

ABSTRACTS

ORAL PRESENTATIONS

1. **Bhattacharyya S.** Data Mining in LC-MS based non-targeted metabolomic spectra of urine from rats dosed with Gentamicin. Oral presentation at the 5th Computational Toxicology meeting at the Center for Disease Control, Atlanta, Georgia, November 19th, 2010
2. **Bhattacharyya S.** NCS-formative Project: DNA methylation study of archived blood samples. 52nd Annual meeting of the Teratology Society, Baltimore, MD, June 23-27, 2012.
3. **Bhattacharyya S.** A webinar oral presentation on "NCS-formative Project: DNA methylation study of archived blood samples", June 28th, 2012, National Children's Study research progress update meeting.
4. **Bhattacharyya S.** Oral Presentation at the the 8th Metabolomics Society Meeting, June 25-28, 2012, Washington DC: Mining Metabolomics Data: Case studies through Statistics- and Bioinformatics-driven approaches.
5. **Bhattacharyya S.** Invited Oral Presentation at the Think Tank on the Use of Metabolomics in Population-Based Research, NIH/NCI, September 2012: "Best strategies for integration of data from genomics, epigenomics, proteomics, and transcriptomics studies with metabolomics data".
6. **Bhattacharyya S.** Oral Presentation at University of Arkansas for Medical Sciences, Department of Physiology and Biophysics, August, 2012: "Why Metabolomics?"
7. **Bhattacharyya S.** Oral Presentation at PB&J Biostatistics Journal Club, September, 2012: "How to stay current with literature".
8. **Bhattacharyya S.** Invited oral presentation on "Bioinformatics as a career option", October 18th, 2012, UAMS Career day, UAMS, Arkansas.
9. **Bhattacharyya S.** Oral Presentation at PB&J Biostatistics Journal Club, September, 2013: "Mining Metabolomics Data".
10. **Bhattacharyya S.** Invited Oral Presentation at the "2nd International Conference and Exhibition on Metabolomics and Systems Biology", April 08-10, 2013 Chicago, USA: "Serum Acylcarnitines as Potential Biomarkers of Acetaminophen Toxicity in the Pediatric Population
11. **Bhattacharyya S.** Oral Presentation at the "Experimental Biology" meeting, April 30, 2014 San Diego, CA: "Bile acids and acetaminophen protein adducts in children with acetaminophen overdose".

12. **Bhattacharyya S**. Oral Presentation at the Genomics and System's Biology Journal Club, UAMS, April, 2014: "Personal Omics Profiling Reveals Dynamic Molecular and Medical Phenotypes".
13. Beger RD, Yang X, Schnackenberg LK, Sun J, Pence L, Schmitt T, Gao Y, Yu L-R, Ando Y, **Bhattacharyya S**, Simpson P, Ye K, James L, Salminen W, Mendrick D. Metabolic Profiling of Rodents and Children with Acetaminophen Overdose. American Chemical Society, 2015
14. Beger R, Yang X, Schnackenberg L, Sun J, Pence L, Schmitt T, Gao Y, Yu L-R, Ando Y, Greenhaw Gill P, **Bhattacharyya S**, Simpson P, Ye K, James L, Salminen W, Mendrick D. Metabolomics of Acetaminophen Overdose in Rodents and Children. SciX 2015
15. **Bhattacharyya S**. Oral Presentation at PB&J Biostatistics Journal Club: "Cointertia Analysis for Microbiome-Metabolome relationship". 2015 September, 2015
16. **Bhattacharyya S**. Oral presentation on "Integrating metabolomics data from different platforms" at the Alzheimer's Disease Metabolomics Consortium annual meeting at the Duke University, March, 2017
17. **Bhattacharyya S**. Invited oral presentation on "Overview of Strategies for Omics Data Integration: Challenges and Application". Annual Meeting of American Society for Clinical Pharmacology and Therapeutics, April, 2017

POSTER PRESENTATIONS

1. **Bhattacharyya, S** and Wishart, D.S. Molecular Modeling of Potent Inhibitors of Human Angiogenin. Poster presentation at the 12th Annual International Symposium on High Performance Computing Systems and Applications, May 20-22, 1998, Edmonton, Alberta.
2. **Bhattacharyya S**, Epstein J and Suva LJ. Preliminary characterization of Serum Biomarkers for Multiple Myeloma with bone metastasis using SELDI-TOF mass spectrometry. Poster presentation at the 25th Annual Meeting of the American Society for Bone and Mineral Research, September 19-23, 2003, Minneapolis, Minnesota.
3. **Bhattacharyya S**, Epstein J and Suva LJ. Biomarkers of Multiple Myeloma with or without bone metastasis using SELDI-TOF mass spectrometry and statistical and machine learning tools. Poster presentation at UAMS Career day, 2004, UAMS, Little Rock, Arkansas.
4. **Bhattacharyya S**. Biomarkers of Osteoporosis using SELDI- TOF mass spectrometry. A powerpoint presentation at the UALR Graduate Student Research Forum, 2005, UALR, Little Rock, Arkansas.
5. **Bhattacharyya S**, Siegel E, Jennings S, Khosla S and Suva LJ. New Biomarkers of osteoporosis in postmenopausal women using SELDI-TOF mass spectrometry. Poster presentation at Mid South

Computational Biology and Bioinformatics Conference and Arkansas BRIN Symposium, held at Little Rock, 2004.

6. **Bhattacharyya S**, Siegel E, Jennings S, Khosla S and Suva LJ. The Discovery of New Biomarkers for the Diagnosis of Osteoporosis: Is SELDI the Answer? Poster presentation at the 27th Annual Meeting of the American Society for Bone and Mineral Research, September 19-23, 2005, Nashville, Tennessee.

7. **Bhattacharyya S**, Siegel E, Findlay OM, Fazzalari NL, Chehade M, Neale S, Wittert G, Suva LJ. Biomarker discovery in the diagnosis of osteoarthritis. Poster presentation at the 27th Annual Meeting of the American Society for Bone and Mineral Research, September 19-23, 2005, Nashville, Tennessee.

8. **Bhattacharyya S**, Sun J, Schnackenberg LK, Pence L, Doerge DR, Bowyer JF, Beger RD. Bioinformatics analysis of metabolomic profiles from rat urine treated with chronic doses of Acrylamide. Poster presentation at the 7th annual conference of the MidSouth Computational Biology and Bioinformatics Society MCBIOS, February 19-20, 2010, Jonesboro, Arkansas.

10. **Bhattacharyya S**, Sun J, Pence L, Schnackenberg L, Doerge D, Bowyer J, Beger RD. Detection of Acrylamide Induced Toxicity in Urine Samples using LC-MS based Metabolomics and Pattern Recognition Techniques. MCBIOS; Jonesboro, AR; February 2010.

11. **Bhattacharyya S**. Data Mining in LC-MS based non-targeted metabolomic spectra of urine from rats dosed with Gentamicin. Poster presentation at the 5th Computational Toxicology meeting at the Center for Disease Control, November 19th, Atlanta, Georgia.

12. **Bhattacharyya S**. Sun J, Ando Y, Schnackenberg L, Gamboa da Costa G, Beger R. An Integrated Screening of LC/MS-Based Metabolomics Profiling Data for Potential Biomarkers of Melamine-Cyanuric Acid-Induced Nephrotoxicity in Rats. Poster presentation at the 8th annual conference of the MidSouth Computational Biology and Bioinformatics Society MCBIOS, April 1-2, 2011, College Station, Texas.

13. **Bhattacharyya S**, Pence L, Beger R, YanK, Simpson P, Roberts D, James L. Targeted Metabolomics reveal changes in Serum Acylcarnitine profiles in Children and Adolescents with Acute Acetaminophen Toxicity. Poster presentation at the 8th Metabolomics Society Meeting, June 25-28, 2012, Washington DC

14. **Bhattacharyya S**. Targeted Metabolomics of Acylcarnitines in Acetaminophen Toxicity in the Mouse. Poster presentation at the Arkansas Biosciences Institute Fall symposium, October 23rd, 2012, Fayetteville, AR

15. **Bhattacharyya S**, Pence L, Beger R D, James L. Metabolomics based identification of early indicators of liver injury due to acetaminophen. Personalized Medicine at UAMS, 2013

16. **Bhattacharyya S.** Metabolomics Based Identification of Early Indicators of Liver Injury Due to Acetaminophen in Children at the Arkansas Biosciences Institute Fall symposium, October 15th, 2013, Little Rock, AR
17. **Bhattacharyya S.** Bile acids and acetaminophen protein adducts in children with acetaminophen overdose. Poster Presentation at the "Experimental Biology" meeting, April 27, 2014 San Diego, CA
18. **Bhattacharyya S,** Pence L, Yan K, Gill P, Letzig LG, Simpson PM, Kearns GL, Beger RD. and James LJ. Targeted Metabolomic Profiling indicates Structure-based Perturbations in Serum Phospholipids in Children with Acetaminophen Overdose. Gordon Conference 2015.
19. **Bhattacharyya S** et al. Bile acids and acetaminophen protein adducts in children with acetaminophen overdose April 2014 The FASEB Journal vol. 28 no. 1 Supplement 653.1.
20. **Bhattacharyya S** et al. Targeted Metabolomic Profiling indicates Structure-based Perturbations in Serum Phospholipids in Children with Acetaminophen Overdose. Poster presentation at the Gordon Research Conference, Cellular & Molecular Mechanisms of Toxicity, August 9-14, 2015, Andover, NH.
21. **Bhattacharyya S** et al. Integrative analysis of microbiome and metabolome of the pig gut reveals diet induced interrelationships. Poster presentation at the 15th showcase of medical discoveries UAMS: Biomedical Informatics, September, 2016
21. Sun J, Schnackenberg L K, Pence L, **Bhattacharyya S,** Doerge D R. Bowyer J F, Beger RD. Metabolomic Analysis of Acrylamide-induced Metabolite Alterations in Urine. ASMS; Salt Lake City, UT; June 2010.
22. Schnackenberg L K, Sun J, Smiley R D, **Bhattacharyya S,** Beger R D. Development of NMR and LC-MS-Based assays for rapid screening of bacterial contamination in milk as a model system. NIH Metabolomics; Washington, D.C.; September 2010
23. Sun J, Schnackenberg L K, Pence L, **Bhattacharyya S,** Zhang J, Stewart S, Rosenzweig B, Rouse R, Beger RD. Discovery of early metabolomic biomarkers for gentamicin-induced nephrotoxicity in rat urine. NIH Metabolomics; Washington, D.C., September 2010.
24. Pence L, Schnackenberg L, Sun J, Yang X, Ando Y, Greenhaw J, **Bhattacharyya S,** Salminen W, Mendrick D L, Beger R D. Metabolic profiling of serum from rats dosed with acetaminophen and carbon tetrachloride. 50th SOT; Washington, D.C.; March 8, 2011.
25. Sun J., Schnackenberg L, Ando Y, Yang X, Greenhaw J, Pence L, **Bhattacharyya S,** Salminen W, Mendrick D L, Beger RD. Metabolomics Evaluation of Urine from SD Rats Dosed with Acetaminophen Using UPLC/MS and NMR. 50th SOT; Washington, D.C.; March 8, 2011

26. Zhang Q, Gamboa da Costa, G, Beger R, Schnackenberg L, Sun J, Pence L, **Bhattacharyya S**, Jacob C, Brown R, Goering P. Urinary biomarker detection of melamine-cyanuric acid-induced kidney damage in rats. 50th SOT; Washington, D.C.; March 8, 2011.
27. Sun J, Ando Y, Yang X, Greenhaw J, Schnackenberg L, Pence L, Schmitt T, **Bhattacharyya S**, Salminen W, Mendrick D, Beger RD. Integrated LC/MS Metabolomic Investigation of Changes in the Rat Serum Metabolite Profile Induced by Acetaminophen. ASMS; Denver, CO; June 2011
28. Beger R D, Schnackenberg L, Sun J, **Bhattacharyya S**, Yosuke A. An Integrated Metabolomics Study of Gentamicin-Induced Nephrotoxicity. New York Academy of Sciences (NYAS); New York, NY; September 15-16, 2011.
29. Schnackenberg L, Sun J, **Bhattacharyya S**, Yosuke A. Metabolomics and Transcriptomics Evaluation of Preclinical Biomarkers of Hepatotoxicity: An Update. 8th Metabolomics Society Meeting, June 25-28, 2012, Washington DC.
30. Ando Y, Sun J, Schnackenberg L, Yang X, Greenhaw J, Pence L, Schmitt T, **Bhattacharyya S**, Salminen W, Mendrick D, Beger R. Transcriptome and Metabolome Analysis Reveals Mechanism-linked Biomarker Candidates in Carbon Tetrachloride-Induced Hepatotoxicity. 51st SOT; San Francisco, CA; March 12, 2012.
31. Beger R D, Schnackenberg L, Sun J, **Bhattacharyya S**, Yosuke A. Metabolic Profiles of Urine and Serum from Rodents and Children with Acetaminophen Overdose. Poster presentation at "52nd Annual Meeting of the Society of Toxicology", March 10-14, 2013, San Antonio, TX
32. Beger R D, Schnackenberg L, Sun J, **Bhattacharyya S**, Yosuke A. Use of a Systems Biology Approach to Find Biomarkers of Acetaminophen-Induced Hepatotoxicity in Animals and Humans. FDA's Global Summit on Regulatory Science- 2013 ,September 10th, 2013, Little Rock, AR
33. Yang X, Salminen WF, Shi Q, Greenhaw J, Gill PS, **Bhattacharyya S**, Beger R, Mendrick DL, James LP. Characterization of Urinary MicroRNAs as Biomarkers of Acetaminophen Toxicity in Children. Society of Toxicology (SOT) Meeting, Phoenix, AZ, March 2014.
34. Gill P, **Bhattacharyya S**, Simpson P, James L. MicroRNA Upregulation And Acetaminophen Protein Adducts In Acetaminophen Toxicity In Children. Poster presentation at the "Experimental Biology" meeting, April 27, 2014 San Diego, CA
35. Beger R, Yang X, Schnackenberg L, Sun J, Pence L, Schmitt T, Gao Y, Yu L-R, Ando Y, Greenhaw J, Shi Q, Slavov S, Gill P, **Bhattacharyya S**, Simpson P, Ye K, James L, Salminen W, Mendrick D. Metabolomics of Acetaminophen Overdose in Rodents and Children. SciX 2014

36. Beger RD, Yang X, Pence L, Salminen WF, Shi Q, Greenhaw J, Gill PS, **Bhattacharyya S**, Simpson P, Ye K, Mendrick DL, James L. Metabolomics and miRNA biomarkers of Acetaminophen Overdose in Rodents and Children. Eurotox, Edinburgh, Scotland September 8 2014.
37. Beger R, Yang X, Pence L, Sun J, Schnackenberg L, Salminen W, Shi Q, Greenhaw J, Gill P, **Bhattacharyya S**, Simpson P, Ye K, Mendrick D, James L. Metabolomics and miRNA biomarkers of paracetamol overdose in rodents and children. Toxicology Letters, 2014, 229, Supplement, S99-S100.
38. Beger RD, Yang X, Pence L, Salminen WF, Shi Q, Greenhaw J, Gill PS, **Bhattacharyya S**, Simpson P, Ye K, Mendrick DL, James L. Metabolomics biomarkers of Acetaminophen Overdose in Rodents and Children. Metabomeeting, London, England UK September 11-12, 2014.
39. Beger RD, Yang X, Pence L, Sun J, Schnackenberg LK, Slavov S, Salminen WF, Shi Q, Greenhaw J, Gill PS, **Bhattacharyya S**, Mendrick DL, James L. Metabolomics Evaluation of Preclinical Metabolomics Biomarkers of Hepatotoxicity: A Translational Update on Acetaminophen Toxicity Biomarkers. 12th Metabolomics Society Meeting, San Francisco, CA 2015.
40. Diaz-Rubio M, Mercer K, Gomez-Acevedo H, **Bhattacharyya S**, Badger T, Adams S, Andres A, Shankar K. Metabolomic profile of Term Human Placenta: Effect of Obesity. Poster presented in June 2015 at the 12th Metabolomics Society Meeting, San Francisco, CA.
41. Schnackenberg LK, Sun J, Greenhaw J, **Bhattacharyya S**, Gill P, Salminen WF, Mendrick DL, James LP, and Beger RD. Translational Biomarkers of Acetaminophen-Induced Hepatotoxicity in Urine Samples.. Poster presentation at the 55th Annual meeting of the Society of Toxicology, March 13-17, 2016.
42. Gill P, **Bhattacharyya S**, McCullough S, Mishra P, Luo C, Letzig L, James L. Regulation of secreted miRNAs and P450 isoforms in acetaminophen metabolism in HepaRG cells and acetaminophen overdose in children. Poster presentation at the 55th Annual meeting of the Society of Toxicology, March 13-17, 2016.
43. Mercer, K., Diaz-Rubio, M., **Bhattacharyya, S.**, Sharma, N. and Yeruva, L. Programming effects of infant diet on cholesterol/bile acid synthesis and absorption in neonatal piglets. Experimental Biology, San Diego, CA, April 2-6, 2016.
44. Diaz-Rubio M, Gomez-Acevedo H, Pack L, Yu S, **Bhattacharyya S**, Mercer K and Fang N. Maternal influences in Maternal and Neonatal Programming. Poster presented in July 2016 at the 13th Metabolomics Society Meeting, Dublin, Ireland.
45. Jie Zhang, **Sudeepa Bhattacharyya**, Alan R. Light, Christopher J. Lambert, Bruce K. Gale; Oliver Fiehn, Charles L. Hoppel, and Sean H. Adams. New methods to interrogate the metabolome of muscle interstitial fluid during exercise. American Physiological Society Meeting, Phoenix, Arizona, Nov 2-4, 2016.

46. **Bhattacharyya S**, Mercer K, Hennings L, Chaudhury M, Yeruva L, Ronis M, Badger T. Infant Formula feeding alters the proliferative status of neonatal mammary glands independent of estrogen signaling. Presented at the 2017 Experimental Biology meeting, Chicago, April, 2017.

47. Kathleen M. Gilbert*, Sarah J. Blossom*, Brad Reisfeld[†], Kanan Vyas*, Craig A. Cooney[†], and **Sudeepa Bhattacharyya***. Exposure to trichloroethylene increases epigenetic drift in effector/memory CD4⁺ T cells. Poster presentation at the 56th Annual Meeting of the Society of Toxicology, Baltimore, MD, 2017.

48. Piccolo B, Bowlin A, Saraf M, Mercer K, **Bhattacharyya S** et al. Early diet has differential effects on the small intestine microbiome by region in neonatal piglets. Presented at the 2017 Experimental Biology meeting, Chicago, April, 2017.