Rouge, Louisiana (Second Best Graduate Oral Presentation Award)**.
- 2023 N. Bidarimath, S. Thota, R. Begum, D. Mutyala and S. Batra. SUMO-mediated regulation of pyroptosis and apoptosis: a possible adverse effect of diesel particulate-exposure on lung epithelial cells. **National Society of Toxicology Annual Meeting, Nashville TN**.
- 2023 S. Thota, R. Begum, D. Muthyala, N. Bidarimath, J. Obuya, S. Batra. "Melatonin Rescues Cigarette Smoke Extract-Induced Inflammation and Autophagy in Lung Epithelial Cells". **78th Joint Annual Meeting of National Institute of Science & Beta Kappa Chi Honor Society, Charlotte, NC. [Awarded Best Oral Presentation]**
- 2023 S. Thota, R. Begum, N. Bidarimath, J. Morehouse, S. Yang, W. Dorsey, and S. Batra. "Hsp70 Regulates ROS-Induced Autophagy in Pentachlorophenol-Challenged Cells". **National Society of Toxicology Annual Meeting, Nashville TN. [Travel Award]**
- 2023 R. Kondati, S. Thota, R. Begum, N. Bidarimath, D. Muthyala, W.C. Dorsey, and S. Batra "PCP and TCHQ differentially regulate cell death/survival pathways". **78th Joint Annual Meeting of the Beta Kappa Chi and National Institute of Science, Charlotte, North Carolina (Best Poster Presentation Award)**.
- 2023 N. Bidarimath, S. Thota, R. Begum, D. Mutyala and S. Batra¹ (2023). Possible role of RPS6 in SUMO-dependent regulation of cell survival and death processes during DPE exposure. **8th LSUS Regional Student Scholars Forum, Shreveport, LA, USA**.
- 2023 R Begum and S. Batra. Role of Lipid rafts in regulating Cannabinoid receptor-mediated signaling. **78th Joint Annual Meeting of the Beta Kappa Chi and National Institute of Science, Charlotte, North Carolina (Third Best Graduate Oral Presentation Award)**.
- 2023 M. Thakur, S.Thota, A. Abdulkadir, and S. Batra. Role of carbon nanotubes in DPE-induced inflammation. **Centre of Excellence 2023 Symposium, Baton Rouge, Louisiana. (First Oral Presentation Award)**
- 2023 R Begum and S. Batra. Urolithins rescue E-cigarette condensate-induced inflammation in lung epithelial cells. **Centre of Excellence 2023 Symposium, Baton Rouge, Louisiana (Second Best Graduate Poster Award)**.
- 2023 R Begum and S. Batra. Role of DAMPs in TLR-4/RAGE Signaling: Vaping Induced Inflammation. **Society of Toxicology 62nd Annual Meeting, Nashville, Tennessee (Second Best Graduate Abstract Award)**.
- 2023 R Begum and S. Batra. Targeting lipid rafts to mitigate e-cigs condensate-induced inflammation. **8th LSUS Regional Student Scholars Forum, Shreveport, LA, USA**.
- 2023 R Begum and S. Batra. Membrane rafts regulate autophagy process in e-cigs-challenged lung epithelial cells. **21st Annual Meeting Louisiana Biomedical Research Network (LBRN), Baton Rouge, LA, USA**.
- 2023 Thota S, Begum R, N. Bidarimath, Dorsey W and Batra S. "Role of DAMPs in Regulating Autophagy Process in Pentachlorophenol-Challenged Lung and Liver Epithelial Cells." **20th LBRN Annual Meeting, Baton Rouge, LA**.
- 2023 Thota S, Begum R, Dorsey W and Batra S. Pentachlorophenol Induced Inflammation and Autophagy: Role of Epigenetic Factors. **LSUS 8th annual regional student scholar's forum, Shreveport, LA**.
- 2022 Thota S, Begum R, Dorsey W and Batra S. "Role of Extracellular Damage Associated Molecular Pattern Molecules (DAMPs) as Immuno Modulators in Pentachlorophenol Exposed A549 cells". **77th Joint Annual Meeting of National Institute of Science & Beta Kappa Chi Honor Society, Virtual meeting conducted by Kentucky state university. [Awarded Poster Presentation]**
-

- 2022 Thota S, Begum R, Dorsey W and **Batra S**. “Complex interplay between Hsp90 and Beclin-1 regulates TLR-4 mediated autophagy during Pentachlorophenol exposure-an *in vitro* approach”. **19th LBRN Virtual Annual Meeting, Baton Rouge, LA.**
- 2022 R Begum and **S. Batra**. HSP70 and proteasomes coalesce in lipid rafts and exosomes to regulate E-cigarette Vapor condensate induced inflammation. **8th Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE) (Virtual), 2022, USA (Outstanding Graduate Oral Presentation Award).**
- 2022 R Begum and **S. Batra**. Compartmentalization of constitutive and inducible proteasome subunits in lipid rafts during e-cigs vapor condensate exposure. **Society of Toxicology 61st Annual Meeting, San Diego, California.**
- 2022 N. Bidarimath, A Abdulkadir and S. Batra¹ (2022). Diesel particulate-mediated regulation of SUMO proteins: possible role in inflammasome-activation and apoptosis in lung epithelial cells. (Received travel award and third place for oral presentation). **South Central Chapter, Society of Toxicology, Little Rock, AR. [Travel Award; Third best oral Presentation]**
- 2021 Thota S, Begum R, D. Kambiranda and **Batra S**. “Anti-inflammatory effects of melatonin in cigarette smoke extract-induced inflammation: *in vitro* study”. **South-east Regional IDeA Conference. [Selected Abstract]**
- 2021 R Begum and **S. Batra**. Lipid raft mediated regulation of NADPH Oxidase: Vaping induced Inflammation”. **Society of Toxicology 60th Annual Meeting (Virtual) (Best Abstract Award).**
- 2021 R Begum and **S. Batra**. Urolithins rescue e-cigarette vapor condensate induced distinct histone signatures-in vitro study”. **19th Annual Meeting (Virtual) Louisiana Biomedical Research Network (LBRN), Baton Rouge, LA, USA.**
- 2021 Thota S, Begum R, D. Kambiranda and **Batra S**. “Melatonin mitigates cigarette smoke extract-induced inflammation: impact on autophagy and chaperones”. **South Central Chapter of the Society of Toxicology - Virtual Meeting.**
- 2021 Thota S, Bagam P, Begum R, Dorsey W and **Batra S**. “Epigenetic Regulation of Autophagy during Pentachlorophenol Exposure-*in vitro* study”. **National Society of Toxicology Annual Meeting (Virtual). [Best Abstract Award]**
- 2021 Thota S, R Begum, Dorsey W and **Batra S** (2021). “Pentachlorophenol regulates cannabinoid receptor-mediated signaling (*in vitro*)” **19th LBRN Virtual Annual Meeting, Baton Rouge. [Awarded Oral Presentation]**
- 2020 Thota S, R Begum, P Bagam, Dorsey W and **Batra S**. “Pentachlorophenol Induced Inflammation- Role of autophagy and chaperones” **South Central Chapter of the Society of Toxicology - Virtual Meeting Hosted by Mississippi State University**
- 2020 Thota S, G Kaur, Bagam P, Dorsey W and **Batra S**. “pentachlorophenol-mediated induction of inflammatory responses and autophagy in alveolar epithelial and liver carcinoma cells”. **18th LBRN Annual Meeting, Baton Rouge. [Awarded Poster Presentation]**
- 2020 R Begum and **S. Batra**. Urolithins rescue e-cigarette condensate induced lipid raft-mediated inflammation in lung epithelial cells”. **2020 SCC-SOT Annual Meeting, LSU Shreveport, USA.**
- 2020 R Begum and **S. Batra**. Grape Berry Extracts and Ellagitannin Metabolites Rescue Dysregulated Protein Homeostasis Mechanisms: In Vitro Smoking/Vaping Model. **18th Annual Meeting Louisiana Biomedical Research Network (LBRN), Baton Rouge, LA, USA.**
- 2019 R Begum and **S. Batra**. Protective Effect of Urolithin A in Dysregulated Protein Homeostasis during E-Cigarette Vapor Condensate Exposure. **2019 SCC-SOT Annual Meeting, USA.**
- 2019 Bagam P, Thota S, Dorsey W, and **Batra S**. Pentachlorophenol induces inflammatory mediators in Alveolar Epithelial Cells.. **76th Joint Annual Meeting of National Institute of Science & Beta Kappa Chi Honor Society, Atlanta, GA. [Awarded Poster Presentation]**
- 2019 Thota S, Bagam P, Kaur G, Dorsey WC, and **Batra S**. Pentachlorophenol mediated regulation of heat shock proteins and inflammation. **2019 Annual Fall Meeting of the South Central Chapter of the**
-

- Society of Toxicology, Shreveport, LA, October 17-18.**
- 2019 Begum R, Singh DP, Kambiranda D, and **Batra S**. Protective effect of urolithins in dysregulated protein homeostasis with e-cigarettes. **2019 Annual Fall Meeting of the South Central Chapter of the Society of Toxicology, Shreveport, LA, October 17-18.**
- 2019 Kaur G. and **Batra S**. Antibody-mediated blocking of TETs reverses cigarette smoke extract induced inflammation. **2019 Annual Fall Meeting of the South Central Chapter of the Society of Toxicology, Shreveport, LA, October 17-18.**
- 2019 Kaur G, and **Batra S**. Blocking of DNA methyl-transferases rescues inflammatory responses in COPD exacerbation model (*in vitro*). **76th Joint Annual Meeting for Beta Kappa Chi and the National Institute of Science, Atlanta, GA.**
- 2019 Abdulkadir A, and **Batra S**. Nutraceuticals: Health benefits and ethical concerns. **76th Joint Annual Meeting for Beta Kappa Chi and the National Institute of Science, Atlanta, GA.**
- 2018 Kaur G, Caskey J, Chouljenko V and **Batra S** (2018). “Differential Methylation of NF-κB and JAK-STAT pathway genes during COPD exacerbations”. **75th Joint Annual Meeting of National Institute of Science & Beta Kappa Chi Honour Society, Clinton, MD. [Awarded Platform Presentation]**
- 2018 Singh D, Kaur G, Bagam P, Pinkston R and **Batra S**. Characterization of Exosomes in murine model of COPD. **75th Joint Annual Meeting of National Institute of Science & Beta Kappa Chi Honour Society, Clinton, MD.**
- 2018 Singh DP, Kaur G, Bagam P, Pinkston R and **Batra S**. Inflammatory Role of Membrane Microdomains and NLRs following Cigarette Smoke Extract Exposure of A549 cells. **LBRN 16th Annual Meeting, Shreveport, LA.**
- 2018 Pinkston R, Kaur G, Singh DP, Bagam P and **Batra S**. Cigarette Smoke Mediated Regulation of Proteasome Variants in Human Alveolar Type II Epithelial Cells. **LBRN 16th Annual Meeting, Shreveport, LA.**
- 2018 Kaur G, Caskey J, Chouljenko V, and **Batra S**. Identifying differentially methylated exonic variants of TLR4 pathway genes during COPD exacerbations using in vitro study model. **LBRN 16th Annual Meeting, Shreveport, LA.**
- 2017 Bagam P, Pinkston R, Kumar A, Pathak R, Palfrey HA, Murthy SN and **Batra S**. Dietary Enrichment with L-Methionine and cholesterol induces autophagy in male Sprague Dawley Rats. **2017 Annual Fall Meeting of the South Central Chapter of the Society of Toxicology, Baton Rouge, LA, October 19-20. [Poster Presentation]**
- 2017 Bagam P and **Batra S**. Cross-talk between NLRP10 mediated inflammation and autophagy in the development of COPD. **2017 Annual Fall Meeting of the South Central Chapter of the Society of Toxicology, Baton Rouge, LA, October 19-20. [Awarded Poster Presentation]**
- 2017 Kaur G, Bagam P and **Batra S**. “DNA Methylation and Histone Modifications during Cigarette Smoke Exposure.” **2017 Annual Fall Meeting of the South Central Chapter of the Society of Toxicology, Baton Rouge, LA, October 19-20. [Awarded Platform Presentation]**
- 2017 Pinkston R, Kaur G, Singh DP, Bagam P and **Batra S**. Role of Immunoproteasomes in Cigarette Smoke induced Inflammation. **Beyond the Hashtag, Charlotte, NC, March 22-25. [Awarded Platform Presentation]**
- 2016 **Batra S**. Lipid Rafts play important role in NLRP10/NLRP12 mediated signaling. **14th Annual Meeting of Louisiana Biomedical Research Conference, Monroe, LA, February 12-13. [Platform Presentation]**
- 2015 Singh DP, Shen K, Kumar S, Wu, X and **Batra S**. Recruitment of NLRP10 and NLRP12 in lipid raft entities following cigarette smoke challenge in murine macrophages. **2015 Southeast Regional IDEa meeting, Biloxi, MS, November 11-13. [Poster Presentation]**
- 2015 Bagam P and **Batra, S**. Cigarette Smoke mediated regulation of Autophagy in RAW264.7 macrophages. **2015 Southeast Regional IDEa meeting, Biloxi, MS, November 11-13. [Poster Presentation]**
- 2014 **Batra S. #** Lipid rafts influence NLR mediated immune responses against bacterial infections. **Invited Speaker at ‘The 2014 Innate Immunity Summit’ London, UK, November 2014.**
-

F. EXTRAMURAL FUNDING SUPPORT- SINCE JOINING AT Southern University and A&M College, Baton Rouge, Louisiana (Including Future, Ongoing and Complete Funding)

EXTRAMURAL RESEARCH SUPPORT AS A FACULTY AT SUBR

Pending Submission

1. National Science Foundation 09/01/2024-08/31/2028
Role: PI
Co-PI: Dr. Wanneene Dorsey (Grambling State University); Dr. Shizhong Yang (Computer Science Department, SUBR); Dr. S.N. Murthy (Environmental Toxicology, SUBR)
2. National Science Foundation 05/01/2024-04/30/2027
Role: PI
Co-PI: Dr. Wanneene Dorsey (Grambling State University)
3. National Institutes of Health (SURE R16) 05/15/2024-04/30/2028
Role: PI
Co-PI: Dr. S.N. Murthy (Southern University and A&M College)

Ongoing Research Support

1. Louisiana Biomedical Research Network Pilot Grant (NIH-Subaward) 05/01/23-04/30/24
Role: PI (\$70,000)
2. National Science Foundation Grant 07/15/22-06/30/25
Role: PI (\$676,204) + Supplement Award \$49,087
3. United States Department of Agriculture (USDA) Grant 06/01/20-05/30/24
Role: PI (NCE) (Current Balance approx. \$49,000)
4. Louisiana Biomedical Graduate Students Research Grants 06/01/23-07/31/23
Role: PI (FOUR GRANTS; Co-PI's are Graduate Students) (\$7,500 each)
+ \$2000 IN SUPPLIES AS ADDITIONAL SUPPORT FROM LSU FOR EACH PROJECT
5. U.S. Department of Education (ED)- Southern University's Research and Development Infrastructure (RDI) 01/01/2024-12/31/27
PI- Dr. Mensah
Role: Co-PI (\$5.0 million)

Completed Research Support

1. Louisiana Biomedical Research Network Grant (NIH-Subaward)
Pilot Grant 05/01/15-04/30/17
Role: PI
-

2. Louisiana Biomedical Research Network Grant (NIH-Subaward)
Instrument Grant 05/01/16-04/30/17
Role: PI
 3. National Institutes of Health (R15) 05/01/14-04/30/17
Role: PI
 4. Louisiana Biomedical Research Network Grant (NIH-Subawards)
FUNDED Summer Grants -12
3-Faculty Summer Grants
9-Student Summer Grants **Between 05/01/15-08/31/22**
Role: PI for all Proposals
 5. Southern University System Foundation Grant
Awarded Twice 2015-2016 and 2018-2019
Role: PI
 6. Louisiana Biomedical Research Network Grants (NIH-Subawards) -3 PILOT 1-YEAR GRANTS
Pilot Grants To:
Dr. Dorsey (Grambling);
Dr. Devaiah (SUAgREC);
Dr. Lidiya (Biology, SUBR)

Role: Mentor and Collaborator **Between: 05/01/18-04/30/21**
 7. Louisiana Biomedical Research Network Grants (NIH-Subawards) -TWO FULL 3 YEAR GRANTS
LBRN FULL 3 YEAR GRANTS To:
Dr. Dorsey (Grambling)
Dr. Devaiah (SUAgREC)

Role: Mentor and Collaborator **Between: 05/01/19-08/31/22**
-