

## Sastry S. Isukapalli, Ph.D.

### AFFILIATION

- Department of Environmental and Occupational Medicine, UMDNJ-Robert Wood Johnson Medical School
- Environmental and Occupational Health Sciences Institute (EOHSI), a Joint Institute of UMDNJ-Robert Wood Johnson Medical School and Rutgers, The State University of New Jersey

### ADDRESS

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### EDUCATION

- 1999 Ph.D., Chemical and Biochemical Engineering  
Rutgers, The State University of New Jersey, Piscataway, New Jersey, USA
- 1995 M.S., Chemical and Biochemical Engineering  
Rutgers, The State University of New Jersey, Piscataway, New Jersey, USA
- 1993 B.Tech., Chemical Engineering, Indian Institute of Technology, Madras (Chennai), India

### PROFESSIONAL EXPERIENCE

- 2006-present Assistant Professor, Department of Environmental and Occupational Medicine, UMDNJ-Robert Wood Johnson Medical School
- 2007-present Ad Hoc Member, USEPA Federal Insecticide, Fungicide, and Rodenticide Act. Scientific Advisory Panel (FIFRA/SAP)
- 2008-present Deputy Director, Ozone Research Center at EOHSI
- 2003-2006 Biomedical Software Engineer, Department of Environmental and Occupational Medicine, UMDNJ-Robert Wood Johnson Medical School
- 2001-2003 Senior Engineer (2001-2002), and Director (2003), Kirusa, Inc.
- 2000-2001 Senior Scientist, Virtual Gold, Inc.
- 1998-2000 Post Doctoral Research Associate, EOHSI, UMDNJ/Rutgers University
- 1997-1998 Research Teaching Specialist. EOHSI, UMDNJ/Rutgers University
- 1994-1997 Research Assistant. EOHSI, UMDNJ/Rutgers University
- 1993-1994 Teaching Assistant. Department of Chemical and Biochemical Engineering, Rutgers University

### RESEARCH INTERESTS

Mathematical and computational modeling of environmental and biological systems in relation to human-environment interactions. General focus is on development of computer simulation-based tools that allow for quantitative characterization of exposures and health risks from different sources of environmental contaminants. This is achieved through mechanistic modeling of fate and transport, population dynamics, exposures, toxicokinetics, and toxicodynamics, in conjunction with mathematical techniques for diagnostic analysis and optimization. Specific focus areas are 1) Modeling of population exposures to multiple, co-occurring environmental pollutants, 2) Physiologically Based Toxicokinetic modeling of individual chemicals and mixtures, 3) Integrated computational systems for assessing environmental health risks, 4) Computational methods for characterization and reduction of uncertainties in the understanding of environmental health risks through probabilistic forward and inverse modeling, and 5) Computationally efficient decision support systems for environmental risk assessments and for emergency-event response planning.

### PATENT

R. Dominach, S. Isukapalli, S. Sibal, and S. Vaidya. *Techniques for disambiguating speech input using multimodal interfaces*. Kirusa, Inc. USPTO #20040172258 (pending).

## PROFESSIONAL MEMBERSHIPS

Society for Risk Analysis (SRA), International Society for Exposure Analysis (ISEA)

## REVIEWER

Aerosol Science and Technology; American Institute of Aeronautics and Astronautics Journal; Atmospheric Environment; Ecological Modeling; Environmental Modeling and Software; Environmental Health Perspectives; Journal of the Air and Waste Management Association; Journal of Exposure Science and Environmental Epidemiology; Journal of Toxicology and Environmental Health; Risk Analysis; IEEE Transactions on Systems, Man and Cybernetics; Zoonoses and Public Health

## Teaching and Student Mentoring

### *Instructor*

- Introductory course on FORTRAN for freshman undergraduates. Rutgers University. June 1997 – July 1997.
- Modeling Components in the Exposure Analysis course for graduate students (offered by UMDNJ GSPH). Sep 2007 – Dec 2007.
- Several short programming courses on Unix, C, Shell Programming, CGI/Perl, and HTML at a computer training institute (Compulearn Inc., Edison, NJ). Oct 1998 – Mar 1999.
- Preceptor, Clinical Prevention and Environmental Medicine, UMDNJ. Feb - Mar 2009.

### *Student Mentoring*

- Alan Sasso (Ph.D. Student, Chemical and Biochemical Engineering, Rutgers University)  
(Co-Advisor: 2005 – Present)

## Publications

### *Peer Reviewed Journal Articles*

- A1. Kumar G.P., Isukapalli S.S., and Chidambaram M. (1993). Periodic operation of a bioreactor with input multiplicities. *Canadian Journal of Chemical Engineering* 71:766-770.
- A2. Isukapalli S.S., Kumar G.P., and Chidambaram M. (1994). Effect of time delay in specific growth rate on the periodic operation of bioreactors with input multiplicities. *Bioprocess Engineering* 10:127-130.
- A3. Isukapalli S.S., Roy A. and Georgopoulos P.G. (1998). Stochastic Response Surface Methods (SRSMs) for uncertainty propagation: Application to environmental and biological systems. *Risk Analysis* 18(3): 351-63
- A4. Isukapalli S., Roy A. and Georgopoulos P.G. (2000). Efficient sensitivity/uncertainty analysis using the combined Stochastic Response Surface Method (SRSM) and Automatic Differentiation for FORTRAN code (ADIFOR): Application to environmental and biological systems. *Risk Analysis* 20(5): 591-602
- A5. Lioy P.J., Vallero D., Foley G., Georgopoulos P., Heiser J., Watson T., Reynolds M., Daloia J., Tong S. and Isukapalli S. (2007). A personal exposure study employing scripted activities and paths in conjunction with atmospheric releases of perfluorocarbon tracers in Manhattan, New York. *Journal of Exposure Science and Environmental Epidemiology* 17(5): 409-425
- A6. Isukapalli S.S., Lioy P.J. and Georgopoulos P.G. (2008). Mechanistic modeling of emergency events: Assessing impact of hypothetical releases of anthrax. *Risk Analysis* 28(3)
- A7. Chen M., Martin J., Fang H., Isukapalli S., Georgopoulos P.G., Welsh W.J. and Tong W. (2009). ebTrack: an environmental bioinformatics system built upon ArrayTrack. *BMC Proceedings* 3 (Suppl 2): S5.
- A8. Georgopoulos P.G., Sasso A.F., Isukapalli S.S., Lioy P.J., Vallero D.A., Okino M. and Reiter L. (2009). Reconstructing population exposures to environmental chemicals from biomarkers: Challenges and opportunities. *Journal of Exposure Science and Environmental Epidemiology* 19 (2): 149-171.
- A9. Gerecke, D., Chen, M., Isukapalli, S., Gordon, M.K., Chang, Y.-C., Tong, W., Androulakis, I., and Georgopoulos, P.G. (2009). Differential gene expression profiling of mouse skin after sulfur mustard exposure: extended time response and inhibitor effect. *Toxicology and Applied Pharmacology* 234 (2):156-165.
- A10. Laumbach, R., Harris, G., Kipen, H., Georgopoulos, P., Shade, P., Efstathiou, C., Isukapalli, S., Galea, S., Vlahov, D., and Wartenberg, D. submitted. Respiratory symptoms are not associated with estimated WTC

plume intensity and respiratory symptoms among residents outside of lower Manhattan. *American Journal of Epidemiology*.

- A11. Liou, P.J., Isukapalli, S., Trasande, L., Thorpe, L., Dellarco, M., Weisel, C., Georgopoulos, P.G., Brown, M., and Landrigan, P. submitted. Using national and local extant data to characterize environmental exposures in the National Children's Study (NCS): Queens County, New York. *Environmental Health Perspectives*.

#### **Peer Reviewed Federal Reports**

- F1. Isukapalli S.S. and Georgopoulos P.G. (2001). *Computational Methods for Sensitivity and Uncertainty Analysis for Environmental and Biological Models (EPA/600/R-01-068)*. Research Triangle Park, NC. USEPA, National Exposure Research Laboratory (145 pp).

#### **Peer Reviewed Conference Proceedings and Book Chapters**

- C1 Isukapalli S.S. and Georgopoulos P.G. (1997). Propagation of Uncertainties in Photochemical Mechanisms through Urban/Regional Scale Grid-Based Air Pollution Models. *Proceedings of the 90th A&WMA Meeting*. Toronto, Canada, June 10-13, 1997.
- C2 Isukapalli S.S. and Georgopoulos P.G. (1997). Computationally Efficient Methods of Uncertainty Analysis for Environmental Models. *Proceedings of the A&WMA Specialty Conference on Computing in Environmental Resource Management, VIP-68*. Research Triangle Park, NC, December 2-4, 1996, pp.656-665.
- C3 Roy A., Isukapalli S. and Georgopoulos P.G. (1998). Bayesian Data Assimilation Techniques for Risk Assessment Models: The Markov Chain Monte Carlo Simulation Methodology. In: *Pollution Prevention and Environmental Risk Reduction Topical Conference Proceedings*. (ISBN 0-8169-9856-6). Cohen, Y. (ed.) Miami Beach, FL, November 15-20, 1998. pp.272-280
- C4 Isukapalli S.S., Roy A., and Georgopoulos P.G. (1998). Uncertainty Propagation in Environmental and Biological Process Models for Risk Analysis: Stochastic Response Surface and Automatic Differentiation Methods. *Pollution Prevention and Environmental Risk Reduction Topical Conference Proceedings (ISBN 0-8169-9856-6)*. Cohen, Y. (ed.), Miami Beach, FL, November 15-20, 1998, pp. 264-271.
- C5 Lazaridis M., Isukapalli S.S., Georgopoulos P.G. (1998). Modeling Aerosol Processes at the Local Scale. *Proceedings of the Air and Waste Management Association (A&WMA) 91st Annual meeting*. San Diego, CA, June 14-18, 1998.
- C6 Isukapalli S.S., Purushothaman V. and Georgopoulos P.G. (1999). Mechanistic Modeling of the Interrelationships Between Indoor/Outdoor Air quality and Human Exposure in a GIS Framework. *Proceedings of the 92nd A&WMA Annual Meeting*. St. Louis, MO, June 20-24, 1999.
- C7 Isukapalli S.S., Balakrishnan S., and Georgopoulos P.G. (2004). Computationally Efficient Uncertainty Propagation and Reduction using the Stochastic Response Surface Method. *Proceedings of the 43rd IEEE Conference on Decision and Control (CDC)*. Nassau, Bahamas, December 15, 2004.
- C8 Isukapalli S.S., Unal A., Wang S.-W. and Georgopoulos P.G. (2006). Comparative evaluation of computationally efficient uncertainty propagation methods through application to regional-scale air quality models. In: *Proceedings of the 11th AIAA/ISSMO Multidisciplinary Analysis and Optimization*. Portsmouth, VA, September 6-8, 2006. American Institute of Aeronautics and Astronautics
- C9 Cohen M., Sunderland E., Georgopoulos P.G., Wang S.W., Isukapalli S., Yang Y.C., Sasso A., Tong S., Xue J., McCurdy T., Zhang M., Sheldon L. and International Air Quality Advisory Board (2006). Development of a multicompartment mercury model for Lake Ontario: Tracking mercury from sources, deposition, and dispersion to fish to accumulation in humans. In *Priorities 2005 - Priorities and Progress Under the Great Lakes Water Quality Agreement Windsor, Ontario, Canada, International Joint Commission (IJC)*: pp.39-69
- C10 Isukapalli S.S. and Roy A. (2007). General principles of programming (computer and statistical). In *Pharmacometrics: the Science of Quantitative Pharmacology*. Ette, E. I. and Williams, P. J. (eds.), Wiley: pp.25-52

- C11 Isukapalli S.S., Roy A. and Georgopoulos P.G. (2007). Physiologically Based Pharmacokinetic Modeling: Inhalation, Ingestion, and Dermal Absorption. In *Pharmacometrics: the Science of Quantitative Pharmacology*. Ette, E. I. and Williams, P. J. (eds.), Wiley: pp.1069-1108
- C12 Isukapalli S., Price K., Georgopoulos P.G. and Krishnan K. (2008). A physiologically-based algorithm for predicting internal dose of inhaled toluene: applications for high dose to low dose and rodent to human extrapolations. In: *Proceedings of the 2008 International Health Sciences Simulation Conference*. (ISBN 1-56555-000-X). Anderson, J. G. and van Merode, G. G. (eds.) Ottawa, Canada, April 14-17, 2008. The Society for Computer Simulation International, San Diego
- C13 Krishnan, K., Isukapalli, S., and Boyd, J. (2009-in press). Evaluation of toxicological interactions for the dose-response assessment of chemical mixtures. In *General and Applied Toxicology*, edited by B. Ballantyne, T. C. Marrs and P. Turner: Wiley/Blackwell
- C14 Georgopoulos P.G., Krishnan K. and Isukapalli S. (2009-in press). Exposure modeling – with emphasis on multiple source and multiple routes. In *Quantitative Modeling in Toxicology*. Krishnan, K. and Andersen, M. E. (eds.), John Wiley
- C15 Isukapalli S., Spendiff M., Georgopoulos P.G., and Krishnan K. (2009-in press). Uncertainty, variability and sensitivity analyses in simulation models. In *Quantitative Modeling in Toxicology*. Krishnan, K. and Andersen, M. E. (eds.), John Wiley

### **Selected Conference Presentations**

- P1. Isukapalli S. and Georgopoulos P.G. (1996). Stochastic Response Surface Methods (SRSMs) for Propagation of Uncertainties in Numerical Process Models. Annual Meeting of the American Institute of Chemical Engineers (AIChE). Chicago, IL. November 1996
- P2. Isukapalli S., Lazaridis M. and Georgopoulos P.G. (1998). Mechanistic Modeling of Fine Particulate Matter Dynamics in the Indoor Environment. ISEE/ISEA Joint Conference 1998. Boston, MA. August 1998
- P3. Isukapalli S., Roy A. and Georgopoulos P.G. (1998). Uncertainty Propagation in Environmental and Biological Process Models for Risk Analysis: Stochastic Response Surface and Automatic Differentiation Methods. AIChE 1998 Annual Meeting. Miami, FL. November 1998
- P4. McGrath L.F., Isukapalli S., Liou P.J. and Georgopoulos P.G. (1998). Research to Support Decisions Involving Exposure to Contaminants from DOE Sites. 3rd CRESA Annual Meeting. University of Seattle, Washington. June 24-27, 1998
- P5. Roy A., Isukapalli S. and Georgopoulos P.G. (1998). Bayesian Data Assimilation Techniques for Risk Assessment Models: The Markov Chain Monte Carlo Simulation Methodology. AIChE 1998 Annual Meeting. Miami, FL. November 1998
- P6. Isukapalli S. (1999). Integrated Modeling of Outdoor/Indoor Relationships of Gas Phase Pollutants and Particulate Matter (Abstract appeared in *Epidemiology* Volume10, Issue 4, July 1999). ISEE/ISEA Joint Conference 1999. Athens, Greece. September 5-8, 1999
- P7. Roy A., Isukapalli S. and Georgopoulos P.G. (1999). Source-to-Dose Modeling for Complex Exposure Assessment Problems: An Integrated Framework and Applications (Abstract appeared in *Epidemiology* Volume10, Issue 4, July 1999). ISEE/ISEA Joint Conference 1999. Athens, Greece. September 5-8, 1999
- P8. Roy A., Isukapalli S. and Georgopoulos P.G. (1999). MENTOR: An Integrated Modeling Environment for Multiscale Probabilistic Exposure and Risk Assessment. 1999 Annual Conference of the Society for Risk Analysis. Atlanta, GA. December 5-8, 1999
- P9. Isukapalli S. and Georgopoulos P.G. (2000). Modeling of Outdoor/Indoor Relationships of Gas Phase Pollutants and Particulate Matter. PM2000: Particulate Matter and Health - The Scientific Basis for Regulatory Decision Making: an A&WMA International Specialty Conference. Charleston, SC. January 25-28, 2000
- P10. Isukapalli S., Sun Q. and Georgopoulos P.G. (2000). Problems and Progress in Linking Outdoor and Indoor Physics and Chemistry of Airborne Particulate Matter. Annual Conference of the International Society of Exposure Analysis. Monterey, CA. October 24-27, 2000

- P11. Roy A. and Isukapalli S. (2000). Application of the Stochastic Response Surface Method to Analyze Uncertainty and Variability in Exposure Models. Annual Conference of the International Society of Exposure Analysis. Monterey, CA. October 24-27, 2000
- P12. Roy A., Isukapalli S. and Georgopoulos P.G. (2000). Simultaneous Sensitivity and Uncertainty Analysis for a Dynamic Model of Multimedia/Multiroute Exposure to Water Disinfection By-products. Workshop on Exposure Assessment for Disinfection By-Products in Epidemiologic Studies. Ottawa, Canada. May 7-10, 2000
- P13. Balakrishnan S., Isukapalli S. and Georgopoulos P.G. (2003). Developments in Computational Methods for Efficient Analysis and Reduction of Uncertainty. Society for Risk Analysis 2003 Annual Meeting. Baltimore, MD. December 7-10, 2003
- P14. Georgopoulos P.G., Isukapalli S., Wang S.W., Lahoti N., Yang Y.C., Burke J., Özkaynak H., Ching J. and Pierce T. (2004). Source-to-Dose Modeling of Long-Term Population Exposures to Co-occurring Reactive and Inert Air Pollutants. ISEA 14th Annual Conference - Exploring Emerging Technologies for Exposure Assessment. Philadelphia, PA. October 18-21, 2004
- P15. Georgopoulos P.G., Isukapalli S., Wang S.W., Yang Y.C., Zartarian V., Xue J. and Özkaynak H. (2004). Modeling Cumulative and Aggregate Exposures of Co-Occurring Multimedia Contaminants in a Probabilistic Source-to-Dose Framework. ISEA 14th Annual Conference - Exploring Emerging Technologies for Exposure Assessment. Philadelphia, PA. October 18-21, 2004
- P16. Isukapalli S. and Georgopoulos P.G. (2004). Application and Evaluation of Computationally Efficient Techniques for Uncertainty and Variability Characterization in Exposure Assessment. ISEA 14th Annual Conference - Exploring Emerging Technologies for Exposure Assessment. Philadelphia, PA. October 18-21, 2004
- P17. Isukapalli S.S., Balakrishnan S. and Georgopoulos P.G. (2004). Computationally Efficient Uncertainty Propagation and Reduction using the Stochastic Response Surface Method. 43rd IEEE Conference on Decision and Control (CDC). Nassau, Bahamas. December 15, 2004
- P18. Georgopoulos P.G., Wang S.W., Isukapalli S., Sasso A., Tong S., Xue J., McCurdy T., Zhang M. and Sheldon L. (2005). Human Exposure Modeling for Mercury using the MENTOR Modeling Framework. 2005 Great Lakes Conference Workshop: An Ecosystem Approach to Mercury. Kingston, Ontario. June 9-11, 2005
- P19. Isukapalli S. and Georgopoulos P.G. (2005). Fast, pre-computed modeling blocks for facilitating timely exposure assessment. The 15th Annual ISEA Conference. Tucson, AZ. October 30-November 3, 2005
- P20. Isukapalli S. and Georgopoulos P.G. (2005). Emergency Response Assessment: Real-Time Computational Modules. Fifth Statewide Symposium on Homeland Security: Emergency Preparedness and Response. Newark, NJ November 29, 2005
- P21. Isukapalli S., Mun Y. and Georgopoulos P.G. (2005). Computationally efficient uncertainty propagation using the stochastic response surface method with Bayesian parameter estimation techniques. The Society for Risk Analysis (SRA) 2005 Annual Meeting - The 25th Anniversary of SRA: Past, Present, and Future of Risk Analysis. Orlando, FL. December 4-7, 2005
- P22. Isukapalli S., Vyas V. and Georgopoulos P.G. (2005). Fast spatio-temporal interpolation modules for photochemical grid based air quality models. The 4th Annual CMAS Models-3 Users' Conference. Chapel Hill, NC. September 26-28, 2005
- P23. Isukapalli S., Wang S.W., Ozkaynak H. and Georgopoulos P.G. (2005). Source-to-dose modeling of long-term population exposures to reactive and non-reactive air pollutants: indoor and outdoor contributions. The 15th Annual ISEA Conference. Tucson, AZ. October 30-November 3, 2005
- P24. Wang S.W., Isukapalli S., Sasso A., Yang Y.C., Zartarian V., Xue J., Ozkaynak H. and Georgopoulos P.G. (2005). Modeling cumulative and aggregate exposures of co-occurring multimedia contaminants in a probabilistic source-to-dose framework - case studies: As, TCE, Hg. The 15th Annual ISEA Conference. Tucson, AZ. October 30-November 3, 2005
- P25. Isukapalli S. and Georgopoulos P.G. (2006). A hierarchical modeling and planning support system for responding to emergency events. Seventh New Jersey Universities Homeland Security Research Consortium Symposium. Piscataway, NJ. November 20, 2006
- P26. Isukapalli S., Unal A., Wang S.-W. and Georgopoulos P.G. (2006). Comparative evaluation of computationally efficient uncertainty propagation methods through application to regional-scale air

- quality models. 11th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference. Portsmouth, VA. September 6-8, 2006
- P27. Wang S.W., Tang X., Lahoti N., Tong S., Isukapalli S. and Georgopoulos P.G. (2006). Modeling exposures to VOCs through the individual-based exposure modeling implementation of MENTOR/SHEDS-1A. International Council of Chemical Associations (ICCA) Workshop: Making Sense of Human Biomonitoring Data. Minneapolis, MN. July 26-27, 2006
- P28. Wang S.-W., Sasso A., Isukapalli S., Yang Y.-C., Georgopoulos P.G., Zartarian V., Xue J., McCurdy T. and Ozkaynak H. (2006). Assessing multimedia/multipathway human exposures to mercury and methylmercury using a probabilistic source-to-dose framework. Mercury 2006: Conference on Mercury as a Global Pollutant. Madison, WI. August 6-11, 2006
- P29. Georgopoulos P.G., Isukapalli S. and Wang S.W. (2007). Overview of an Integrated Modeling System for Supporting Multiscale Source-to-Effect Studies of Human Health Risks. USEPA Integrated Modeling Workshop. Research Triangle Park, NC. January 30, 2007
- P30. Georgopoulos P.G., Isukapalli S., Wang S.W., Sasso A., Chen M. and Tong W. (2007). Environmental systems biology framework for human health risk analysis. 2007 International Science Forum on Computational Toxicology. Research Triangle Park, NC. May 21-23, 2007
- P31. Georgopoulos P.G., Isukapalli S.S., Tong W., Lioy P.J. and Welsh W.J. (2007). Exposure biology for a systems approach in studying environmental health risks. 17th Annual ISEA Conference. Durham/RTP, NC. October 14-18, 2007
- P32. Isukapalli S.S., George P., Stamatelos S., Wang S.W. and Georgopoulos P.G. (2007). Person oriented exposure modeling for ambient air toxics: High resolution modeling for local scale air quality. 6th Annual CMAS Conference. Chapel Hill, NC. October 1-3, 2007
- P33. Isukapalli S.S., Kindap T., Vemuri A., Wang S.W. and Georgopoulos P.G. (2007). Evaluation of emission control strategies for regional scale air quality: Performance of direct and surrogate techniques. 6th Annual CMAS Conference. Chapel Hill, NC. October 1-3, 2007
- P34. Isukapalli S.S., Langstaff J.E., Lucken D.J. and Georgopoulos P.G. (2007). Comparative evaluation of population exposure modeling approaches for reactive and nonreactive air pollutants. 17th Annual ISEA Conference. Durham/RTP, NC. October 14-18, 2007
- P35. Isukapalli S.S., Sasso A.F., Okino M. and Georgopoulos P.G. (2007). Evaluation of methods for reconstructing exposures from biomarkers via PBTK models. 17th Annual ISEA Conference. Durham, NC. October 14-18, 2007
- P36. Sasso A., Isukapalli S. and Georgopoulos P.G. (2007). Mechanistically consistent PBTK modeling framework for mixtures of toxic metals. 2007 International Science Forum on Computational Toxicology. Research Triangle Park, NC. May 21-23, 2007
- P37. Sasso A., Isukapalli S.S. and Georgopoulos P.G. (2007). A systematic toxicokinetic modeling framework for mixtures of toxic metals 2007 AIChE Annual Meeting Salt Lake City, UT. November 4 -9, 2007
- P38. Sasso A.F., Isukapalli S.S. and Georgopoulos P.G. (2007). Physiologically based toxicokinetic modeling for mixtures of toxic metals. 17th Annual ISEA Conference. Durham, NC. October 14-18, 2007
- P39. Sasso A.F., Isukapalli S.S., Kenyon E. and Georgopoulos P.G. (2007). Sensitivity analysis for studying impacts of aging on population toxicokinetics and toxicodynamics. 17th Annual ISEA Conference. Durham, NC. October 14-18, 2007
- P40. Brinkerhoff C.J., Stamatelos S., Isukapalli S.S. and Georgopoulos P.G. (2008). Pharmacokinetic model of uptake and metabolism of arsenicals in hepatocytes with implications for reactive oxygen species generation and hepatocarcinogenesis. The 2nd Annual Systems Toxicology Symposium: Multiscale Modeling, from Molecules to Organisms. Piscataway, NJ. April 30-May 1, 2008
- P41. Isukapalli S.S., Brinkerhoff C.J., Sasso A.F. and Georgopoulos P.G. (2008). Progress in developing infrastructure for a virtual liver V: PBTK/TD models with zonal and distributed parameters for metabolism of environmental toxins. The 2nd Annual Systems Toxicology Symposium: Multiscale Modeling, from Molecules to Organisms. Piscataway, NJ. April 30-May 1, 2008
- P42. Isukapalli S.S., Price K., Georgopoulos P.G. and Krishnan K. (2008). A physiologically-based algorithm for predicting internal dose of inhaled toluene: Applications for high dose to low dose and rodent to human extrapolations. International Conference on Health Sciences Simulation. Ottawa, Canada. April 14-17, 2008

- P43. Isukapalli S. and Georgopoulos P.G. (2008). Modeling exposures to environmental and biological agents. Meeting of the Tri-State Chapter of the International Society of Exposure Science (ISES). Piscataway, NJ. November 19, 2008
- P44. Isukapalli S.S., Lioy P.J. and Georgopoulos P.G. (2008). Computational modeling for supporting emergency event response: population exposures to anthrax. NJ Universities Homeland Security Research Consortium. Princeton, NJ. December 5, 2008
- P45. Isukapalli S.S., Sasso A.F., Georgopoulos P.G. and Krishnan K. (2008). A novel interaction-based algorithm for predicting biological doses during chronic exposures to chemical mixtures. Society of Risk Analysis (SRA) 2008 Annual Meeting. Boston, MA. December 7-10, 2008
- P46. Stamatelos S.K., Brinkerhoff C.J., Sasso A.F., Isukapalli S.S. and Georgopoulos P.G. (2009). Multi-scale physiologically based toxicokinetic (PBTK) modeling: A case study for arsenic compounds. Second International Conference on Biomolecular Engineering. Santa Barbara, CA. January 18-21, 2009
- P47. Isukapalli S.S., Efstathiou C., Bielory L.J. and Georgopoulos P.G. (2009). A modeling system for supporting population exposure assessment to bioaerosols and other air pollutants. 2009 Annual Meeting of the American Academy of Allergy, Asthma, and Immunology. Washington, DC. March 13-17, 2009
- P48. Isukapalli S.S., Sasso A.F., Georgopoulos P.G. and Krishnan K. (2009). A novel algorithm for computing interaction-based hazard index for the health risk assessment of chemical mixtures. 48th Annual Meeting of the Society of Toxicology (SOT). Baltimore, MD. March 15-19, 2009