

CURRICULUM VITAE

Serap Erdal, Ph.D.

Associate Professor

University of Illinois-Chicago School of Public Health

Environmental and Occupational Health Sciences

2121 West Taylor Street, M/C 922

Chicago, IL 60612

E-mail: erdal@uic.edu

Synopsis: Professor Erdal has a research program in exposure and health risk assessment for environmental and occupational hazards. In addition, she has served as a scientific consultant to many fortune 500 companies, U.S. Department of Defense, and Energy. ***Her areas of expertise include: multi-media human exposure and risk assessment for cancer and non-cancer effects; health and safety evaluation of new chemicals or products; petroleum and alternative fuels; renewable energy sources; hazardous waste site multi-media (air, water, soil, sediment) investigation, remediation and risk management; Brownfields or Superfund site evaluation, redevelopment; sustainable (green) development; indoor and outdoor air pollution; aerosol science and technology, fine and nanoparticle exposure and risk assessment, nanotechnology health and safety evaluation, persistent organic chemicals (PCBs, PBDEs, Dioxins, Furans); lead other toxic metal exposure assessment and abatement; industrial hygiene; retrospective occupational exposure assessment; development of exposure assessment methodologies for epidemiological investigations; technical interpretation of environmental and occupational health and safety regulations (CAA, CWA, TSCA, CERCLA, OSHA); and regulatory science policy analysis.***

Professional and Academic Experience:

2006 – Present: Associate Professor, Environmental and Occupational Health Sciences Division, School of Public Health, University of Illinois, Chicago, Illinois.

2000 – 2006: Assistant Professor, Environmental and Occupational Health Sciences Division, School of Public Health, University of Illinois, Chicago, Illinois.

1998 – 2000: Senior Research Fellow, Environmental and Occupational Health Sciences Institute, Rutgers University and Robert Wood Johnson Medical School, Piscataway, New Jersey.

1994 – 1998: Senior Scientist and Project Manager, Air Quality and Environmental and Occupational Health and Risk Sciences Division. EA Engineering, Science, and Technology, Inc., Washington, D.C., and Seattle, Washington.

1992 – 1994: Research Engineer and Project Manager, State of Washington, Department of Ecology. Air Quality and Nuclear and Hazardous Waste Programs, Bellevue and Olympia, Washington.

Education:

Ph.D.; University of Pittsburgh; Graduate School of Public Health, Department of Environmental and Occupational Health Sciences, Environmental and Occupational Health; 1991

M.Sc.; Istanbul Technical University; Department of Chemical and Metallurgical Engineering, Chemical Engineering; 1984

B.Sc.; Istanbul Technical University; Department of Chemical Engineering, Chemical Engineering; 1982

Serap Erdal, Ph.D.

Honors:

Selection to *Future Leader's Institute of the American Industrial Hygiene Association*, 2006

K01-*Special Emphasis Research Career Award, National Institute of Occupational Safety and Health*, 2005

Faculty of Distinction Award, University of Illinois-Chicago, 2003

Award for Excellence in Epidemiology (shared with Dr. Faith G. Davis), Society for Neuro-Oncology and American Brain Tumor Association, 2002

Elected to the *Delta Omega Honorary Public Health Society*, 1991

Membership in Professional and Scientific Organizations:

Society for Risk Analysis
International Society for Exposure Analysis
Air and Waste Management Association
American Industrial Hygiene Association
American Conference of Governmental Industrial Hygienists
British Occupational Hygiene Society
American Association for Aerosol Research
The Association for Environmental Health and Sciences
American Public Health Association
Illinois Public Health Association

Professional Service:

1997 Co-founder, Society for Risk Analysis Puget Sound Regional Chapter
2000 Member of the Human Health Technical Work Group charged with preparing the report entitled "The New Jersey Comparative Risk Project" for the State of New Jersey, Department of Environmental Protection, Division of Science, Research and Technology.
2002 Member of the National Monitoring Strategy Work Group and Regulatory Review Group for the EPA's Ambient Monitoring Technology Information Center.
2002 Peer Reviewer of the report entitled "The Development of an Air Toxics Monitoring Strategy for Michigan" prepared by the State of Michigan, Department of Environmental Quality, Air Quality Division.
2002–2008 Member, Illinois Health and Hazard Substances Coordinating Council, the State of Illinois, Department of Public Health
2004 Program Chair, Society for Risk Analysis Chicago Regional Chapter
2005 Secretary, Society for Risk Analysis Chicago Regional Chapter
2006 President-Elect, Society for Risk Analysis Chicago Regional Chapter
2006–2008 Member, International Society of Exposure Analysis and Environmental Epidemiology International Committee
2007 President, Society for Risk Analysis Chicago Regional Chapter

Serap Erdal, Ph.D.

- 2007** Invited Speaker, Workshop on Environmental Health, Energy, and Transportation: Bringing Health to the Fuel Mixture, Sponsored by the Institute of Medicine's Roundtable on Environmental Health Sciences, Research, and Medicine, Washington, D.C., Nov 29-30
- 2009–Present** Chair, International Society of Exposure Analysis and Environmental Epidemiology International Committee
- 2012** Invited Peer-Reviewer by the U.S. Environmental Protection Agency for the revised guidance on the Integrated Exposure Uptake Biokinetic Model for Lead in Children (IEUBK Model)
- 2017** Invited Peer-Reviewer by the Ireland Environmental Protection Agency for grant program focusing on health risks of dental restoration materials.

Publications:

Peer-Reviewed Journal Publications:

- Erdal, S.** and N.A. Esmen. 1990. The Curvilinear Motion of Coarse Particles: New Thoughts on Theory and Applications. *Journal of Aerosol Science*. 21:431-440.
- N.A. Esmen and S. **Erdal**. 1990. Human Occupational and Nonoccupational Exposure to Fibers. *Environmental Health Perspectives*. 88: 277-286.
- Erdal, S.** and N.A. Esmen. 1991. The Size of Fibrous Aerosols. *Applied Occupational and Environmental Hygiene*. 6:764-772.
- Keimig, S.D., N.A. Esmen, S. **Erdal**, and E.B. Sansone. 1991. Solvent Desorption from Carbon Beds in Ducted and Nonducted Laboratory Hoods. *Applied Occupational and Environmental Hygiene*. 7:592 - 597.
- Erdal, S.** and N.A. Esmen. 1995. Human Head Model as an Aerosol Sampler: Calculation of Aspiration Efficiencies for Coarse Particles Using an Idealized Human Head Model Facing the Wind. *Journal of Aerosol Science*, 26 (2): 253-272.
- Erdal, S.**, H. Gong, Jr., W.S. Linn, and R. Rykowsky. 1996. Projection of Health Benefits from Ambient Ozone Reduction Related to the use of Methyl Tertiary Butyl Ether (MTBE) in the Reformulated Gasoline Program. *Risk Analysis*. 17(6): 693-704.
- Erdal, S.** and B.D. Goldstein. 2000. Metyl tert-Butyl Ether as a Gasoline Oxygenate: Lessons for Environmental Public Policy. *Annual Reviews of Energy and the Environment*. 25:765-802.
- Goldstein, B.D., **Erdal, S.**, Burger, J., Faustman, E.M., Friendlander, B.R., Greenberg, M., Leschine, T.M., Powers, C.W., Waishwell, L. et al. 2000. Stakeholder Participation: Experience from the CRESP Program. *Environmental Epidemiology and Toxicology*. 2(2-3): 103-111.
- Goldstein, B.D. and S. **Erdal**. 2001. MTBE Misclassified. *American Journal of Industrial Medicine*. 39:511-512.
- Caudill, M.P., **Erdal, S.**, Scheff, P. 2004. Temporal Trends of Ambient Concentrations in USEPA Region 5. *Proceedings of the Air and Waste Management Association's Annual Meeting and Exhibition*. 2893-2904.
- Erdal, S.** and S.N. Buchanan. 2005. A Quantitative Look at Fluorosis and Fluoride Exposure and Intake of Children using a Health Risk Assessment Approach. *Environmental Health Perspectives*. 113(1):111-117.
- Davis, F.G., Williams, L., **Erdal, S.**, and D.D. Bigner. 2006. Characterization of Work Exposures to a Subset of Known and Suspected Animal Neurocarcinogens using the National Occupational Health Survey (1980-1983). *International Journal of Environmental and Occupational Health*. 12(1):16-23.

Serap Erdal, Ph.D.

- Erdal, S.** and L. Berman. 2006. Occupational Exposure Environment, Risk Factors, and Hazard Awareness of Metal Sculptors and Artist Welders in the U.S. Submitted to *International Journal of Environmental Health Research*. 5(1): 17-28.
- Mucha, A.P., Hryhorczuk, D., Serdyuk, A., Nakonechny, J., Zvinchuk, A., **Erdal, S.**, Caudill, M., Scheff, P., Lukyanova, E., Shkiryak – Nyzhnyk, Z., and N. Chislovska. 2006. Urinary 1-Hydroxypyrene as a Biomarker of PAH Exposure in Three-Year-Old Ukrainian Children. *Environmental Health Perspectives*. 114(4): 603-609.
- Dorevitch S, **Erdal S**, Conroy LM, Schoonover T, Demirtas H, Persky V, and PA Scheff. 2006. Demolition of high-rise public housing increases particulate matter air pollution in communities of high-risk asthmatics. *Air and Waste Management Association Journal*. 56(7): 1022-1032.
- Erdal, S.** and A. Carolla. 2007. Assessment of the Health Protectiveness of the Risk-Based Soil Remediation Standards of the Midwestern States. *Human and Ecological Risk Assessment*. 13(3): 543-573.
- G.M. Marsh, A.O. Youk, J.M. Buchanich, S. **Erdal** and Esmen, N.A. 2007. Work in the Metal Industry May Help Explain Nasopharyngeal Cancer Mortality Excess among Workers Exposed to Formaldehyde *Regulatory Toxicology and Pharmacology*. 48:308-319.
- Erdal, S.**, D. Hryhorczuk, and L. Berman. 2008. Multi-media PCB Emissions Inventory for the Great Lakes Region in the U.S. *Air and Waste Management Association Journal*. 58(8): 1022-1032.
- Rankin, K.M., Rauscher, G.H., McCarthy, B., **Erdal, S.**, Lada, P., Il'yasova, D., Davis, F. 2008. Comparing the Reliability of Responses to Telephone-Administered versus Self-Administered Web Based Surveys in a Case-Control Study of Adult Malignant Brain Cancer. *Cancer Epidemiology, Biomarkers & Prevention*. 17(10): 2639-2646.
- Il'yasova, D., McCarthy, B.J., **Erdal, S.**, Shimek, J., Goldstein, J., Doerge, D. R., Myers, S.R., Vineis, P., Wishnok, J.S., Swenberg, J.A., Bigner, D.D., Davis, F.G. 2009. Human Exposure to Selected Animal Neurocarcinogens: A Biomarker-Based Assessment and Implications for Brain Tumor Epidemiology. *Journal of Toxicology and Environmental Health, Part B*. 12(3):175-187.
- Dong, M., Yang, D., Kuang, Y., He, D., **Erdal, S.**, Kenski, D. 2009. PM2.5 concentration prediction using hidden semi-Markov model-based times series data mining. *Expert Systems with Applications: An International Journal*. 36(5): 9046-9055.
- Wei, H., Turyk, M., Cali, S., Dorevitch, S., **Erdal, S.** and Li, A. 2009. Polybrominated Diphenyl Ethers in Dust: Particle Size Fractionation, Evidence of Debromination and Relevance to Human Exposure. *J. Environ. Sci. Health A.*, 44(13): 1353-1361.
- Freeman, J.L., **Erdal, S.** Risk Comparison of Alternative Fuels. 2009. *SPE Americas E and P Environmental and Safety Conference Proceedings*. 528-544.
- McCarthy, B.J., Rankin, K., Il'yasova, D., **Erdal, S.**, Vick, N., Ali-Osman, F., Bigner, D.D., Davis, F. 2011. Assessment of type of allergy and antihistamine use in the development of glioma. *Cancer Epidemiology and Prevention*. 20(2): 370-378.
- Jacobs, D.E., Mucha, A.P., Vahl, N., Welch, A., Cali, S., Dixon, S.L., **Erdal, S.**, Evens, A., Bartlett, J. 2013. Lead and other Heavy Metals in Dust Fall from Single-Family Housing Demolition. *Public Health Reports*. 128(6):454-462.
- Lotter, J.T., Lacey, S.E., Lopez, R., Khodadoust, A.P., **Erdal, S.** 2014. Groundwater Arsenic in Chimaltenango, Guatemala. *Journal of Water and Health*. 12(3):533-542.
- Erdal, S.**, McCarthy, B.J., White K., Gurule, N., Berwick M., Gonzales, E., Byrd, J., Flores K., Shimek, J., Rasheed A., Il'yasova, D., Ali-Osman F., Bigner, D.D., Davis, F.G. 2018. Application of mutagen sensitivity assay in a glioma case-control study. *Toxicology Reports*. Toxicol Rep. 5:183-188. doi: 10.1016/j.toxrep.2017.12.010.

Serap Erdal, Ph.D.

- Kresovich, J.K., Gann, P.H., **Erdal**, S., Chen, H.Y., Argos, M., Rauscher, G.H. 2018. Candidate gene methylation associations with participant and breast cancer characteristics. *Epigenomics*. 1;10(4):367-378. doi: 10.2217/epi-2017-0119.
- Kresovich, J.K., Rauscher, G.H., Chen, H.Y., Gann, P.H., Argos, M., **Erdal**, S. Residential airborne heavy metal concentrations and breast cancer characteristics. *Environmental International* (accepted).
- Pagone, F., **Erdal**, S. USEPA's National Air Toxics Assessment: Emissions and Cancer Risk Analysis in Cook County, Illinois (in preparation).
- Pagone, F., Kim, S., Caudill, M., and S. **Erdal**. Excess Cancer Risk Estimation for Benzene and Formaldehyde: Comparative Analysis of Air Monitoring vs. Air Quality-Modeling-based Exposure Estimates (in preparation).
- Erdal**, S. and M. O'Hara. Development of Public Health Evaluation Model at Brownfield Sites: Risk Based Approach (in preparation).
- Erdal**, S., Kaplan, S. and M. O'Hara. Policy Recommendations for Public Health Evaluation of Brownfield Sites based on Case Studies in Cook County, IL (in preparation).
- Erdal**, S., Pagone, F., Smith, J. Community-level Risk and Environmental Justice Profile of Southeast Side of Cook County (in preparation).

Book Chapters:

- Erdal**, S. 2004. Gasoline Additives and Public Health in *Encyclopedia of Energy*. Eds., Cutler J. Cleveland, Elsevier Science, Inc.
- Erdal**, S. 2007. Case Study: Multi-Pathway Risk Assessment for Adults and Children Living Near a Hazardous Waste Site in *Environmental Health Risk Assessment for Public Health*, Eds., Mark G. Robson and William A. Toscano, Jossey Bass Wiley Publishers.
- Erdal**, S. 2012. Risk Assessment Methodology for Conventional and Alternative Sustainability Options in *Sustainability: A Comprehensive Foundation*, Eds., Tom Theis and Jonathan Tomkin. Connexions, Rice University.

Other Publications:

- Erdal**, S. and G.A. McCoy. 1993. The Clean Fuels Program for Motor Vehicles in Washington State. Report to the Legislature of the State of Washington. March.
- Norris, G., Larson, T. and S. **Erdal**. 1995. Atmospheric Observations of NO₂ and NO_x in the Puget Sound Region, Final Report. Prepared for the State of Washington, Department of Ecology, Air Quality Program. June.
- Erdal**, S. and S.H. Youngren. 1997. Development of a Risk-Based Cleanup Approach for Petroleum Contaminated Sites, Naval Arctic Research Laboratory, Barrow, AK. Prepared for U.S. Department of Defense, Department of Navy Engineering Field Activity. January.
- Erdal**, S., Stern, B.R., and Pascoe, G. 1998. Site Investigation and Risk Assessment Report for the Dry Cleaning Facility and the Bulk Fuel Tank Farm at NARL, Point Barrow, AK. Prepared for U.S. Department of Defense, Department of Navy Engineering Field Activity, April.
- Erdal**, S. 1999 and 2000. Site Investigation and Risk Assessment Report for Hazardous Waste and Unexploded Ordnance Sites in Andersen Air Force Base, Guam. Prepared for the Air Force Center for Environmental Excellence (AFCEE), U.S. Air Force, San Antonio, TX.
- Powers, C.W., Burger, J., **Erdal**, S., Friedlander, B.R., Gochfeld, M., Goldstein, B.D., Greenberg, M., Kosson, D., Waishwell, L.M. 2000. The Risk Prioritization Process as it Shapes the Savannah River Site Integrated Priority List: An Initial Review of the Savannah River Site Model. Final Report.

Serap Erdal, Ph.D.

Prepared by the Consortium for Risk Evaluation with Stakeholder Participation. Prepared for the U.S. Department of Energy. June.

Compher, M., Rizzo, M., Caudill, M., Scheff, P., and S. **Erdal**. 2002. Ambient Air Quality in EPA Region 5. Final Report. Prepared for EPA Region 5 Air and Radiation Division, Chicago, IL. September.

Erdal, S., McCarthy, B., and F. Davis. 2005. Environmental and Occupational Exposure Questionnaire for Animal Neurocarcinogens in support of Brain Cancer Epidemiology Studies. Prepared for the University of Illinois School of Public Health, Division of Epidemiology and Biostatistics.

Erdal, S. 2012. Mercury in Dental Amalgam and Resin-based Alternatives: A Comparative Health Risk Evaluation. Prepared in collaboration with Peter Orris, M.D., M.P.H. for Health Care without Harm. June.

O'Hara, M. and S. **Erdal** 2013. Remediated Brownfields in Cook County, Illinois: Neighborhood Characteristics and Impact of Brownfield Activity. A report submitted to U.S. Environmental Protection Agency Brownfields Technical Assistance Program. December 16.

Erdal, S. and M. O'Hara. 2014. Public Health Evaluation of Public Health Evaluation of Brownfield Sites using Risk Indicators: Case Study of Ten Sites in Cook County. A report submitted to U.S. Environmental Protection Agency Brownfields Technical Assistance Program. February 10.

Erdal, S., Mahishi, V., Pagone, F., and M. O'Hara. Community Risk Perception Survey Findings: Harvey, Illinois. A report submitted to U.S. Environmental Protection Agency Brownfields Technical Assistance Program. February 10.

Conference Proceedings and Presentations at National Scientific Meetings:

Yeh, J.T., **Erdal**, S., Rogan, F.H. and J.T. Goodwin, Jr. 1985. Reactive Volatilization of Supported Rhodium. Presented at the Ninth North American Meeting of the Catalysis Society. Houston, TX. March.

Erdal, S., Mitchell, S., and J.T. Goodwin, Jr. 1985. Structural Effects on Carbonyl Formation in Supported Rhodium Catalysts. Presented at the American Institute of Chemical Engineers Meeting. Chicago, IL. November.

Esmen, N.A. and S. **Erdal**. 1989. The Curvilinear Motion of Large Particles. Presented at the American Industrial Hygiene Conference. St. Louis, MO. May.

Esmen, N.A. and S. **Erdal**. 1989. Human Fiber Exposures - A Review of Occupational and Nonoccupational Exposure Levels and Fiber Characteristics. Presented at the National Industrial Environmental Health Sciences Workshop on Fiber Toxicology Needs. Research Triangle Park, NC. July.

Erdal, S. and N.A. Esmen. 1992. Theoretical Investigation of Inhalation of Coarse Particles Using an Idealized Human Head Model. Presented at the American Industrial Hygiene Conference. Boston, MA. 1-5 June.

McCoy, G., Lions, J.K., Ware, G. and S. **Erdal**. 1993. Using EmissionsMaster to Selectively Procure Low Emission Vehicles. Presented at the 205th National Meeting of the American Chemical Society. Denver, CO. March.

Erdal, S. and N.A. Esmen. 1993. A Mathematical Model for Coarse Aerosol Capture Efficiencies by Inhalation at an Angle to Oncoming Flow. Presented at the American Industrial Hygiene Conference. New Orleans, LA. May 15-21.

Erdal, S. 1993. Air Pollution Research Needs in Washington State. Presented at the Washington Department of Ecology Annual Air Quality Meeting. Silverdale, WA. June.

Serap Erdal, Ph.D.

- Norris, G.A., **Erdal**, S. and T. Larson. 1994. Atmospheric Observation of Nitrogen Dioxide in Seattle, Washington". Proceedings of the Annual Meeting of the Air and Waste Management Association, Cincinnati, OH. June 18-24.
- Norris, G.A., **Erdal**, S. and T. Larson. 1995. Atmospheric Observation of Nitrogen Dioxide and NOx in Seattle, Washington, Proceedings of the Annual Air and Waste Management Association Pacific Northwest International Section Meeting, Spokane, WA. November 15-1
- Erdal**, S. and S.H. Youngren. 1996. Application of a Tiered Human Health Risk Analysis Approach to TPH-Contaminated Arctic Sites. Presented at the Annual Meeting of the Society for Risk Analysis. New Orleans, LA. December 8-11.
- Erdal**, S. and R. Buckendorf. 1997. Risk-Based Remediation in Western States-Scientific Basis and Policy Considerations. Presented at the Annual Meeting of the Society for Risk Analysis. Washington, D.C. December 8-11.
- Erdal**, S. 1998. Derivation of Risk-Based Cleanup Levels for Noncarcinogens: Methods and Science Policy Implications. Presented at the Annual Meeting of the Society for Risk Analysis. Phoenix, AZ. December 6-9.
- Goldstein, B.D. and S. **Erdal**. 1999. MTBE Lessons to be Learned. Presented to the Blue Ribbon Panel to Review the Use of Oxygenates in Gasoline. Boston, MA. March 2.
- Goldstein, B.D. and S. **Erdal**. 1999. Exposure to Methyl Tert-butyl Ether in Oxygenated Fuels: What are the Health Policy Lessons? Presented at the Ninth Meeting of the International Society of Exposure Analysis. Athens, Greece. September 5-8.
- Erdal**, S., Simon, T., Gochfeld, M. and J. Burger. 1999. Probabilistic Estimates of Risk from Consumption of Mourning Dove Contaminated with Heavy Metals. Presented at the Annual Meeting of the Society for Risk Analysis. Atlanta, GA. December 5-8.
- Powers, C.W., **Erdal**, S., Friedlander, B., Kosson, D. and B.D. Goldstein. 1999. Integrator Operable Units, A Key Setting for Implementing New RA Techniques. Presented at the Annual Meeting of the Society for Risk Analysis. Atlanta, GA. December 5-8.
- Tsai, S.M., Simon, T. and S. **Erdal**. 2000. Probabilistic Health Risk Assessment for Exposures to Soils and Sediments Contaminated with PCBs located Downstream of a Superfund Site in New Jersey Following Hurricane Floyd. Presented at the Annual Meeting of the Society for Risk Analysis. Washington, D.C. December 4-8.
- Shor, L.M., Rockne, K.J., Kosson, D.S. and S. **Erdal**. 2000. Assessment of Cancer Risks for Recreational Populations Exposed to PAH-Contaminated Sediments and Biota in New York/New Jersey Harbor Estuary: A Probabilistic Approach. Presented at the Annual Meeting of the Society for Risk Analysis. Washington, D.C. December 4-8.
- Berman, L. and S. **Erdal**. 2002. Analysis of Fish Uptake and Bioaccumulation of Polychlorinated Biphenyls from Contaminated Lake Erie Sediments and the Associated Health Risks. Presented at the Annual Meeting of the International Association of Great Lakes Research, Winnipeg, Canada. June 2-5.
- Brown, L. and S. **Erdal**. 2002. Investigation of the Sampling Performance of Thoracic Personal Samplers in a Woodworking Facility. Presented at the Annual Meeting of the American Industrial Hygiene Association. San Diego, CA, June 2-6.
- Carollo, A. and S. **Erdal**. 2002. A Risk-Based Evaluation of the Protectiveness of Cleanup Standards of Midwestern States. Proceedings of the Annual Meeting of the Air and Waste Management Association. Baltimore, MD. June 23-28.
- Berman, L. and S. **Erdal**. 2002. Polychlorinated Biphenyls in the Great Lakes: A Multi-media Emissions Release. Proceedings of the Annual Meeting of the Air and Waste Management Association. Baltimore, MD. June 23-28.

Serap Erdal, Ph.D.

- Erdal, S., Matshywyn, M., Williams, L. and Davis, F.** 2002. Assessment of Human Exposure Profile of Known and Suspected Neurocarcinogens. Presented at the Annual Meeting of the Society of Neurooncology. San Diego, CA. November 21-23.
- Davis, F., Williams, L. and S. **Erdal.** 2002. Characterization of Work Exposures to Known and Suspected Animal Neurocarcinogens using the National Occupational Health Survey (1980-83). Presented at the Annual Meeting of the Society of Neurooncology. San Diego, CA. November 21-23.
- Brown, L., Freels, S., Conroy, L. and S. **Erdal.** 2003. A Field Comparison of Thoracic Size Selective Exposure Assessment Techniques. Presented at the Annual Meeting of the American Industrial Hygiene Association, Dallas, TX. May 10-15.
- Dorevitch, S., Persky, V., Scheff, P., and S. **Erdal.** 2003. Housing Demolition and Air Pollution: Working with a Local Public Housing Environmental Task Force to Minimize Exposure. Presented at the 131st Annual Meeting of the American Public Health Association, San Francisco, CA. November 15-19.
- Hopp, K., Schoonover, T., Vinson, D., Conroy, L., and S. **Erdal.** 2004. Respirable Concentrations of Welding Fumes at an Electromotive Plant Using Various Exposure Assessment Techniques. Presented at the Annual Meeting of the American Industrial Hygiene Association, Atlanta, GA. May 8-13.
- Erdal, S., Brown, L., Freels, S., Conroy, L., and N. Esmen.** 2004. Comparison of Real-Time Aerosol Measurements against the Time-Integrated Sampling Methods in a Wood Working Facility. Presented at the Annual Meeting of the American Industrial Hygiene Association, Atlanta, GA. May 8-13.
- Berman, L. Scheff, P., and S. **Erdal.** 2004. Assessment of Highly-Censored Environmental Data. Presented at the Annual Meeting of the American Industrial Hygiene Association, Atlanta, GA. May 8-13.
- Brown, L., Conroy, L., Franke, J., Freels, S., and S. **Erdal.** 2004. Identification of Wood-working Tools Resulting in High Airborne Exposures using Real-Time Concentrations and Time-Activity Data. Presented at the Annual Meeting of the American Industrial Hygiene Association, Atlanta, GA. May 8-13.
- Hopp, K., Schoonover, T., Conroy, L., and S. **Erdal.** 2004. Presented at the Evaluation of Welding Fume Particulate Exposures with Area Samples. Presented at the Annual Meeting of the American Industrial Hygiene Association, Atlanta, GA. May 8-13.
- Schnackenberg, J., Schoonover, T., Conroy, L., and S. **Erdal.** 2004. Size-Selective Elemental Composition of Welding Fumes in Area Samples. Presented at the Annual Meeting of the American Industrial Hygiene Association, Atlanta, GA. May 8-13.
- Vinson, D., Schoonover, T., Dorevitch, S., **Erdal, S., Cohen, R., Tessier, D., and L. Conroy.** 2004. Pilot Study: Acute Respiratory Effects of Welding Fumes. Presented at the Annual Meeting of the American Industrial Hygiene Association, Atlanta, GA. May 8-13.
- Esmen, N. A. and S **Erdal.** 2004. Limiting Parameters for Alveolar Deposition of Ultra-fine Aerosols. Presented at the Annual Meeting of the American Industrial Hygiene Association, Atlanta, GA. May 8-13.
- Caudill, M., P. Scheff, and S. **Erdal.** 2004. Temporal Trends of Ambient Benzene Concentrations in U.S. EPA Region 5. Proceedings of the Annual Meeting of the Air and Waste Management Association. Indianapolis, IN. June 22-25.

Serap Erdal, Ph.D.

- Erdal, S.**, Bigner, D.D., and F.G. Davis. 2004. Theoretical Estimation of Dermal Exposure to Known and Suspected Animal Neurocarcinogens. Presented at the Annual Meeting of the Society of Neurooncology. Toronto, Canada. November 18-21.
- Compher, M. and S. **Erdal**. 2005. Elemental Composition of PM_{2.5} in Urban and Background Air Monitoring Sites in EPA Region V. Presented at the American Association of Aerosol Research International Specialty Conference: Particulate Matter Supersites Program and Related Studies. Atlanta, GA. February 7-11.
- Dorevitch, S., Scheff, P.A., **Erdal, S.**, Schoonover, T., Conroy, L., and V. Persky. 2005. Particulate Matter Exposure Adjacent to Demolition of Public Housing. Presented at International Conference of the American Thoracic Society, San Diego, CA, May 24.
- Durgam, S., Conroy, L., Scheff, P., Berman, L., and S. **Erdal**. 2005. Design, Testing, and Validation of an Exposure Chamber for Welding Fume Emission Characterization Studies. Presented at the Annual Meeting of the American Industrial Hygiene Association, Anaheim, CA. May 21-26.
- Hopp, K., Brown-Ellington, L., Schoonover, T., Conroy, L., and S. **Erdal**. 2005. A Comparative Analysis of Performance of Aerosol Samplers under Field Conditions for Capturing Respirable and Thoracic Dust. Presented at the Annual Meeting of the American Industrial Hygiene Association, Anaheim, CA. May 21-26.
- Schoonover, T., Malcolm, R., **Erdal, S.**, Dorevitch, S., and L. Conroy. 2005. Endotoxin in Exhaled Breath Condensate (EBC). Presented at the Annual Meeting of the American Industrial Hygiene Association, Anaheim, CA. May 21-26.
- Vinson, D., Schoonover, T., Dorevitch, S., **Erdal, S.**, Cohen, R., Tessier, D., and L. Conroy. 2005. Respiratory Health Effects in Welders. Presented at the Annual Meeting of the American Industrial Hygiene Association, Anaheim, CA. May 21-26.
- Vinson, D., Schoonover, T., Dorevitch, S., **Erdal, S.**, Cohen, R., Tessier, D., and L. Conroy. 2005. Metal Biomarkers in Welding. Presented at the Annual Meeting of the American Industrial Hygiene Association, Anaheim, CA. May 21-26.
- Erdal, S.** and L. Berman. 2006. Metal Sculptors: Occupational Environment and Risk Factors. Presented at the Annual Meeting of the American Industrial Hygiene Association, Chicago, IL, May 13-18.
- Berman, L. and **Erdal, S.** 2006. Welding Fume Exposure of Welders Working in Isolation. Presented at the Annual Meeting of the American Industrial Hygiene Association, Chicago, IL, May 13-18.
- Wuellner, S., and **Erdal, S.** 2007. Estimation of Excess Cancer Risk Associated with Inhalation Exposure to PAHs in Chicago. Presented at the Joint Meeting of the Society for Environmental Toxicology and Chemistry and Chicago Regional Chapter of the Society for Risk Analysis. Argonne National Laboratory, Argonne, IL, March 14-16.
- Abelmann, A., Indacochea, E., Scheff, P., **Erdal, S.** 2008. Testing and Validation of a Welding Chamber for Personal Exposure Studies. Presented at the Annual Meeting of the American Industrial Hygiene Association, Minneapolis, MN. May 31-June 5.
- Breskey, J. and **Erdal, S.** Assessment of Inhaled Concentration and Personal Exposure to Welding Fume under Laboratory-Controlled Conditions. Presented at the Annual Meeting of the American Industrial Hygiene Association, Minneapolis, MN, May 31-June 5.
- Catalin, B., Breskey, J., Choi, P., Scheff, P. **Erdal, S.** 2008. Size-Fractionated Particulate Matter Area Exposure Assessment near Demolition of Single Family Housing Units in an Urban Environment. Presented at the Annual Meeting of the American Industrial Hygiene Association, Minneapolis, MN. May 31-June 5.

Serap Erdal, Ph.D.

- Jacobs, D.E., Catalin, C., Welch, A., Mucha, A.P., Dixon, S., Evens, A., MacRoy, P., **Erdal, S.**, Persky, V., Phoenix, J., Cali, S. 2008. Lead Particulate Deposition from Housing Demolition. 5th Warwick Healthy Housing Conference, University of Warwick Coventry, UK, March 17-19.
- Shimek, J., **Erdal, S.** and Davis, F. 2008. Using a Job Exposure Matrix to Quantify Cumulative Exposures to Chemicals in the Workplace in a Brain Cancer Case-Control Study. Presented the Annual Meeting of the American Industrial Hygiene Association, Minneapolis, MN. May 31-June 5.
- Jorgensen, E., Weuve, J., Evans, D., Morris, M.C., Stayner, L., **Erdal, S.** 2009. Occupation Solvents Exposure and Cognitive Decline in Older Adults. Presented at the 21st Annual Conference of the International Society of Environmental Epidemiology, Dublin, Ireland, August 25-29.
- Davis F.G., Il'yasova, D., Rankin, K.M., McCarthy, B.J., **Erdal, S.**, Lewis, J.F.M., Al-Alem, U., Bigner, D. Environmental Exposures and Adult Brain Tumors. Presented at the 21st Annual Conference of the International Society of Environmental Epidemiology, Dublin, Ireland, August 25-29.
- Erdal, S.** 2009. Process-Driven Nanoparticles: Measurement and Link to Human Health Risk Assessment. Presented at the 3rd Meeting of the Social Acceptance of Nanomaterials, National Institute of Materials Science, Tsukuba, Japan. July 23.
- Erdal, S.**, Schauer, J., Breskey, J., Indacochea, E. 2009. Size-Fractionated Stainless Steel Fume Emissions in an Isokinetic Chamber and in the Breathing Zone. Presented in American Welding Society Meeting, Chicago, IL, November 18.
- Abelmann, A., Indacochea, E., Scheff, P., **Erdal, S.** 2009. Development of a Semi-Empirical Relationship between Welding Fume Concentrations and Welding Process, Environmental, and Physiological Parameters. Presented at the Annual Meeting of the American Industrial Hygiene Association, Toronto, Canada. May 30-June 4.
- Catalin, B., Breskey, J., Scheff, P., **Erdal, S.** 2009. Size-Fractionated Area Concentrations at a Fixed-Site near Urban Demolition Sites. Presented at the Annual Meeting of the American Industrial Hygiene Association, Toronto, Canada. May 30-June 4.
- Shimek, J.M., Lewis, J.F.M., **Erdal, S.**, Davis, F.G., 2009. Occupational Chemical Exposure Assessment in a Brain Cancer Case-Control Study. Presented at the Annual Meeting of the American Industrial Hygiene Association, Toronto, Canada. May 30-June 4.
- Cali, S., Catalin, B., Scheff, P., Mucha, A., **Erdal, S.**, Welch, A., Dixon, S., Jacobs, D. 2009. Lead Fraction of Total Settled Dust from Single-Family Housing Demolition. Presented at the Annual Meeting of the American Industrial Hygiene Association, Toronto, Canada. May 30-June 4.
- Abelmann, A., Esmen, N., **Erdal, S.** 2010. Evaluation of the Metal Content and Fractions in Welding Fume using Experimental Design and Regression Analysis. Presented at the Annual Meeting of the American Industrial Hygiene Association, Denver, CO, May 22-May 27.
- Breskey, J.D., **Erdal, S.** 2011. Investigation of Elemental Composition of Size-Fractionated Welding Fume Aerosol. Presented at the Annual Meeting of the American Industrial Hygiene Association, Portland, OR. May 14-19.
- Shimek, J.M., McCarthy, B., **Erdal, S.**, Davis, F. 2011. Evaluating Chemical Exposures using Hemoglobin Adducts for Acrylamide and 1,3-Butadiene. Presented at the 50th Anniversary Annual Meeting of the Society of Toxicology. Washington, D.C. March 6-10.
- Lewis, J.F.M., **Erdal, S.**, McCarthy, B.J., Il'yasova, D., Bigner, D., Davis, F.G. 2011. County-Level Residential Radon Exposure Measure and Risk of Glioma. American College of Epidemiology Annual Meeting, San Francisco, CA, September 13-14.

Serap Erdal, Ph.D.

- Ruiz, M.O., Brown, W., **Erdal, S.**, Crudgington, S., Sietsema, M. 2011. More than a Dot on a Map: The Geography of Brownfields and Health. Presented at the 3rd Urban and Regional Information Systems Association (URISA) GIS for Public Health Conference. Atlanta, GA, June 29.
- Breskey, J. Abelman, A., **Erdal, S.** 2012. Particle Size Distributions of Welding Fume Measured in the Breathing-Zone and in an Emission Chamber. Presented at the Annual Meeting of the American Industrial Hygiene Association, Indianapolis, IN, June 16-21.
- Abelman, A., Breskey, J., **Erdal, S.** 2012. Development of Semi-Empirical Relationship between Fume Exposure and Welding-Related Parameters Using Fractional Factorial Design. Presented at the Annual Meeting of the American Industrial Hygiene Association, Indianapolis, IN, June 16-21.
- Lotter, J.T., Lacey, S.E., **Erdal, S.**, Khodadoust, A.P. 2012. Groundwater Arsenic in Chimaltenango, Guatemala. Presented at the Annual Meeting of the American Industrial Hygiene Association, Indianapolis, IN, June 16-21.
- Pagone, F, Kim, S., **Erdal, S.** 2012. USEPA's Toxic Release Inventory Data: Spatial and Temporal Trends in Illinois. Presented at the Annual Meeting of the American Industrial Hygiene Association, Indianapolis, IN, June 16-21.
- Pagone, F. Kim, S., Chukwudozie, I.B., Osiecki, K. Benitez, J., Barrett, R. Calhoun, E., **Erdal, S.** 2013. USEPA's National Air Toxics Assessment: Emissions and Cancer Risk Analysis in Illinois. Presented at the 5th Annual Minority Health in the Midwest Conference, Chicago, IL. February 22.
- Chukwudozie, I.B., Kim, S. Pagone, F., **Erdal, S.**, Osiecki, K., Benitez, J., Barrett, R., Calhoun, E. 2013. Evaluating Racial and Socioeconomic Disparities in the Spatial Distribution and on-site Emissions of Toxic Release Inventory (TRI) Facilities in Cook County, IL. Presented at the 5th Annual Minority Health in the Midwest Conference, Chicago, IL. February 22.
- Osiecki, K., Kim, S., Pagone, F., **Erdal, S.**, Chukwudozie, I.B., Benitez, J., Barrett, R., Calhoun, E. 2013. Identifying Spatial Clustering to Determine Areas of High Population Vulnerability and Environmental Burden. Presented at the 5th Annual Minority Health in the Midwest Conference, Chicago, IL. February 22.
- Castellanos, J., **Erdal, S.** 2013. Outdoor Air Exposure of Underserved Urban Chicago Youth to Nitrogen Dioxide and Ozone. Presented at the Annual Meeting of the American Industrial Hygiene Association, Montreal, Canada, May 18-23.
- Pagone, F., Kim, S., Chukwudozie, I.B., Osiecki, K., Benitez, J., Barrett, R., Calhoun, E., **Erdal, S.** 2013. USEPA's National Air Toxics Assessment: Emissions and Cancer Risk Analysis in Illinois and Cook County. Presented at the Annual Meeting of the American Industrial Hygiene Association, Montreal, Canada, May 18-23.
- Pagone, F., Kim, S., Chukwudozie, I.B., Osiecki, H., Benitez, J. Barrett, R., Calhoun, E. **Erdal, S.** 2013. USEPA's National Air Toxics Assessment: Emissions and Cancer Risk Analysis in Illinois and Cook County. Presented at the Annual Meeting of the Air and Waste Management Association Conference, Chicago, IL, June 25-28.
- Chukwudozie, I., Kim, S., Osiecki, K., Pagone, F., Barrett, R., **Erdal, S.**, Calhoun, E. 2013. Assessing Disparities in Environmental Hazards in Chicago, Illinois. Presented at the 141st American Public Health Association Annual Meeting, Boston, MA, November 6.
- Pagone, F., Kim, S., Caudill, M., **Erdal, S.** 2014. Excess Cancer Risks for Cook County, IL for Benzene and Formaldehyde: EPA Air Monitoring Data vs. EPA's NATA Model Data. Presented at the Annual Meeting of the American Industrial Hygiene Association, San Antonio, TX, May 31-June 5.

Serap Erdal, Ph.D.

- Pagone, F., Kim, S., Caudill, M., **Erdal, S.** 2014. Excess Cancer Risks for Cook County, IL for Benzene and Formaldehyde: EPA Air Monitoring Data vs. EPA's NATA Model Data. Presented at the 24th Annual Meeting of the International Society of Exposure Science, Cincinnati, OH, October 12-16.
- Pagone F., O'Hara Ruiz, M., **Erdal, S.** 2015. Use of Geospatial Analysis in Environmental and Occupational Health. Presented at the Annual Meeting of the American Industrial Hygiene Association, Salt Lake City, UT, May 30-June 4.
- Cordova-Orellana, C., Pagone, F., **Erdal, S.** 2015. Spatial and Temporal Evaluation of USEPA NATA Database for Environmental Equity Analysis in Cook County, IL. Presented at the 17th Global Emissions Initiative (GEIA) Conference on Influence of Urbanization on Emissions Worldwide, Beijing, China, November 18-20.
- Pagone, F., Smith, J., **Erdal, S.** 2016. Comparison of Perceived Environmental Risk and Modeled Environmental and Occupational Health in Southeastern Cook County, IL, Presented at the American Industrial Hygiene Association Annual Conference and Exposition, Baltimore, MD, May 21-26.