

Clean Air Publications – Health Science
[Sorted by Author]
1998-April 2009

1. Abbey,D.E., Burchette,R.J., Knutsen,S.F., McDonnell,W.F., Lebowitz,M.D., Enright,P.L., 1998. Long-term particulate and other air pollutants and lung function in nonsmokers, *Am. J. Respir. Crit. Care Med.* 158, pp. 289-298.
2. Abbey,D.E., Nishino,N., McDonnell,W.F., Burchette,R.J., Knutsen,S.F., Beeson,W.L., Yang,J.X., 1999. Long-term inhalable particles and other air pollutants related to mortality in nonsmokers, *Am. J. Respir. Crit. Care Med.* 159, pp. 373-382.
3. Adamkiewicz,G., Ebel,S., Syring,M., Slater,J., Speizer,F.E., Schwartz,J., Suh,H., Gold,D.R., 2004. Association between air pollution exposure and exhaled nitric oxide in an elderly population, *Thorax* 59, pp. 204-209.
4. Adar,S.D., Adamkiewicz,G., Gold,D.R., Schwartz,J., Coull,B.A., Suh,H., 2007. Ambient and microenvironmental particles and exhaled nitric oxide before and after a group bus trip, *Environ. Health Perspect.* 115, pp. 507-512.
5. Adar,S.D., Gold,D.R., Coull,B.A., Schwartz,J., Stone,P.H., Suh,H., 2007. Focused exposures to airborne traffic particles and heart rate variability in the elderly, *Epidemiology* 18, pp. 95-103.
6. Alexeeff,S.E., Litonjua,A.A., Sparrow,D., Vokonas,P.S., Schwartz,J., 2007. Statin Use Reduces Decline in Lung Function: VA Normative Aging Study, *Am. J. Respir. Crit. Care Med.* 176, pp. 742-747.
7. Alexeeff,S.E., Litonjua,A.A., Suh,H., Sparrow,D., Vokonas,P.S., Schwartz,J., 2007. Ozone Exposure and Lung Function: Effect Modified by Obesity and Airways Hyperresponsiveness in the VA Normative Aging Study, *Chest* 132, pp. 1890-1897.
8. Alexeeff,S.E., Litonjua,A.A., Wright,R.O., Baccarelli,A., Suh,H., Sparrow,D., Vokonas,P.S., Schwartz,J., 2008. Ozone exposure, antioxidant genes, and lung function in an elderly cohort: VA Normative Aging Study, *Occup Environ Med* p. oem.
9. Alexis,N.E., Richards,J.H., Carter,J.D., Ghio,A.J., 2002. Iron-binding and storage proteins in sputum, *Inhal. Toxicol.* 14, pp. 387-400.
10. Alexis,N.E., Becker,S., Bromberg,P.A., Devlin,R., Peden,D.B., 2004. Circulating CD11b expression correlates with the neutrophil response and airway mCD14 expression is enhanced following ozone exposure in humans, *Clin. Immunol.* 111, pp. 126-31.
11. Alexis,N.E., Lay,J.C., Zeman,K., Bennett,W.E., Peden,D.B., Soukup,J.M., Devlin,R.B., Becker,S., 2006. Biological material on inhaled coarse fraction particulate matter activates airway phagocytes in vivo in healthy volunteers, *J Allergy Clin. Immunol.* 117, pp. 1396-1403.
12. Allahdadi,K.J., Walker,B.R., Kanagy,N.L., 2005. Augmented Endothelin Vasoconstriction in Intermittent Hypoxia-Induced Hypertension, *Hypertension* 45, pp. 705-709.
13. Allahdadi,K.J., Walker,B.R., Kanagy,N.L., 2007. ROK contribution to endothelin-mediated contraction in aorta and mesenteric arteries following intermittent hypoxia/hypercapnia in rats, *Am J Physiol Heart Circ Physiol* 293, p. H2911-H2918.

14. Allahdadi,K.J., Duling,L.C., Walker,B.R., Kanagy,N.L., 2008. Eucapnic intermittent hypoxia augments endothelin-1 vasoconstriction in rats: role of PKC{delta}, *Am J Physiol Heart Circ Physiol* 294, p. H920-H927.
15. Allahdadi,K.J., Cherng,T.W., Pai,H., Silva,A.Q., Walker,B.R., Nelin,L.D., Kanagy,N.L., 2008. Endothelin type A receptor antagonist normalizes blood pressure in rats exposed to eucapnic intermittent hypoxia, *Am J Physiol Heart Circ Physiol* 295, p. H434-H440.
16. Allen,R.W., Mar,T., Koenig,J., Liu,L.-J.S., Gould,T., Simpson,C., Larson,T., 2008. Changes in Lung Function and Airway Inflammation Among Asthmatic Children Residing in a Woodsmoke-Impacted Urban Area, *Inhal. Toxicol.* 20, pp. 423-433.
17. Andersen,M.E., Jarabek,A.M., 2001. Nasal tissue dosimetry--issues and approaches for "Category 1" gases: a report on a meeting held in Research Triangle Park, NC, 11-12 February, 1999., *Inhal. Toxicol.* 13, pp. 415-435.
18. Araujo,J.A., Barajas,B., Kleinman,M., Wang,X., Bennett,B.J., Gong,K.W., Navab,M., Harkema,J., Sioutas,C., Lulis,A.J., Nel,A.E., 2008. Ambient particulate pollutants in the ultrafine range promote early atherosclerosis and systemic oxidative stress, *Circ. Res* 102, pp. 589-596.
19. Arlian,L.G., Neal,J.S., Vyszynski-Moher,D.L., 1999. Fluctuating hydrating and dehydrating relative humidities effects on the life cycle of *Dermatophagoides farinae* (Acari: Pyroglyphidae), *Journal of Medical Entomology* 36, pp. 457-461.
20. Arredouani,M.S., Palecanda,A., Koziel,H., Huang,Y.C., Imrich,A., Sulahian,T.H., Ning,Y.Y., Yang,Z., Pikkarainen,T., Sankala,M., Vargas,S.O., Takeya,M., Tryggvason,K., Kobzik,L., 2005. MARCO is the major binding receptor for unopsonized particles and bacteria on human alveolar macrophages, *J. Immunol.* 175, pp. 6058-6064.
21. Asgharian,B., Kelly,J.T., Tewksbury,E.W., 2003. Respiratory deposition and inhalability of monodisperse aerosols in Long Evan rats, *Toxicol. Sci.* 71, pp. 104-111.
22. Auchincloss,A.H., Roux,A.V., Dvonch,J.T., Brown,P.L., Barr,R.G., Daviglius,M.L., Goff,D.C., Kaufman,J.D., O'Neill,M.S., 2008. Associations between Recent Exposure to Ambient Fine Particulate Matter and Blood Pressure in the Multi-Ethnic Study of Atherosclerosis (MESA), *Environ. Health Perspect.* 116, pp. 486-491.
23. Avol,E.L., Gauderman,W.J., Tan,S.M., London,S.J., Peters,J.M., 2001. Respiratory Effects of Relocating to Areas of Differing Air Pollution Levels, *Am. J. Respir. Crit. Care Med.* 164, pp. 2067-2072.
24. Ayres,J.G., Borm,P., Cassee,F.R., Castranova,V., Donaldson,K., Ghio,A., Harrison,R.M., Hider,R., Kelly,F., Kooter,I.M., Marano,F., Maynard,R.L., Mudway,I., Nel,A., Sioutas,C., Smith,S., Baeza-Squiban,A., Cho,A., Duggan,S., Froines,J., 2008. Evaluating the Toxicity of Airborne Particulate Matter and Nanoparticles by Measuring Oxidative Stress Potential--A Workshop Report and Consensus Statement, *Inhal. Toxicol.* 20, pp. 75-99.
25. Azadniv,M., Torres,A., Boscia,J., Speers,D.M., Frasier,L.M., Utell,M.J., Frampton,M.W., 2001. Neutrophils in lung inflammation: Which reactive oxygen species are being measured?, *Inhal. Toxicol.* 13, pp. 485-495.
26. Baccarelli,A., Zanobetti,A., Martinelli,I., Grillo,P., Hou,L., Giacomini,S., Bonzini,M., Lanzani,G., Mannucci,P.M., Bertazzi,P.A., Schwartz,J., 2007. Effects of exposure to air pollution on blood coagulation, *Journal of Thrombosis and Haemostasis* 5, pp. 252-260.

27. Baccarelli,A., Zanobetti,A., Martinelli,I., Grillo,P., Hou,L., Lanzani,G., Mannucci,P.M., Bertazzi,P.A., Schwartz,J., 2007. Air Pollution, Smoking, and Plasma Homocysteine, *Environ. Health Perspect.* 115, pp. 176-181.
28. Baccarelli,A., Cassano,P.A., Litonjua,A., Park,S.K., Suh,H., Sparrow,D., Vokonas,P., Schwartz,J., 2008. Cardiac Autonomic Dysfunction: Effects From Particulate Air Pollution and Protection by Dietary Methyl Nutrients and Metabolic Polymorphisms, *Circulation* 117, pp. 1802-1809.
29. Baccarelli,A., Martinelli,I., Zanobetti,A., Grillo,P., Hou,L.F., Bertazzi,P.A., Mannucci,P.M., Schwartz,J., 2008. Exposure to Particulate Air Pollution and Risk of Deep Vein Thrombosis, *Arch Intern Med* 168, pp. 920-927.
30. Baccarelli,A., Wright,R.O., Bollati,V., Tarantini,L., Litonjua,A.A., Suh,H.H., Zanobetti,A., Sparrow,D., Vokonas,P.S., Schwartz,J., 2009. Rapid DNA Methylation Changes after Exposure to Traffic Particles, *Am. J. Respir. Crit. Care Med.*
31. Bale,A.S., Meacham,C.A., Benignus,V.A., Bushnell,P.J., Shafer,T.J., 2005. Volatile organic compounds inhibit human and rat neuronal nicotinic acetylcholine receptors expressed in *Xenopus oocytes*, *Toxicol. Appl. Pharmacol.* 205, pp. 77-88.
32. Bale,A.S., Adams,T.L., Bushnell,P.J., Shafer,T.J., Boyes,W.K., 2005. Role of NMDA, nicotinic, and GABA receptors in the steady-state visual-evoked potential in rats, *Pharmacol Biochem Behav.* 82, pp. 635-645.
33. Bale,A.S., Jackson,M.D., Krantz,Q.T., Benignus,V.A., Bushnell,P.J., Shafer,T.J., Boyes,W.K., 2007. Evaluating the NMDA-Glutamate Receptor as a Site of Action for Toluene, *In Vivo*, *Toxicol. Sci.* 98, pp. 159-166.
34. Balu,N., Padgett,W.T., Lambert,G.R., Swank,A.E., Richard,A.M., Nesnow,S., 2004. Identification and characterization of novel stable deoxyguanosine and deoxyadenosine adducts of benzo[a]pyrene-7,8-quinone from reactions at physiological pH, *Chem. Res. Toxicol.* 17, pp. 827-838.
35. Balu,N., Padgett,W.T., Nelson,G.B., Lambert,G.R., Ross,J.A., Nesnow,S., 2006. Benzo[a]pyrene-7,8-quinone-3'-mononucleotide adduct standards for ³²P postlabeling analyses: detection of benzo[a]pyrene-7,8-quinone-calf thymus DNA adducts, *Anal. Biochem* 355, pp. 213-223.
36. Banasiewicz,M., Nelson,G., Swank,A., Grubor,N., Ross,J., Nesnow,S., Kofeler,H., Small,G.J., Jankowiak,R., 2004. Identification and quantitation of benzo[a]pyrene-derived DNA adducts formed at low adduction level in mice lung tissue, *Anal. Biochem* 334, pp. 390-400.
37. Barraza-Villarreal,A., Sunyer,J., Hernandez-Cadena,L., Escamilla-Nuñez,M.C., Sienra-Monge,J.J., Ramírez-Aguilar,M., Cortez-Lugo,M., Holguin,F., Diaz-Sánchez,D., Olin,A.C., Romieu,I., 2008. Air Pollution, Airway Inflammation, and Lung Function in a Cohort Study of Mexico City Schoolchildren, *Environ. Health Perspect.* 116, pp. 832-838.
38. Bartoli,C.R., Akiyama,I., Godleski,J.J., Verrier,R.L., 2007. Long-term pericardial catheterization is associated with minimum foreign-body response, *Catheterization. and Cardiovascular Interventions.* 70, pp. 221-227.
39. Bartoli,C.R., Wellenius,G.A., Coull,B.A., Akiyama,I., Diaz,E.A., Lawrence,J.E., Okabe,K., Verrier,R.L., Godleski,J.J., 2008. Concentrated ambient particles alters myocardial blood flow during acute ischemia in conscious canines, *Environ. Health Perspect.* 117, pp. 333-337.

40. Bartoli,C.R., Wellenius,G.A., Diaz,E.A., Lawrence,J.E., Coull,B.A., Akiyama,I., Lee,L.M., Okabe,K., Verrier,R.L., Godleski,J.J., 2008. Mechanisms of inhaled fine particulate air pollution-induced arterial blood pressure changes, *Environ. Health Perspect.* 117, pp. 361-366.
41. Bartoli,C.R., Okabe,K., Akiyama,I., Coull,B., Godleski,J.J., 2008. Repeat Microsphere Delivery for Serial Measurement of Regional Blood Perfusion in the Chronically Instrumented, Conscious Canine, *Journal of Surgical Research* 145, pp. 135-141.
42. Bartoli,C.R., Akiyama,I., Okabe,K., Diaz,E.A., Godleski,J.J., 2008. Permanent Tracheostomy for Long-Term Respiratory Studies, *Journal of Surgical Research* 145, pp. 124-129.
43. Bartoli,C.R.G., Okabe,K., Akiyama,I., Verrier,R.L., Godleski,J.J., 2006. Technique for Implantation of Chronic Indwelling Aortic Access Catheters, *Journal of Investigative Surgery* 19, pp. 397-405.
44. Batalha,J.R.F., Saldiva,P.H.N., Clarke,R.W., Coull,B.A., Stearns,R.C., Lawrence,J., Krishna Murthy,G.G., Koutrakis,P., Godleski,J.J., 2002. Concentrated ambient air particles induce vasoconstriction of small pulmonary arteries in rats, *Environ. Health Perspect.* 110, pp. 1191-1197.
45. Bateson,T., Schwartz,J., 2001. Selection Bias and Confounding in Case-Crossover Analyses of Environmental Time Series Data, *Epidemiology* 12, pp. 654-661.
46. Bateson,T., Schwartz,J., 2004. Who is Sensitive to the Effects of Particulate Air Pollution on Mortality?: A Case-Crossover Analysis of Effect Modifiers, *Epidemiology* 15, pp. 143-149.
47. Bayer-Oglesby,L., Schindler,C., Hazenkamp-von Arx,M.E., Braun-Fahrlander,C., Keidel,D., Rapp,R., Kunzli,N., Braendli,O., Burdet,L., Liu,L.-J.S., Leuenberger,P., Ackermann-Liebrich,U., the SAPALDIA Team, 2006. Living near Main Streets and Respiratory Symptoms in Adults: The Swiss Cohort Study on Air Pollution and Lung Diseases in Adults, *Am. J. Epidemiol.* 164, pp. 1190-1198.
48. Beck-Speier,I., Dayal,N., Karg,E., Maier,K.L., Schumann,G., Schulz,H., Semmler,M., Takenaka,S., Stettmaier,K., Bors,W., Ghio,A., Samet,J.M., Heyder,J., 2005. Oxidative stress and lipid mediators induced in alveolar macrophages by ultrafine particles, *Free Radic. Biol. Med.* 38, pp. 1080-1092.
49. Becker,S., Soukup,J.M., 1998. Decreased CD11b expression, phagocytosis, and oxidative burst in urban particulate pollution-exposed human monocytes and alveolar macrophages, *J. Toxicol. Environ. Health A* 55, pp. 455-477.
50. Becker,S., Clapp,W.A., Quay,J., Frees,K.L., Koren,H.S., Schwartz,D.A., 1999. Compartmentalization of the inflammatory response to inhaled grain dust, *Am. J. Respir. Crit. Care Med.* 160, pp. 1309-18.
51. Becker,S., Soukup,J.M., 1999. Exposure to urban air particulates alters the macrophage-mediated inflammatory response to respiratory viral infection, *J. Toxicol. Environ. Health A* 57, pp. 445-57.
52. Becker,S., Soukup,J.M., Gallagher,J.E., 2002. Differential particulate air pollution induced oxidant stress in human granulocytes, monocytes and alveolar macrophages, *Toxicol. In Vitro* 16, pp. 209-218.

53. Becker,S., Fenton,M.J., Soukup,J.M., 2002. Involvement of Microbial Components and Toll-like Receptors 2 and 4 in Cytokine Responses to Air Pollution Particles, *Am. J. Respir. Cell Mol. Biol.* 27, pp. 611-618.
54. Becker,S., Soukup,J.M., Sioutas,C., Cassee,F.R., 2003. Response of human alveolar macrophages to ultrafine, fine, and coarse urban air pollution particles, *Exp. Lung Res.* 29, pp. 29-44.
55. Becker,S., Soukup,J.M., 2003. Coarse (PM2.5-10), fine (PM2.5) and ultrafine air pollution particles induce/increase immune co-stimulatory receptors on human blood derived monocytes but not on alveolar macrophages, *J. Toxicol. Environ. Health A* 66, pp. 847-859.
56. Becker,S., Dailey,L., Soukup,J.M., Silbajoris,R., Devlin,R.B., 2005. TLR-2 is involved in airway epithelial cell response to air pollution particles, *Toxicol. Appl. Pharmacol.* 203, pp. 45-52.
57. Becker,S., Mundandhara,S., Devlin,R.B., Madden,M., 2005. Regulation of cytokine production in human alveolar macrophages and airway epithelial cells in response to ambient air pollution particles: Further mechanistic studies, *Toxicol. Appl. Pharmacol.* 207, pp. 269-275.
58. Becker,S., Dailey,L.A., Soukup,J.M., Grambow,S.C., Devlin,R.B., Huang,Y.C., 2005. Seasonal variations in air pollution particle-induced inflammatory mediator release and oxidative stress, *Environ. Health Perspect.* 113, pp. 1032-1038.
59. Beckett,W.S., Chalupa,D.F., Pauly-Brown,A., Speers,D.M., Stewart,J.C., Frampton,M.W., Utell,M.J., Huang,L.-S., Cox,C., Zareba,W., Oberdorster,G., 2005. Comparing Inhaled Ultrafine versus Fine Zinc Oxide Particles in Healthy Adults: A Human Inhalation Study, *Am. J. Respir. Crit. Care Med.* 171, pp. 1129-1135.
60. Bell,M.L., Peng,R.D., Dominici,F., 2006. The exposure-response curve for ozone and risk of mortality and the adequacy of current ozone regulations, *Environ. Health Perspect.* 114, pp. 532-536.
61. Bell,M.L., Kim,J.Y., Dominici,F., 2007. Potential confounding of particulate matter on the short-term association between ozone and mortality in multisite time-series studies, *Environ. Health Perspect.* 115, pp. 1591-1595.
62. Bell,M.L., Ebisu,K., Peng,R.D., Walker,J.T., Samet,J.M., Zeger,S.L., Dominici,F., 2008. Seasonal and Regional Short-term Effects of Fine Particles on Hospital Admissions in 202 US Counties, 1999–2005, *Am. J. Epidemiol.* 168, pp. 1301-1310.
63. Benedict,C., Ghio,A.J., Gehring,H., Schultes,B., Peters,A., Oltmanns,K.M., 2007. Transient hypoxia and downregulation of circulating prohepcidin concentrations in healthy young men, *Haematologica* 92, pp. 125-126.
64. Benignus,V.A., Geller,A.M., Boyes,W.K., Bushnell,P.J., 2005. Human neurobehavioral effects of long-term exposure to styrene: a meta-analysis, *Environ. Health Perspect.* 113, pp. 532-538.
65. Benignus,V.A., Bushnell,P.J., Boyes,W.K., 2005. Toward cost-benefit analysis of acute behavioral effects of toluene in humans, *Risk Anal.* 25, pp. 447-456.
66. Benignus,V.A., Boyes,W.K., Bushnell,P.J., 1998. A Dosimetric Analysis of Behavioral Effects of Acute Toluene Exposure in Rats and Humans, *Toxicol. Sci.* 43, pp. 186-195.
67. Benignus,V.A., Boyes,W.K., Kenyon,E.M., Bushnell,P.J., 2007. Quantitative Comparisons of the Acute Neurotoxicity of Toluene in Rats and Humans, *Toxicol. Sci.* 100, pp. 146-155.

68. Bennett,W.D., Scheuch,G., Zeman,K.L., Brown,J.S., Kim,C., Heyder,J., Stahlhofen,W., 1998. Bronchial airway deposition and retention of particles in inhaled boluses: effect of anatomic dead space, *J. Appl. Physiol.* 85, pp. 685-694.
69. Bennett,W.D., Scheuch,G., Zeman,K.L., Brown,J.S., Kim,C., Heyder,J., Stahlhofen,W., 1999. Regional deposition and retention of particles in shallow, inhaled boluses: effect of lung volume, *J. Appl. Physiol.* 86, pp. 168-173.
70. Bennett,W.D., Brown,J.S., Zeman,K.L., Hu,S.C., Scheuch,G., Sommerer,K., 2002. Targeting delivery of aerosols to different lung regions, *J. Aerosol Med.* 15, pp. 179-188.
71. Bennett,W.D., Zeman,K.L., Jarabek,A.M., 2008. Nasal Contribution to Breathing and Fine Particle Deposition in Children Versus Adults, *Journal of Toxicology and Environmental Health, Part A* 71, pp. 227-237.
72. Berger,A., Zareba,W., Schneider,A., Ruckerl,R., Ibald-Mulli,A., Cyrus,J., Wichmann,H.E., Peters,A., 2006. Runs of ventricular and supraventricular tachycardia triggered by air pollution in patients with coronary heart disease, *J. Occup. Environ. Med.* 48, pp. 1149-1158.
73. Bingham,E., Barone,S., Burin,G., Chapin,R., Davis,J.M., Dorman,D.C., Glowa,J.R., Hansen,D.A., Matthews,H.B., Miller,M., Nauss,K.M., Rogers,J.M., Shelby,M., 2004. NTP-CERHR expert panel report on the reproductive and developmental toxicity of methanol., *Reproductive Toxicology* 18, pp. 303-390.
74. Block,M.L., Wu,X., Pei,Z., Li,G., Wang,T., Qin,L., Wilson,B., Yang,J., Hong,J.S., Veronesi,B., 2004. Nanometer size diesel exhaust particles are selectively toxic to dopaminergic neurons: the role of microglia, phagocytosis, and NADPH oxidase, *FASEB J.* 18, pp. 1618-20.
75. Bogdanffy,M.S., Sarangapani,R., Plowchalk,D.R., Jarabek,A., Andersen,M.E., 1999. A biologically based risk assessment for vinyl acetate-induced cancer and noncancer inhalation toxicity, *Toxicol. Sci.* 51, pp. 19-35.
76. Bolger,M.S., Ross,D.S., Jiang,H., Frank,M.M., Ghio,A.J., Schwartz,D.A., Wright,J.R., 2007. Complement levels and activity in the normal and LPS-injured lung, *Am J Physiol Lung Cell Mol Physiol* 292, p. L748-L759.
77. Bollati,V., Schwartz,J., Wright,R., Litonjua,A., Tarantini,L., Suh,H., Sparrow,D., Vokonas,P., Baccarelli,A., 2009. Decline in genomic DNA methylation through aging in a cohort of elderly subjects, *Mechanisms of Ageing and Development* In Press, Corrected Proof.
78. Bonner,J.C., Rice,A.B., Lindroos,P.M., O'Brien,P.O., Dreher,K.L., Rosas,I., Alfaro-Moreno,E., Osornio-Vargas,A.R.O., 1998. Induction of the lung myofibroblast PDGF receptor system by urban ambient particles from Mexico City., *Am. J. Respir. Cell Mol. Biol.* 19, pp. 672-680.
79. Boyes,W.K., Bushnell,P.J., Crofton,K.M., Evans,M., Simmons,J.E., 2000. Neurotoxic and pharmacokinetic responses to trichloroethylene as a function of exposure scenario, *Environ. Health Perspect.* 108 Suppl 2, pp. 317-322.
80. Boyes,W.K., Bercegeay,M., Ali,J.S., Krantz,T., McGee,J., Evans,M., Raymer,J.H., Bushnell,P.J., Simmons,J.E., 2003. Dose-based duration adjustments for the effects of inhaled trichloroethylene on rat visual function, *Toxicol. Sci.* 76, pp. 121-130.
81. Boyes,W.K., Bercegeay,M., Krantz,T., Evans,M., Benignus,V., Simmons,J.E., 2005. Momentary brain concentration of trichloroethylene predicts the effects on rat visual function, *Toxicol. Sci.* 87, pp. 187-196.

82. Boyes,W.K., 2009. Essentiality, toxicity and uncertainty in the risk assessment of manganese, *Journal of Toxicology and Environmental Health*.
83. Boyes,W.K., Bercegeay,M., Oshiro,W.M., Krantz,Q.T., Kenyon,E.M., Bushnell,P.J., Benignus,V.A., 2009. Acute exposure to perchloroethylene alters rat visual evoked potentials in relation to brain concentration, *Toxicol. Sci*.
84. Boyes,W.K., Simmons,J.E., Eklund,C., Benignus,V.A., Janssen,P., Bushnell,P.J., 2005. Applications of dosimetry modeling to assessment of neurotoxic risk, *Environ. Toxicol. Pharmacol.* 19, pp. 599-605.
85. Boyes,W.K., Moser,V.C., Geller,A.M., Benignus,V.A., Bushnell,P.J., Kamel,F., 2007. Integrating epidemiology and toxicology in neurotoxicity risk assessment, *Human and Experimental Toxicology* 26, pp. 283-293.
86. Boyes,W.K., Bercegeay,M., Krantz,Q.T., Kenyon,E.M., Bale,A.S., Shafer,T.J., Bushnell,P.J., Benignus,V.A., 2007. Acute Toluene Exposure and Rat Visual Function in Proportion to Momentary Brain Concentration, *Toxicol. Sci.* 99, pp. 572-581.
87. Bracker,A., Storey,E., Yang,C., Hodgson,M.J., 2003. An outbreak of hypersensitivity pneumonitis at a metalworking plant: a longitudinal assessment of intervention effectiveness, *Appl. Occup. Environ. Hyg.* 18, pp. 96-108.
88. Braga,A.L., Zanobetti,A., Schwartz,J., 2000. Do Respiratory Epidemics Confound the Association Between Air Pollution and Daily Deaths?, *Eur. Respir. J.* 16, pp. 723-728.
89. Braga,A.L., Zanobetti,A., Schwartz,J., 2001. The Lag Structure Between Particulate Air Pollution and Respiratory and Cardiovascular Deaths in Ten US Cities, *J. Occup. Environ. Med.* 43, pp. 927-933.
90. Braga,A.L., Zanobetti,A., Schwartz,J., 2001. The Time Course of Weather Related Deaths, *Epidemiology* 12, pp. 662-667.
91. Braga,A.L., Zanobetti,A., Schwartz,J., 2002. The effect of weather on respiratory and cardiovascular deaths in 12 U.S. cities, *Environ. Health Perspect.* 110, pp. 859-863.
92. Brass,D.M., Savov,J.D., Gavett,S.H., Haykal-Coates,N., Schwartz,D.A., 2003. Subchronic endotoxin inhalation causes persistent airway disease., *Am. J. Physiol. Lung Cell Mol. Physiol.* 285, p. L755-L761.
93. Brown,J.S., Kim,C.S., Reist,P.C., Zeman,K.L., Bennett,W.D., 2000. Generation of radiolabelled "soot-like" ultrafine aerosols suitable for use in human inhalation studies, *Aerosol Sci. Technol.* 32, pp. 325-337.
94. Brown,J.S., Zeman,K.L., Bennett,W.D., 2001. Regional deposition of coarse particles and ventilation distribution in healthy subjects and patients with cystic fibrosis, *J. Aerosol Med.* 14, pp. 443-454.
95. Brown,J.S., Zeman,K.L., Bennett,W.D., 2002. Ultrafine particle deposition and clearance in the healthy and obstructed lung, *Am. J. Respir. Crit. Care Med.* 166, pp. 1240-1247.
96. Brown,J.S., Bennett,W.D., 2004. Deposition of coarse particles in cystic fibrosis: Model predictions versus experimental results, *J. Aerosol Med.* 17, pp. 239-248.
97. Brown,J.S., 2005. Particle inhalability at low wind speeds, *Inhal. Toxicol.* 17, pp. 831-837.

98. Brown,J.S., Wilson,W.E., Grant,L.D., 2005. Dosimetric Comparisons of Particle Deposition and Retention in Rats and Humans, *Inhal. Toxicol.* 17, pp. 355-385.
99. Brown,J.S., Gerrity,T.R., Bennett,W.D., 1998. Effect of ventilation distribution on aerosol bolus dispersion and recovery, *J. Appl. Physiol.* 85, pp. 2112-2117.
100. Brown,J.S., Graham,J.A., Chen,L.C., Postlethwait,E.M., Ghio,A.J., Foster,W.M., Gordon,T., 2007. Panel discussion review: session four — assessing biological plausibility of epidemiological findings in air pollution research, *Journal of Exposure Science and Environmental Epidemiology* 17, p. S97-S105.
101. Brown,J.S., Bateson,T.F., McDonnell,W.F., 2008. Effects of Exposure to 0.06 ppm Ozone on FEV1 in Humans: A Secondary Analysis of Existing Data, *Environ. Health Perspect.* 116, pp. 1023-1028.
102. Brown,K.W., Little,S.B., Rabinowitz,J.R., 2002. Benzo[a]pyrene and Benz[c]phenanthrene: The Effect of Structure on the Binding of Water Molecules to the Diol Epoxides, *Chem. Res. Toxicol.* 15, pp. 1069-1079.
103. Burns,J.S., Dockery,D.W., Neas,L.M., Schwartz,J., Coull,B.A., Raizenne,M., Speizer,F.E., 2007. Low Dietary Nutrient Intakes and Respiratory Health in Adolescents, *Chest* 132, pp. 238-245.
104. Bushnell,P.J., Oshiro,W.M., 2000. Behavioral components of tolerance to repeated inhalation of trichloroethylene (TCE) in rats, *Neurotoxicol. Teratol.* 22, pp. 221-229.
105. Bushnell,P.J., Benignus,V.A., Case,M.W., 2003. Signal detection behavior in humans and rats: a comparison with matched tasks, *Behavioural Processes* 64, pp. 121-129.
106. Bushnell,P.J., Oshiro,W.M., Samsam,T.E., Klinger,R., 2007. The role of physical activity and feeding schedule on the kinetics of inhaled and oral toluene in rats, *Journal of Toxicology and Environmental Health Part A* 70, pp. 1806-1814.
107. Bushnell,P.J., 1999. Detection of visual signals by rats: effects of signal intensity, event rate, and task type, *Behavioural Processes* 46, pp. 141-150.
108. Bushnell,P.J., Shafer,T.J., Bale,A.S., Boyes,W.K., Simmons,J.E., Eklund,C., Jackson,T.L., 2005. Developing an exposure-dose-response model for the acute neurotoxicity of organic solvents: overview and progress on in vitro models and dosimetry, *Environ. Toxicol. Pharmacol.* 19, pp. 607-614.
109. Bushnell,P.J., Boyes,W.K., Shafer,T.J., Bale,A.S., Benignus,V.A., 2007. Approaches to extrapolating animal toxicity data on organic solvents to public health, *Neurotoxicology* 28, pp. 221-226.
110. Bushnell,P.J., Oshiro,W.M., Samsam,T.E., Benignus,V.A., Krantz,Q.T., Kenyon,E.M., 2007. A Dosimetric Analysis of the Acute Behavioral Effects of Inhaled Toluene in Rats, *Toxicol. Sci.* 99, pp. 181-189.
111. Calderon-Garciduenas,L., Mora-Tiscareno,A., Chung,C.J., Valencia,G., Fordham,L.A., Garcia,R., Osnaya,N., Romero,L., Acuna,H., Villarreal-Calderon,A., Devlin,R.B., Koren,H.S., 2000. Exposure to air pollution is associated with lung hyperinflation in healthy children and adolescents in Southwest Mexico City: a pilot study, *Inhal. Toxicol.* 12, pp. 537-61.
112. Calderon-Garciduenas,L., Delgado,R., Calderon-Garciduenas,A., Meneses,A., Ruiz,L.M., De La Garza,J., Acuna,H., Villarreal-Calderon,A., Raab-Traub,N., Devlin,R., 2000. Malignant neoplasms

of the nasal cavity and paranasal sinuses: a series of 256 patients in Mexico City and Monterrey. Is air pollution the missing link?, *Otolaryngol. Head Neck Surg.* 122, pp. 499-508.

113. Calderon-Garciduenas,L., Devlin,R.B., Miller,F.J., 2000. Respiratory tract pathology and cytokine imbalance in clinically healthy children chronically and sequentially exposed to air pollutants, *Med. Hypotheses* 55, pp. 373-8.
114. Calderon-Garciduenas,L., Valencia-Salazar,G., Rodriguez-Alcaraz,A., Gambling,T.M., Garcia,R., Osnaya,N., Villarreal-Calderon,A., Devlin,R.B., Carson,J.L., 2001. Ultrastructural nasal pathology in children chronically and sequentially exposed to air pollutants, *Am. J. Respir. Cell Mol. Biol.* 24, pp. 132-8.
115. Calderon-Garciduenas,L., Gambling,T.M., Acuna,H., Garcia,R., Osnaya,N., Monroy,S., Villarreal-Calderon,A., Carson,J., Koren,H.S., Devlin,R.B., 2001. Canines as sentinel species for assessing chronic exposures to air pollutants: part 2. Cardiac pathology, *Toxicol. Sci.* 61, pp. 356-67.
116. Calderon-Garciduenas,L., Mora-Tiscareno,A., Fordham,L.A., Chung,C.J., Garcia,R., Osnaya,N., Hernandez,J., Acuna,H., Gambling,T.M., Villarreal-Calderon,A., Carson,J., Koren,H.S., Devlin,R.B., 2001. Canines as sentinel species for assessing chronic exposures to air pollutants: part 1. Respiratory pathology, *Toxicol. Sci.* 61, pp. 342-55.
117. Campbell,A., Oldham,M., Becaria,A., Bondy,S.C., Meacher,D., Sioutas,C., Misra,C., Mendez,L.B., Kleinman,M., 2005. Particulate matter in polluted air may increase biomarkers of inflammation in mouse brain, *Neurotoxicology* 26, pp. 133-140.
118. Campen,M.J., Costa,D.L., Watkinson,W.P., 2000. Cardiac and thermoregulatory toxicity of residual oil fly ash in cardiopulmonary-compromised rats., *Inhal. Toxicol.* 12, pp. 7-22.
119. Campen,M.J., Nolan,J.P., Schladweiler,M.C.J., Kodavanti,U.P., Evansky,P.A., Costa,D.L., Watkinson,W.P., 2001. Cardiovascular and thermoregulatory effects of inhaled PM-associated transition metals: Demonstrating a synergism between nickel and vanadyl sulfate., *Toxicol. Sci.* 64, pp. 243-252.
120. Campen,M.J., Nolan,J.P., Schladweiler,M.C.J., Kodavanti,U.P., Costa,D.L., Watkinson,W.P., 2002. Cardiac and thermoregulatory effects of instilled particulate matter-associated transition metals in healthy and cardiopulmonary-compromised rats., *J. Toxicol. Environ. Health A* 65, pp. 1615-1631.
121. Campen,M., McDonald,J., Reed,M., Seagrave,J., 2006. Fresh gasoline emissions, not paved road dust, alter cardiac repolarization in ApoE^{-/-} mice, *Cardiovascular Toxicology* 6, pp. 199-209.
122. Campen,M.J., Norwood,J., McKee,J.L., Mebane,R., Hatch,G.E., Watkinson,W.P., 2000. Ozone-induced hypothermia and bradycardia in rats and guinea pigs in nose-only or whole-body inhalation systems, *J. Therm. Biol.* 25, pp. 81-89.
123. Campen,M.J., Babu,N.S., Helms,G.A., Pett,S., Wernly,J., Mehran,R., McDonald,J.D., 2005. Nonparticulate Components of Diesel Exhaust Promote Constriction in Coronary Arteries from ApoE^{-/-} Mice, *Toxicol. Sci.* 88, pp. 95-102.
124. Cao,D., Tal,T.L., Graves,L.M., Gilmour,I.M., Linak,W., Reed,W., Bromberg,P.A., Samet,J.M., 2007. Diesel exhaust particulates (DEP)-induced activation of Stat3 requires activities of EGFR and Src in airway epithelial cells, *Am. J. Physiol. Lung Cell Mol. Physiol.* 292, p. L422-L429.

125. Cao,D., Bromberg,P.A., Samet,J.M., 2007. COX-2 Expression Induced by Diesel Particles Involves Chromatin Modification and Degradation of HDAC1, *Am. J. Respir. Cell Mol. Biol.* 37, pp. 232-239.
126. Carlsten,C., Kaufman,J.D., Trenga,C.A., Allen,J., Peretz,A., Sullivan,J.H., 2008. Thrombotic Markers in Metabolic Syndrome Subjects Exposed to Diesel Exhaust, *Inhal. Toxicol.* 20, pp. 917-921.
127. Carlsten,C., Kaufman,J.D., Peretz,A., Trenga,C.A., Sheppard,L., Sullivan,J.H., 2007. Coagulation markers in healthy human subjects exposed to diesel exhaust, *Thrombosis Research* 120, pp. 849-855.
128. Carraway,M.S., Suliman,H.B., Madden,M.C., Piantadosi,C.A., Ghio,A.J., 2006. Metabolic capacity regulates iron homeostasis in endothelial cells, *Free Radic. Biol. Med.* 41, pp. 1662-1669.
129. Carraway,M.S., Suliman,H.B., Kliment,C., Welty-Wolf,K.E., Oury,T.D., Piantadosi,C.A., 2008. Mitochondrial biogenesis in the pulmonary vasculature during inhalational lung injury and fibrosis, *Antioxidants & Redox Signaling* 10, pp. 269-275.
130. Cascio,W.E., Cozzi,E., Hazarika,S., Devlin,R.B., Henriksen,R.A., Lust,R.M., Van Scott,M.R., Wingard,C.J., 2007. Cardiac and Vasular Changes in Mice After Exposure to Ultrafine Particulate Matter, *Inhal. Toxicol.* 19, pp. 67-73.
131. Chahine,T., Baccarelli,A., Litonjua,A.A., Wright,R.O., Suh,H., Gold,D.R., Sparrow,D., Vokonas,P.S., Schwartz,J., 2007. Particulate air pollution, oxidative stress genes, and heart rate variability in an elderly cohort, *Environ. Health Perspect.* 115, pp. 1617-1622.
132. Chalupa,D.C., Morrow,P.E., Oberdörster,G., Utell,M.J., Frampton,M.W., 2004. Ultrafine particle deposition in subjects with asthma, *Environ. Health Perspect.* 112, pp. 879-882.
133. Chan,R.C.-F., Wang,M., Li,N., Yanagawa,Y., Onoe,K., Lee,J.J., Nel,A.E., 2006. Pro-oxidative diesel exhaust particle chemicals inhibit LPS-induced dendritic cell responses involved in T-helper differentiation, *Journal of Allergy and Clinical Immunology* 118, pp. 455-465.
134. Chang,J.S., Delfino,R.J., Gillen,D., Tjoa,T., Nickerson,B., Cooper,D., 2009. Repeated respiratory hospital encounters among children with asthma and residential proximity to traffic, *Occup Environ Med* 66, pp. 90-98.
135. Chao,H.J., Schwartz,J., Milton,D.K., Burge,H.A., 2003. The work environment and workers' health in four large office buildings., *Environ. Health Perspect.* 111, pp. 1242-1248.
136. Chao,H.J., Milton,D.K., Schwartz,J., Burge,H.A., 2002. Dustborne fungi in large office buildings, *Mycopathologia* V154, pp. 93-106.
137. Chatila,T.A., Li,N., Garcia-Lloret,M., Kim,H.J., Nel,A.E., 2008. T-cell effector pathways in allergic diseases: Transcriptional mechanisms and therapeutic targets, *Journal of Allergy and Clinical Immunology* 121, pp. 812-823.
138. Chen,C.Y., Chow,D., Chiamvimonvat,N., Glatter,K.A., Li,N., He,Y., Pinkerton,K.E., Bonham,A.C., 2008. Short-term secondhand smoke exposure decreases heart rate variability and increases arrhythmia susceptibility in mice, *AJP - Heart and Circulatory Physiology* 295, p. H632-H639.

139. Chen,J.C., Stone,P.H., Verrier,R.L., Nearing,B.D., MacCallum,G., Kim,J.Y., Herrick,R.F., You,J., Zhou,H., Christiani,D.C., 2006. Personal coronary risk profiles modify autonomic nervous system responses to air pollution, *J. Occup. Environ. Med.* 48, pp. 1133-1142.
140. Chen,J.C., Schwartz,J., 2008. Metabolic syndrome and inflammatory responses to long-term particulate air pollutants, *Environ. Health Perspect.* 116, pp. 612-617.
141. Chen,L.C., Thurston,G., 2002. World Trade Center cough, *Lancet* 360, p. s37-s38.
142. Chen,L.C., Nadziejko,C., 2005. Effects of subchronic exposures to concentrated ambient particles (CAPs) in mice: V. CAPs exacerbate aortic plaque development in hyperlipidemic mice., *Inhal. Toxicol.* 17, pp. 217-224.
143. Chen,L.C., Hwang,J.-S., 2005. Effects of subchronic exposures to concentrated ambient particles (CAPs) in mice: IV. Characterization of acute and chronic effects of ambient air fine particulate matter exposures on heart-rate variability, *Inhal. Toxicol.* 17, pp. 209-216.
144. Chen,L.H., Knutsen,S.F., Shavlik,D., Beeson,W.L., Petersen,F., Ghamsary,M., Abbey,D., 2005. The association between fatal coronary heart disease and ambient particulate air pollution: Are females at greater risk?, *Environ. Health Perspect.* 113, pp. 1723-1729.
145. Cherng,T.W., Campen,M.J., Knuckles,T.L., Gonzalez-Bosc,L., Kanagy,N.L., 2009. Impairment of coronary endothelial cell ETB receptor function following short-term inhalation exposure to whole diesel emissions, *American Journal of Physiology--Regulatory, Integrative, and Comparative Physiology.*
146. Choi,J.I., Kim,C.S., 2007. Mathematical Analysis of Particle Deposition in Human Lungs: An Improved Single Path Transport Model, *Inhal. Toxicol.* 19, pp. 925-939.
147. Choudhury,H., Mudipalli,A., 2008. Potential considerations & concerns in the risk characterization for the interaction profiles of metals., *Indian Journal of Medical Research* 128, pp. 462-483.
148. Chow,J.C., Watson,J.G., Mauderly,J.L., Costa,D.L., Wyzga,R.E., Vedal,S., Hidy,G.M., Altshuler,S.L., Marrack,D., Heuss,J.M., Wolff,G.T., Pope,C.A., III, Dockery,D.W., 2006. Health effects of fine particulate air pollution: lines that connect, *J. Air Waste Manag. Assoc.* 56, pp. 1368-1380.
149. Chuang,K.J., Coull,B.A., Zanobetti,A., Suh,H., Schwartz,J., Stone,P.H., Litonjua,A., Speizer,F.E., Gold,D.R., 2008. Particulate Air Pollution as a Risk Factor for ST-Segment Depression in Patients With Coronary Artery Disease, *Circulation* 118, pp. 1314-1320.
150. Chung,Y.J., Coates,N.H., Viana,M.E., Copeland,L., Vesper,S.J., Selgrade,M.K., Ward,M.D., 2005. Dose-dependent allergic responses to an extract of *Penicillium chrysogenum* in BALB/c mice, *Toxicology* 209, pp. 77-89.
151. Chung,Y.J., Farraj,A., Coates,N.H., Gavett,S.H., Ward,M.D.W., 2007. Increased Neurotrophin Production in a *Penicillium chrysogenum*-Induced Allergic Asthma Model in Mice, *Journal of Toxicology and Environmental Health, Part A* 70, pp. 1020-1026.
152. Ciencewicki,J., Brighton,L., Wu,W.D., Madden,M., Jaspers,I., 2006. Diesel exhaust enhances virus- and poly(I:C)-induced Toll-like receptor 3 expression and signaling in respiratory epithelial cells, *Am. J. Physiol. Lung Cell Mol. Physiol.* 290, p. L1154-L1163.

153. Ciencewicki,J., Gowdy,K., Krantz,Q.T., Linak,W.P., Brighton,L., Gilmour,M.I., Jaspers,I., 2007. Diesel Exhaust Enhanced Susceptibility to Influenza Infection is Associated with Decreased Surfactant Protein Expression, *Inhal. Toxicol.* 19, pp. 1121-1133.
154. Cifuentes,L., Borja-Aburto,V.H., Gouveia,N., Thurston,G., Davis,D.L., 2001. Assessing the health benefits of urban air pollution reductions associated with climate change mitigation (2000-2020): Santiago, São Paulo, Mexico City, and New York City, *Environ. Health Perspect.* 109, pp. 419-425.
155. Cifuentes,L., Borja-Aburto,V.H., Gouveia,N., Thurston,G., Davis,D.L., 2001. Climate change. Hidden health benefits of greenhouse gas mitigation., *Science* 293, pp. 1257-1259.
156. Claiborn,C.S., Larson,T., Sheppard,L., 2002. Testing the metals hypothesis in Spokane, Washington, *Environ. Health Perspect.* 110, pp. 547-552.
157. Clancy,L., Goodman,P., Sinclair,H., Dockery,D.W., 2002. Effect of air-pollution control on death rates in Dublin, Ireland: an intervention study, *Lancet* 360, pp. 1210-1214.
158. Clarke,R.W., Catalano,P.J., Koutrakis,P., Krishna Murthy,G.G., Sioutas,C., Paulauskis,J., Coull,B., Ferguson,S., Godleski,J.J., 1999. Urban air particulate inhalation alters pulmonary function and induces pulmonary inflammation in a rodent model of chronic bronchitis, *Inhal. Toxicol.* 11, pp. 637-656.
159. Clarke,R.W., Catalano,P., Coull,B., Koutrakis,P., Krishna Murthy,G.G., Rice,T., Godleski,J.J., 2000. Age-related responses in rats to concentrated urban air particles (CAPs)., *Inhal. Toxicol.* 12, pp. 73-84.
160. Clarke,R.W., Coull,B.A., Reinisch,U., Catalano,P., Killingsworth,C.R., Koutrakis,P., Kavouras,I., Krishna Murthy,G.G., Lawrence,J., Lovett,E.G., Wolfson,J.M., Verrier,R.L., Godleski,J.J., 2000. Inhaled Concentrated Ambient Particles are Associated with Hematologic and Bronchoalveolar Lavage Changes in Canines, *Environ. Health Perspect.* 108, pp. 1179-1187.
161. Claxton,L.D., Woodall,G.M., Jr., 2007. A review of the mutagenicity and rodent carcinogenicity of ambient air, *Mutation Research/Reviews in Mutation Research* 636, pp. 36-94.
162. Claxton,L.D., Warren,S., Zweidinger,R., Creason,J., 2001. A comparative assessment of Boise, Idaho, ambient air fine particle samples using the plate and microsuspension Salmonella mutagenicity assays, *Sci. Total Environ.* 275, pp. 95-108.
163. Claxton,L.D., Matthews,P.P., Warren,S.H., 2004. The genotoxicity of ambient outdoor air, a review: Salmonella mutagenicity, *Mutation Research/Reviews in Mutation Research* 567, pp. 347-399.
164. Coffey,T., Gennings,C., Simmons,J.E., Herr,D.W., 2005. D-Optimal Experimental Designs to Test for Departure from Additivity in a Fixed-Ratio Mixture Ray, *Toxicol. Sci.* 88, pp. 467-476.
165. Cohen Hubal,E.A., Richard,A.M., Shah,I., Gallagher,J.E., Kavlock,R., Blancato,J., Edwards,S.W., 2008. Exposure science and the U.S. EPA National Center for Computational Toxicology, *Journal of Exposure Science and Environmental Epidemiology*.
166. Cohen,M.D., Sisco,M., Baker,K., Li,Y., Lawrence,D., van Loveren,H., Zelikoff,J.T., Schlesinger,R.B., 2002. Effects of inhaled ozone on pulmonary immune cells critical to antibacterial responses in situ, *Inhal. Toxicol.* 14, pp. 599-619.

167. Cohen,M.D., Sisco,M., Baker,K., Chen,L.C., Schlesinger,R.B., 2002. Effects of inhaled chromium on pulmonary A1AT., *Inhal. Toxicol.* 14, pp. 765-771.
168. Cohen,M.D., 2004. Pulmonary immunotoxicology of select metals: Aluminum, arsenic, cadmium, chromium, copper, manganese, nickel, vanadium, and zinc, *J. Immunotoxicol.* 1, pp. 39-69.
169. Cohen,M.D., Prophete,C., Sisco,M., Chen,L.C., Zelikoff,J.T., Smee,J.J., Holder,A.A., Crans,D.C., 2006. Pulmonary Immunotoxic Potentials of Metals Are Governed by Select Physicochemical Properties: Chromium Agents, *J. Immunotoxicol.* 3, pp. 69-81.
170. Cohen,M.D., Sisco,M., Prophete,C., Chen,L.C., Zelikoff,J.T., Ghio,A.J., Stonehuerner,J.D., Smee,J.J., Holder,A.A., Crans,D.C., 2007. Pulmonary Immunotoxic Potentials of Metals Are Governed by Select Physicochemical Properties: Vanadium Agents, *J. Immunotoxicol.* 4, pp. 49-60.
171. Comer,J.K., Kleinstreuer,C., Hyun,S., Kim,C.S., 2000. Aerosol transport and deposition in sequentially bifurcating airways, *J. Biomech. Eng.* 122, pp. 152-8.
172. Comer,J.K., Kleinstreuer,C., Kim,C.S., 2001. Flow structures and particle deposition patterns in double bifurcation airway models: Part 2. Aerosol transport and deposition., *J. Fluid Mech.* 435, pp. 55-80.
173. Corey,L.M., Baker,C., Luchtel,D.L., 2006. Heart rate variability in the apolipoprotein E knockout transgenic mouse following exposure to Seattle particulate matter, *J. Toxicol. Environ. Health A* 69, pp. 953-965.
174. Costa,D.L., 2000. The relevance of the rat lung response to particle overload for human risk assessment: A workshop consensus report. ILSI Sponsored Workshop, March, 1998., *Inhal. Toxicol.* 12, pp. 1-17.
175. Costa,D.L., 2000. Particulate matter and cardiopulmonary health: A perspective., *Inhal. Toxicol.* 12, pp. 35-44.
176. Costa,D.L., Kodavanti,U.P., 2003. Toxic responses of the lung to inhaled pollutants: benefits and limitations of lung-disease models., *Toxicol. Lett.* 140-141, pp. 195-203.
177. Costa,D.L., Lehmann,J.R., Winsett,D., Richards,J., Ledbetter,A.D., Dreher,K.L., 2006. Comparative Pulmonary Toxicological Assessment of Oil Combustion Particles Following Inhalation or Instillation Exposure, *Toxicol. Sci.* 91, pp. 237-246.
178. Coull,B.A., Schwartz,J., Wand,M.P., 2001. Respiratory Health and Air Pollution: Additive Mixed Model Analyses, *Biostatistics* 2, pp. 337-349.
179. Cozen,W., Avol,E., Diaz-Sanchez,D., McConnell,R., Gauderman,W.J., Cockburn,M.G., Zadnick,J., Jyrala,M., Mack,T.M., 2008. Use of an Electrostatic Dust Cloth for Self-Administered Home Allergen Collection, *Twin Research and Human Genetics* 11, pp. 150-155.
180. Cozzi,E., Hazarika,S., Stallings,H.W., III, Cascio,W.E., Devlin,R.B., Lust,R.M., Wingard,C.J., Van Scott,M.R., 2006. Ultrafine particulate matter exposure augments ischemia-reperfusion injury in mice, *AJP - Heart and Circulatory Physiology* 291, p. H894-H903.
181. Cozzi,E., Wingard,C.J., Cascio,W.E., Devlin,R.B., Miles,J.J., Bofferding,A.R., Lust,R.M., Van Scott,M.R., Henriksen,R.A., 2007. Effect of ambient particulate matter exposure on hemostasis, *Translational Research* 149, pp. 324-332.

182. Creason,J., Neas,L., Walsh,D., Williams,R., Sheldon,L., Liao,D., Shy,C., 2001. Particulate matter and heart rate variability among elderly retirees: the Baltimore 1998 PM study, *J. Expo. Anal. Environ. Epidemiol.* 11, pp. 116-22.
183. Cui,Y., Zhang,Z.F., Froines,J., Zhao,J.K., Wang,H., Yu,S.Z., Detels,R., 2003. Air pollution and case fatality of SARS in the people's republic of China: an ecologic study, *Environmental Health: A Global Access Science Source* 2003 2, p. 15.
184. Daigle,C.C., Chalupa,D.C., Gibb,F.R., Morrow,P.E., Oberdorster,G., Utell,M.J., Frampton,M.W., 2003. Ultrafine particle deposition in humans during rest and exercise, *Inhal. Toxicol.* 15, pp. 539-552.
185. Dangman,K.H., Cole,S.R., Hodgson,M.J., Kuhn,C., Metersky,M.L., Schenck,P., Storey,E., 2002. The hypersensitivity pneumonitis diagnostic index: use of non-invasive testing to diagnose hypersensitivity pneumonitis in metalworkers, *Am. J. Ind. Med.* 42, pp. 150-162.
186. Dangman,K.H., Storey,E., Schenck,P., Hodgson,M.J., 2004. Effects of cigarette smoking on diagnostic tests for work-related hypersensitivity pneumonitis: data from an outbreak of lung disease in metalworkers, *Am. J. Ind. Med.* 45, pp. 455-467.
187. Davis,J.M., 1998. Methylcyclopentadienyl manganese tricarbonyl: health risk uncertainties and research directions, *Environ. Health Perspect.* 106 Suppl 1, pp. 191-201.
188. Davis,J.M., Dorman,D., 1998. Health risk assessments of manganese--differing perspectives: session VIII summary and research needs., *Neurotoxicology* 19, pp. 488-489.
189. Davis,J.M., Jarabek,A.M., Mage,D.T., Graham,J.A., 1998. The EPA health risk assessment of methylcyclopentadienyl manganese tricarbonyl (MMT), *Risk Anal.* 18, pp. 57-70.
190. Davis,J.M., Farland,W.H., 1998. Biological effects of low-level exposures: a perspective from U.S. EPA scientists, *Environ. Health Perspect.* 106 Suppl 1, pp. 379-381.
191. Davis,J.M., Calabrese,E.J., 1998. The biological effects of low-level exposures (BELLE)., *Comments On Toxicology* 6, pp. 241-246.
192. Davis,J.M., 1999. Inhalation health risks of manganese: an EPA perspective, *Neurotoxicology* 20, pp. 511-518.
193. Davis,J.M., Jarabek,A.M., Mage,D.T., Graham,J.A., 1999. Inhalation health risk assessment of MMT, *Environ. Res.* 80, pp. 103-104.
194. Day,K.C., Plopper,C.G., Fanucchi,M.V., 2006. Age-specific pulmonary cytochrome P-450 3A1 expression in postnatal and adult rats, *Am. J. Physiol. Lung Cell Mol. Physiol.* 291, p. L75-L83.
195. DeLeon,S.F., Thurston,G.D., Ito,K., 2003. Contribution of respiratory disease to non-respiratory mortality associations with air pollution, *Am. J. Respir. Crit. Care Med.* 167, pp. 1117-1123.
196. Delfino,R.J., Quintana,P.J., Floro,J., Gastanaga,V.M., Samimi,B.S., Kleinman,M.T., Liu,L.-J.S., Bufalino,C., Wu,C.F., McLaren,C.E., 2004. Association of FEV1 in asthmatic children with personal and microenvironmental exposure to airborne particulate matter, *Environ. Health Perspect.* 112, pp. 932-941.
197. Delfino,R.J., Sioutas,C., Malik,S., 2005. Potential role of ultrafine particles in associations between airborne particle mass and cardiovascular health, *Environ. Health Perspect.* 113, pp. 934-946.

198. Delfino,R.J., Staimer,N., Tjoa,T., Gillen,D., Kleinman,M.T., Sioutas,C., Cooper,D., 2008. Personal and ambient air pollution exposures and lung function decrements in children with asthma, *Environ. Health Perspect.* 116, pp. 550-558.
199. Delfino,R.J., Staimer,N., Tjoa,T., Polidori,A., Arhami,M., Gillen,D., Kleinman,M.T., Vaziri,N., Longhurst,J., Zaldivar,F., Sioutas,C., 2008. Circulating biomarkers of inflammation, antioxidant activity, and platelet activation are associated with ultrafine particles and primary combustion aerosols in elderly subjects with a history of coronary artery disease, *Environ. Health Perspect.* 116, pp. 898-906.
200. Delfino,R.J., Brummel,S., Wu,J., Stern,H., Ostro,B.D., Lipsett,M.J., Winer,A., Street,D.H., Zhang,L., Tjoa,T., Gillen,D., 2009. The relationship of respiratory and cardiovascular hospital admissions to the southern California wildfires of 2003, *Occup Environ Med.*
201. Delfino,R.J., Chang,J., Wu,J., Ren,C., Tjoa,T., Nickerson,B., Cooper,D., Gillen,D., 2009. Repeated hospital encounters for asthma in children and exposure to traffic-related air pollution near the home, *Ann Allergy Asthma Immunol* 102, pp. 138-144.
202. DeMarini,D.M., Brooks,L.R., Warren,S.H., Kobayashi,T., Gilmour,M.I., Singh,P., 2004. Bioassay-directed fractionation and salmonella mutagenicity of automobile and forklift diesel exhaust particles., *Environ. Health Perspect.* 112, pp. 814-819.
203. DeMarini,D.M., Preston,R.J., 2005. Smoking while pregnant: transplacental mutagenesis of the fetus by tobacco smoke, *JAMA* 293, pp. 1264-1265.
204. DeMarini,D.M., Claxton,L.D., 2006. Outdoor air pollution and DNA damage, *Occup. Environ. Med.* 63, pp. 227-229.
205. DeMarini,D.M., Shelton,M.L., Kohan,M.J., Hudgens,E.E., Kleindienst,T.E., Ball,L.M., Walsh,D., de Boer,J.G., Lewis-Bevan,L., Rabinowitz,J.R., 2000. Mutagenicity in lung of Big Blue(R) mice and induction of tandem-base substitutions in Salmonella by the air pollutant peroxyacetyl nitrate (PAN): predicted formation of intrastrand cross-links, *Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis* 457, pp. 41-55.
206. Demeo,D.L., Zanobetti,A., Litonjua,A.A., Coull,B.A., Schwartz,J., Gold,D.R., 2004. Ambient air pollution and oxygen saturation, *Am. J. Respir. Crit. Care Med.* 170, pp. 383-387.
207. Demokritou,P., Gupta,T., Ferguson,S., Koutrakis,P., 2003. Development of a high-volume concentrated ambient particles system (CAPS) for human and animal inhalation toxicological studies, *Inhal. Toxicol.* 15, pp. 111-129.
208. Desai,D., Sharma,A.K., Lin,J.M., Krzeminski,J., Pimentel,M., El-Bayoumy,K., Nesnow,S., Amin,S., 2002. Synthesis, in Vitro Metabolism, Cell Transformation, Mutagenicity, and DNA Adduction of Dibenzo[*c,mno*]chrysene, *Chem. Res. Toxicol.* 15, pp. 964-971.
209. Desai,D., Sharma,A.K., Pimental,M., El-Bayoumy,K., Nesnow,S., Amin,S., Lin,J.M., 2002. Synthesis, in vitro metabolism, mutagenicity, and DNA adduction of naphtho[1,2-E]pyrene, *Polycyclic Aromat. Compd.* 22, pp. 267-276.
210. Devlin,R.B., Ghio,A.J., Kehrl,H., Sanders,G., Cascio,W., 2003. Elderly humans exposed to concentrated air pollution particles have decreased heart rate variability, *Eur. Respir. J.* 21, pp. 76-80.
211. Devlin,R.B., Frampton,M.L., Ghio,A.J., 2005. In vitro studies: what is their role in toxicology?, *Exp Toxicol Pathol* 57 Suppl 1, pp. 183-188.

212. Dewanji,A., Moolgavkar,S.H., 2000. A poisson process for recurrent event data with environmental covariates, *Environmetrics* 11, pp. 665-673.
213. Dewar,B.J., Gardner,O.S., Chen,C.S., Earp,H.S., Samet,J.M., Graves,L.M., 2007. Capacitative Calcium Entry Contributes to the Differential Transactivation of the Epidermal Growth Factor Receptor in Response to Thiazolidinediones, *Mol Pharmacol* 72, pp. 1146-1156.
214. Dick,C.A., Singh,P., Daniels,M.J., Evansky,P.A., Becker,S., Gilmour,M.I., 2003. Murine pulmonary inflammatory responses following instillation of size fractionated ambient particulate matter., *J. Toxicol. Environ. Health A* 66, pp. 2193-2207.
215. Dietert,R.R., Etzel,R.A., Chen,D., Halonen,M., Holladay,S.D., Jarabek,A.M., Landreth,K., Peden,D.B., Pinkerton,K.E., Smialowicz,R.J., Zoetis,T., 2000. Workshop to identify critical windows of exposure for children's health: immune and respiratory systems work group summary., *Environ. Health Perspect.* 108, pp. 483-490.
216. Diez Roux,A.V., Auchincloss,A.H., Astor,B., Barr,R.G., Cushman,M., Dvonch,T., Jacobs,D.R., Jr., Kaufman,J., Lin,X., Samson,P., 2006. Recent Exposure to Particulate Matter and C-reactive Protein Concentration in the Multi-Ethnic Study of Atherosclerosis, *Am. J. Epidemiol.* 164, pp. 437-448.
217. Diez Roux,A.V., Auchincloss,A.H., Franklin,T.G., Raghunathan,T., Barr,R.G., Kaufman,J., Astor,B., Keeler,J., 2008. Long-term Exposure to Ambient Particulate Matter and Prevalence of Subclinical Atherosclerosis in the Multi-Ethnic Study of Atherosclerosis, *Am. J. Epidemiol.* 167, pp. 667-675.
218. Dockery,D.W., 2001. Epidemiologic evidence of cardiovascular effects of particulate air pollution, *Environ. Health Perspect.* 109, pp. 483-486.
219. Dockery,D.W., Luttmann-Gibson,H., Rich,D.Q., Link,M., Mittleman,M., Gold,D., Koutrakis,P., Schwartz,J., Verrier,R.L., 2005. Association of Air Pollution with Increased Incidence of Ventricular Tachyarrhythmias Recorded by Implanted Cardioverter Defibrillators, *Environ. Health Perspect.* 113, pp. 670-674.
220. Doherty,S.P., Prophete,C., Maciejczyk,P., Salnikow,K., Gould,T., Larson,T., Koenig,J., Jaques,P., Sioutas,C., Zelikoff,J.T., Lippmann,M., Cohen,M.D., 2007. Detection of Changes in Alveolar Macrophage Iron Status Induced by Select PM_{2.5}-Associated Components Using Iron-Response Protein Binding Activity, *Inhal. Toxicol.* 19, pp. 553-562.
221. Dominici,F., Peng,R.D., Ebisu,K., Zeger,S.L., Samet,J.M., Bell,M.L., 2007. Does the Effect of PM10 on Mortality Depend on PM Nickel and Vanadium Content? A Reanalysis of the NMMAPS Data, *Environ. Health Perspect.* 115, pp. 1701-1703.
222. Dominici,F., Peng,R.D., Zeger,S.L., White,R., Samet,J.M., 2007. Dominici et al. Respond to "Heterogeneity of Particulate Matter Health Risks", *Am. J. Epidemiol.* 166, pp. 892-893.
223. Dominici,F., Peng,R.D., Zeger,S.L., White,R., Samet,J.M., 2007. Particulate Air Pollution and Mortality in the United States: Did the Risks Change from 1987 to 2000?, *Am. J. Epidemiol.* 166, pp. 880-888.
224. Dominici,F., Wang,D., Crainiceanu,C., Parmigiani,G., 2008. Model selection and health effect estimation in environmental epidemiology, *Epidemiology* 19, pp. 558-560.
225. Dominici,F., Sheppard,L., Clyde,M., 2003. Health Effects of Air Pollution: A Statistical Review, *Int. Stat. Rev.* 71, pp. 243-276.

226. Dominici,F., Peng,R.D., Bell,M.L., Pham,L., McDermott,A., Zeger,S.L., Samet,J.M., 2006. Fine particulate air pollution and hospital admission for cardiovascular and respiratory diseases, *JAMA* 295, pp. 1127-1134.
227. Donaldson,K., Gilmour,M.I., MacNee,W., 2000. Asthma and PM10 (Commentary)., *Respir. Res.* 1, pp. 1-4.
228. Donaldson,K., Borm,P.J.A., Oberdorster,G., Pinkerton,K.E., Stone,V., Tran,C.L., 2008. Concordance Between *In Vitro* and *In Vivo* Dosimetry in the Proinflammatory Effects of Low-Toxicity, Low-Solubility Particles: The Key Role of the Proximal Alveolar Region, *Inhal. Toxicol.* 20, pp. 53-62.
229. Donohue,M., Chung,Y., Magnuson,M.L., Ward,M., Jane Selgrade,M., Vesper,S., 2005. Hemolysin chrysolysin(TM) from *Penicillium chrysogenum* promotes inflammatory response, *International Journal of Hygiene and Environmental Health* 208, pp. 279-285.
230. Dorman,D.C., Struve,M.F., Wong,B.A., Dye,J.A., Robertson,I.D., 2006. Correlation of Brain Magnetic Resonance Imaging Changes with Pallidal Manganese Concentrations in Rhesus Monkeys Following Subchronic Manganese Inhalation, *Toxicol. Sci.* 92, pp. 219-227.
231. Dreher,K.L., 2000. Particulate matter physicochemistry and toxicology: "In search of causality - a critical perspective"., *Inhal. Toxicol.* 12, pp. 45-57.
232. Dreher,K.L., 2004. Health and environmental impact of nanotechnology: toxicological assessment of manufactured nanoparticles, *Toxicol. Sci.* 77, pp. 3-5.
233. Driscoll,K.E., Costa,D.L., Hatch,G.E., Henderson,R.F., Oberdorster,G., Salem,H., Schlesinger,R.B., 2000. Intratracheal instillation as an exposure technique for the evaluation of respiratory tract toxicity: uses and limitations., *Toxicol. Sci.* 55, pp. 24-25.
234. Dubowsky,S.D., Suh,H., Schwartz,J., Coull,B.A., Gold,D.R., 2006. Diabetes, Obesity, and Hypertension May Enhance Associations Between Air Pollution and Markers of Systematic Inflammation, *Environ. Health Perspect.* 114, pp. 992-998.
235. Duling,L.C., Cherng,T.W., Griego,J.R., Perrine,M.F., Kanagy,N.L., 2006. Loss of α_2 -adrenoceptors increases magnitude of hypertension following nitric oxide synthase inhibition, *Am J Physiol Heart Circ Physiol* 291, p. H2403-H2408.
236. Duvall,R., Norris,G., Dailey,L., Burke,J., McGee,J., Gilmour,M.I., Gordon,T., Devlin,R., 2008. Source Apportionment of Particulate Matter in the U.S. and Associations with Lung Inflammatory Markers, *Inhal. Toxicol.* 20, pp. 671-683.
237. Dye,J.A., Madden,M.C., Richards,J.H., Lehmann,J.R., Devlin,R.B., Costa,D.L., 1999. Ozone effects on airway responsiveness, lung injury, and inflammation. Comparative rat strain and in vivo/in vitro investigations, *Inhal. Toxicol.* 11, pp. 1015-1040.
238. Dye,J.A., Adler,K.B., Richards,J.H., Dreher,K.L., 1999. Role of soluble metals in oil fly ash-induced airway epithelial injury and cytokine gene expression., *Am. J. Physiol. Lung Cell Mol. Physiol.* 277, p. L498-L510.
239. Dye,J.A., Lehmann,J.R., McGee,J.K., Winsett,D.W., Ledbetter,A.D., Everitt,J.I., Ghio,A.J., Costa,D.L., 2001. Acute pulmonary toxicity of particulate matter (PM) filter extracts in rats: Coherence with epidemiological studies in Utah Valley residents., *Environ. Health Perspect.* 109, pp. 395-403.

240. Ebel, S.T., Wilson, W.E., Brauer, M., 2005. Exposure to Ambient and Nonambient Components of Particulate Matter: A Comparison of Health Effects, *Epidemiology* 16, pp. 396-405.
241. Eftim, S., Samet, J.M., Janes, H., McDermott, A., Dominici, F., 2008. Fine particulate matter and mortality: A comparison of the Six Cities and American Cancer Society cohorts with a Medicare cohort, *Epidemiology* 19, pp. 209-216.
242. El-Bayoumy, K., Sharma, A.K., Lin, J.M., Krzeminski, J., Boyiri, T., King, L.C., Lambert, G., Padgett, W., Nesnow, S., Amin, S., 2004. Identification of 5-(Deoxyguanosin- N^2 -yl)-1,2-dihydroxy-1,2-dihydro-6-aminochrysene as the Major DNA Lesion in the Mammary Gland of Rats Treated with the Environmental Pollutant 6-Nitrochrysene, *Chem. Res. Toxicol.* 17, pp. 1591-1599.
243. Elder, A., Johnston, C., Gelein, R., Finkelstein, J., Wang, Z., Notter, R., Oberdorster, G., 2005. Lung inflammation induced by endotoxin is enhanced in rats depleted of alveolar macrophages with aerosolized clodronate, *Exp. Lung Res.* 31, pp. 527-546.
244. Elder, A., Gelein, R., Silva, V., Feikert, T., Opanashuk, L., Carter, J., Potter, R., Maynard, A., Ito, Y., Finkelstein, J., Oberdorster, G., 2006. Translocation of Inhaled Ultrafine Manganese Oxide Particles to the Central Nervous System, *Environ. Health Perspect.* 114, pp. 1172-1178.
245. Elder, A.C.P., Gelein, R., Finkelstein, J.N., Cox, C., Oberdorster, G., 2000. Pulmonary inflammatory response to inhaled ultrafine particles is modified by age, ozone exposure, and bacterial toxin, *Inhal. Toxicol.* 12, pp. 227-246.
246. Elder, A.C.P., Johnston, C., Finkelstein, J., Oberdorster, G., 2000. Induction of adaptation to inhaled lipopolysaccharide in young and old rats and mice, *Inhal. Toxicol.* 12, pp. 225-244.
247. Elder, A.C.P., Gelein, R., Azadiv, M., Frampton, M.W., Finkelstein, J.N., Oberdorster, G., 2002. Systemic interactions between inhaled ultrafine particles and endotoxin, *Ann. Occup. Hyg.* 46, pp. 231-234.
248. Elder, A.C.P., Gelein, R., Azadiv, M., Frampton, M., Finkelstein, J., Oberdorster, G., 2004. Systemic effects of inhaled ultrafine particles in two compromised, aged rat strains, *Inhal. Toxicol.* 16, pp. 461-471.
249. Elder, A.C.P., Gelein, R., Oberdorster, G., Finkelstein, J., Notter, R., Wang, Z., 2004. Efficient depletion of alveolar macrophages using intratracheally inhaled aerosols of liposome-encapsulated clodronate, *Exp. Lung Res.* 30, pp. 105-120.
250. Elder, A., Couderc, J.-P., Gelein, R., Eberly, S., Cox, C., Xia, X., Zareba, W., Hopke, P., Watts, W., Kittelson, D., Frampton, M., Utell, M., Oberdorster, G., 2007. Effects of On-Road Highway Aerosol Exposures on Autonomic Responses in Aged, Spontaneously Hypertensive Rats, *Inhal. Toxicol.* 19, pp. 1-12.
251. Esmen, N.A., Johnson, D.L., Agron, G.M., 2002. The variability of delivered dose of aerosols with the same respirable concentration but different size distributions, *Ann. Occup. Hyg.* 46, pp. 401-407.
252. Evans, M.V., Boyes, W.K., Simmons, J.E., Litton, D.K., Easterling, M.R., 2002. A comparison of Haber's rule at different ages using a physiologically based pharmacokinetic (PBPK) model for chloroform in rats, *Toxicology* 176, pp. 11-23.
253. Farraj, A., Haykal-Coates, N., Ledbetter, A.D., Evansky, P.A., Gavett, S.H., 2006. Inhibition of pan neurotrophin receptor P75 attenuates diesel particulate-induced enhancement of allergic airway responses in C57/B16j mice., *Inhal. Toxicol.* 18, pp. 483-491.

254. Farraj,A.K., Haykal-Coates,N., Ledbetter,A.D., Evansky,P.A., Gavett,S.H., 2006. Neurotrophin Mediation of Allergic Airways Responses to Inhaled Diesel Particles in Mice, *Toxicol. Sci.* 94, pp. 183-192.
255. Finnerty,K., Choi,J.E., Lau,A., Davis-Gorman,G., Diven,C., Seaver,N., Linak,W.P., Witten,M., McDonagh,P.F., 2007. Instillation of coarse ash particulate matter and lipopolysaccharide produces a systemic inflammatory response in mice, *J. Toxicol. Environ. Health A* 70, pp. 1957-1966.
256. Flanders,W.D., Klein,M., Tolbert,P.E., 2005. A new variance estimator for parameters of semi-parametric generalized additive models., *J. Agric. Biol. Environ. Stat.* 10, pp. 246-257.
257. Floro,J.N., Dunton,G.F., Delfino,R.J., 2009. Assessing physical activity in asthmatic children: Accelerometer and electronic diary, *Research Quarterly for Exercise and Sports*.
258. Floyd,H.S., Chen,L.C., Vallanat,B., Dreher,K.L., 2008. Fine ambient air particulate matter exposure induces molecular alterations indicative of cardiovascular disease progression in atherosclerotic susceptible mice, *Inhal. Toxicol.*
259. Folinsbee,L.J., Hazucha,M.J., 2000. Time course of response to ozone exposure in healthy adult females, *Inhal. Toxicol.* 12, pp. 151-167.
260. Foos,B., Marty,M., Schwartz,J., Bennett,W., Moya,J., Jarabek,A.M., Salmon,A.G., 2008. Focusing on Children's Inhalation Dosimetry and Health Effects for Risk Assessment: An Introduction, *J. Toxicol. Environ. Health A* 71, pp. 149-165.
261. Frampton,M.W., Ghio,A.J., Samet,J.M., Carson,J.L., Carter,J.D., Devlin,R.B., 1999. Effects of aqueous extracts of PM(10) filters from the Utah valley on human airway epithelial cells, *Am. J. Physiol. Lung Cell Mol. Physiol.* 277, pp. 960-7.
262. Frampton,M.W., 2001. Systemic and cardiovascular effects of airway injury and inflammation: ultrafine particle exposure in humans, *Environ. Health Perspect.* 109, pp. 529-532.
263. Frampton,M.W., Stewart,J.C., Oberdorster,G., Morrow,P.E., Chalupa,D., Pietropaoli,A.P., Frasier,L.M., Speers,D.M., Cox,C., Huang,L.-S., Utell,M.J., 2006. Inhalation of ultrafine particles alters blood leukocyte expression of adhesion molecules in humans, *Environ. Health Perspect.* 114, pp. 51-58.
264. Frampton,M.W., 2007. Does Inhalation of Ultrafine Particles Cause Pulmonary Vascular Effects in Humans?, *Inhal. Toxicol.* 19, pp. 75-79.
265. Franco Suglia,S., Gryparis,A., Wright,R.O., Schwartz,J., Wright,R.J., 2008. Association of Black Carbon with Cognition among Children in a Prospective Birth Cohort Study, *Am. J. Epidemiol.* 167, pp. 280-286.
266. Franco Suglia,S., Gryparis,A., Schwartz,J., Wright,R.J., 2008. Association between Traffic-Related Black Carbon Exposure and Lung Function among Urban Women, *Environ. Health Perspect.* 116.
267. Franklin,M., Koutrakis,P., Schwartz,J., 2008. The role of particle composition on the association between PM_{2.5} and mortality, *Epidemiology* 19, pp. 680-689.
268. Franklin,M., Zeka,A., Schwartz,J., 2007. Association between PM(2.5) and all-cause and specific-cause mortality in 27 US communities, *J Expo Sci Environ Epidemiol* 17, pp. 279-287.

269. Franklin,M., Schwartz,J., 2008. The Impact of Secondary Particles on the Association between Ambient Ozone and Mortality, *Environ. Health Perspect.* 116, pp. 453-458.
270. Gallagher,J., Sams,R.2., Inmon,J., Gelein,R., Elder,A., Oberdorster,G., Prahalad,A.K., 2003. Formation of 8-oxo-7,8-dihydro-2'-deoxyguanosine in rat lung DNA following subchronic inhalation of carbon black, *Toxicol. Appl. Pharmacol.* 190, pp. 224-231.
271. Gardner,S.Y., Lehmann,J.R., Costa,D.L., 2000. Oil fly ash-induced elevations of plasma fibrinogen in rats., *Toxicol. Sci.* 57, pp. 175-180.
272. Gardner,S.Y., McGee,J.K., Kodavanti,U.P., Ledbetter,A.D., Everitt,J.I., Winsett,D.W., Doerfler,D.L., Costa,D.L., 2004. Emission particle-induced ventilatory abnormalities in a rat model of pulmonary hypertension, *Environ. Health Perspect.* 112, pp. 872-878.
273. Garrick,M.D., Dolan,K.G., Horbinski,C., Ghio,A., Higgins,D., Porubcin,M., Moore,E.G., Hainsworth,L.N., Umbreit,J.N., Conrad,M.E., Feng,L., Lis,A., Roth,J., Singleton,S., Garrick,L.M., 2003. DMT1: A mammalian transporter for multiple metals., *Biometals* 16, pp. 41-54.
274. Gauderman,W.J., Vora,H., McConnell,R., Berhane,K., Gilliland,F., Thomas,D., Lurmann,F., Avol,E., Kunzli,N., Jerrett,M., Peters,J., 2007. Effect of exposure to traffic on lung development from 10 to 18 years of age: a cohort study, *The Lancet* 369, pp. 571-577.
275. Gauderman,W.J., Avol,E., Lurmann,F., Kuenzli,N., Gilliland,F., Peters,J., McConnell,R., 2005. Childhood Asthma and Exposure to Traffic and Nitrogen Dioxide, *Epidemiology* 16, pp. 737-743.
276. Gavett,S.H., Madison,S.L., Stevens,M.A., Costa,D.L., 1999. Residual oil fly ash amplifies allergic cytokines, airway responsiveness, and inflammation in mice., *Am. J. Respir. Crit. Care Med.* 160, pp. 1897-1904.
277. Gavett,S.H., Madison,S.L., Chulada,P.C., Scarborough,P.E., Qu,W., Boyle,J.E., Tiano,H.F., Lee,C.A., Langenbach,R., Roggli,V.L., Zeldin,D.C., 1999. Allergic lung responses are increased in prostaglandin H synthase-deficient mice, *J. Clin. Invest.* 104, pp. 721-32.
278. Gavett,S.H., Koren,H.S., 2001. The role of particulate matter in exacerbation of atopic asthma., *Int. Arch. Allergy Immunol.* 124, pp. 109-112.
279. Gavett,S.H., Haykal-Coates,N., Highfill,J.W., Ledbetter,A.D., Chen,L.C., Cohen,M.D., Harkema,J.R., Wagner,J.G., Costa,D.L., 2003. World Trade Center fine particulate matter causes respiratory tract hyperresponsiveness in mice, *Environ. Health Perspect.* 111, pp. 981-991.
280. Gavett,S.H., 2003. World Trade Center Fine Particulate Matter--Chemistry and Toxic Respiratory Effects: An Overview, *Environ. Health Perspect.* 111, p. 971.
281. Gavett,S.H., Haykal-Coates,N., Copeland,L.B., Heinrich,J., Gilmour,M.I., 2003. Metal composition of ambient PM2.5 influences severity of allergic airways disease in mice, *Environ. Health Perspect.* 111, pp. 1471-1477.
282. Gavett,S.H., 2006. Physical Characteristics and Health Effects of Aerosols from Collapsed Buildings, *J. Aerosol Med.* 19, pp. 84-91.
283. Geigel,E.J., Hyde,R.W., Perillo,I.B., Torres,A., Perkins,P.T., Pietropaoli,A.P., Frasier,L.M., Frampton,M.W., Utell,M.J., 1999. Rate of nitric oxide production by the lower airways of human lungs, *J. Appl. Physiol.* 86, pp. 211-221.

284. Ghelfi,E., Rhoden,C.R., Wellenius,G.A., Lawrence,J., Gonzalez-Flecha,B., 2008. Cardiac oxidative stress and electrophysiological changes in rats exposed to concentrated air particles are mediated by TRP-dependent pulmonary reflexes, *Toxicol. Sci.* 102, pp. 328-336.
285. Ghio,A., Lehmann,J., Winsett,D., Richards,J., Costa,D., 2005. Colchicine decreases airway hyperreactivity after phosgene exposure, *Inhal. Toxicol.* 17, pp. 277-285.
286. Ghio,A.J., Carter,J.D., Samet,J.M., Reed,W., Quay,J., Dailey,L.A., Richards,J.H., Devlin,R.B., 1998. Metal-dependent expression of ferritin and lactoferrin by respiratory epithelial cells, *Am. J. Physiol. Lung Cell Mol. Physiol.* 274, pp. 728-736.
287. Ghio,A.J., Taylor,D.E., Stonehuerner,J.G., Piantadosi,C.A., Crumbliss,A.L., 1998. The release of iron from different asbestos structures by hydrogen peroxide with concomitant O₂ generation, *Biometals* 11, pp. 41-7.
288. Ghio,A.J., Carter,J.D., Richards,J.H., Brighton,L.E., Lay,J.C., Devlin,R.B., 1998. Disruption of normal iron homeostasis after bronchial instillation of an iron-containing particle, *Am. J. Physiol. Lung Cell Mol. Physiol.* 274, pp. 396-403.
289. Ghio,A.J., Kennedy,T.P., Crissman,K.M., Richards,J.H., Hatch,G.E., 1998. Depletion of iron and ascorbate in rodents diminishes lung injury after silica, *Exp. Lung Res.* 24, pp. 219-32.
290. Ghio,A.J., Richards,J.H., Dittrich,K.L., Samet,J.M., 1998. Metal storage and transport proteins increase after exposure of the rat lung to an air pollution particle, *Toxicol. Pathol.* 26, pp. 388-94.
291. Ghio,A.J., Stonehuerner,J., Dailey,L.A., Carter,J.D., 1999. Metals associated with both the water-soluble and insoluble fractions of an ambient air pollution particle catalyze an oxidative stress, *Inhal. Toxicol.* 11, pp. 37-49.
292. Ghio,A.J., Carter,J.D., Dailey,L.A., Devlin,R.B., Samet,J.M., 1999. Respiratory epithelial cells demonstrate lactoferrin receptors that increase after metal exposure, *Am. J. Physiol. Lung Cell Mol. Physiol.* 276, pp. 933-940.
293. Ghio,A.J., Stoneheurner,J., McGee,J.K., Kinsey,J.S., 1999. Sulfate content correlates with iron concentrations in ambient air pollution particles, *Inhal. Toxicol.* 11, pp. 293-307.
294. Ghio,A.J., Richards,J.H., Crissman,K.M., Carter,J.D., 2000. Iron disequilibrium in the rat lung after instilled blood, *Chest* 118, pp. 814-23.
295. Ghio,A.J., Kim,C., Devlin,R.B., 2000. Concentrated ambient air particles induce mild pulmonary inflammation in healthy human volunteers, *Am. J. Respir. Crit. Care Med.* 162, pp. 981-8.
296. Ghio,A.J., Richards,J.H., Carter,J.D., Madden,M.C., 2000. Accumulation of iron in the rat lung after tracheal instillation of diesel particles, *Toxicol. Pathol.* 28, pp. 619-27.
297. Ghio,A.J., Carter,J.D., Richards,J.H., Crissman,K.M., Bobb,H.H., Yang,F., 2000. Diminished injury in hypotransferrinemic mice after exposure to a metal- rich particle, *Am. J. Physiol. Lung Cell Mol. Physiol.* 278, pp. 1051-1061.
298. Ghio,A.J., Devlin,R.B., 2001. Inflammatory lung injury after bronchial instillation of air pollution particles, *Am. J. Respir. Crit. Care Med.* 164, pp. 704-708.
299. Ghio,A.J., Gilbey,J.G., Roggli,V.L., Richards,J.H., McGee,J.K., Carson,J.L., Devlin,R.B., Cascio,W.E., 2001. Diffuse alveolar damage after exposure to an oil fly ash, *Am. J. Respir. Crit. Care Med.* 164, pp. 1514-1518.

300. Ghio,A.J., Silbajoris,R., Carson,J.L., Samet,J.M., 2002. Biologic effects of oil fly ash, *Environ. Health Perspect.* 110, pp. 89-94.
301. Ghio,A.J., Suliman,H.B., Carter,J.D., Abushamaa,A.M., Folz,R.J., 2002. Overexpression of extracellular superoxide dismutase decreases lung injury after exposure to oil fly ash, *Am. J. Physiol. Lung Cell Mol. Physiol.* 283, pp. 211-8.
302. Ghio,A.J., Kennedy,T.P., Stonehuerner,J., Carter,J.D., Skinner,K.A., Parks,D.A., Hoidal,J.R., 2002. Iron regulates xanthine oxidase activity in the lung, *Am. J. Physiol. Lung Cell Mol. Physiol.* 283, pp. 563-72.
303. Ghio,A.J., Carter,J.D., Richards,J.H., Richer,L.D., Grissom,C.K., Elstad,M.R., 2003. Iron and iron-related proteins in the lower respiratory tract of ARDS patients, *Crit. Care Med.* 31, pp. 395-400.
304. Ghio,A.J., Hall,A., Bassett,M.A., Cascio,W.E., Devlin,R.B., 2003. Exposure to concentrated ambient air particles alters hematologic indices in humans, *Inhal. Toxicol.* 15, pp. 1465-78.
305. Ghio,A.J., Churg,A., Roggli,V.L., 2004. Ferruginous bodies: implications in the mechanism of fiber and particle toxicity, *Toxicol. Pathol.* 32, pp. 643-9.
306. Ghio,A.J., Huang,Y.C., 2004. Exposure to concentrated ambient particles (CAPs): a review, *Inhal. Toxicol.* 16, pp. 53-59.
307. Ghio,A.J., 2004. Biological effects of Utah Valley air pollution particles: A review, *J. Aerosol Med.* 17, pp. 157-164.
308. Ghio,A.J., Ford,E.S., Kennedy,T.P., Hoidal,J.R., 2005. The association between serum ferritin and uric acid in humans, *Free Radic. Res* 39, pp. 337-342.
309. Ghio,A.J., Piantadosi,C.A., Wang,X., Dailey,L.A., Stonehuerner,J.D., Madden,M.C., Yang,F., Dolan,K.G., Garrick,M.D., Garrick,L.M., 2005. Divalent metal transporter-1 decreases metal-related injury in the lung, *Am. J. Physiol. Lung Cell Mol. Physiol.* 289, p. L460-L467.
310. Ghio,A.J., Cohen,M.D., 2005. Disruption of iron homeostasis as a mechanism of biologic effect by ambient air pollution particles, *Inhal. Toxicol.* 17, pp. 709-716.
311. Ghio,A.J., Turi,J.L., Yang,F., Garrick,L.M., Garrick,M.D., 2006. Iron homeostasis in the lung, *Biological Research* 39, pp. 67-77.
312. Ghio,A.J., Mazan,M.R., Hoffmann,A.M., Robinson,N.E., 2006. Correlates between human and equine lung injury after particle exposure., *Equine Veterinary Journal* 38, pp. 362-367.
313. Ghio,A.J., Bennett,W.D., 2007. Metal particles are inappropriate for testing a postulate of extra-pulmonary transport, *Environ. Health Perspect.* 115, p. A70.
314. Ghio,A.J., Bassett,M.A., Levin,D., Montilla,T., 2007. Oxygen supplementation is required in healthy volunteers during bronchoscopy with lavage, *Journal of Bronchology* 14, pp. 19-21.
315. Ghio,A.J., Stonehuerner,J., Dailey,L.A., Richards,J.H., Madden,M.D., Deng,Z., Nguyen,N.B., Callaghan,K.D., Yang,F., Piantadosi,C.A., 2008. Carbon monoxide reversibly alters iron homeostasis and respiratory epithelial cell function, *Am. J. Respir. Crit. Care Med.* 38, pp. 715-723.
316. Ghio,A.J., Hilborn,E.D., Stonehuerner,J.G., Dailey,L.A., Carter,J.D., Richards,J.H., Crissman,K., Foronjy,R.F., Uyeminami,D.L., Pinkerton,K.E., 2008. Particulate Matter in Cigarette Smoke Alters

- Iron Homeostasis to Produce a Biological Effect, *Am. J. Respir. Crit. Care Med.* 178, pp. 1130-1138.
317. Ghio,A.J., 2008. Disruption of iron homeostasis and lung disease, *Biochimica et Biophysica Acta*.
 318. Ghio,A.J., Stonehuerner,J.G., Richards,J.H., Crissman,K., Roggli,V.L., Piantadosi,C.A., Carraway,M.S., 2008. Iron homeostasis and oxidative stress in idiopathic pulmonary alveolar proteinosis: a case-control study, *Respiratory Research* 9.
 319. Ghio,A.J., Funkhouser,W., Pugh,C.B., Winters,S., Stonehuerner,J.G., Mahar,A.M., Roggli,V.L., 2006. Pulmonary Fibrosis and Ferruginous Bodies Associated with Exposure to Synthetic Fibers, *Toxicol Pathol* 34, pp. 723-729.
 320. Ghio,A.J., Turi,J.L., Madden,M.C., Dailey,L.A., Richards,J.D., Stonehuerner,J.G., Morgan,D.L., Singleton,S., Garrick,L.M., Garrick,M.D., 2006. Lung injury after ozone exposure is iron-dependent, *Am. J. Physiol. Lung Cell Mol. Physiol.* p. 00534.
 321. Ghio,A.J., Stonehuerner,J., Richards,J., Devlin,R.B., 2008. Iron Homeostasis in the Lung Following Asbestos Exposure, *Antioxidants & Redox Signaling* 10, pp. 371-378.
 322. Gil,L., King,L.C., Adonis,M., 2000. Trends of polycyclic aromatic hydrocarbon levels and mutagenicity in Santiago's inhalable airborne particles in the period 1992-1996., *Inhal. Toxicol.* 12, pp. 1185-1204.
 323. Gilboa,S.M., Mendola,P., Olshan,A.F., Langlois,P.H., Savitz,D.A., Loomis,D., Herring,A.H., Fixler,D.E., 2005. Relation between ambient air quality and selected birth defects, seven county study, Texas, 1997-2000, *Am. J. Epidemiol.* 162, pp. 238-252.
 324. Gilmour,I.M., Jaakkola,M.S., London,S.J., Nel,A.E., Rogers,C.A., 2006. How the indoor and outdoor environments influence the incidence and severity of asthma., *Environ. Health Perspect.* 114, pp. 627-633.
 325. Gilmour,M.I., Selgrade,M.J., Lambert,A.L., 2000. Enhanced allergic sensitization in animals exposed to particulate air pollutants., *Inhal. Toxicol.* 12, pp. 373-380.
 326. Gilmour,M.I., Daniels,M., McCrillis,R.C., Winsett,D., Selgrade,M.J.K., 2001. Air pollutant-enhanced respiratory disease in experimental animals., *Environ. Health Perspect.* 109, pp. 619-622.
 327. Gilmour,M.I., O'Connor,S., Dick,C.A.J., Miller,C.A., Linak,W.P., 2004. Differential pulmonary inflammation and *in vitro* cytotoxicity of size-fractionated fly ash particles from pulverized coal combustion, *J. Air Waste Manag. Assoc.* 54, pp. 286-295.
 328. Gilmour,M.I., McGee,J., Duvall,R.M., Dailey,L., Daniels,M., Boykin,E., Cho,S.H., Doerfler,D., Gordon,T., Devlin,R.B., 2007. Comparative Toxicity of Size-Fractionated Airborne Particulate Matter Obtained from Different Cities in the United States, *Inhal. Toxicol.* 19, pp. 7-16.
 329. Gilmour,P.S., Schladweiler,M.C.J., Ledbetter,A.D., Samet,J.M., Kodavanti,U.P., 2004. The hypertensive rats are susceptible to TLR4-mediated signaling following exposure to combustion source particulate matter (PM)., *Inhal. Toxicol.* 16, pp. 5-18.
 330. Gilmour,P.S., Nyska,A., Schladweiler,M.C., McGee,J.K., Wallenborn,J.G., Richards,J.H., Kodavanti,U.P., 2006. Cardiovascular and blood coagulative effects of pulmonary zinc exposure, *Toxicol. Appl. Pharmacol.* 211, pp. 41-52.

331. Gilmour,P.S., Schladweiler,M.C., Nyska,A., McGee,J.K., Thomas,R., Jaskot,R.H., Schmid,J.E., Kodavanti,U.P., 2006. Systemic imbalance of essential metals and cardiac gene expression in rats following acute pulmonary zinc exposure., *J. Toxicol. Environ. Health A* 69, pp. 2011-2032.
332. Ginsberg,G.L., Asgharian,B., Kimbell,J.S., Ultman,J.S., Jarabek,A.M., 2008. Modeling approaches for estimating the dosimetry of inhaled toxicants in children, *Journal of Toxicology and Environmental Health Part A* 71, pp. 166-195.
333. Godleski,J.J., 2006. Responses of the heart to ambient particle inhalation, *Clin Occup Environ Med* 5, pp. 849-864.
334. Gold,D.R., Damokosh,A.I., Pope,C.A., III, Dockery,D.W., McDonnell,W.F., Serrano,P., Retama,A., Castillejos,M., 1999. Particulate and ozone pollutant effects on the respiratory function of children in southwest Mexico City, *Epidemiology* 10, pp. 8-16.
335. Gold,D.R., Litonjua,A., Schwartz,J., Lovett,E., Larson,A., Nearing,B., Allen,G., Verrier,M., Cherry,R., Verrier,R., 2000. Ambient pollution and heart rate variability, *Circulation* 101, pp. 1267-1273.
336. Gold,D.R., Litonjua,A.A., Zanobetti,A., Coull,B.A., Schwartz,J., MacCallum,G., Verrier,R.L., Nearing,B.D., Canner,M.J., Suh,H., Stone,P.H., 2005. Air pollution and ST-segment depression in elderly subjects, *Environ. Health Perspect.* 113, pp. 883-887.
337. Goldsmith,C.A., Imrich,A., Danaee,H., Ning,Y.Y., Kobzik,L., 1998. Analysis of air pollution particulate-mediated oxidant stress in alveolar macrophages, *J. Toxicol. Environ. Health A* 54, pp. 529-545.
338. Goldsmith,C.A., Hamada,K., Ning,Y., Qin,G., Catalano,P., Krishna Murthy,G.G., Lawrence,J., Kobzik,L., 1999. Effects of environmental aerosols on airway hyperresponsiveness in a murine model of asthma, *Inhal. Toxicol.* 11, pp. 981-998.
339. Goldsmith,C.A., Ning,Y., Qin,G., Imrich,A., Lawrence,J., Krishna Murthy,G.G., Catalano,P.J., Kobzik,L., 2002. Combined air pollution particle and ozone exposure increases airway responsiveness in mice, *Inhal. Toxicol.* 14, pp. 325-347.
340. Gong,H., Sioutas,C., Linn,W.S., Clark,K.W., Terrell,S.L., Terrell,L.L., Anderson,K.R., Kim,S., Chang,M.C., 2000. Controlled Human Exposures to Concentrated Ambient Fine Particles in Metropolitan Los Angeles. Methodology and Preliminary Health-Effect Findings, *Inhal. Toxicol.* 12, pp. 107-119.
341. Gong,H., Jr., Linn,W.S., Sioutas,C., Terrell,S.L., Clark,K.W., Anderson,K.R., Terrell,L.L., 2003. Controlled exposures of healthy and asthmatic volunteers to concentrated ambient fine particles in Los Angeles, *Inhal. Toxicol.* 15, pp. 305-325.
342. Gong,H., Jr., Linn,W.S., Terrell,S.L., Clark,K., Geller,M.D., Anderson,K.R., Cascio,W.E., Sioutas,C., 2004. Altered Heart Rate Variability in Asthmatic and Healthy Volunteers Exposed to Concentrated Ambient Coarse Particles, *Inhal. Toxicol.* 16, pp. 335-343.
343. Gong,H., Jr., Linn,W.S., Terrell,S.L., Anderson,K.R., Clark,K.W., Sioutas,C., Cascio,W.E., Alexis,N., Devlin,R.B., 2004. Exposures of Elderly Volunteers with and without Chronic Obstructive Pulmonary Disease (COPD) to Concentrated Ambient Fine Particulate Pollution., *Inhal. Toxicol.* 16, pp. 731-744.

344. Gong,H., Jr., Linn,W.S., Clark,K.W., Anderson,K.R., Geller,M.D., Sioutas,C., 2005. Respiratory responses to exposures with fine particulates and nitrogen dioxide in the elderly with and without COPD, *Inhal. Toxicol.* 17, pp. 123-132.
345. Gong,H., Jr., Linn,W.S., Clark,K.L., Anderson,K.R., Sioutas,C., Neil,A., Devlin,R.B., 2008. Exposures of healthy and asthmatic volunteers to concentrated ambient ultrafine particles in Los Angeles, *Inhal. Toxicol.* 20, pp. 533-545.
346. Gong,K.W., Zhao,W., Li,N., Barajas,B., Kleinman,M., Sioutas,C., Horvath,S., Lusk,A.J., Nel,A., Araujo,J.A., 2007. Air-pollutant chemicals and oxidized lipids exhibit genome-wide synergistic effects on endothelial cells, *Genome Biol* 8, p. R149.
347. Goo,J., Kim,C.S., 2001. Analysis of aerosol bolus dispersion in a cyclic tube flow by finite element method., *Aerosol Sci. Technol.* 34, pp. 321-331.
348. Goo,J., Kim,C.S., 2003. Theoretical analysis of deposition of inhaled particles in human lungs considering stochastic variations of airway morphology, *Aerosol Sci. Technol.* 34, pp. 585-602.
349. Goodman,P.G., Dockery,D.W., Clancy,L., 2004. Cause-Specific Mortality and the Extended Effects of Particulate Pollution and Temperature Exposure, *Environ. Health Perspect.* 112, pp. 179-185.
350. Gordon,C.J., Samsam,T.E., Oshiro,W.M., Bushnell,P.J., 2007. Cardiovascular effects of oral toluene exposure in the rat monitored by radiotelemetry, *Neurotoxicol. Teratol.* 29, pp. 228-235.
351. Gordon,T., Gerber,H., Fang,C.P., Chen,L.C., 1999. A centrifugal particle concentrator for use in inhalation toxicology, *Inhal. Toxicol.* 11, pp. 71-87.
352. Gordon,T., Reibman,J., 2000. Cardiovascular toxicity of inhaled ambient particulate matter, *Toxicol. Sci.* 56, pp. 2-4.
353. Goss,C.H., Newsom,S.A., Schildcrout,J.S., Sheppard,L., Kaufman,J.D., 2004. Effect of ambient air pollution on pulmonary exacerbations and lung function in cystic fibrosis, *Am. J. Respir. Crit. Care Med.* 169, pp. 816-821.
354. Gowdy,K., Krantz,Q.T., Daniels,M., Linak,W.P., Jaspers,I., Gilmour,M.I., 2008. Modulation of pulmonary inflammatory responses and antimicrobial defenses in mice exposed to diesel exhaust, *Toxicol. Appl. Pharmacol.* In Press, Corrected Proof.
355. Graff,D.W., Cascio,W.E., Brackhan,J.A., Devlin,R.B., 2004. Metal particulate matter components affect gene expression and beat frequency of neonatal rat ventricular myocytes, *Environ. Health Perspect.* 112, pp. 792-798.
356. Graff,D.W., Schmitt,M.T., Dailey,L.A., Duvall,R.M., Karoly,E.D., Devlin,R.B., 2007. Assessing the Role of Particulate Matter Size and Composition on Gene Expression in Pulmonary Cells, *Inhal. Toxicol.* 19, pp. 23-28.
357. Granville,C., Hanley,N.M., Mumford,J.L., DeMarini,D.M., 2003. Mutation spectra of smoky coal combustion emissions in Salmonella reflect the TP53 and KRAS mutations in lung tumors from smoky coal-exposed individuals, *Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis* 525, pp. 77-83.
358. Greaves,I.A., Sexton,K., Blumenthal,M.N., Church,T.R., Adgate,J.L., Ramachandran,G., Fredrickson,A.L., Ryan,A.D., Geisser,M.S., 2007. Asthma, atopy, and lung function among racially diverse, poor inner-urban Minneapolis schoolchildren, *Environ. Res.* 103, pp. 257-266.

359. Griffin,S., Marcus,A., Schulz,T., Walker,S., 1999. Calculating the interindividual geometric standard deviation for use in the integrated exposure uptake biokinetic model for lead in children, *Environ. Health Perspect.* 107, pp. 481-487.
360. Gryparis,A., Coull,B.A., Schwartz,J., 2007. Controlling for confounding in the presence of measurement error in hierarchical models: a Bayesian approach, *J Expos Sci Environ Epidemiol* 17, p. S20-S28.
361. Gryparis,A., Paciorek,C.J., Zeka,A., Schwartz,J., Coull,B.A., 2008. Measurement error caused by spatial misalignment in environmental epidemiology, *Biostat* p. kxn033.
362. Guan,X., Segal,R.A., Shearer,M., Martonen,T.B., 2000. Mathematical model of airflow in the lungs of children II: Effects of ventilatory parameters., *J. Theor. Med.* 3, pp. 51-62.
363. Gunnison,A., Chen,L.C., 2005. Effects of Subchronic Exposures to Concentrated Ambient Particles (CAPs) in Mice: VI. Gene Expression in Heart and Lung Tissue, *Inhal. Toxicol.* 17, pp. 225-233.
364. Gunnison,A.F., Hatch,G.E., 1999. O₃-induced inflammation in prepregnant, pregnant, and lactating rats correlates with O₃ dose estimated by 18O, *Am. J. Physiol. Lung Cell Mol. Physiol.* 276, p. L332-L340.
365. Gupta,T., Demokritou,P., Koutrakis,P., 2004. Development and Performance Evaluation of a High-Volume Ultrafine Particle Concentrator for Inhalation Toxicological Studies, *Inhal. Toxicol.* 16, pp. 851-862.
366. Gwynn,R.C., Burnett,R.T., Thurston,G.D., 2000. A time-series analysis of acidic particulate matter and daily mortality and morbidity in the Buffalo, New York, region, *Environ. Health Perspect.* 108, pp. 125-133.
367. Gwynn,R.C., Thurston,G.D., 2001. The burden of air pollution: Impacts among racial minorities., *Environ. Health Perspect.* 109, pp. 501-506.
368. Haber,S., Yitzhak,D., Tsuda,A., 2003. Gravitational deposition in a rhythmically expanding and contracting alveolus, *J. Appl. Physiol.* 95, pp. 657-671.
369. Hamada,K., Goldsmith,C.A., Kobzik,L., 1999. Increased airway hyperresponsiveness and inflammation in a juvenile mouse model of asthma exposed to air-pollutant aerosol, *J. Toxicol. Environ. Health A* 58, pp. 129-143.
370. Hamada,K., Goldsmith,C.A., Goldman,A., Kobzik,L., 2000. Resistance of very young mice to inhaled allergen sensitization is overcome by coexposure to an air-pollutant aerosol, *Am. J. Respir. Crit. Care Med.* 161, pp. 1285-1293.
371. Hamada,K., Goldsmith,C.A., Suzuki,Y., Goldman,A., Kobzik,L., 2002. Airway hyperresponsiveness caused by aerosol exposure to residual oil fly ash leachate in mice, *J. Toxicol. Environ. Health A* 65, pp. 1351-1365.
372. Hamilton,R.F., Jr., Marshall,G.D., Holian,A., 2001. Silica and PM1648 modify human alveolar macrophage antigen-presenting cell activity in vitro, *J. Environ. Pathol. Toxicol. Oncol.* 20, pp. 75-80.
373. Hanna,L.M., Lou,S.R., Su,S., Jarabek,A.M., 2001. Mass transport analysis: inhalation rfc methods framework for interspecies dosimetric adjustment, *Inhal. Toxicol.* 13, pp. 437-463.

374. Hao,M., Comier,S., Wang,M., Lee,J.J., Nel,A., 2003. Diesel exhaust particles exert acute effects on airway inflammation and function in murine allergen provocation models, *J. Allergy Clin. Immunol.* 112, pp. 905-914.
375. Harder,S.D., Soukup,J.M., Ghio,A.J., Devlin,R.B., Becker,S., 2001. Inhalation of PM2.5 does not modulate host defense or immune parameters in blood or lung of normal human subjects, *Environ. Health Perspect.* 109, pp. 599-604.
376. Harder,V., Gilmour,P., Lentner,B., Karg,E., Takenaka,S., Ziesenis,A., Stampfl,A., Kodavanti,U., Heyder,J., Schulz,H., 2005. Cardiovascular responses in unrestrained WKY rats to inhaled ultrafine carbon particles, *Inhal. Toxicol.* 17, pp. 29-42.
377. Hattis,D., Russ,A., Goble,R., Banati,P., Chu,M., 2001. Human interindividual variability in susceptibility to airborne particles, *Risk Anal.* 21, pp. 585-599.
378. Hatzis,C., Godleski,J.J., Gonzalez-Flecha,B., Wolfson,J.M., Koutrakis,P., 2006. Ambient Particulate Matter Exhibits Direct Inhibitory Effects on Oxidative Stress Enzymes, *Environ. Sci. Technol.* 40, pp. 2805-2811.
379. Hazari,M.S., Rowan,W.H., Winsett,D.W., Ledbetter,A.D., Haykal-Coates,N., Watkinson,W.P., Costa,D.L., 2008. Potentiation of pulmonary reflex response to capsaicin 24 h following whole-body acrolein exposure is mediated by TRPV1, *Respiratory Physiology & Neurobiology* 160, pp. 160-171.
380. Hazucha,M.J., Folinsbee,L.J., Bromberg,P.A., 2003. Distribution and reproducibility of spirometric response to ozone by gender and age, *J. Appl. Physiol.* 95, pp. 1917-1925.
381. Hecht,S.S., Ye,M., Carmella,S.G., Fredrickson,A., Adgate,J.L., Greaves,I.A., Church,T.R., Ryan,A.D., Mongin,S.J., Sexton,K., 2001. Metabolites of a tobacco-specific lung carcinogen in the urine of elementary school-aged children, *Cancer Epidemiol Biomarkers Prev.* 10, pp. 1109-1116.
382. Heinrich,J., Hoelscher,B., Frye,C., Meyer,I., Pitz,M., Cyrys,J., Wjst,M., Neas,L., Wichmann,H.E., 2002. Improved Air Quality in Reunified Germany and Decreases in Respiratory Symptoms, *Epidemiology* 13, pp. 394-401.
383. Henneberger,A., Zareba,W., Ibald-Mulli,A., R ckerl,R., Cyrys,J., Couderc,J.-P., Mykins,B., Woelke,G., Wichmann,H.-E., Peters,A., 2005. Repolarization changes induced by air pollution in ischemic heart disease patients, *Environ. Health Perspect.* 113, pp. 440-446.
384. Henry,F.S., Butler,J.P., Tsuda,A., 2002. Kinematically Irreversible Acinar Flow: a Departure from Classical Dispersive Aerosol Transport Theories, *J. Appl. Physiol.* 92, pp. 835-845.
385. Hester,S.D., Benavides,G.B., Sartor,M., Yoon,L., Wolf,D.C., Morgan,K.T., 2002. Normal gene expression in male F344 rat nasal transitional and respiratory epithelium, *Genomics* 285, pp. 301-310.
386. Hester,S.D., Benavides,G.B., Yoon,L., Morgan,K.T., Zou,F., Barry,W., Wolf,D.C., 2003. Formaldehyde-induced gene expression in F344 rat nasal respiratory epithelium, *Toxicology* 187, pp. 13-24.
387. Hester,S.D., Barry,W.T., Zou,F., Wolf,D.C., 2005. Transcriptomic analysis of F344 rat nasal epithelium suggests that the lack of carcinogenic response to glutaraldehyde is due to its greater toxicity compared to formaldehyde, *Toxicol. Pathol.* 33, pp. 415-424.

388. Hiura, T.S., Li, N., Kaplan, R., Horwitz, M., Seagrave, J.C., Nel, A.E., 2000. The Role of a Mitochondrial Pathway in the Induction of Apoptosis by Chemicals Extracted from Diesel Exhaust Particles, *J. Immunol.* 165, pp. 2703-2711.
389. Hiyoshi, K., Takano, H., Inoue, K., Ichinose, T., Yanagisawa, R., Tomura, S., Cho, A., Froines, J.R., Kumagai, Y., 2005. Effects of Single Intratracheal Administration of Phenanthraquinone on Murine Lung, *J. Appl. Toxicol.* 25, pp. 47-51.
390. Hodgson, M.J., Bracker, A., Yang, C., Storey, E., Jarvis, B.J., Milton, D., Lummus, Z., Bernstein, D., Cole, S., 2001. Hypersensitivity pneumonitis in a metal-working environment, *Am. J. Ind. Med.* 39, pp. 616-628.
391. Hogan, K., Marcus, A., Smith, R., White, P.D., 1998. Integrated exposure uptake biokinetic model for lead in children: empirical comparisons with epidemiologic data, *Environ. Health Perspect.* 106 Suppl 6, pp. 1557-1567.
392. Hollingsworth, J., Whitehead, G., Berman, K., Tekippe, E., Gilmour, M., Larkin, J., Quackenbush, J., Schwartz, D., 2007. Genetic basis of murine antibacterial defense to *Streptococcal* lung infection, *Immunogenetics* 59, pp. 713-724.
393. Holsapple, M.P., Jones, D., Kawabata, T.T., Kimber, I., Sarlo, K., Selgrade, M.K., Shah, J., Woolhiser, M.R., 2005. Assessing the Potential to Induce Respiratory Hypersensitivity, *Toxicol. Sci.* 91, pp. 4-13.
394. Hopke, P.K., Ito, K., Mar, T., Christensen, W.F., Eatough, D.J., Henry, R.C., Kim, E., Laden, F., Lall, R., Larson, T.V., Liu, H., Neas, L., Pinto, J., Stolzel, M., Suh, H., Paatero, P., Thurston, G.D., 2006. PM source apportionment and health effects: 1. Intercomparison of source apportionment results, *J Expos Sci Environ Epidemiol* 16, pp. 275-286.
395. Huang, Y.C., Wu, W., Ghio, A.J., Carter, J.D., Silbajoris, R., Devlin, R.B., Samet, J.M., 2002. Activation of EGF receptors mediates pulmonary vasoconstriction induced by residual oil fly ash, *Exp. Lung Res.* 28, pp. 19-38.
396. Huang, Y.C., Soukup, J., Harder, S., Becker, S., 2002. Mitochondrial oxidant production by a pollutant dust and NO-mediated apoptosis in human alveolar macrophage, *Am. J. Physiol. , Cell Physiol.* 284, p. C24-C32.
397. Huang, Y.C., Ghio, A.J., Stonehuerner, J., McGee, J., Carter, J.D., Grambow, S.C., Devlin, R.B., 2003. The role of soluble components in ambient fine particles-induced changes in human lungs and blood, *Inhal. Toxicol.* 15, pp. 327-342.
398. Huang, Y.C., Li, Z., Brighton, L.E., Carson, J.L., Becker, S., Soukup, J.M., 2005. 3-Nitrotyrosine Attenuates Respiratory Syncytial Virus Infection in Human Bronchial Epithelial Cell Line, *Am. J. Physiol. Lung Cell Mol. Physiol.* 288, p. L988-L996.
399. Huang, Y.C., Ghio, A.J., 2006. Vascular effects of ambient pollutant particles and metals, *Curr. Vasc. Pharmacol* 4, pp. 199-203.
400. Huang, Y.C., Ghio, A.J., 2006. Vascular effects of ambient pollutant particles and metals, *Current Vascular Pharmacology* 4, pp. 199-203.
401. Huang, Y.C.T., Ghio, A.J., Nozik-Grayck, E., Piantadosi, C.A., 2001. Vascular release of nonheme iron in perfused rabbit lungs, *Am. J. Physiol. Lung Cell Mol. Physiol.* 280, pp. 474-81.

402. Huang,Y.C.T., Li,Z., Harder,S.D., Soukup,J.M., 2004. Apoptotic and inflammatory effects induced by different particles in human alveolar macrophages, *Inhal. Toxicol.* 16, pp. 863-878.
403. Hwang,J.-S., Nadziejko,C., Chen,L.C., 2005. Effects of Subchronic Exposures to Concentrated Ambient Particles (CAPs) in Mice: III. Acute and Chronic Effects of CAPS on Heart-Rate, Heart-Rate Fluctuation, and Body Temperature, *Inhal. Toxicol.* 17, pp. 199-207.
404. Hyde,D.M., Miller,L.A., McDonald,R.J., Stovall,M.Y., Wong,V., Pinkerton,K.E., Wegner,C.D., Rothlein,R., Plopper,C.G., 1999. Neutrophils enhance clearance of necrotic epithelial cells in ozone-induced lung injury in rhesus monkeys, *Am. J. Physiol. Lung Cell Mol. Physiol.* 277, pp. 1190-1198.
405. Ibaldo-Mulli,A., Wichmann,H.E., Kreyling,W., Peters,A., 2002. Epidemiological evidence on health effects of ultrafine particles, *J. Aerosol Med.* 15, pp. 189-201.
406. Imrich,A., Ning,Y.Y., Kobzik,L., 1999. Intracellular oxidant production and cytokine responses in lung macrophages: evaluation of fluorescent probes, *J. Leukoc. Biol.* 65, pp. 499-507.
407. Imrich,A., Ning,Y.Y., Koziel,H., Coull,B., Kobzik,L., 1999. Lipopolysaccharide priming amplifies lung macrophage tumor necrosis factor production in response to air particles, *Toxicol. Appl. Pharmacol.* 159, pp. 117-124.
408. Imrich,A., Ning,Y., Lawrence,J., Coull,B., Gitin,E., Knutson,M., Kobzik,L., 2007. Alveolar macrophage cytokine response to air pollution particles: Oxidant mechanisms, *Toxicol. Appl. Pharmacol.* 218, pp. 256-264.
409. Inoue,K.I., Takano,H., Ichinose,T., Tomura,S., Yanagisawa,R., Sakurai,M., Sumi,D., Cho,A.K., Hiyoshi,K., Kumagai,Y., 2007. Effects of naphthoquinone on airway hyperresponsiveness in the presence or absence of antigen in mice, *Archives of Toxicology* 81, pp. 575-581.
410. Instanes,C., Ward,M.D.W., Hetland,G., 2006. The fungal biopesticide *Metarhizium anisopliae* has an adjuvant effect on the allergic response to ovalbumin in mice, *Toxicol. Lett.* 161, pp. 219-225.
411. Isaacs,K.K., Martonen,T.B., 2005. Particle Deposition in Children's Lungs: Theory and Experiment, *J. Aerosol Med.* 18, pp. 337-353.
412. Ito,K., Thurston,G.D., Nádas,A., Lippmann,M., 2001. Monitor-to-monitor temporal correlation of air pollution and weather variables in the North-Central U.S, *J. Expo. Anal. Environ. Epidemiol.* 11, pp. 21-32.
413. Ito,K., De Leon,S.F., Lippmann,M., 2005. Associations between ozone and daily mortality: analysis and meta-analysis, *Epidemiology* 16, pp. 446-457.
414. Ito,K., DeLeon,S.F., Thurston,G.D., Nádas,A., Lippmann,M., 2005. Monitor-to-monitor temporal correlation of air pollution in the contiguous U.S., *J. Expo. Anal. Environ. Epidemiol.* 15, pp. 172-184.
415. Ito,K., Christensen,W.F., Eatough,D.J., Henry,R.C., Kim,E., Laden,F., Lall,R., Larson,T.V., Neas,L., Hopke,P.K., Thurston,G.D., 2006. PM source apportionment and health effects: 2. An investigation of intermethod variability in associations between source-apportioned fine particle mass and daily mortality in Washington, DC, *J Expos Sci Environ Epidemiol* 16, pp. 300-310.
416. Iwamoto,N., Sumi,D., Ishii,T., Uchida,K., Cho,A.K., Froines,J.R., Kumagai,Y., 2007. Chemical Knockdown of Protein-tyrosine Phosphatase 1B by 1,2-Naphthoquinone through Covalent

Modification Causes Persistent Transactivation of Epidermal Growth Factor Receptor, *J. Biol. Chem.* 282, pp. 33396-33404.

417. Janes,H., Dominici,F., Zeger,S.L., 2007. Trends in Air Pollution and Mortality: An Approach to the Assessment of Unmeasured Confounding, *Epidemiology* 18, pp. 416-423.
418. Janes,H., Dominici,F., Zeger,S.L., 2007. Partitioning evidence of association between air pollution and mortality, *Epidemiology* 18, pp. 427-428.
419. Janes,H., Sheppard,L., Shepherd,K., 2008. Statistical issues in air pollution panel studies, *Journal of Exposure Science and Environmental Epidemiology*.
420. Janes,H., Sheppard,L., Lumley,T., 2005. Overlap bias in the case-crossover design, with application to air pollution exposures, *Stat. Med.* 24, pp. 285-300.
421. Janes,H., Sheppard,L., Lumley,T., 2005. Case-crossover analyses of air pollution exposure data: referent selection strategies and their implications for bias, *Epidemiology* 16, pp. 717-726.
422. Janes,H., Sheppard,L., Lumley,T., 2005. Do subject characteristics modify the effects of particulate air pollution on daily mortality among the elderly?, *J. Occup. Environ. Med.* 47, pp. 543-545.
423. Jang,M., Ghio,A.J., Cao,G., 2006. Exposure of BEAS-2B Cells to Secondary Organic Aerosol Coated on Magnetic Nanoparticles, *Chem. Res. Toxicol.* 19, pp. 1044-1050.
424. Jansen,K.L., Larson,T.V., Koenig,J.Q., Mar,T.F., Fields,C., Stewart,J., Lippmann,M., 2005. Associations between health effects and particulate matter and black carbon in subjects with respiratory disease, *Environ. Health Perspect.* 113, pp. 1741-1746.
425. Janssen,N.A.H., Schwartz,J., Zanobetti,A., Suh,H., 2002. Air Conditioning and Source-Specific Particles as Modifiers of the Effect of PM10 on Hospital Admissions for Heart and Lung Disease, *Environ. Health Perspect.* 110, pp. 43-49.
426. Jaques,P.A., Kim,C.S., 2000. Measurement of total lung deposition of inhaled ultrafine particles in healthy men and women, *Inhal. Toxicol.* 12, pp. 715-731.
427. Jarabek,A.M., Asgharian,B., Miller,F.J., 2005. Dosimetric adjustments for interspecies extrapolation of inhaled poorly soluble particles (PSP), *Inhal. Toxicol.* 17, pp. 317-334.
428. Jaspers,I., Chen,L.C., Flescher,E., 1998. Induction of interleukin-8 by ozone is mediated by tyrosine kinase and protein kinase A, but not by protein kinase C, *J Cell Physiol* 177, pp. 313-323.
429. Jaspers,I., Samet,J.M., Reed,W., 1999. Arsenite exposure of cultured airway epithelial cells activates kappaB-dependent interleukin-8 gene expression in the absence of nuclear factor-kappaB nuclear translocation, *J. Biol. Chem.* 274, pp. 31025-31033.
430. Jaspers,I., Samet,J.M., Erzurum,S., Reed,W., 2000. Vanadium-induced kappaB-dependent transcription depends upon peroxide-induced activation of the p38 mitogen-activated protein kinase, *Am. J. Respir. Cell Mol. Biol.* 23, pp. 95-102.
431. Jaspers,I., Zhang,W., Fraser,A., Samet,J.M., Reed,W., 2001. Hydrogen peroxide has opposing effects on IKK activity and IkappaBalpha breakdown in airway epithelial cells, *Am. J. Respir. Cell Mol. Biol.* 24, pp. 769-777.

432. Jaspers,I., Ciencewicki,J.M., Zhang,W., Brighton,L.E., Carson,J.L., Beck,M.A., Madden,M.C., 2005. Diesel Exhaust Enhances Influenza Virus Infections in Respiratory Epithelial Cells, *Toxicol. Sci.* 85, pp. 990-1002.
433. Jiang,N., Dreher,K.L., Dye,J.A., Li,Y., Richards,J.H., Martin,L.D., Adler,K.B., 2000. Residual oil fly ash induces cytotoxicity and mucin secretion by guinea pig tracheal epithelial cells via oxidant-mediated mechanism., *Toxicol. Appl. Pharmacol.* 163, pp. 221-230.
434. Johnson,D.L., Esmen,N.A., 2004. Method-induced misclassification for a respirable dust sampled using ISO/ACGIH/CEN criteria, *Ann. Occup. Hyg.* 48, pp. 13-20.
435. Kaczmarek,M., Cachau,R., Topol,I.A., Kasprzak,K.S., Ghio,A.J., Salnikow,K., 2008. Metal ions-stimulated iron oxidation in hydroxylases facilitates stabilization of HIF-1 {alpha} protein, *Toxicol. Sci.*
436. Kadiiska,M.B., Ghio,A.J., Mason,R.P., 2004. ESR investigation of the oxidative damage in lungs caused by asbestos and air pollution particles, *Spectrochim. Acta. A. Mol. Biomol. Spectrosc.* 60, pp. 1371-1377.
437. Kadiiska,M.B., Gladen,B.C., Baird,D.D., Germolec,D., Graham,L.B., Parker,C.E., Nyska,A., Wachsmann,J.T., Ames,B.N., Basu,S., Brot,N., FitzGerald,G.A., Floyd,R.A., George,M., Heinecke,J.W., Hatch,G.E., Hensley,K., Lawson,J.A., Marnett,L.J., Morrow,J.D., Murray,D.M., Plataras,J., Roberts,L.J., II, Rokach,J., Shigenaga,M.K., Sohal,R.S., Sun,J., Tice,R.R., Van Thiel,D.H., Wellner,D., Walter,P.B., Tomer,K.B., Mason,R.P., Barrett,J.C., 2005. Biomarkers of Oxidative Stress Study II: Are oxidation products of lipids, proteins, and DNA markers of CCl4 poisoning?, *Free Radic. Biol. Med.* 38, pp. 698-710.
438. Kamdar,O., Le,W., Zhang,J., Ghio,A.J., Rosen,G.D., Upadhyay,D., 2008. Air pollution induces enhanced mitochondrial oxidative stress in cystic fibrosis airway epithelium, *FEBS Letters.*
439. Kanagy,N.L., 2005. Alpha(2)-adrenergic receptor signalling in hypertension, *Clin. Sci.* 109, pp. 431-437.
440. Karoly,E.D., Li,Z., Dailey,L.A., Hyseni,X., Huang,Y.C., 2007. Up-regulation of tissue factor in human pulmonary artery endothelial cells after ultrafine particle exposure, *Environ. Health Perspect.* 115, pp. 535-540.
441. Karr,C., 2004. Bronchiolitis poses significant public health burden, *Pediatr. Ann.* 33, pp. 454-459.
442. Karr,C., Lumley,T., Shepherd,K., Davis,R., Larson,T., Ritz,B., Kaufman,J., 2006. A case crossover study of wintertime ambient air pollution and infant bronchiolitis, *Environ. Health Perspect.* 114, pp. 277-281.
443. Karr,C., Lumley,T., Schreuder,A., Davis,R., Larson,T., Ritz,B., Kaufman,J., 2007. Effects of Subchronic and Chronic Exposure to Ambient Air Pollutants on Infant Bronchiolitis, *Am. J. Epidemiol.* 165, pp. 553-560.
444. Kehrl,H.R., Peden,D.B., Ball,B., Folinsbee,L.J., Horstman,D., 1999. Increased specific airway reactivity of persons with mild allergic asthma after 7.6 hours of exposure to 0.16 ppm ozone, *J. Allergy Clin. Immunol.* 104, pp. 1198-1204.
445. Kelly,J.T., Kimbell,J.S., Asgharian,B., 2001. Deposition of fine and coarse aerosols in a rat nasal mold., *Inhal. Toxicol.* 13, pp. 577-588.

446. Kelly, J.T., Bobbitt, C.M., Asgharian, B., 2001. In vivo measurement of fine and coarse aerosol deposition in the nasal airways of female Long-Evans rats, *Toxicol. Sci.* 64, pp. 253-258.
447. Kelly, J.T., Tewksbury, E.W., Wong, B.A., Asgharian, B., 2002. Nasal and lung deposition of fine and coarse particles in rats., *Ann. Occup. Hyg.* 46, pp. 346-349.
448. Kendall, M., Brown, L., Trought, K., 2004. Molecular adsorption at particle surfaces: A PM toxicity mediation mechanism, *Inhal. Toxicol.* 16, pp. 99-105.
449. Kendall, M., Guntern, J., Lockyer, N.P., Jones, F.H., Hutton, B.M., Lippmann, M., Tetley, T.D., 2004. Urban PM_{2.5} surface chemistry and interactions with broncho-alveolar lavage fluid (BALF), *Inhal. Toxicol.* 16, pp. 115-128.
450. Kennedy, I.M., 2007. The health effects of combustion-generated aerosols, *Proc. Combust. Inst.* 31, pp. 2757-2770.
451. Kennedy, T., Ghio, A.J., Reed, W., Samet, J., Zagorski, J., Quay, J., Carter, J., Dailey, L., Hoidal, J.R., Devlin, R.B., 1998. Copper-dependent inflammation and nuclear factor-kappaB activation by particulate air pollution, *Am. J. Respir. Cell Mol. Biol.* 19, pp. 366-78.
452. Kenyon, E.M., Benignus, V., Eklund, C., Highfill, J.W., Oshiro, W.M., Samsam, T.E., Bushnell, P.J., 2008. Modeling the Toxicokinetics of Inhaled Toluene in Rats: Influence of Physical Activity and Feeding Status, *Journal of Toxicology and Environmental Health, Part A* 71, pp. 249-265.
453. Kikuno, S., Taguchi, K., Iwamoto, N., Yamano, S., Cho, A.K., Froines, J.R., Kumagai, Y., 2006. 1,2-Naphthoquinone activates vanilloid receptor 1 through increased protein tyrosine phosphorylation, leading to contraction of guinea pig trachea, *Toxicol. Appl. Pharmacol.* 210, pp. 47-54.
454. Kim, C.S., Hu, S.C., 1998. Regional deposition of inhaled particles in human lungs: comparison between men and women, *J. Appl. Physiol.* 84, pp. 1834-44.
455. Kim, C.S., Fisher, D.M., 1999. Deposition characteristics of aerosol particles in sequentially bifurcating airway models., *Aerosol Sci. Technol.* 31, pp. 198-220.
456. Kim, C.S., Jaques, P.A., 2000. Respiratory dose of inhaled ultrafine particles in healthy adults, *Philos. Trans. R. Soc. Lond. A* 358, pp. 2693-2705.
457. Kim, C.S., 2000. Methods of calculating lung delivery and deposition of aerosol particles, *Respir. Care* 45, pp. 695-711.
458. Kim, C.S., Jaques, P.A., 2004. Analysis of total respiratory deposition of inhaled ultrafine particles in adult subjects at various breathing patterns, *Aerosol Sci. Technol.* 38, pp. 525-540.
459. Kim, C.S., Jaques, P.A., 2005. Total lung deposition of ultrafine particles in elderly subjects during controlled breathing, *Inhal. Toxicol.* 17, pp. 387-399.
460. Kim, C.S., Hu, S.C., 2006. Total respiratory tract deposition of fine micrometer-sized particles in healthy adults: empirical equations for sex and breathing pattern, *J. Appl. Physiol.* 101, pp. 401-412.
461. Kim, J.Y., Burnett, R.T., Neas, L., Thurston, G.D., Schwartz, J., Tolbert, P.E., Brunekreef, B., Goldberg, M.S., Romieu, I., 2007. Panel discussion review: session two--interpretation of observed associations between multiple ambient air pollutants and health effects in epidemiologic analyses, *J Expos Sci Environ Epidemiol* 17, p. S83-S89.

462. Kim,S., Sioutas,C., Chang,M.C., Gong,H., Jr., 2000. Factors affecting the stability of the performance of ambient fine-particle concentrators, *Inhal. Toxicol.* 12, pp. 281-298.
463. Kim,S., Chang,M.C., Kim,D., Sioutas,C., 2000. A New Generation of Portable Coarse, Fine and Ultrafine Particle Concentrators for Use in Inhalation Toxicology, *Inhal. Toxicol.* 12, pp. 121-137.
464. Kim,S., Jaques,P.A., Chang,M., Froines,J.R., Sioutas,C., 2001. Versatile Aerosol Concentration Enrichment System (VACES) for Simultaneous In Vivo and In Vitro Evaluation of Toxic Effects of Ultrafine, Fine and Coarse Ambient Particles. Part I: Development and Laboratory Characterization, *J. Aerosol Sci.* 32, pp. 1281-1297.
465. Kim,S.J., Dix,D.J., Thompson,K.E., Murrell,R.N., Schmid,J.E., Gallagher,J.E., Rockett,J.C., 2006. Gene Expression in Head Hair Follicles Plucked from Men and Women, *Ann Clin Lab Sci* 36, pp. 115-126.
466. Kim,S.J., Dix,D.J., Thompson,K.E., Murrell,R.N., Schmid,J.E., Gallagher,J.E., Rockett,J.C., 2007. Effects of Storage, RNA Extraction, Genechip Type, and Donor Sex on Gene Expression Profiling of Human Whole Blood, *Clin Chem* 53, pp. 1038-1045.
467. Kim,Y.M., Reed,W., Lenz,A.G., Jaspers,I., Silbajoris,R., Nick,H.S., Samet,J.M., 2005. Ultrafine Carbon Particles Induce Interleukin-8 Gene Transcription and p38 MAPK Activation in Normal Human Bronchial Epithelial Cells, *Am. J. Physiol. Lung Cell Mol. Physiol.* 288, p. L432-L441.
468. Kim,Y.M., Reed,W., Wu,W., Bromberg,P.A., Graves,L.M., Samet,J.M., 2006. Zn²⁺-induced IL-8 expression involves AP-1, JNK, and ERK activities in human airway epithelial cells, *Am J Physiol Lung Cell Mol Physiol* 290, p. L1028-L1035.
469. Kim,Y.M., Cao,D., Reed,W., Wu,W., Jaspers,I., Tal,T., Bromberg,P.A., Samet,J.M., 2007. Zn²⁺-induced NF- κ B-dependent transcriptional activity involves site-specific p65/RelA phosphorylation, *Cellular Signalling* 19, pp. 538-546.
470. Kleinman,M., Sioutas,C., Stram,D., Froines,J., Cho,A., Chakrabarti,B., Hamade,A., Meacher,D., Oldham,M., 2005. Inhalation of concentrated ambient particulate matter near a heavily trafficked road stimulates antigen-induced airway responses in mice, *J. Air Waste Manag. Assoc.* 55, pp. 1277-1288.
471. Kleinman,M.T., Araujo,J.A., Nel,A.E., Sioutas,C., Campbell,A., Conga,P.Q., Li,H., Bondy,S.C., 2008. Inhaled ultrafine particulate matter affects CNS inflammatory processes and may act via MAP kinase signaling pathways, *Toxicology Letters* 178, pp. 127-130.
472. Kleinman,M.T., Sioutas,C., Froines,J.R., Fanning,E., Hamade,A., Mendez,L., Meacher,D., Oldham,M., 2007. Inhalation of Concentrated Ambient Particulate Matter Near a Heavily Trafficked Road Stimulates Antigen-Induced Airway Responses in Mice, *Inhal. Toxicol.* 19, pp. 117-126.
473. Kleinstreuer,C., Zhang,Z., Kim,C.S., 2007. Combined inertial and gravitational deposition of microparticles in small model airways of a human respiratory system, *J. Aerosol Sci.* 38, pp. 1047-1061.
474. Klemm,R.J., Mason,R.M.Jr., Heilig,C.M., Neas,L., Dockery,D.W., 2000. Is daily mortality associated specifically with fine particles? Data reconstruction and replication of analyses, *J. Air Waste Manag. Assoc.* 50, pp. 1215-1222.

475. Kligerman,A.D., Eroxson,G.L., Nelson,G.B., Ross,J.A., 2002. The effect of the route of administration of polycyclic aromatic hydrocarbons on DNA adduction and cytogenetic damage in peripheral blood lymphocytes of mice and rats., *Polycyclic Aromat. Compd.* 22, pp. 841-851.
476. Kligerman,A.D., Hu,Y., 2007. Some insights into the mode of action of butadiene by examining the genotoxicity of its metabolites, *Chem Biol Interact* 166, pp. 132-139.
477. Knuckles,T.L., Dreher,K.L., 2007. Fine Oil Combustion Particle Bioavailable Constituents Induce Molecular Profiles of Oxidative Stress, Altered Function, and Cellular Injury in Cardiomyocytes, *Journal of Toxicology and Environmental Health, Part A* 70, pp. 1824-1837.
478. Kodavanti,U.P., Hauser,R., Christiani,D.C., Meng,Z.H., McGee,J., Ledbetter,A., Richards,J., Costa,D.L., 1998. Pulmonary responses to oil fly ash particles in the rat differ by virtue of their specific soluble metals., *Toxicol. Sci.* 43, pp. 204-212.
479. Kodavanti,U.P., Costa,D.L., Bromberg,P., 1998. Rodent models of cardiopulmonary disease: their potential applicability in studies of air pollutant susceptibility., *Environ. Health Perspect.* 106, pp. 111-130.
480. Kodavanti,U.P., Jackson,M.C., Ledbetter,A.D., Richards,J.R., Gardner,S.Y., Watkinson,W.P., Campen,M.J., Costa,D.L., 1999. Lung injury from intratracheal and inhalation exposures to residual oil fly ash in a rat model of monocrotaline-induced pulmonary hypertension., *J. Toxicol. Environ. Health A* 57, pp. 543-563.
481. Kodavanti,U.P., Schladweiler,M.C.J., Ledbetter,A., Watkinson,W.P., Campen,M.J., Winsett,D.W., Richards,J.R., Crissman,K., Hatch,G.E., Costa,D.L., 2000. The spontaneously hypertensive rat as a model of human cardiovascular disease: Evidence of exacerbated cardiopulmonary injury and oxidative stress from inhaled emission particulate matter., *Toxicol. Appl. Pharmacol.* 164, pp. 250-263.
482. Kodavanti,U.P., Mebane,R., Ledbetter,A., Krantz,T., McGee,J., Jackson,M.C., Walsh,L., Hilliard,H., Chen,B.-Y., Richards,J., Costa,D.L., 2000. Variable pulmonary responses from exposure to concentrated ambient air particles in a rat model of bronchitis., *Toxicol. Sci.* 54, pp. 441-451.
483. Kodavanti,U.P., Jackson,M.C., Ledbetter,A.D., Starcher,B., Evansky,P.A., Harewood,A., Winsett,D.W., Costa,D.L., 2000. The combination of elastase and sulfur dioxide exposure causes COPD-like lesions in the rat., *Chest* 117, pp. 299S-302S.
484. Kodavanti,U.P., Schladweiler,M.C.J., Richards,J.R., Costa,D.L., 2001. Acute lung injury from intratracheal exposure to fugitive residual oil fly ash and its constituent metals in normo- and spontaneously hypertensive rats., *Inhal. Toxicol.* 13, pp. 37-54.
485. Kodavanti,U.P., Costa,D.L., 2001. Rodent models of susceptibility: what is their place in inhalation toxicology?, *Respir. Physiol.* 128, pp. 57-70.
486. Kodavanti,U.P., Schladweiler,M.C.J., Ledbetter,A.D., Hauser,R., Christiani,D.C., McGee,J., Richards,J.R., Costa,D.L., 2002. Temporal association between pulmonary and systemic effects of particulate matter in healthy and cardiovascular compromised rats., *J. Toxicol. Environ. Health A* 65, pp. 1545-1569.
487. Kodavanti,U.P., Schladweiler,M.C.J., Ledbetter,A.D., Hauser,R., Christiani,D.C., McGee,J., Richards,J.H., Costa,D.L., 2002. Pulmonary and systemic effects of zinc-containing emission particles in three rat strains: Multiple exposure scenarios., *Toxicol. Sci.* 70, pp. 73-85.

488. Kodavanti,U.P., Ledbetter,A.D., Schladweiler,M.C., Costa,D.L., Moyer,C.F., Hauser,R., Christiani,D.C., Nyska,A., 2003. Letters to the Editor: Response to letter on "Inhaled Environmental Combustion Particles Cause Myocardial Injury in the Wistar Kyoto Rat.", *Toxicol. Sci.* 74, pp. 228-230.
489. Kodavanti,U.P., Moyer,C.F., Ledbetter,A.D., Schladweiler,M.C., Costa,D.L., Hauser,R., Christiani,D.C., Nyska,A., 2003. Inhaled environmental combustion particles cause myocardial injury in the Wistar Kyoto rat, *Toxicol. Sci.* 71, pp. 237-245.
490. Kodavanti,U.P., Schladweiler,M.C., Ledbetter,A.D., McGee,J.K., Walsh,L., Gilmour,P.S., Highfill,J.W., Davies,D., Pinkerton,K.E., Richards,J.H., Crissman,K., Andrews,D., Costa,D.L., 2005. Consistent pulmonary and systemic responses from inhalation of fine concentrated ambient particles: roles of rat strains used and physicochemical properties, *Environ. Health Perspect.* 113, pp. 1561-1568.
491. Kodavanti,U.P., Schladweiler,M.C., Gilmour,P.S., Wallenborn,J.G., Mandavilli,B.S., Ledbetter,A.D., Christiani,D.C., Runge,M.S., Karoly,E.D., Costa,D.L., Peddada,S., Jaskot,R., Richards,J.H., Thomas,R., Madamanchi,N.R., Nyska,A., 2008. The role of particulate matter-associated zinc in cardiac injury in rats, *Environ. Health Perspect.* 116, pp. 13-20.
492. Kodavanti,U.P., Schladweiler,M.C., Ledbetter,A.D., Ortuno,R.V., Suffia,M., Evansky,P., Richards,J.H., Jaskot,R.H., Thomas,R., Karoly,E., Huang,Y.C., Costa,D.L., Gilmour,P.S., Pinkerton,K.E., 2006. The Spontaneously Hypertensive Rat: An Experimental Model of Sulfur Dioxide-Induced Airways Disease, *Toxicol. Sci.* 94, pp. 193-205.
493. Koenig,J.Q., Mar,T.F., Allen,R.W., Jansen,K., Lumley,T., Sullivan,J.H., Trenga,C.A., Larson,T.V., Liu,L.-J.S., 2005. Pulmonary effects of indoor- and outdoor-generated particles in children with asthma, *Environ. Health Perspect.* 113, pp. 499-503.
494. Kongerud,J., Madden,M.C., Hazucha,M., Peden,D., 2006. Nasal responses in asthmatic and nonasthmatic subjects following exposure to diesel exhaust particles, *Inhal. Toxicol.* 18, pp. 589-594.
495. Kreyling,W.G., Semmler,M., Erbe,F., Mayer,P., Takenaka,S., Schulz,H., Oberdorster,G., Ziesenis,A., 2002. Translocation of ultrafine insoluble iridium particles from lung epithelium to extrapulmonary organs is size dependent but very low., *J. Toxicol. Environ. Health A* 65, pp. 1513-1530.
496. Laden,F., Neas,L.M., Dockery,D.W., Schwartz,J., 2000. Association of fine particulate matter from different sources with daily mortality in six U.S. cities, *Environ. Health Perspect.* 108, pp. 941-947.
497. Laden,F., Schwartz,J., Speizer,F.E., Dockery,D.W., 2006. Reduction in Fine Particulate Air Pollution and Mortality: Extended Follow-up of the Harvard Six Cities Study, *Am. J. Respir. Crit. Care Med.* 173, pp. 667-672.
498. LaGier,A.J., Manzo,N.D., Carll,A.P., Jaskot,R.H., Slade,R., Richards,J.H., Winsett,D.W., Farraj,A.K., Dye,J.A., 2008. A Hyperlipidemic Rabbit Model Provides New Insights into Pulmonary Zinc Exposure Effects on Cardiovascular Health, *Cardiovascular Toxicology* 8, pp. 195-206.
499. Lambert,A.L., Dong,W., Winsett,D.W., Selgrade,M.K., Gilmour,M.I., 1999. Residual oil fly ash exposure enhances allergic sensitization to house dust mite., *Toxicol. Appl. Pharmacol.* 158, pp. 269-277.

500. Lambert,A.L., Dong,W., Selgrade,M.J., Gilmour,M.I., 2000. Enhanced allergic sensitization by residual oil fly ash particles is mediated by soluble metal constituents., *Toxicol. Appl. Pharmacol.* 165, pp. 84-93.
501. Lambert,A.L., Selgrade,M.J.K., Winsett,D.W., Gilmour,M.I., 2001. TNF-alpha enhanced allergic sensitization to house dust mite in Brown Norway rats., *Exp. Lung Res.* 27, pp. 617-635.
502. Landrigan,P.J., Lioy,P.J., Thurston,G., Berkowitz,G., Chen,L.C., Chillrud,S.N., Gavett,S.H., Georgopoulos,P.G., Gehy,A.S., Levin,S., Perera,F., Rappaport,S.M., Small,C., NIEHS World Trade Center Working Group, 2004. Health and environmental consequences of the World Trade Center Disaster, *Environ. Health Perspect.* 112, pp. 731-739.
503. Larsen,K.E., Pacheco,M., Roth,J., Aletta,J.M., 1998. Increased MAP1B expression without increased phosphorylation in manganese-treated PC12Mn cells, *Exp Cell Res* 245, pp. 105-115.
504. Laumbach,R.J., Fiedler,N., Gardner,C.R., Laskin,D.L., Fan,Z.H., Zhang,J., Weschler,C.J., Lioy,P.J., Devlin,R.B., Ohman-Strickland,P., Kelly-McNeil,K., Kipen,H.M., 2005. Nasal effects of a mixture of volatile organic compounds and their ozone oxidation products, *J. Occup. Environ. Med.* 47, pp. 1182-1189.
505. Lay,J.C., Bennett,W.D., Kim,C.S., Devlin,R.B., Bromberg,P.A., 1998. Retention and intracellular distribution of instilled iron oxide particles in human alveolar macrophages, *Am. J. Respir. Cell Mol. Biol.* 18, pp. 687-95.
506. Lay,J.C., Bennett,W.D., Ghio,A.J., Bromberg,P.A., Costa,D.L., Kim,C.S., Koren,H.S., Devlin,R.B., 1999. Cellular and biochemical response of the human lung after intrapulmonary instillation of ferric oxide particles, *Am. J. Respir. Cell Mol. Biol.* 20, pp. 631-42.
507. Lay,J.C., Zeman,K.L., Ghio,A.J., Bennett,W.D., 2001. Effects of inhaled iron oxide particles on alveolar epithelial permeability in normal subjects, *Inhal. Toxicol.* 13, pp. 1065-78.
508. Lay,J.C., Alexis,N.E., Kleeberger,S.R., Roubey,R.A.S., Harris,B.D., Bromberg,P.A., Hazucha,M.J., Devlin,R.B., Peden,D.B., 2007. Ozone enhances markers of innate immunity and antigen presentation on airway monocytes in healthy individuals, *Journal of Allergy and Clinical Immunology* 120, pp. 719-722.
509. Leavitt,S.A., George,M.H., Moore,T., Ross,J.A., 2008. Mutations induced by benzo[a]pyrene and dibenzo[a,l]pyrene in lacI transgenic B6C3F1 mouse lung result from stable DNA adducts, *Mutagenesis* 23, pp. 445-450.
510. Ledbetter,A.D., Killough,P.M., Hudson,G.F., 1998. A low-sample-consumption dry-particulate aerosol generator for use in nose-only inhalation exposures., *Inhal. Toxicol.* 10, pp. 239-251.
511. Lee,D., Park,S.S., Ban-Weiss,G.A., Fanucchi,M.V., Plopper,C.G., Wexler,A.S., 2008. Bifurcation model for characterization of pulmonary architecture, *Anat. Rec.* 291, pp. 379-389.
512. Lee,D.Y., Fanucchi,M.V., Plopper,C.G., Fung,J., Wexler,A.S., 2008. Pulmonary architecture in conducting regions of six rats, *Anat. Rec.* 291, pp. 916-926.
513. Lee,D., Wexler,A.S., Fanucchi,M.V., Plopper,C.G., 2008. Expiration rate drives human airway design, *Journal of Theoretical Biology* 253, pp. 381-387.
514. Lein,P., Gallagher,P.J., Amodeo,J., Howie,H., Roth,J.A., 2000. Manganese induces neurite outgrowth in PC12 cells via upregulation of alpha(v) integrins, *Brain Res* 885, pp. 220-230.

515. Levy,D., Sheppard,L., Checkoway,H., Kaufman,J., Lumley,T., Koenig,J., Siscovick,D., 2001. A case-crossover analysis of particulate matter air pollution and out-of-hospital primary cardiac arrest, *Epidemiology* 12, pp. 193-199.
516. Levy,D., Lumley,T., Sheppard,L., Kaufman,J., Checkoway,H., 2001. Referent selection in case-crossover analyses of acute health effects of air pollution, *Epidemiology* 12, pp. 186-192.
517. Li,N., Nel,A.E., 2006. The cellular impacts of diesel exhaust particles: Beyond inflammation and death, *European Respiratory Journal* 27, pp. 667-668.
518. Li,N., Xia,T., Nel,A.E., 2008. The role of oxidative stress in ambient particulate matter-induced lung diseases and its implications in the toxicity of engineered nanoparticles, *Free Radic. Biol. Med.* 44, pp. 1689-1699.
519. Li,N., Venkatesan,M.I., Miguel,A.H., Kaplan,R., Gujuluva,C., Alam,J., Nel,A.E., 2000. Induction of Heme Oxygenase-1 Expression in Macrophages by Diesel Exhaust Particle Chemicals and Quinones via the Antioxidant-Responsive Element, *J. Immunol.* 165, pp. 3393-3401.
520. Li,N., Kim,S., Wang,M., Froines,J., Sioutas,C., Nel,A.E., 2002. Use of a stratified oxidative stress model to study the biological effects of ambient concentrated and diesel exhaust particulate matter, *Inhal. Toxicol.* 14, pp. 459-486.
521. Li,N., Sioutas,C., Cho,A., Schmitz,D., Misra,C., Sempf,J., Wang,M., Oberley,T., Froines,J., Nel,A., 2003. Ultrafine particulate pollutants induce oxidative stress and mitochondrial damage, *Environ. Health Perspect.* 111, pp. 455-460.
522. Li,N., Hao,M., Phalen,R., Hinds,W., Nel,A., 2003. Particulate Air Pollutants and Asthma: A Paradigm for the Role of Oxidative Stress in PM-Induced Adverse Health Effects, *Clin. Immunol.* 109, pp. 250-265.
523. Li,N., Alam,J., Venkatesan,M.I., Eiguren-Fernandez,A., Schmitz,D., Di Stefano,E., Slaughter,N., Killeen,E., Wang,X., Huang,A., Wang,M., Miguel,A.H., Cho,A., Sioutas,C., Nel,A.E., 2004. Nrf2 is a Key Transcription Factor that Regulates Antioxidant Defense in Macrophages and Epithelial Cells: Protecting Against the Proinflammatory and Oxidizing Effects of Diesel Exhaust Chemicals., *J. Immunol.* 173, pp. 3467-3481.
524. Li,N., Nel,A.E., 2006. Role of the Nrf2-mediated signaling pathway as a negative regulator of inflammation: implications for the impact of particulate pollutants on asthma, *Antioxid. Redox. Signal.* 8, pp. 88-98.
525. Li,N., Wang,M., Bramble,L.A., Schmitz,D.A., Schauer,J.J., Sioutas,C., Harkema,J.R., Nel,A.E., 2009. The adjuvant effect of ambient particulate matter is closely reflected by the particulate oxidant potential, *Environ. Health Perspect.*
526. Li,R., Weller,E., Dockery,D.W., Neas,L.M., Spiegelman,D., 2006. Association of indoor nitrogen dioxide with respiratory symptoms in children: Application of measurement error correction techniques to utilize data from multiple surrogates, *J Expos Sci Environ Epidemiol* 16, pp. 342-350.
527. Li,Z., Carter,J.D., Dailey,L.A., Huang,Y.C., 2004. Vanadyl sulfate inhibits NO production via threonine phosphorylation of eNOS, *Environ. Health Perspect.* 112, pp. 201-206.
528. Li,Z., Carter,J.D., Dailey,L.A., Huang,Y.C., 2005. Pollutant particles produce vasoconstriction and enhance MAPK signaling via angiotensin type I receptor, *Environ. Health Perspect.* 113, pp. 1009-1014.

529. Li,Z., Stonehuerner,J., Devlin,R.B., Huang,Y.C., 2005. Discrimination of vanadium from zinc using gene profiling in human bronchial epithelial cells, *Environ. Health Perspect.* 113, pp. 1747-1754.
530. Li,Z., Hyseni,X., Carter,J.D., Soukup,J.M., Dailey,L.A., Huang,Y.C., 2006. Pollutant particles enhanced H₂O₂ production from NAD(P)H oxidase and mitochondria in human pulmonary artery endothelial cells, *Am J Physiol Cell Physiol* 291, p. C357-C365.
531. Liao,D., Creason,J., Shy,C., Williams,R., Watts,R., Zweidinger,R., 1999. Daily variation of particulate air pollution and poor cardiac autonomic control in the elderly, *Environ. Health Perspect.* 107, pp. 521-525.
532. Liao,D., Duan,Y., Whitsel,E.A., Zheng,Z., Heiss,G., Chinchilli,V.M., Lin,H.-M., 2004. Association of higher levels of ambient criteria pollutants with impaired cardiac autonomic control: A population-based study., *Am. J. Epidemiol.* 159, pp. 768-777.
533. Liao,D., Heiss,G., Chinchilli,V.M., Duan,Y., Folsom,A.R., Lin,H.-M., Salomaa,V., 2005. Association of criteria pollutants with plasma hemostatic/inflammatory markers: A population-based study., *J. Expo. Anal. Environ. Epidemiol.* 15, pp. 319-328.
534. Linak,W.P., Yoo,J.I., Wasson,S.J., Zhu,W., Wendt,J.O.L., Huggins,F.E., Chen,Y., Shah,N., Huffman,G.P., Gilmour,M.I., 2007. Ultrafine ash aerosols from coal combustion: Characterization and health effects, *Proceedings of the Combustion Institute* 31, pp. 1929-1937.
535. Linn,W.S., Szlachcic,Y., Gong,H., Jr., Kinney,P.L., Berhane,K.T., 2000. Air pollution and daily hospital admissions in metropolitan Los Angeles, *Environ. Health Perspect.* 108, pp. 427-434.
536. Linn,W.S., Avila,M., Gong,H., 2004. Exhaled Nitric Oxide: Sources of Error in Offline Measurement, *Arch. Environ. Health* 59, pp. 385-391.
537. Lippmann,M., 2003. Winter air pollution and respiratory function, *Occup. Environ. Med.* 60, p. 81.
538. Lippmann,M., Gordon,T., Chen,L.C., 2005. Effects of Subchronic Exposures to Concentrated Ambient Particles (CAPs) in Mice. I. Introduction, Objectives and Experimental Plan, *Inhal. Toxicol.* 17, pp. 177-187.
539. Lippmann,M., Gordon,T., Chen,L.C., 2005. Effects of subchronic exposures to concentrated ambient particles (CAPs) in mice: IX. Integral assessment and human health implications of subchronic exposures of mice to CAPs, *Inhal. Toxicol.* 17, pp. 255-261.
540. Lippmann,M., 2005. The search for non-linear exposure-response relationships at ambient levels in environmental epidemiology, *Nonlinearity Biol. Toxicol. Med.* 3, pp. 125-144.
541. Lippmann,M., Hwang,J.S., Maciejczyk,P., Chen,L.C., 2005. PM source apportionment for short-term cardiac function changes in ApoE^{-/-} mice, *Environ. Health Perspect.* 113, pp. 1575-1579.
542. Lippmann,M., Ito,K., Hwang,J.S., Maciejczyk,P., Chen,L.C., 2006. Cardiovascular effects of nickel in ambient air, *Environ. Health Perspect.* 114, pp. 1662-1669.
543. Lippmann,M., Cassee,F.R., Costa,D.L., Costantini,M., van Erp,A.M., Gordon,T., 2005. International Workshop on the Design and Analysis of Experimental Studies using PM Concentrator Technologies, Boston, May 5, 2004, *Inhal. Toxicol.* 17, pp. 839-850.

544. Lipsett, M.J., Tsai, F.C., Roger, L., Woo, M., Ostro, B.D., 2006. Coarse particles and heart rate variability among older adults with coronary artery disease in the Coachella Valley, California, *Environ. Health Perspect.* 114, pp. 1215-1220.
545. Liu, Y., Lan, Q., Shen, M., Jin, J., Mumford, J.L., Ren, D., Keohavong, P., 2008. Aberrant gene promoter methylation in sputum from individuals exposed to smoky coal emissions, *Anticancer Research* 28, pp. 2061-2066.
546. Long, C.M., Suh, H.H., Kobzik, L., Catalano, P.J., Ning, Y.Y., Koutrakis, P., 2001. A pilot investigation of the relative toxicity of indoor and outdoor fine particles: in vitro effects of endotoxin and other particulate properties, *Environ. Health Perspect.* 109, pp. 1019-1026.
547. Longphre, M., Li, D., Li, J., Matovinovic, E., Gallup, M., Samet, J.M., Basbaum, C.B., 2000. Lung mucin production is stimulated by the air pollutant residual oil fly ash, *Toxicol. Appl. Pharmacol.* 162, pp. 86-92.
548. Lumley, T., Sheppard, L., 2000. Assessing seasonal confounding and model selection bias in air pollution epidemiology using positive and negative control analyses, *Environmetrics* 11, pp. 705-717.
549. Lumley, T., Levy, D., 2000. Bias in the case-crossover design: implications for studies of air pollution, *Environmetrics* 11, pp. 689-704.
550. Lumley, T., Sheppard, L., 2003. Time series analyses of air pollution and health: straining at gnats and swallowing camels?, *Epidemiology* 14, pp. 13-14.
551. Lund, A.K., Knuckles, T.L., Akata, C.O., Shohet, R., McDonald, J.D., Gigliotti, A., Seagrave, J.C., Campen, M.J., 2007. Gasoline Exhaust Emissions Induce Vascular Remodeling Pathways Involved in Atherosclerosis, *Toxicol. Sci.* 95, pp. 485-494.
552. Lund, A.K., Lucero, J., Lucas, S., Madden, M.C., McDonald, J.D., Seagrave, J.C., Knuckles, T.L., Campen, M.J., 2009. Vehicular Emissions Induce Vascular MMP-9 Expression and Activity Associated With Endothelin-1-Mediated Pathways, *Arterioscler Thromb Vasc Biol* p. ATVBAHA.
553. Luttmann-Gibson, H., Suh, H.H., Coull, B.A., Dockery, D.W., Sarnat, S.E., Schwartz, J., Stone, P.H., Gold, D.R., 2006. Short-term Effects of Air Pollution on Heart Rate Variability in Senior Adults in Steubenville, OH, *J. Occup. Environ. Med.* 48, pp. 780-788.
554. Maciejczyk, P., Zhong, M., Li, Q., Xiong, J., Nadziejko, C., Chen, L.C., 2005. Effects of Subchronic Exposures to Concentrated Ambient Particles (CAPs) in Mice: II. The Design of a CAPs Exposure System for Biometric Telemetry Monitoring, *Inhal. Toxicol.* 17, pp. 189-197.
555. Maciejczyk, P.B., Chen, L.C., 2005. Effects of subchronic exposures to concentrated ambient particles (CAPs) in mice: VIII. Source-related daily variations in *in vitro* responses to CAPs, *Inhal. Toxicol.* 17, pp. 243-253.
556. Madden, M.C., Thomas, M.J., Ghio, A.J., 1999. Acetaldehyde (CH₃CHO) production in rodent lung after exposure to metal-rich particles, *Free Radic. Biol. Med.* 26, pp. 1569-77.
557. Madden, M.C., Richards, J.H., Dailey, L.A., Hatch, G.E., Ghio, A.J., 2000. Effect of ozone on diesel exhaust particle toxicity in rat lung, *Toxicol. Appl. Pharmacol.* 168, pp. 140-148.
558. Madden, M.C., Dailey, L.A., Stonehuerner, J.G., Harris, B.D., 2003. Responses of cultured human airway epithelial cells treated with diesel exhaust extracts will vary with the engine load, *J. Toxicol. Environ. Health A* 66, pp. 2281-2297.

559. Madden, M.C., 2008. Complex issues with examining diesel exhaust toxicity: Is the task getting easier or harder?, *Experimental and Toxicologic Pathology* 60, pp. 135-140.
560. Madl, A.K., Wilson, D.W., Segall, H.J., Pinkerton, K.E., 1998. Alteration in lung particle translocation, macrophage function, and microfilament arrangement in monocrotaline-treated rats, *Toxicol. Appl. Pharmacol.* 153, pp. 28-38.
561. Magari, S.R., Hauser, R., Schwartz, J., Williams, P.L., Smith, T.J., Christiani, D.C., 2001. Association of Heart Rate Variability With Occupational and Environmental Exposure to Particulate Air Pollution, *Circulation* 104, pp. 986-991.
562. Mar, T.F., Norris, G.A., Koenig, J.Q., Larson, T.V., 2000. Associations between air pollution and mortality in Phoenix, 1995-1997, *Environ. Health Perspect.* 108, pp. 347-353.
563. Mar, T.F., Larson, T.V., Stier, R.A., Claiborn, C., Koenig, J.Q., 2004. An analysis of the association between respiratory symptoms in subjects with asthma and daily air pollution in Spokane, Washington, *Inhal. Toxicol.* 16, pp. 809-815.
564. Mar, T.F., Koenig, J.Q., Jansen, K., Sullivan, J., Kaufman, J., Trenga, C.A., Siahpush, S.H., Liu, L.-J.S., Neas, L., 2005. Fine particulate air pollution and cardiorespiratory effects in the elderly, *Epidemiology* 16, pp. 681-687.
565. Mar, T.F., Jansen, K., Shepherd, K., Lumley, T., Larson, T.V., Koenig, J.Q., 2005. Exhaled nitric oxide in children with asthma and short-term PM_{2.5} exposure in Seattle, *Environ. Health Perspect.* 113, pp. 1791-1794.
566. Mar, T.F., Ito, K., Koenig, J.Q., Larson, T.V., Eatough, D.J., Henry, R.C., Kim, E., Laden, F., Lall, R., Neas, L., Stolzel, M., Paatero, P., Hopke, P.K., Thurston, G.D., 2006. PM source apportionment and health effects. 3. Investigation of inter-method variations in associations between estimated source contributions of PM_{2.5} and daily mortality in Phoenix, AZ, *J. Expo. Sci. Environ. Epidemiol.* 16, pp. 311-320.
567. Marcus, A.H., Elias, R.W., 1998. Some useful statistical methods for model validation, *Environ. Health Perspect.* 106 Suppl 6, pp. 1541-1550.
568. Marcus, A.H., Kegler, S.R., 2001. Confounding in air pollution epidemiology: When does two-stage regression identify the problem?, *Environ. Health Perspect.* 109, pp. 1193-1196.
569. Martonen, T.B., Fleming, J., Schroeter, J.D., Conway, J., Hwang, D., 2003. In silico modeling of asthma., *Adv. Drug Deliv. Rev* 55, pp. 829-849.
570. Martonen, T.B., Schroeter, J.D., 2003. Risk assessment dosimetry model for inhaled particulate matter: II. Laboratory surrogates (rat)., *Toxicol. Lett.* 138, pp. 133-142.
571. Martonen, T.B., Schroeter, J.D., 2003. Risk assessment dosimetry model for inhaled particulate matter: I. Human subjects., *Toxicol. Lett.* 138, pp. 119-132.
572. Maynard, D., Coull, B.A., Gryparis, A., Schwartz, J., 2007. Mortality risk associated with short-term exposure to traffic particles and sulfates, *Environ. Health Perspect.* 115, pp. 751-755.
573. McConnell, R., Berhane, K., Gilliland, F., Molitor, J., Thomas, D., Lurmann, F., Avol, E., Gauderman, W.J., Peters, J.M., 2003. Prospective Study of Air Pollution and Bronchitic Symptoms in Children with Asthma, *Am. J. Respir. Crit. Care Med.* 168, pp. 790-797.

574. McConnell,R., Berhane,K., Yao,L., Jerrett,M., Lurmann,F., Gilliland,F., Kunzli,N., Gauderman,J., Avol,E., Thomas,D., Peters,J., 2006. Traffic, susceptibility, and childhood asthma, *Environ. Health Perspect.* 114, pp. 766-772.
575. McConnell,R., Berhane,K., Molitor,J., Gilliland,F., Kunzli,N., Thorne,P.S., Thomas,D., Gauderman,W.J., Avol,E., Lurmann,F., Rappaport,E., Jerrett,M., Peters,J.M., 2006. Dog ownership enhances symptomatic responses to air pollution in children with asthma, *Environ. Health Perspect.* 114, pp. 1910-1915.
576. McCracken,J.P., Smith,K.R., Diaz,A., Mittleman,M.A., Schwartz,J., 2007. Chimney stove intervention to reduce long-term wood smoke exposure lowers blood pressure among Guatemalan women., *Environ. Health Perspect.* 115, pp. 996-1001.
577. McDonnell,W.F., Nishino-Ishikawa,N., Petersen,F.F., Chen,L.H., Abbey,D.E., 2000. Relationships of mortality with the fine and coarse fractions of long- term ambient PM10 concentrations in nonsmokers, *J. Expo. Anal. Environ. Epidemiol.* 10, pp. 427-436.
578. McGee,J.K., Chen,L.C., Cohen,M.D., Chee,G.R., Prophete,C.M., Haykal-Coates,N., Wasson,S.J., Conner,T.L., Costa,D.L., Gavett,S.H., 2003. Chemical analysis of World Trade Center fine particulate matter for use in toxicological assessment, *Environ. Health Perspect.* 111, pp. 972-980.
579. McKinney,W.J., Jaskot,R.H., Richards,J.H., Costa,D.L., Dreher,K.L., 1998. Cytokine mediation of ozone-induced pulmonary adaptation, *Am. J. Respir. Cell Mol. Biol.* 18, pp. 696-705.
580. Medina-Ramon,M., Zanobetti,A., Schwartz,J., 2006. The Effect of Ozone and PM10 on Hospital Admissions for Pneumonia and Chronic Obstructive Pulmonary Disease: A National Multicity Study, *Am. J. Epidemiol.* 163, pp. 579-588.
581. Medina-Ramon,M., Zanobetti,A., Cavanagh,D.P., Schwartz,J., 2006. Extreme temperatures and mortality: assessing effect modification by personal characteristics and specific cause of death in a multi-city case-only analysis, *Environ. Health Perspect.* 114, pp. 1331-1336.
582. Medina-Ramon,M., Schwartz,J., 2008. Who is more vulnerable to die from ozone air pollution?, *Epidemiology* 19, pp. 672-679.
583. Medina-Ramon,M., Goldberg,R., Melly,S., Mittleman,M.A., Schwartz,J., 2008. Residential Exposure to Traffic-Related Air Pollution and Survival after Heart Failure, *Environ. Health Perspect.* 116, pp. 481-485.
584. Medina-Ramon,M., Schwartz,J., 2007. Temperature, Temperature Extremes, and Mortality: A Study of Acclimatization and Effect Modification in 50 United States Cities, *Occup Environ Med* 64, pp. 827-833.
585. Mehta,M., Chen,L.C., Gordon,T., Rom,W., Tang,M.s., 2008. Particulate matter inhibits DNA repair and enhances mutagenesis, *Mutation Research/Genetic Toxicology and Environmental Mutagenesis* 657, pp. 116-121.
586. Melega,W.P., Jorgensen,M.J., Lacan,G., Way,B.M., Pham,J., Morton,G., Cho,A.K., Fairbanks,L.A., 2008. Long-term methamphetamine administration in the vervet monkey models aspects of a human exposure: brain neurotoxicity and behavioral profiles., *Neuropsychopharmacology* 33, pp. 1441-1452.

587. Merchant, J.A., Naleway, A.L., Svendsen, E.R., Kelly, K.M., Burmeister, L.F., Stromquist, A.M., Taylor, C.D., Thorne, P.S., Reynolds, S.J., Sanderson, W.T., Chrischilles, E.A., 2005. Asthma and farm exposures in a cohort of rural Iowa children, *Environ. Health Perspect.* 113, pp. 350-356.
588. Metzger, K.B., Tolbert, P.E., Klein, M., Peel, J.L., Flanders, W.D., Todd, K., Mulholland, J.A., Ryan, P.B., Frumkin, H., 2004. Ambient air pollution and cardiovascular emergency department visits, *Epidemiology* 15, pp. 46-56.
589. Miller, K.A., Siscovick, D.S., Sheppard, L., Shepherd, K., Sullivan, J.H., Anderson, G.L., Kaufman, J.D., 2007. Long-Term Exposure to Air Pollution and Incidence of Cardiovascular Events in Women, *The New England Journal of Medicine* 356, pp. 447-458.
590. Molinelli, A.R., Madden, M.C., McGee, J.K., Stonehuerner, J.G., Ghio, A.J., 2002. Effect of metal removal on the toxicity of airborne particulate matter from the Utah Valley, *Inhal. Toxicol.* 14, pp. 1069-1086.
591. Molinelli, A.R., Santacana, G.E., Madden, M.C., Jimenez, B.D., 2006. Toxicity and metal content of organic solvent extracts from airborne particulate matter in Puerto Rico, *Environ. Res.* 102, pp. 314-325.
592. Mondal, K., Haskill, J.S., Becker, S., 2000. Adhesion and pollution particle-induced oxidant generation is neither necessary nor sufficient for cytokine induction in human alveolar macrophages., *Am. J. Respir. Cell Mol. Biol.* 22, pp. 200-208.
593. Monn, C., Becker, S., 1999. Cytotoxicity and induction of proinflammatory cytokines from human monocytes exposed to fine (PM_{2.5}) and coarse particles (PM_{10-2.5}) in outdoor and indoor air, *Toxicol. Appl. Pharmacol.* 155, pp. 245-252.
594. Montoya, L., Lawrence, J., Krishna Murthy, G.G., Sarnat, J., Godleski, J., Koutrakis, P., 2004. Continuous Measurements of Ambient Particle Deposition in Human Subjects, *Aerosol Sci. Technol.* 38, pp. 980-990.
595. Moolgavkar, S.H., Hazelton, W., Luebeck, G., Levy, D., Sheppard, L., 2000. Air Pollution, Pollens, and Admissions for Chronic Respiratory Disease in King County, Washington, *Inhal. Toxicol.* 12, pp. 157-171.
596. Morgan, L.G., Levick, S.P., Voloshenyuk, T.G., Murray, D.B., Forman, M.F., Brower, G.L., Janicki, J.S., 2008. A novel technique for isolating functional mast cells from the heart, *Inflammation Research* 57, pp. 241-246.
597. Mortimer, K.M., Neas, L.M., Dockery, D.W., Redline, S., Tager, I.B., 2002. The effect of air pollution on inner-city children with asthma, *Eur. Respir. J.* 19, pp. 699-705.
598. Mossman, B., Borm, P., Castranova, V., Costa, D., Donaldson, K., Kleeberger, S., 2007. Mechanisms of action of inhaled fibers, particles and nanoparticles in lung and cardiovascular diseases, *Particle and Fibre Toxicology* 4, p. 4.
599. Moyer, C.F., Kodavanti, U.P., Haseman, J.K., Maronpot, R.R., Costa, D.L., Nyska, A., 2002. Systemic vascular disease in male B6C3F1 mice exposed to particulate matter by inhalation: studies conducted by the National Toxicology Program., *Toxicol. Pathol.* 30, pp. 427-434.
600. Mudipalli, A., 2007. Lead hepatotoxicity and potential health effects, *Indian Journal of Medical Research* 126, pp. 518-527.

601. Mundandhara,S.D., Becker,S., Madden,M.C., 2006. Effects of diesel exhaust particles on human alveolar macrophage ability to secrete inflammatory mediators in response to lipopolysaccharide, *Toxicol. In Vitro* 20, pp. 614-624.
602. Mutlu,G.M., Green,D., Bellmeyer,A., Baker,C.M., Burgess,Z., Rajamannan,N., Christman,J.W., Foiles,N., Kamp,D.W., Ghio,A.J., Chandel,N.S., Dean,D.A., Sznajder,J.I., Budinger,G.R., 2007. Ambient particulate matter accelerates coagulation via an IL-6-dependent pathway, *J Clin Invest* 117, pp. 2952-2961.
603. Mutlu,G.M., Snyder,C., Bellmeyer,A., Wang,H., Hawkins,K., Soberanes,S., Welch,L.C., Ghio,A.J., Chandel,N.S., Kamp,D., Sznajder,J.I., Budinger,G.R.S., 2006. Airborne Particulate Matter Inhibits Alveolar Fluid Reabsorption in Mice via Oxidant Generation, *Am. J. Respir. Cell Mol. Biol.* 34, pp. 670-676.
604. Nadadur,S.S., Schladweiler,M.C.J., Kodavanti,U.P., 2000. A pulmonary rat gene array for screening altered expression profiles in air pollutant-induced lung injury., *Inhal. Toxicol.* 12, pp. 1239-1254.
605. Nadadur,S.S., Kodavanti,U.P., 2002. Altered gene expression profiles of rat lung in response to an emission particulate matter and its metal constituents., *J. Toxicol. Environ. Health A* 65, pp. 1333-1350.
606. Nadadur,S.S., Costa,D.L., Slade,R., Silbajoris,R., Hatch,G.E., 2005. Acute ozone-induced differential gene expression profiles in rat lung, *Environ. Health Perspect.* 113, pp. 1717-1722.
607. Nadadur,S.S., Haykal-Coates,N., Mudipalli,A., Costa,D.L., 2009. Endothelial effects of emission source particles: Acute toxic response gene expression profiles, *Toxicol. In Vitro* 23, pp. 67-77.
608. Nadziejko,C., Fang,K., Nadziejko,E., Narciso,S.P., Zhong,M., Chen,L.C., 2002. Immediate effects of particulate air pollutants on heart rate and respiratory rate in hypertensive rats, *Cardiovasc. Toxicol.* 2, pp. 245-252.
609. Nadziejko,C., Fang,K., Chen,L.C., Gordon,T., Nádas,A., 2002. Quantitative analysis of cardiac data from rats monitored by telemetry: reducing within- and between-animal variability, *Cardiovasc. Toxicol.* 2, pp. 237-244.
610. Nadziejko,C., Fang,K., Narciso,S.P., Zhong,M., Su,W.C., Gordon,T., Nádas,A., Chen,L.C., 2004. Effect of particulate and gaseous pollutants on spontaneous arrhythmias in aged rats, *Inhal. Toxicol.* 16, pp. 373-380.
611. Nadziejko,C., Chen,L.C., Nádas,A., Hwang,J.-S., 2004. The 'fishing license' method for analyzing the time course of effects in repeated measurements, *Stat. Med.* 23, pp. 1399-1411.
612. Narciso,S.P., Nadziejko,E., Chen,L.C., Gordon,T., Nadziejko,C., 2003. Adaptation to stress induced by restraining rats and mice in nose-only inhalation holders, *Inhal. Toxicol.* 15, pp. 1133-1143.
613. Neas,L.M., Dockery,D.W., Koutrakis,P., Speizer,F.E., 1999. Fine particles and peak flow in children: acidity versus mass, *Epidemiology* 10, pp. 550-553.
614. Neas,L.M., Schwartz,J., Dockery,D., 1999. A case-crossover analysis of air pollution and mortality in Philadelphia, *Environ. Health Perspect.* 107, pp. 629-631.
615. Neas,L.M., 2000. Fine particulate matter and cardiovascular disease, *Fuel Process. Tech.* 65-66, pp. 55-67.

616. Nel, A.E., Diaz-Sanchez, D., Li, N., 2001. The Role of Particulate Pollutants in Pulmonary Inflammation and Asthma: Evidence for the Involvement of Organic Chemicals and Oxidative Stress, *Curr. Opin. Pulm. Med.* 7, pp. 20-26.
617. Nel, A., 2005. Air Pollution-Related Illness: Effects of Particles, *Science* 308, pp. 804-806.
618. Nel, A., Xia, T., Madler, L., Li, N., 2006. Toxic Potential of Materials at the Nanolevel, *Science* 311, pp. 622-627.
619. Nelson, G.B., Ross, J.A., Prusiewicz, C.M., Sangaiah, R., Ball, L., Gold, A., 2002. Identification of stereochemical configurations of cyclopenta[CD]pyrene-DNA adducts in strain A/J mouse lung and C3H10T1/2CL8 cells., *Polycyclic Aromat. Compd.* 22, pp. 923-931.
620. Nelson, G.B., Ross, J.A., Pimental, M., Desai, D., Sharma, A.K., Amin, S., Nesnow, S., 2007. Characterization of naphtho[1,2-a]pyrene and naphtho[1,2-e]pyrene DNA adducts in C3H10T1/2 fibroblasts., *Cancer Letters* 247, pp. 309-317.
621. Nesnow, S., Davis, C.R., Desai, D., Amin, S., 2000. Evaluation of benzo[c]chrysene dihydrodiols in the morphological cell transformation of mouse embryo fibroblast C3H10T1/2CL8 cells., *Polycyclic Aromat. Compd.* 21, pp. 203-213.
622. Nesnow, S., Davis, C., Nelson, G.B., Lambert, G., Padgett, W., Pimentel, M., Tennant, A.H., Kligerman, A.D., Ross, J.A., 2002. Comparison of the genotoxic activities of the K-region dihydrodiol of benzo[a]pyrene with benzo[a]pyrene in mammalian cells: morphological cell transformation; DNA damage; and stable covalent DNA adducts, *Mutation Research/Genetic Toxicology and Environmental Mutagenesis* 521, pp. 91-102.
623. Nikolov, M.C., Coull, B.A., Catalano, P.J., Godleski, J.J., 2007. An Informative Bayesian Structural Equation Model to Assess Source-Specific Health Effects of Air Pollution, *Biostatistics* 8, pp. 609-624.
624. Ning, Y., Imrich, A., Goldsmith, C.A., Qin, G., Kobzik, L., 2000. Alveolar macrophage cytokine production in response to air particles in vitro: role of endotoxin, *J. Toxicol. Environ. Health A* 59, pp. 165-80.
625. Norris, G., Larson, T., Koenig, J., Claiborn, C., Sheppard, L., Finn, D., 2000. Asthma aggravation, combustion, and stagnant air, *Thorax* 55, pp. 466-470.
626. Norwood, J., Jr., Ledbetter, A.D., Doerfler, D.L., Hatch, G.E., 2001. Residual oil fly ash inhalation in guinea pigs: Influence of ascorbate and glutathione depletion., *Toxicol. Sci.* 61, pp. 144-153.
627. O'Connor, G.T., Neas, L., Vaughn, B., Kattan, M., Mitchell, H., Crain, E.F., Evans, R.I., Gruchalla, R., Morgan, W., Stout, J., Adams, G.K., Lippmann, M., 2008. Acute respiratory health effects of air pollution on children with asthma in US inner cities., *Journal of Allergy and Clinical Immunology* 121, pp. 1133-1139.
628. O'Neill, M.S., 2003. Air Conditioning and Heat-related Health Effects, *Appl. Environ. Sci. Public Health* 1, pp. 9-12.
629. O'Neill, M.S., Zanobetti, A., Schwartz, J., 2003. Modifiers of the Temperature and Mortality Association in Seven US Cities, *Am. J. Epidemiol.* 157, pp. 1074-1082.
630. O'Neill, M.S., Jerrett, M., Kawachi, I., Levy, J.I., Cohen, A.J., Gouveia, N., Wilkinson, P., Fletcher, T., Cifuentes, L., Schwartz, J., 2003. Health, Wealth, and Air Pollution: Advancing Theory and Methods, *Environ. Health Perspect.* 111, pp. 1861-1870.

631. O'Neill, M.S., Loomis, D., Borja Aburto, V.H., Gold, D., Hertz-Picciotto, I., Castillejos, M., 2004. Do Associations Between Airborne Particles and Daily Mortality in Mexico City Differ by Method, Region, or Modeling Strategy?, *J. Expo. Anal. Environ. Epidemiol.* 14, pp. 429-439.
632. O'Neill, M.S., Hajat, S., Zanobetti, A., Ramirez-Aguilar, M., Schwartz, J., 2005. Impact of Control for Air Pollution and Respiratory Epidemics on the Estimated Associations of Temperature and Daily Mortality, *International Journal of Biometeorology* 50, pp. 121-129.
633. O'Neill, M.S., Zanobetti, A., Schwartz, J., 2005. Disparities by Race in Heat-Related Mortality in Four US Cities: The Role of Air Conditioning Prevalence, *Journal of Urban Health* 82, pp. 191-197.
634. O'Neill, M.S., Diez Roux, A.V., Auchincloss, A.H., Franklin, T.G., Jacobs, D.R., Jr., Astor, B.C., Dvornch, J.T., Kaufman, J., 2008. Airborne particulate matter exposure and urinary albumin excretion: the Multi-Ethnic Study of Atherosclerosis, *Occup Environ Med* 65, pp. 534-540.
635. O'Neill, M.S., Veves, A., Zanobetti, A., Sarnat, J.A., Gold, D.R., Economides, P.A., Horton, E.S., Schwartz, J., 2005. Diabetes Enhances Vulnerability to Particulate Air Pollution-Associated Impairment in Vascular Reactivity and Endothelial Function, *Circulation* 111, pp. 2913-2920.
636. O'Neill, M.S., Veves, A., Sarnat, J.A., Zanobetti, A., Gold, D.R., Economides, P.A., Horton, E., Schwartz, J., 2007. Air pollution and inflammation in type 2 diabetes: A mechanism for susceptibility, *Occup Environ Med* 64, pp. 373-379.
637. Oberdorster, G., 2000. Toxicology of ultrafine particles: in vivo studies, *Philos. Trans. R. Soc. Lond. A* 358, pp. 2719-2740.
638. Oberdorster, G., 2001. Pulmonary effects of inhaled ultrafine particles, *Int. Arch. Occup. Environ. Health* 74, pp. 1-8.
639. Oberdorster, G., Sharp, Z., Atudorei, V., Elder, A.C.P., Gelein, R., Lunts, A., Kreyling, W., Cox, C., 2002. Extrapulmonary Translocation of Ultrafine Carbon Particles Following Whole-body Inhalation Exposure of Rats, *J. Toxicol. Environ. Health A* 65, pp. 1531-1543.
640. Oberdorster, G., Oberdorster, E., Oberdorster, J., 2005. Nanotoxicology: an emerging discipline evolving from studies of ultrafine particles, *Environ. Health Perspect.* 113, pp. 823-839.
641. Oberdörster, G., Utell, M.J., 2002. Invited editorial: Ultrafine particles in the urban air: to the respiratory tract -- and beyond?, *Environ. Health Perspect.* 110, p. A440-A441.
642. Oberdörster, G., Sharp, Z., Atudorei, V., Elder, A.C.P., Gelein, R., Lunts, A., Kreyling, W., Cox, C., 2004. Translocation of inhaled ultrafine particles to the brain, *Inhal. Toxicol.* 16, pp. 437-445.
643. Oberdörster, G., Stone, V., Donaldson, K., 2007. Toxicology of nanoparticles: A historical perspective, *Nanotoxicology* 1, pp. 2-25.
644. Obot, C.J., Morandi, M.T., Beebe, T.P., Hamilton, R.F., Jr., Holian, A., 2002. Surface components of airborne particulate matter induce apoptosis through scavenger receptors, *Toxicol. Appl. Pharmacol.* 184, pp. 98-106.
645. Oldham, M.J., Phalen, R.F., 2002. Dosimetry implications of upper tracheobronchial airway anatomy in two mouse varieties, *Anat. Rec.* 268, pp. 59-65.

646. Oortgiesen,M., Veronesi,B., Eichenbaum,G., Kiser,P.F., Simon,S.A., 2000. Residual oil fly ash and charged polymers activate epithelial cells and nociceptive sensory neurons, *Am. J. Physiol. Lung Cell Mol. Physiol.* 278, pp. 683-95.
647. Oshiro,W.M., Krantz,Q.T., Bushnell,P.J., 2004. A search for residual behavioral effects of trichloroethylene (TCE) in rats exposed as young adults, *Neurotoxicol. Teratol.* 26, pp. 239-251.
648. Oshiro,W.M., Krantz,Q.T., Bushnell,P.J., 2007. Repeated inhalation of toluene by rats performing a signal detection task leads to behavioral tolerance on some performance measures, *Neurotoxicology and Teratology* 29, pp. 247-254.
649. Oshiro,W.M., Krantz,Q.T., Bushnell,P.J., 2008. Characterization of the effects of inhaled perchloroethylene on sustained attention in rats performing a visual signal detection task, *Neurotoxicology and Teratology* 30, pp. 167-174.
650. Padgett,W.T., Davis,C., Lambert,G., Nelson,G.B., Ross,J.A., Yacopucci,M., Nesnow,S., 2000. Biotransformation of trans-4,5-Dihydroxy-4,5-dihydrobenzo[a]pyrene to Benzo[a]pyrene Bis-Diols and DNA Adducts by Induced Rat Liver Microsomes, *Chem. Res. Toxicol.* 13, pp. 1125-1134.
651. Pagan,I., Costa,D.L., McGee,J.K., Richards,J.H., Dye,J.A., 2003. Metals mimic airway epithelial injury induced by in vitro exposure to Utah Valley ambient particulate matter extracts, *J. Toxicol. Environ. Health A* 66, pp. 1087-1112.
652. Pagan,I., 2007. Chloroprene: Overview of studies under consideration for the development of an IRIS assessment, *Chemico-Biological Interactions* 166, pp. 341-351.
653. Park,S.K., Schwartz,J., Weisskopf,M., Sparrow,D., Vokonas,P.S., Wright,R.O., Coull,B., Nie,H., Hu,H., 2006. Low-level lead exposure, metabolic syndrome, and heart rate variability: the VA Normative Aging Study, *Environ. Health Perspect.* 114, pp. 1718-1724.
654. Park,S.K., O'Neill,M.S., Vokonas,P.S., Sparrow,D., Wright,R.O., Coull,B., Nie,H., Hu,H., Schwartz,J., 2008. Air pollution and heart rate variability: effect modification by chronic lead exposure, *Epidemiology* 19, pp. 111-120.
655. Park,S.K., O'Neill,M.S., Vokonas,P.S., Sparrow,D., Schwartz,J., 2005. Effects of Air Pollution on Heart Rate Variability: The VA Normative Aging Study, *Environ. Health Perspect.* 113, pp. 304-309.
656. Park,S.K., O'Neill,M.S., Wright,R.O., Hu,H., Vokonas,P.S., Sparrow,D., Suh,H., Schwartz,J., 2006. HFE Genotype, Particulate Air Pollution, and Heart Rate Variability: A Gene-Environment Interaction, *Circulation* 114, pp. 2798-2805.
657. Park,S.K., O'Neill,M.S., Vokonas,P.S., Sparrow,D., Spiro III,A., Tucker,K.L., Suh,H., Hu,H., Schwartz,J., 2008. Traffic-Related Particles are Associated with Elevated Homocysteine: the VA Normative Aging Study, *Am. J. Respir. Crit. Care Med.* 178, pp. 283-289.
658. Parker,J.D., Mendola,P., Woodruff,T., 2008. Preterm Birth After the Utah Valley Steel Mill Closure: A Natural Experiment, *Epidemiology* 19, pp. 820-823.
659. Passannante,A.N., Hazucha,M.J., Bromberg,P.A., Seal,E., Folinsbee,L., Koch,G., 1998. Nociceptive mechanisms modulate ozone-induced human lung function decrements, *J. Appl. Physiol.* 85, pp. 1863-1870.

660. Payne, J.P., Kemp, S.J., Dewar, A., Goldstraw, P., Kendall, M., Chen, L.C., Tetley, T.D., 2004. Effects of airborne World Trade Center (WTC) dust on cytokine release by primary human lung cells in vitro, *J. Occup. Environ. Med.* 46, pp. 420-427.
661. Peel, J.L., Tolbert, P.E., Klein, M., Metzger, K.B., Flanders, W.D., Todd, K., Mulholland, J.A., Ryan, P.B., Frumkin, H., 2005. Ambient air pollution and respiratory emergency department visits., *Epidemiology* 16, pp. 164-174.
662. Peel, J.L., Metzger, K.B., Klein, M., Flanders, W.D., Mulholland, J.A., Tolbert, P.E., 2007. Ambient Air Pollution and Cardiovascular Emergency Department Visits in Potentially Sensitive Groups, *Am. J. Epidemiol.* 165, pp. 625-633.
663. Pekkanen, J., Peters, A., Hoek, G., Tiittanen, P., Brunekreef, B., de Hartog, J., Heinrich, J., Ibaldo-Mulli, A., Kreyling, W.G., Lanki, T., Timonen, K.L., Vanninen, E., 2002. Particulate air pollution and risk of ST-segment depression during repeated submaximal exercise tests among subjects with coronary heart disease: the Exposure and Risk Assessment for Fine and Ultrafine Particles in Ambient Air (ULTRA) study, *Circulation* 106, pp. 933-938.
664. Peng, R., Dominici, F., Welty, L., 2008. A Bayesian hierarchical distributed lag model for constrained distributed lag functions: Estimating the time course of hospitalization associated with air pollution exposure, *Journal of the Royal Statistical Society: Series C.*
665. Peng, R.D., Chang H.H., Bell, M.L., McDermott, A., Zeger, S.L., Samet, J.M., Dominici, F., 2008. Coarse particulate matter air pollution and hospital admissions for cardiovascular and respiratory diseases among Medicare patients, *JAMA* 299, pp. 2172-2179.
666. Peng, R.D., Dominici, F., Zeger, S.L., 2006. Reproducible Epidemiologic Research, *Am. J. Epidemiol.* 163, pp. 783-789.
667. Peng, R.D., Dominici, F., Louis, T.A., 2006. Model choice in time series studies of air pollution and mortality, *Journal of the Royal Statistical Society: Series A (Statistics in Society)* 169, pp. 179-203.
668. Peretz, A., Peck, E.C., Bammler, T.K., Beyer, R.P., Sullivan, J.H., Trenga, C.A., Srinouanprachnah, S., Farin, F.M., Kaufman, J.D., 2007. Diesel Exhaust Inhalation and Assessment of Peripheral Blood Mononuclear Cell Gene Transcription Effects: An Exploratory Study of Healthy Human Volunteers, *Inhal. Toxicol.* 19, pp. 1107-1119.
669. Peretz, A., Leotta, D., Sullivan, J., Trenga, C., Sands, F., Aulet, M., Paun, M., Gill, E., Kaufman, J., 2007. Flow mediated dilation of the brachial artery: an investigation of methods requiring further standardization, *BMC Cardiovascular Disorders* 7, p. 11.
670. Perillo, I.B., Hyde, R.W., Olszowka, A.J., Pietropaoli, A.P., Frasier, L.M., Torres, A., Perkins, P.T., Forster II, R.E., Utell, M.J., Frampton, M.W., 2001. Chemiluminescent measurements of nitric oxide pulmonary diffusing capacity and alveolar production in humans, *J. Appl. Physiol.* 91, pp. 1931-1940.
671. Pestka, J.J., Yike, I., Dearborn, D.G., Ward, M.D.W., Harkema, J.R., 2007. *Stachybotrys chartarum*, Trichothecene Mycotoxins, and Damp Building-Related Illness: New Insights into a Public Health Enigma, *Toxicol. Sci.* p. kfm284.
672. Peters, A., Dockery, D.W., Muller, J.E., Mittleman, M., 2001. Increased Particulate Air Pollution and the Triggering of Myocardial Infarction, *Circulation* 103, pp. 2810-2815.

673. Peters,A., Heinrich,J., Wichmann,H.-E., 2002. Gesundheitliche Wirkungen von Feinstaub: Epidemiologie der Kurzzeiteffekte, *Umweltmed. Forsch. Prax.* 7, pp. 101-115.
674. Peters,A., von Klot,S., Heier,M., Trentinaglia,I., Hormann,A., Wichmann,H.E., Lowel,H., 2004. Exposure to traffic and the onset of myocardial infarction, *N. Engl. J. Med.* 351, pp. 1721-1730.
675. Peters,A., 2005. Particulate matter and heart disease: Evidence from epidemiological studies, *Toxicol. Appl. Pharmacol.* 207, pp. 477-482.
676. Peters,A., Veronesi,B., Calderon-Garciduenas,L., Gehr,P., Chen,L., Geiser,M., Reed,W., Rothen-Rutishauser,B., Schurch,S., Schulz,H., 2006. Translocation and potential neurological effects of fine and ultrafine particles a critical update, *Particle and Fibre Toxicology* 3, p. 13.
677. Peters,J.M., Avol,E., Navidi,W., London,S.J., Gauderman,W.J., Lurmann,F., Linn,W.S., Margolis,H., Rappaport,E., Gong,H., Jr., Thomas,D.C., 1999. A Study of Twelve Southern California Communities with Differing Levels and Types of Air Pollution . I. Prevalence of Respiratory Morbidity, *Am. J. Respir. Crit. Care Med.* 159, pp. 760-767.
678. Phalen,R.F., Oldham,M.J., 2001. Methods for modeling particle deposition as a function of age, *Respir. Physiol.* 128, pp. 119-130.
679. Phalen,R.F., Oldham,M.J., Nel,A.E., 2006. Tracheobronchial particle dose considerations for in vitro toxicology studies, *Toxicol. Sci.* 92, pp. 126-132.
680. Pietropaoli,A.P., Perillo,I.B., Torres,A., Perkins,P.T., Frasier,L.M., Utell,M.J., Frampton,M.W., Hyde,R.W., 1999. Simultaneous measurement of nitric oxide production by conducting and alveolar airways of humans, *J. Appl. Physiol.* 87, pp. 1532-1542.
681. Pietropaoli,A.P., Frampton,M., Hyde,R.W., Morrow,P.E., Oberdorster,G., Cox,C., Speers,D.M., Frasier,L.M., Chalupa,D.C., Huang,L.-S., Utell,M.J., 2004. Pulmonary function, diffusing capacity and inflammation in healthy and asthmatic subjects exposed to ultrafine particles, *Inhal. Toxicol.* 16, pp. 59-72.
682. Pinkerton,K.E., Joad,J.P., 2000. The mammalian respiratory system and critical windows of exposure for children's health, *Environ. Health Perspect.* 108, pp. 457-462.
683. Pinkerton,K.E., Green,F.H., Saiki,C., Vallyathan,V., Plopper,C.G., Gopal,V., Hung,D., Bahne,E.B., Lin,S.S., Menache,M.G., Schenker,M.B., 2000. Distribution of particulate matter and tissue remodeling in the human lung, *Environ. Health Perspect.* 108, pp. 1063-1069.
684. Pinkerton,K.E., Zhou,Y.M., Teague,S.V., Peake,J.L., Walther,R.C., Kennedy,I.M., Leppert,V.J., Aust,A.E., 2004. Reduced lung cell proliferation following short-term exposure to ultrafine soot and iron particles in neonatal rats: key to impaired lung growth?, *Inhal. Toxicol.* 16 Suppl 1, pp. 73-81.
685. Pinkerton,K.E., Joad,J.P., 2006. Influence of air pollution on respiratory health during perinatal development, *Clin. Exp Pharmacol Physiol* 33, pp. 269-272.
686. Pinkerton,K.E., Ngo,M.A., Freeland,S., Geller,M., Ham,W., Hopkins,L.E., Kleeman,M.J., Kodavanti,U.P., Meharg,E., Plummer,L., Recendez,J.J., Schenker,M.B., Sioutas,C., Smiley-Jewell,S., Wexler,A.S., 2009. Studying agriculture, particles, and health in the San Joaquin Valley, *California Agriculture*.

687. Plitnick,L.M., Loveless,S.E., Ladics,G.S., Holsapple,M.P., Smialowicz,R.J., Woolhiser,M.R., Anderson,P.K., Smith,C., Selgrade,M.J., 2005. Cytokine mRNA profiles for isocyanates with known and unknown potential to induce respiratory sensitization, *Toxicology* 207, pp. 487-499.
688. Plopper,C.G., Hatch,G.E., Wong,V., Duan,X., Weir,A.J., Tarkington,B.K., Devlin,R.B., Becker,S., Buckpitt,A.R., 1998. Relationship of inhaled ozone concentration to acute tracheobronchial epithelial injury, site-specific ozone dose, and glutathione depletion in rhesus monkeys, *Am. J. Respir. Cell Mol. Biol.* 19, pp. 387-399.
689. Pope,C.A., Burnett,R.T., Thurston,G., Thun,M.J., Calle,E.E., Krewski,D., Godleski,J., 2004. Cardiovascular mortality and long-term exposure to particulate air pollution: Epidemiological evidence of general pathophysiological pathways of disease, *Circulation* 109, pp. 71-77.
690. Pope,C.A., III, Eatough,D.J., Gold,D.R., Pang,Y., Nielsen,K.R., Nath,P., Verrier,R.L., Kanner,R.E., 2001. Acute exposure to environmental tobacco smoke and heart rate variability, *Environ. Health Perspect.* 109, pp. 711-716.
691. Pope,C.A., III, Burnett,R.T., Thun,M.J., Calle,E.E., Krewski,D., Ito,K., Thurston,G.D., 2002. Lung cancer, cardiopulmonary mortality and long-term exposure to fine particulate air pollution., *JAMA* 287, pp. 1132-1141.
692. Pope,C.A., III, Hansen,M.L., Long,R.W., Nielsen,K.R., Eatough,N.L., Wilson,W.E., Eatough,D.J., 2004. Ambient particulate air pollution, heart rate variability, and blood markers of inflammation in a panel of elderly subjects, *Environ. Health Perspect.* 112, pp. 339-345.
693. Pope,C.A., III, Ezzati,M., Dockery,D.W., 2009. Fine-Particulate Air Pollution and Life Expectancy in the United States, *N Engl J Med* 360, pp. 376-386.
694. Pourazar,J., Mudway,I.S., Samet,J.M., Helleday,R., Blomberg,A., Wilson,S.J., Frew,A.J., Kelly,F.J., Sandstrom,T., 2005. Diesel exhaust activates redox-sensitive transcription factors and kinases in human airways, *Am J Physiol Lung Cell Mol Physiol* 289, p. L724-L730.
695. Prahalad,A.K., Soukup,J.M., Inmon,J., Willis,R., Ghio,A.J., Becker,S., Gallagher,J.E., 1999. Ambient air particles: effects on cellular oxidant radical generation in relation to particulate elemental chemistry, *Toxicol. Appl. Pharmacol.* 158, pp. 81-91.
696. Prahalad,A.K., Manchester,D.K., Hsu,I.C., Inmon,J., Gallagher,J.E., 1999. Human placental microsomal activation and DNA adduction by air pollutants, *Bull. Environ. Contam. Toxicol.* 62, pp. 93-100.
697. Prahalad,A.K., Soukup,J.M., Inmon,J., Willis,R., Ghio,A.J., Becker,S., Gallagher,J.E., 1999. Air pollution particles: effects on cellular oxidant radical generation in relation to particulate elemental composition., *Toxicol. Appl. Pharmacol.* 158, pp. 81-91.
698. Prahalad,A.K., Inmon,J., Ghio,A.J., Gallagher,J.E., 2000. Enhancement of 2'-deoxyguanosine hydroxylation and DNA damage by coal and oil fly ash in relation to particulate metal content and availability, *Chem. Res. Toxicol.* 13, pp. 1011-9.
699. Prahalad,A.K., Inmon,J., Dailey,L.A., Madden,M.C., Ghio,A.J., Gallagher,J.E., 2001. Air pollution particles mediated oxidative DNA base damage in a cell free system and in human airway epithelial cells in relation to particulate metal content and bioreactivity, *Chem. Res. Toxicol.* 14, pp. 879-887.
700. Preston,R.J., 2007. Cancer risk assessment for 1,3-butadiene: data integration opportunities, *Chem Biol Interact* 166, pp. 150-155.

701. Probst-Hensch,N.M., Imboden,M., Felber,D.D., Barthelemy,J.C., ckermann-Liebrich,U., Berger,W., Gaspoz,J.M., Schwartz,J., 2008. Glutathione S-transferase polymorphisms, passive smoking, obesity, and heart rate variability in nonsmokers, *Environ. Health Perspect.* 116, pp. 1494-1499.
702. Proctor,S.D., Dreher,K.L., Kelly,S.E., Russell,J.C., 2006. Hypersensitivity of Pre-diabetic JCR:LA-cp Rats to Fine Airborne Combustion Particle-induced Direct and Noradrenergic-Mediated Vascular Contraction, *Toxicol. Sci.* 90, pp. 385-391.
703. Prophete,C., Maciejczyk,P., Salnikow,K., Gould,T., Larson,T., Koenig,J., Jaques,P., Sioutas,C., Lippmann,M., Cohen,M., 2006. Effects of select PM-associated metals on alveolar macrophage phosphorylated ERK1 and -2 and iNOS expression during ongoing alteration in iron homeostasis, *J. Toxicol. Environ. Health A* 69, pp. 935-951.
704. Puett,R.C., Schwartz,J., Hart,J.E., Yanosky,J.D., Speizer,F.E., Suh,H., Paciorek,C.J., Neas,L.M., Laden,F., 2008. Chronic Particulate Exposure, Mortality, and Coronary Heart Disease in the Nurses' Health Study, *Am. J. Epidemiol.* 168, pp. 1161-1168.
705. Qian,Z., Chapman,R.S., Tian,Q., Chen,P.J., Zhang,J., 2000. Effects of air pollution on children's respiratory health in three Chinese cities, *Arch. Environ. Health* 55, pp. 126-133.
706. Qian,Z., Zhang,J.J., Korn,L.R., Wei,F., Chapman,R.S., 2004. Exposure-response relationships between lifetime exposure to residential coal smoke and respiratory symptoms and illnesses in Chinese children, *J. Expo. Anal. Environ. Epidemiol.* 14 Suppl 1, p. S78-S84.
707. Qian,Z., Lin,H.-M., Chinchilli,V.M., Lehman,E.B., Duan,Y., Craig,T.J., Wilson,W.E., Liao,D., Lazarus,S.C., Bascom,R., 2008. Effect modification by asthma medication on the association of ambient air pollution and exhaled nitric oxide among asthmatics, *Archives of Environmental and Occupational Health.*
708. Quay,J.L., Reed,W., Samet,J., Devlin,R.B., 1998. Air pollution particles induce IL-6 gene expression in human airway epithelial cells via NF-kappaB activation, *Am. J. Respir. Cell Mol. Biol.* 19, pp. 98-106.
709. Que,L.G., Liu,L., Yan,Y., Whitehead,G.S., Gavett,S.H., Schwartz,D.A., Stamler,J.S., 2005. Protection from experimental asthma by an endogenous bronchodilator, *Science* 308, pp. 1618-1621.
710. Rabinowitz,J.R., Little,S., Brown,K.W., 2002. Why does 5-methylchrysene interact with DNA like both a planar and a non-planar polycyclic aromatic hydrocarbon?, *International Journal of Quantum Chemistry* 88, pp. 99-106.
711. Rajagopalan,S., Sun,Q., Chen,L.C., 2005. Particulate pollution and endothelial function: deja vu all over again in the air, *Circulation* 111, pp. 2869-2871.
712. Raub,J.A., 1999. Health effects of exposure to ambient carbon monoxide, *Chemosphere - Global Change Science* 1, pp. 331-351.
713. Raub,J.A., Mathieu-Nolf,M., Hampson,N.B., Thom,S.R., 2000. Carbon monoxide poisoning--a public health perspective, *Toxicology* 145, pp. 1-14.
714. Raub,J.A., Benignus,V.A., 2002. Carbon monoxide and the nervous system, *Neurosci. Biobehav. Rev* 26, pp. 925-940.

715. Reibman,J., Hsu,Y., Chen,L.C., Kumar,A., Su,W.C., Choy,W., Talbot,A., Gordon,T., 2002. Size fractions of ambient particulate matter induce granulocyte macrophage colony-stimulating factor in human bronchial epithelial cells by mitogen-activated protein kinase pathways, *Am. J. Respir. Cell Mol. Biol.* 27, pp. 455-462.
716. Reibman,J., Hsu,Y., Chen,L.C., Bleck,B., Gordon,T., 2003. Airway epithelial cells release MIP-3alpha / CCL20 in response to cytokines and ambient particulate matter, *Am. J. Respir. Cell Mol. Biol.* 28, pp. 648-654.
717. Rhoden,C.R., Lawrence,J., Godleski,J.J., Gonzalez-Flecha,B., 2004. N-Acetylcysteine Prevents Lung Inflammation after Short-Term Inhalation Exposure to Concentrated Ambient Particles, *Toxicol. Sci.* 79, pp. 296-303.
718. Rhoden,C.R., Wellenius,G.A., Ghelfi,E., Lawrence,J., Gonzalez-Flecha,B., 2005. PM-induced cardiac oxidative stress and dysfunction are mediated by autonomic stimulation, *Biochimica et Biophysica Acta (BBA) - General Subjects* 1725, pp. 305-313.
719. Rich,D.Q., Freudenberger,R.S., Ohman-Strickland,P., Cho,Y., Kipen,H.M., 2008. Right heart pressure increases after acute increases in ambient particulate concentration, *Environ. Health Perspect.* 116, pp. 1167-1171.
720. Rich,D.Q., Schwartz,J., Mittleman,M.A., Link,M., Luttmann-Gibson,H., Catalano,P.J., Speizer,F.E., Dockery,D.W., 2005. Association of Short-term Ambient Air Pollution Concentrations and Ventricular Arrhythmias, *Am. J. Epidemiol.* 161, pp. 1123-1132.
721. Rich,D.Q., Mittleman,M.A., Link,M.S., Schwartz,J., Luttmann-Gibson,H., Catalano,P.J., Speizer,F.E., Gold,D.R., Dockery,D.W., 2006. Increased Risk of Paroxysmal Atrial Fibrillation Episodes Associated with Acute Increases in Ambient Air Pollution, *Environ. Health Perspect.* 114, pp. 120-123.
722. Riediker,M., Devlin,R.B., Griggs,T.R., Herbst,M.C., Bromberg,P.A., Williams,R.W., Cascio,W.E., 2004. Cardiovascular effects in patrol officers are associated with fine particulate matter from brake wear and engine emissions, *Part. Fibre Toxicol.* 1, pp. 2-12.
723. Riediker,M., Cascio,W.E., Griggs,T.R., Herbst,M.C., Bromberg,P.A., Neas,L., Williams,R.W., Devlin,R.B., 2004. Particulate matter exposure in cars is associated with cardiovascular effects in healthy young men, *Am. J. Respir. Crit. Care Med.* 169, pp. 934-940.
724. Riediker,M., Herbst,M.C., Devlin,R.B., Griggs,T.R., Bromberg,P.A., Cascio,W.E., 2005. Effect of the September 11, 2001 Terrorist Attack on a State Highway Patrol Trooper's Heart Rate Variability, *Ann. Noninvasive Electrocardiol.* 10, pp. 83-85.
725. Riedl,M.A., Saxon,A., Diaz-Sánchez,D., 2008. Oral sulforaphane increases Phase II antioxidant enzymes in the human upper airway, *Clinical Immunology.*
726. Roberts,E.S., Richards,J.H., Jaskot,R., Dreher,K.L., 2003. Oxidative stress mediates air pollution particle-induced acute lung injury and molecular pathology, *Inhal. Toxicol.* 15, pp. 1327-1346.
727. Roberts,E.S., Charoneau,L., Espina,V., Liotta,L.A., Petricoin,E.F., III, Dreher,K.L., 2004. Application of laser capture microdissection and protein microarray technologies in the molecular analysis of airway injury following pollution particle exposure., *J. Toxicol. Environ. Health A* 67, pp. 851-861.

728. Roberts,E.S., Malstrom,S.E., Dreher,K.L., 2007. In situ pulmonary localization of air pollution particle-induced oxidative stress, *Journal of Toxicology and Environmental Health Part A* 70, pp. 1929-1935.
729. Rodriguez,C.E., Shinyashiki,M., Froines,J., Yu,R.C., Fukuto,J.M., Cho,A., 2004. An Examination of Quinone Toxicity using the Yeast *Saccharomyces cerevisiae* Model System, *Toxicology* 201, pp. 185-196.
730. Rodriguez,C.E., Fukuto,J.M., Taguchi,K., Froines,J., Cho,A.K., 2005. The interactions of 9,10-phenanthrenequinone with glyceraldehyde-3-phosphate dehydrogenase (GAPDH), a potential site for toxic actions, *Chemico-Biological Interactions* 155, pp. 97-110.
731. Romieu,I., Sienna-Monge,J.J., Ramirez-Aguilar,M., Tellez-Rojo,M.M., Moreno-Macias,H., Reyes-Ruiz,N.I., del Rio-Navarro,B.E., Ruiz-Navarro,M.X., Hatch,G., Slade,R., Hernandez-Avila,M., 2002. Antioxidant supplementation and lung functions among children with asthma exposed to high levels of air pollutants., *Am. J. Respir. Crit. Care Med.* 166, pp. 703-709.
732. Romieu,I., Barraza-Villarreal,A., Escamilla-Nuñez,C., Almstrand,A.C., Diaz-Sanchez,D., Sly,P.D., Olin,A.C., 2008. Exhaled breath malondialdehyde as a marker of effect of exposure to air pollution in children with asthma, *Journal of Allergy and Clinical Immunology* 121, pp. 903-909.
733. Rosati,J.A., Brown,J.S., Peters,T.M., Leith,D., Kim,C.S., 2002. A polydisperse aerosol inhalation system for use in human inhalation studies., *Aerosol Sci. Technol.* 33, pp. 1433-1446.
734. Rosati,J.A., Leith,D., Kim,C.S., 2003. Monodisperse and polydisperse aerosol deposition in a packed bed, *Aerosol Sci. Technol.* 37, pp. 528-535.
735. Ross,A.J., Dailey,L.A., Brighton,L.E., Devlin,R.B., 2007. Transcriptional Profiling of Mucociliary Differentiation in Human Airway Epithelial Cells, *Am. J. Respir. Cell Mol. Biol.* 37, pp. 169-185.
736. Roth,J.A., Horbinski,C., Feng,L., Dolan,K.G., Higgins,D., Garrick,M.D., 2000. Differential localization of divalent metal transporter 1 with and without iron response element in rat PC12 and sympathetic neuronal cells, *J Neurosci.* 20, pp. 7595-7601.
737. Roth,J.A., Feng,L., Walowitz,J., Browne,R.W., 2000. Manganese-induced rat pheochromocytoma (PC12) cell death is independent of caspase activation, *J Neurosci. Res* 61, pp. 162-171.
738. Roth,J.A., Rosenblatt,T., Lis,A., Bucelli,R., 2001. Melatonin-induced suppression of PC12 cell growth is mediated by its Gi coupled transmembrane receptors, *Brain Res* 919, pp. 139-146.
739. Roth,J.A., Horbinski,C., Higgins,D., Lein,P., Garrick,M.D., 2002. Mechanisms of manganese-induced rat pheochromocytoma (PC12) cell death and cell differentiation, *Neurotoxicology* 23, pp. 147-157.
740. Roth,J.A., Feng,L., Dolan,K.G., Lis,A., Garrick,M.D., 2002. Effect of the iron chelator desferrioxamine on manganese-induced toxicity of rat pheochromocytoma (PC12) cells, *J Neurosci. Res* 68, pp. 76-83.
741. Rowan,W.H., III, Campen,M.J., Wichers,L.B., Watkinson,W.P., 2007. Heart rate variability in rodents: uses and caveats in toxicological studies, *Cardiovasc. Toxicol* 7, pp. 28-51.
742. Rubes,J., Selevan,S.G., Evenson,D.P., Zudova,D., Vozdova,M., Zudova,Z., Robbins,W.A., Perreault,S.D., 2005. Episodic air pollution is associated with increased DNA fragmentation in human sperm without other changes in semen quality, *Hum. Reprod* 20, pp. 2776-2783.

743. Ruckerl,R., Ibalid-Mulli,A., Koenig,W., Schneider,A., Woelke,G., Cyrus,J., Heinrich,J., Marder,V., Frampton,M., Wichmann,H.E., Peters,A., 2006. Air pollution and markers of inflammation and coagulation in patients with coronary heart disease, *Am. J. Respir. Crit. Care Med.* 173, pp. 432-441.
744. Ruckerl,R., Phipps,R.P., Schneider,A., Frampton,M., Cyrus,J., Oberdorster,G., Wichmann,H.E., Peters,A., 2007. Ultrafine particles and platelet activation in patients with coronary heart disease - results from a prospective panel study, *Part Fibre. Toxicol* 4, p. 1.
745. Sabbioni,G., Sepai,O., Norppa,H., Yan,H., Hirvonen,A., Zheng,Y., Jarventaus,H., Pekkanen,J., Brooks,L.R., Warren,S.H., DeMarini,D.M., Liu,Y.Y., 2007. Comparison of biomarkers in workers exposed to 2,4,6-trinitrotoluene, *Biomarkers* 12, pp. 21-37.
746. Sabbioni,G., Jones,C.R., Sepai,O., Hirvonen,A., Norppa,H., Jarventaus,H., Glatt,H., Pomplun,D., Yan,H., Brooks,L.R., Warren,S.H., DeMarini,D.M., Liu,Y.Y., 2006. Biomarkers of Exposure, Effect, and Susceptibility in Workers Exposed to Nitrotoluenes, *Cancer Epidemiol Biomarkers Prev* 15, pp. 559-566.
747. Sagiv,S.K., Mendola,P., Loomis,D., Herring,A.H., Neas,L.M., Savitz,D.A., Poole,C., 2005. A time-series analysis of air pollution and preterm birth in Pennsylvania, 1997-2001, *Environ. Health Perspect.* 113, pp. 602-606.
748. Saldiva,P.H., Clarke,R.W., Coull,B.A., Stearns,R.C., Lawrence,J., Krishna Murthy,G.G., Diaz,E., Koutrakis,P., Suh,H., Tsuda,A., Godleski,J.J., 2002. Lung inflammation induced by concentrated ambient air particles is related to particle composition, *Am. J. Respir. Crit. Care Med.* 165, pp. 1610-1617.
749. Salnikow,K., Li,X., Lippmann,M., 2004. Effect of nickel and iron co-exposure on human lung cells, *Toxicol. Appl. Pharmacol.* 196, pp. 258-265.
750. Salnikow,K., Davidson,T., Zhang,Q., Chen,L.C., Su,W., Costa,M., 2003. The Involvement of Hypoxia-inducible Transcription Factor-1-dependent Pathway in Nickel Carcinogenesis, *Cancer Res.* 63, pp. 3524-3530.
751. Sama,P., Long,T.C., Hester,S., Tajuba,J., Parker,J., Chen,L.C., Veronesi,B., 2007. The Cellular and Genomic Response of an Immortalized Microglia Cell Line (BV2) to Concentrated Ambient Particulate Matter, *Inhal. Toxicol.* 19, pp. 1079-1087.
752. Samet,J.M., Graves,L.M., Quay,J., Dailey,L.A., Devlin,R.B., Ghio,A.J., Wu,W., Bromberg,P.A., Reed,W., 1998. Activation of MAPKs in human bronchial epithelial cells exposed to metals, *Am. J. Physiol. Lung Cell Mol. Physiol.* 275, pp. 551-8.
753. Samet,J.M., Silbajoris,R., Wu,W., Graves,L.M., 1999. Tyrosine phosphatases as targets in metal-induced signaling in human airway epithelial cells, *Am. J. Respir. Cell Mol. Biol.* 21, pp. 357-64.
754. Samet,J.M., Ghio,A.J., Costa,D.L., Madden,M.C., 2000. Increased expression of cyclooxygenase 2 mediates oil fly ash-induced lung injury., *Exp. Lung Res.* 26, pp. 57-69.
755. Samet,J.M., Silbajoris,R., Huang,T., Jaspers,I., 2002. Transcription factor activation following exposure of an intact lung preparation to metallic particulate matter, *Environ. Health Perspect.* 110, pp. 985-990.
756. Samet,J.M., Dewar,B.J., Wu,W., Graves,L.M., 2003. Mechanisms of Zn(2+)-induced signal initiation through the epidermal growth factor receptor, *Toxicol. Appl. Pharmacol.* 191, pp. 86-93.

757. Samet, J.M., Graff, D., Berntsen, J., Ghio, A.J., Huang, Y.C., Devlin, R.B., 2007. A Comparison of Studies on the Effects of Controlled Exposure to Fine, Coarse and Ultrafine Ambient Particulate Matter from a Single Location, *Inhal. Toxicol.* 19, pp. 29-32.
758. Samet, J.M., 2008. Air Pollution Risk Estimates: Determinants of Heterogeneity, *Journal of Toxicology and Environmental Health, Part A* 71, pp. 578-582.
759. Sarnat, J.A., Schwartz, J., Catalano, P., Suh, H., 2001. Gaseous Pollutants in Particulate Matter Epidemiology: Confounders or Surrogates?, *Environ. Health Perspect.* 109, pp. 1053-1061.
760. Sarnat, J.A., Brown, K.W., Schwartz, J., Coull, B.A., Koutrakis, P., 2005. Ambient Gas Concentrations and Personal Particulate Matter Exposures: Implications for Studying the Health Effects of Particles, *Epidemiology* 16, pp. 385-395.
761. Sarnat, J.A., Wilson, W.E., Strand, M., Brook, J., Wyzga, R.E., Lumley, T., 2007. Panel discussion review: session 1 — exposure assessment and related errors in air pollution epidemiologic studies, *Journal of Exposure Science and Environmental Epidemiology* 17, p. S75-S82.
762. Sarnat, S.E., Suh, H.H., Coull, B.A., Schwartz, J., Stone, P.H., Gold, D.R., 2006. Ambient particulate air pollution and cardiac arrhythmia in a panel of older adults in Steubenville, Ohio, *Occup. Environ. Med.* 63, pp. 700-706.
763. Savage, S.T., Lawrence, J., Katz, T., Stearns, R.C., Coull, B.A., Godleski, J.J., 2003. Does the Harvard/U.S. Environmental Protection Agency Ambient Particle Concentrator Change the Toxic Potential of Particles?, *J. Air Waste Manag. Assoc.* 53, pp. 1088-1097.
764. Savov, J.D., Gavett, S.H., Brass, D.M., Costa, D.L., Schwartz, D.A., 2002. Neutrophils play a critical role in the development of LPS-induced airway disease, *Am. J. Physiol. Lung Cell Mol. Physiol.* 283, pp. 952-962.
765. Sawyer, K., Brown, J.S., Hazucha, M.J., Bennett, W.D., 2006. The Effect of Exercise on Nasal Uptake of Ozone in Healthy Human Adults, *J. Appl. Physiol.* p. 00269.
766. Saxena, R.K., Williams, W., Gilmour, M.I., 2007. Suppression of basal and cytokine-induced expression of antigen presentation markers on mouse lung epithelial cells exposed to diesel exhaust particles, *American Journal of Biochemistry and Biotechnology* 3, pp. 187-192.
767. Saxena, R.K., Gilmour, M.I., Hays, M.D., 2008. Isolation and quantitative estimation of diesel exhaust and carbon black particles ingested by lung epithelial cells and alveolar macrophages in vitro, *Biotechniques* 44, pp. 799-805.
768. Saxena, R.K., Williams, W., McGee, J.K., Daniels, M.J., Boykin, E., Gilmour, M.I., 2007. Enhanced *in vitro* and *in vivo* toxicity of poly-dispersed acid-functionalized single-wall carbon nanotubes, *Nanotoxicology* 1, pp. 291-300.
769. Schelegle, E.S., Gershwin, L.J., Miller, L.A., Fanucchi, M.V., Van Winkle, L.S., Gerriets, J.P., Walby, W.F., Omlor, A.M., Buckpitt, A.R., Tarkington, B.K., Wong, V.J., Joad, J.P., Pinkerton, K.B., Wu, R., Evans, M.J., Hyde, D.M., Plopper, C.G., 2001. Allergic asthma induced in rhesus monkeys by house dust mite (*Dermatophagoides farinae*), *Am. J. Pathol.* 158, pp. 333-341.
770. Schildcrout, J.S., Sheppard, L., Lumley, T., Slaughter, J.C., Koenig, J.Q., Shapiro, G.G., 2006. Ambient Air Pollution and Asthma Exacerbations in Children: An Eight-City Analysis, *Am. J. Epidemiol.* 164, pp. 505-517.

771. Schlesinger,R.B., 2000. Properties of ambient PM responsible for human health effects: Coherence between epidemiology and toxicology., *Inhal. Toxicol.* 12, pp. 23-25.
772. Schneider,A., Neas,L., Herbst,M.C., Case,M., Williams,R.W., Cascio,W., Hinderliter,A., Holguin,F., Buse,J., Dungan,K., Styner,M., Peters,A., Devlin,R.B., 2008. Endothelial dysfunction: Associations with exposure to ambient fine particles in diabetic individuals, *Environ. Health Perspect.* 116, pp. 1666-1674.
773. Schreiber,J.S., Hudnell,H.K., Geller,A.M., House,D.E., Aldous,K.M., Force,M.S., Langguth,K., Prohonic,E.J., Parker,J.C., 2002. Apartment residents' and day care workers' exposures to tetrachloroethylene and deficits in visual contrast sensitivity, *Environ. Health Perspect.* 110, pp. 655-664.
774. Schreuder,A., Larson,T., Sheppard,L., Claiborn,C., 2008. Source tracer compounds and health effects in Spokane, Washington., *International Journal of Occupational and Environmental Health.*
775. Schreuder,A.B., Larson,T.V., Sheppard,L., Claiborn,C.S., 2006. Ambient woodsmoke and associated respiratory emergency department visits in Spokane, Washington, *Int. J Occup Environ Health* 12, pp. 147-153.
776. Schroeter,J.D., Pritchard,J.N., Hwang,D., Martonen,T.B., 2005. Airway Identification Within Planar Gamma Camera Images Using Computer Models of Lung Morphology, *Pharmaceutical Research* 22, pp. 1692-1699.
777. Schwartz,J., Zanobetti,A., 2000. Using Meta-Smoothing to Estimate Dose-Response Trends across Multiple Studies, with Application to Air Pollution and Daily Death, *Epidemiology* 11, pp. 666-672.
778. Schwartz,J., Neas,L.M., 2000. Fine particles are more strongly associated than coarse particles with acute respiratory health effects in schoolchildren, *Epidemiology* 11, pp. 6-10.
779. Schwartz,J., 2000. Assessing Confounding, Effect Modification, and Thresholds in the Association Between Ambient Particles and Daily Deaths, *Environ. Health Perspect.* 108, pp. 563-568.
780. Schwartz,J., Timonen,K.L., Pekkanen,J., 2000. Respiratory effects of environmental tobacco smoke in a panel study of asthmatic and symptomatic children, *Am. J. Respir. Crit. Care Med.* 161, pp. 802-806.
781. Schwartz,J., Ballester,F., Saez,M., Pérez-Hoyos,S., Bellido,J., Cambra,K., Arribas,F., Cañada,A., Pérez-Boillos,M.J., Sunyer,J., 2001. The concentration-response relation between air pollution and daily deaths, *Environ. Health Perspect.* 109, pp. 1001-1006.
782. Schwartz,J., 2001. Is There Harvesting in the Association of Airborne Particles with Daily Deaths and Hospital Admissions?, *Epidemiology* 12, pp. 55-61.
783. Schwartz,J., Laden,F., Zanobetti,A., 2002. The Concentration-Response Relation between PM2.5 and Daily Deaths, *Environ. Health Perspect.* 110, pp. 1025-1029.
784. Schwartz,J., 2002. The Use of Epidemiology in Environmental Risk Assessment, *Hum. Ecol. Risk Assess.* 8, pp. 1253-1265.
785. Schwartz,J., Coull,B.A., 2003. Control for Confounding in the Presence of Measurement Error in Hierarchical Models, *Biostatistics* 4, pp. 539-553.

786. Schwartz,J., 2004. The effects of particulate air pollution on daily deaths: a multi-city case crossover analysis, *Occup. Environ. Med.* 61, pp. 956-961.
787. Schwartz,J., 2004. Is the association of airborne particles with daily deaths confounded by gaseous air pollutants? An approach to control by matching, *Environ. Health Perspect.* 112, pp. 557-561.
788. Schwartz,J., 2005. Who is Sensitive to Extremes of Temperature? A Case-Only Analysis., *Epidemiology* 16, pp. 67-72.
789. Schwartz,J., Litonjua,A., Suh,H., Verrier,M., Zanobetti,A., Syring,M., Nearing,B., Verrier,R., Stone,P., MacCallum,G., Speizer,F.E., Gold,D.R., 2005. Traffic related pollution and heart rate variability in a panel of elderly subjects, *Thorax* 60, pp. 455-461.
790. Schwartz,J., 2006. Comment on "Model Choice in Time Series Studies of Air Pollution and Mortality", *Journal of the Royal Statistical Society: Series A* 169, pp. 198-200.
791. Schwartz,J., Coull,B.A., Laden,F., Ryan,L., 2008. The effect of dose and timing of dose on the association between airborne particles and survival, *Environ. Health Perspect.* 116, pp. 64-69.
792. Schwartz,J., Park,S.K., O'Neill,M.S., Vokonas,P.S., Sparrow,D., Weiss,S., Kelsey,K., 2005. Glutathione-S-Transferase M1, Obesity, Statins, and Autonomic Effects of Particles: Gene-by-Drug-by-Environment Interaction, *Am. J. Respir. Crit. Care Med.* 172, pp. 1529-1533.
793. Schwartz,J., 2005. How Sensitive Is the Association between Ozone and Daily Deaths to Control for Temperature?, *Am. J. Respir. Crit. Care Med.* 171, pp. 627-631.
794. Schwartz,J., Sarnat,J.A., Coull,B.A., Wilson,W.E., 2007. Effects of exposure measurement error on particle matter epidemiology: a simulation using data from a panel study in Baltimore, MD, *J Expos Sci Environ Epidemiol* 17, p. S2-S10.
795. Segal,R.A., Martonen,T.B., Kim,C.S., 2000. Comparison of computer simulations of total lung deposition to human subject data in healthy test subjects, *J. Air Waste Manag. Assoc.* 50, pp. 1262-8.
796. Segal,R.A., Martonen,T.B., Kim,C.S., Shearer,M., 2002. Computer simulations of particle deposition in the lungs of chronic obstructive pulmonary disease patients, *Inhal. Toxicol.* 14, pp. 705-720.
797. Selevan,S.G., Borkovec,L., Slott,V.L., Zudova,Z., Rubes,J., Evenson,D.P., Perreault,S.D., 2000. Semen quality and reproductive health of young Czech men exposed to seasonal air pollution, *Environ. Health Perspect.* 108, pp. 887-894.
798. Selgrade,M.K., Gilmour,M.I., 2006. Immunotoxicology of inhaled compounds assessing risks of local immune suppression and hypersensitivity, *Journal of Toxicology and Environmental Health Part A* 69, pp. 827-844.
799. Selgrade,M.K., Lemanske,R.F., Jr., Gilmour,M.I., Neas,L.M., Ward,M.D., Henneberger,P.K., Weissman,D.N., Hoppin,J.A., Dietert,R.R., Sly,P.D., Geller,A.M., Enright,P.L., Backus,G.S., Bromberg,P.A., Germolec,D.R., Yeatts,K.B., 2006. Induction of asthma and the environment: what we know and need to know, *Environ. Health Perspect.* 114, pp. 615-619.
800. Selgrade,M.K., 2000. Air pollution and respiratory disease: extrapolating from animal models to human health effects, *Immunopharmacology* 48, pp. 319-324.

801. Selgrade, M.K., Plopper, C.G., Gilmour, M.I., Conolly, R.B., Foos, B.S.P., 2008. Assessing The Health Effects and Risks Associated with Children's Inhalation Exposures--Asthma and Allergy, *Journal of Toxicology and Environmental Health, Part A* 71, pp. 196-207.
802. Semmler-Behnke, M., Takenaka, S., Fertsch, S., Wenk, A., Seitz, J., Mayer, P., Oberdorster, G., Kreyling, W.G., 2007. Efficient Elimination of Inhaled Nanoparticles from the Alveolar Region: Evidence for Interstitial Uptake and Subsequent Re-entrainment onto Airways Epithelia, *Environ. Health Perspect.* 115, pp. 728-733.
803. Sen, B., Mahadevan, B., DeMarini, D.M., 2007. Transcriptional responses to complex mixtures--A review, *Mutation Research/Reviews in Mutation Research* 636, pp. 144-177.
804. Sexton, K., Greaves, I.A., Church, T.R., Adgate, J.L., Ramachandran, G., Tweedie, R.L., Fredrickson, A., Geisser, M., Sikorski, M., Fischer, G., Jones, D., Ellringer, P., 2000. A school-based strategy to assess children's environmental exposures and related health effects in economically disadvantaged urban neighborhoods, *J. Expo. Anal. Environ. Epidemiol.* 10, pp. 682-694.
805. Sexton, K., Waller, L.A., McMaster, R.B., Maldonado, G., Adgate, J.L., 2002. The importance of spatial effects for environmental health policy and research, *Hum. Ecol. Risk Assess.* 8, pp. 109-125.
806. Sexton, K., Adgate, J.L., Church, T.R., Greaves, I.A., Ramachandran, G., Fredrickson, A.L., Geisser, M.S., Ryan, A.D., 2003. Recruitment, retention, and compliance results from a probability study of children's environmental health in economically disadvantaged neighborhoods, *Environ. Health Perspect.* 111, pp. 731-736.
807. Shafer, T.J., Bushnell, P.J., Benignus, V.A., Woodward, J.J., 2005. Perturbation of voltage-sensitive Ca²⁺ channel function by volatile organic solvents, *J Pharmacol. Exp. Ther.* 315, pp. 1109-1118.
808. Shah, A.P., Pietropaoli, A.P., Frasier, L.M., Speers, D.M., Chalupa, D., Delehanty, J.M., Huang, L.-S., Utell, M.J., Frampton, M.W., 2008. Effect of inhaled carbon ultrafine particles on reactive hyperemia in healthy human subjects, *Environ. Health Perspect.* 116, pp. 375-380.
809. Sheppard, L., Lumley, T., 2000. Comments on "Combining evidence on air pollution and daily mortality from the 20 largest U.S. cities: a hierarchical modeling strategy" by Francesca Dominici, Jonathan M. Samet and Scott L. Zeger, *J. R. Stat. Soc. Ser. B* 163, p. 297.
810. Sheppard, L., Kaufman, J., 2000. Sorting out the role of air pollutants in asthma initiation, *Epidemiology* 11, pp. 100-101.
811. Sheppard, L., Wakefield, J.C., 2004. Discussion of "Statistical Issues in Studies of the Long-term Effects of Air Pollution: The Southern California Children's Health Study" by Berhane, Gauderman, Stram and Thomas, *Statistical Science* 19, pp. 438-441.
812. Shi, H., Kleinstreuer, C., Zhang, Z., Kim, C.S., 2004. Nano-particle transport and deposition in bifurcating tubes with different inlet conditions, *Phys. Fluids* 16, pp. 2199-2213.
813. Shinyashiki, M., Rodriguez, C.E., Di Stefano, E.W., Sioutas, C., Delfino, R.J., Kumagai, Y., Froines, J.R., Cho, A.K., 2008. On the interaction between glyceraldehyde-3-phosphate dehydrogenase and airborne particles: Evidence for electrophilic species, *Atmos. Environ.* 42, pp. 517-529.
814. Shukla, A., Timblin, C., BeruBe, K., Gordon, T., McKinney, W., Driscoll, K., Vacek, P., Mossman, B.T., 2000. Inhaled particulate matter causes expression of nuclear factor (NF)-kappaB-related genes

and oxidant-dependent NF-kappaB activation in vitro, *Am. J. Respir. Cell Mol. Biol.* 23, pp. 182-187.

815. Sienna-Monge, J.J., Ramirez-Aguilar, M., Moreno-Macias, H., Reyes-Ruiz, N.I., del Rio-Navarro, B.E., Ruiz-Navarro, M.X., Hatch, G., Crissman, K., Slade, R., Devlin, R.B., Romieu, I., 2004. Antioxidant supplementation and nasal inflammatory responses among young asthmatics exposed to high levels of ozone, *Clinical and Experimental Immunology* 138, pp. 317-22.
816. Silbajoris, R., Ghio, A.J., Samet, J.M., Jaskot, R., Dreher, K.L., Brighton, L.E., 2000. In vivo and in vitro correlation of pulmonary MAP kinase activation following metallic exposure, *Inhal. Toxicol.* 12, pp. 453-68.
817. Silva, V.M., Corson, N., Elder, A., Oberdorster, G., 2005. The rat ear vein model for investigating in vivo thrombogenicity of ultrafine particles (UFP), *Toxicol. Sci.* 85, pp. 983-989.
818. Simkhovich, B.Z., Kleinman, M.T., Kloner, R.A., 2008. Air Pollution and Cardiovascular Injury: Epidemiology, Toxicology, and Mechanisms, *J Am Coll Cardiol* 52, pp. 719-726.
819. Simmons, J.E., Boyes, W.K., Bushnell, P.J., Raymer, J.H., Limsakun, T., McDonald, A., Sey, Y.M., Evans, M.V., 2002. A physiologically-based pharmacokinetic model for trichloroethylene in the male long-evans rat, *Toxicol. Sci.* 69, pp. 3-15.
820. Simmons, J.E., Evans, M.V., Boyes, W.K., 2005. Moving from external exposure concentration to internal dose: duration extrapolation based on physiologically based pharmacokinetic derived estimates of internal dose, *J. Toxicol. Environ. Health A* 68, pp. 927-950.
821. Singal, M., Finkelstein, J.N., 2005. Use of indicator cell lines for determining inflammatory gene changes and screening the inflammatory potential of particulate and non-particulate stimuli, *Inhal. Toxicol.* 17, pp. 415-425.
822. Singal, M., Finkelstein, J.N., 2005. Amorphous silica particles promote inflammatory gene expression through the redox sensitive transcription factor, AP-1, in alveolar epithelial cells, *Exp. Lung Res.* 31, pp. 581-597.
823. Singh, P., DeMarini, D.M., Dick, C.A.J., Tabor, D.G., Ryan, J.V., Linak, W.P., Kobayashi, T., Gilmour, M.I., 2004. Sample characterization of automobile and forklift diesel exhaust particles and comparative pulmonary toxicity in mice, *Environ. Health Perspect.* 112, pp. 820-825.
824. Singh, P., Madden, M., Gilmour, M.I., 2005. Effect of diesel exhaust particles and carbon black on induction of dust mite allergy in Brown Norway rats., *J. Immunotoxicol.* 2, pp. 41-49.
825. Sint, T., Donohue, J.F., Ghio, A.J., 2008. Ambient Air Pollution Particles and the Acute Exacerbation of Chronic Obstructive Pulmonary Disease, *Inhal. Toxicol.* 11, pp. 25-29.
826. Slaughter, J.C., Lumley, T., Sheppard, L., Koenig, J.Q., Shapiro, G.G., 2003. Effects of ambient air pollution on symptom severity and medication use in children with asthma, *Ann. Allergy. Asthma Immunol.* 91, pp. 346-353.
827. Slaughter, J.C., Koenig, J.Q., Reinhardt, T.E., 2004. Association between lung function and exposure to smoke among firefighters at prescribed burns, *J. Occup. Environ. Hyg.* 1, pp. 45-49.
828. Slaughter, J.C., Kim, E., Sheppard, L., Sullivan, J.H., Larson, T.V., Claiborn, C., 2005. Association between particulate matter and emergency room visits, hospital admissions and mortality in Spokane, Washington, *J. Expo. Anal. Environ. Epidemiol.* 15, pp. 153-159.

829. Smith,K.R., Uyeminanami,D.L., Kodavanti,U.P., Crapo,J.D., Chang,L.-Y., Pinkerton,K.E., 2002. Inhibition of tobacco smoke-induced lung inflammation by a catalytic antioxidant, *Free Radic. Biol. Med.* 33, pp. 1106-1114.
830. Smith,K.R., Kim,S., Recendez,J.J., Teague,S.V., Menache,M.G., Grubbs,D.E., Sioutas,C., Pinkerton,K.E., 2003. Airborne Particles of the California Central Valley Alter the Lungs of Healthy Adult Rats, *Environ. Health Perspect.* 111, pp. 902-908.
831. Smith,K.R., Veranth,J.M., Kodavanti,U.P., Aust,A.E., Pinkerton,K.E., 2006. Acute Pulmonary and Systemic Effects of Inhaled Coal Fly Ash in Rats: Comparison to Ambient Environmental Particles, *Toxicol. Sci.* 93, pp. 390-399.
832. Snow,J.B., Kitzis,V., Norton,C.E., Torres,S.N., Johnson,K.D., Kanagy,N.L., Walker,B.R., Resta,T.C., 2008. Differential effects of chronic hypoxia and intermittent hypocapnic and eucapnic hypoxia on pulmonary vasoreactivity, *J. Appl. Physiol.* 104, pp. 110-118.
833. Soberanes,S., Panduri,V., Mutlu,G.M., Ghio,A., Budinger,G.R.S., Kamp,D.W., 2006. P53 Mediates Particulate Matter-Induced Alveolar Epithelial Cell Mitochondria-Regulated Apoptosis, *Am. J. Respir. Crit. Care Med.* 174, pp. 1229-1238.
834. Soberanes,S., Urich,D., Baker,C.M., Burgess,Z., Chiarella,S.E., Bell,E.L., Ghio,A.J., DeVizcaya-Ruiz,A., Liu,J., Ridge,K.M., Kamp,D.W., Chandel,N.S., Schumacker,P.T., Mutlu,G.M., Budinger,G.R., 2009. Mitochondrial complex III-generated oxidants activate ASK1 and JNK to induce alveolar epithelial cell death following exposure to particulate matter air pollution, *J. Biol. Chem.* 284, pp. 2176-2186.
835. Sochaski,M.A., Jarabek,A.M., Murphy,J., Andersen,M.E., 2008. 3-chlorotyrosine and 3,5-dichlorotyrosine as biomarkers of respiratory tract exposure to chlorine gas, *Journal of Analytical Toxicology* 32, pp. 99-107.
836. Solhaug,A., Ovrebo,S., Mollerup,S., Lag,M., Schwarze,P.E., Nesnow,S., Holme,J.A., 2005. Role of cell signaling in B[a]P-induced apoptosis: characterization of unspecific effects of cell signaling inhibitors and apoptotic effects of B[a]P metabolites, *Chemico-Biological Interactions* 151, pp. 101-119.
837. Sood,N., Bennett,W.D., Zeman,K., Brown,J., Foy,C., Boucher,R.C., Knowles,M.R., 2003. Increasing Concentration of Inhaled Saline with or without Amiloride: Effect on Mucociliary Clearance in Normal Subjects, *Am. J. Respir. Crit. Care Med.* 167, pp. 158-163.
838. Soukup,J.M., Ghio,A.J., Becker,S., 2000. Soluble components of Utah Valley particulate pollution alter alveolar macrophage function in vivo and in vitro, *Inhal. Toxicol.* 12, pp. 401-14.
839. Soukup,J.M., Becker,S., 2001. Human alveolar macrophage responses to air pollution particulates are associated with insoluble components of coarse material, including particulate endotoxin, *Toxicol. Appl. Pharmacol.* 171, pp. 20-26.
840. Soukup,J.M., Becker,S., 2003. Role of monocytes and eosinophils in human respiratory syncytial virus infection in vitro, *Clin. Immunol.* 107, pp. 178-85.
841. Steck-Scott,S., Arab,L., Craft,N.E., Samet,J.M., 2004. Plasma and lung macrophage responsiveness to carotenoid supplementation and ozone exposure in humans, *Eur. J Clin. Nutr.* 58, pp. 1571-1579.
842. Stevens,T., Cho,S.H., Linak,W.P., Gilmour,M.I., 2008. Differential potentiation of allergic lung disease in mice exposed to chemically distinct diesel samples, *Toxicol. Sci.*

843. Stevens,T., Krantz,Q.T., Linak,W.P., Hester,S., Gilmour,M.I., 2008. Increased Transcription of Immune and Metabolic Pathways in Naive and Allergic Mice Exposed to Diesel Exhaust, *Toxicol. Sci.* 102, pp. 359-370.
844. Stewart,J.C., Villasmil,M.L., Frampton,M.W., 2007. Changes in Fluorescence Intensity of Selected Leukocyte Surface Markers Following Fixation, *Cytometry Part A* 71A, pp. 379-385.
845. Stolzel,M., Breitner,S., Cyrus,J., Pitz,M., Wolke,G., Kreyling,W.G., Heinrich,J., Wichmann,H.-E., Peters,A., 2007. Daily mortality and particulate matter in different size classes in Erfurt, Germany, *Journal of Exposure Science and Environmental Epidemiology* 17, pp. 458-467.
846. Stringer,B., Kobzik,L., 1998. Environmental particulate-mediated cytokine production in lung epithelial cells: role of preexisting inflammation and oxidant stress, *J. Toxicol. Environ. Health A* 55, pp. 31-44.
847. Su,W.-Y., Jaskot,R.H., Richards,J., Abramson,S.R., Woessner,J.F., Jr., Yu,W.-H., Dreher,K.L., 2000. Induction of pulmonary matrilysin expression by combustion and ambient air particles., *Am. J. Physiol. Lung Cell Mol. Physiol.* 279, p. L152-L160.
848. Su,W.-Y., Jaskot,J.H., Dreher,K.L., 2000. Particulate matter induction of pulmonary gelatinase A, gelatinase B, and tissue inhibitor of metalloproteinase expression., *Inhal. Toxicol.* 12, pp. 105-119.
849. Sullivan,J., Ishikawa,N., Sheppard,L., Siscovick,D., Checkoway,H., Kaufman,J., 2003. Exposure to ambient fine particulate matter and primary cardiac arrest among persons with and without clinically recognized heart disease, *Am. J. Epidemiol.* 157, pp. 501-509.
850. Sullivan,J., Sheppard,L., Schreuder,A., Ishikawa,N., Siscovick,D., Kaufman,J., 2005. Relation between short-term fine particulate matter exposure and onset of myocardial infarction, *Epidemiology* 16, pp. 41-48.
851. Sullivan,J.H., Schreuder,A.B., Trenga,C.A., Liu,L.-J.S., Larson,T.V., Koenig,J.Q., Kaufman,J.D., 2005. Association between short term exposure to fine particulate matter and heart rate variability in older subjects with and without heart disease, *Thorax* 60, pp. 462-466.
852. Sullivan,J., Hubbard,R., Liu,S., Shepherd,K., Trenga,C., Koenig,J., Chandler,W., Kaufman,J., 2007. A community study of the effect of particulate matter on blood measures of inflammation and thrombosis in an elderly population, *Environmental Health* 6, p. online.
853. Sun,G., Crissman,K., Norwood,J., Richards,J., Slade,R., Hatch,G.E., 2001. Oxidative interactions of synthetic lung epithelial lining fluid with metal-containing particulate matter., *Am. J. Physiol. Lung Cell Mol. Physiol.* 281, p. L807-L815.
854. Sun,Q., Wang,A., Jin,X., Natanzon,A., Duquaine,D., Brook,R.D., Aguinaldo,J.G., Fayad,Z.A., Fuster,V., Lippmann,M., Chen,L.C., Rajagopalan,S., 2005. Long-term air pollution exposure and acceleration of atherosclerosis and vascular inflammation in an animal model, *JAMA* 294, pp. 3003-3010.
855. Sun,Q., Yue,P., Ying,Z., Cardounel,A.J., Brook,R.D., Devlin,R., Hwang,J.S., Zweier,J.L., Chen,L.C., Rajagopalan,S., 2008. Air Pollution Exposure Potentiates Hypertension Through Reactive Oxygen Species-Mediated Activation of Rho/ROCK, *Arteriosclerosis, Thrombosis, and Vascular Biology* 28, pp. 1760-1766.

856. Sunil,V., Patel,K.J., Laumbach,R.J., Turpin,B.J., Lim,H.J., Kipen,H.M., Laskin,J.D., Laskin,D.L., 2007. Pulmonary effects of inhaled limonene ozone reaction products in elderly rats, *Toxicol. Appl. Pharmacol.* 222, pp. 211-220.
857. Svendsen,E.R., Yeatts,K.B., Peden,D., Orton,S., Alexis,N.E., Creason,J., Williams,R., Neas,L., 2007. Circulating neutrophil CD14 expression and the inverse association of ambient particulate matter on lung function in asthmatic children, *Ann Allergy Asthma Immunol* 99, pp. 244-253.
858. Svendsgaard,D., Kim,J.Y., Kotchmar,D., Rothenberg,S.J., 2007. A conclusion regarding: "What is the meaning of non-linear dose–response relationships between blood lead and IQ?", *Neurotoxicology* 28, pp. 196-197.
859. Swanson,K.J., Madden,M.C., Ghio,A.J., 2007. Biodiesel exhaust: the need for health effects research, *Environ. Health Perspect.* 115, pp. 496-499.
860. Swartz,C.D., King,L.C., Necnow,S., Umbach,D.M., Sikka,H.C., Kumar,S., DeMarini,D.M., 2009. Mutagenicity, stable DNA adducts, and abasic sites induced in Salmonella by phenanthro[3,4-b]- and phenanthro[4,3-b]thiophenes, sulfur analogs of benzo[c]phenanthrene, *Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis*.
861. Symons,J.M., Wang,L., Guallar,E., Howell,E., Dominici,F., Schwab,M., Ange,B.A., Samet,J., Ondov,J., Harrison,D., Geyh,A., 2006. A Case-Crossover Study of Fine Particulate Matter Air Pollution and Onset of Congestive Heart Failure Symptom Exacerbation Leading to Hospitalization, *Am. J. Epidemiol.* 164, pp. 421-433.
862. Taguchi,K., Fujii,S., Yamano,S., Cho,A.K., Kamisuki,S., Nakai,Y., Sugawara,F., Froines,J.R., Kumagai,Y., 2007. An approach to evaluate two-electron reduction of 9,10-phenanthraquinone and redox activity of the hydroquinone associated with oxidative stress, *Free Radic. Biol. Med.* 43, pp. 789-799.
863. Taguchi,K., Shimada,M., Fujii,S., Sumi,D., Pan,X., Yamano,S., Nishiyama,T., Hiratsuka,A., Yamamoto,M., Cho,A.K., Froines,J.R., Kumagai,Y., 2008. Redox cycling of 9,10-phenanthraquinone to cause oxidative stress is terminated through its monoglucuronide conjugation in human pulmonary epithelial A549 cells, *Free Radic. Biol. Med.* 44, pp. 1645-1655.
864. Tal,T.L., Graves,L.M., Silbajoris,R., Bromberg,P.A., Wu,W., Samet,J.M., 2006. Inhibition of protein tyrosine phosphatase activity mediates epidermal growth factor receptor signaling in human airway epithelial cells exposed to Zn²⁺, *Toxicol. Appl. Pharmacol.* 214, pp. 16-23.
865. Tal,T.L., Bromberg,P.A., Kim,Y., Samet,J.M., 2008. Epidermal growth factor receptor activation by diesel particles is mediated by tyrosine phosphatase inhibition, *Toxicol. Appl. Pharmacol.* 233, pp. 382-388.
866. Tebockhorst,S., Lee,D., Wexler,A.S., Oldham,M.J., 2006. Interaction of epithelium with mesenchyme affects global features of lung architecture: a computer model of development, *J. Appl. Physiol.* 102, pp. 294-305.
867. Teeguarden,J.G., Bogdanffy,M.S., Covington,T.R., Tan,C., Jarabek,A.M., 2008. A PBPK model for evaluating the impact of aldehyde dehydrogenase polymorphisms on comparative rat and human nasal tissue acetaldehyde dosimetry, *Inhal. Toxicol.* 20, pp. 375-390.
868. Thomas,D.C., Jerrett,M., Kuenzli,N., Louis,T.A., Dominici,F., Zeger,S., Schwartz,J., Burnett,R.T., Krewski,D., Bates,D., 2007. Bayesian Model Averaging in Time-Series Studies of Air Pollution and Mortality, *Journal of Toxicology and Environmental Health, Part A* 70, pp. 311-315.

869. Thurston,G.D., Bates,D.V., 2003. Air pollution as an underappreciated cause of asthma symptoms, *JAMA* 290, pp. 1915-1917.
870. Thurston,G.D., Ito,K., Mar,T., Christensen,W.F., Eatough,D.J., Henry,R.C., Kim,E., Laden,F., Lall,R., Larson,T.V., Liu,H., Neas,L., Pinto,J., Stölzel,M., Suh,H., Hopke,P.K., 2005. Workgroup report: workshop on source apportionment of particulate matter health effects--intercomparison of results and implications, *Environ. Health Perspect.* 113, pp. 1768-1774.
871. Thurston,G.D., Bekkedal,M.Y.V., Roberts,E.M., Ito,K., Pope,C.A., III, Glenn,B.S., Ozkaynak,H., Utell,M.J., 2009. Use of health information in air pollution health research: Past successes and emerging needs, *Journal of Exposure Science and Environmental Epidemiology* 19, pp. 45-58.
872. Tiittanen,P., Timonen,K.L., Ruuskanen,J., Mirme,A., Pekkanen,J., 1999. Fine particulate air pollution, resuspended road dust and respiratory health among symptomatic children, *Eur. Respir. J.* 13, pp. 266-73.
873. Timblin,C., BeruBe,K., Churg,A., Driscoll,K., Gordon,T., Hemenway,D., Walsh,E., Cummins,A.B., Vacek,P., Mossman,B., 1998. Ambient particulate matter causes activation of the c-jun kinase/stress-activated protein kinase cascade and DNA synthesis in lung epithelial cells, *Cancer Res.* 58, pp. 4543-4547.
874. Tolbert,P.E., 2007. Invited Commentary: Heterogeneity of Particulate Matter Health Risks, *Am. J. Epidemiol.* 166, pp. 889-891.
875. Tolbert,P.E., Klein,M., Peel,J.L., Sarnat,S.E., Sarnat,J.A., 2007. Multipollutant modeling issues in a study of ambient air quality and emergency department visits in Atlanta, *J Expos Sci Environ Epidemiol* 17, p. S29-S35.
876. Trasande,L., Thurston,G.D., 2005. The role of air pollution in asthma and other pediatric morbidities, *J. Allergy Clin. Immunol.* 115, pp. 689-699.
877. Trempus,C.S., Morris,R.J., Ehinger,M., Elmore,A., Bortner,C.D., Ito,M., Cotsarelis,G., Nijhof,J.G.W., Peckham,J., Flagler,N., Kissling,G., Humble,M.M., King,L.C., Adams,L.D., Desai,D., Amin,S., Tennant,R.W., 2007. CD34 Expression by Hair Follicle Stem Cells Is Required for Skin Tumor Development in Mice, *Cancer Res* 67, pp. 4173-4181.
878. Trenga,C.A., Koenig,J.Q., Williams,P.V., 2001. Dietary antioxidants and ozone-induced bronchial hyperresponsiveness in adults with asthma, *Arch. Environ. Health* 56, pp. 242-249.
879. Trenga,C.A., Sullivan,J.H., Schildcrout,J.S., Shepherd,K.P., Kaufman,J.D., Koenig,J.Q., Liu,L.-J.S., 2006. Effect of particulate air pollution on lung function in adult and pediatric subjects in a Seattle panel study., *Chest* 129, pp. 1614-1622.
880. Troncoso Brindeiro,C.M., da Silva,A.Q., Allahdadi,K.J., Youngblood,V., Kanagy,N.L., 2007. Reactive oxygen species contribute to sleep apnea-induced hypertension in rats, *Am J Physiol Heart Circ Physiol* 293, p. H2971-H2976.
881. Tsuda,A., Rogers,R.A., Hydon,P.E., Butler,J.P., 2002. Chaotic Mixing Deep in the Lung, *Proc. Natl. Acad. Sci. U. S. A.* 99, pp. 10173-10178.
882. Turi,J.L., Jaspers,I., Dailey,L.A., Madden,M.C., Brighton,L.E., Carter,J.D., Nozik-Grayck,E., Piantadosi,C.A., Ghio,A.J., 2002. Oxidative stress activates anion exchange protein 2 and AP-1 in airway epithelial cells, *Am. J. Physiol. Lung Cell Mol. Physiol.* 283, pp. 791-8.

883. Turi,J.L., Piantadosi,C.A., Stonehuerner,J.D., Ghio,A.J., 2008. Iron accumulation in bronchial epithelial cells is dependent on concurrent sodium transport, *Biometals* 21, pp. 571-580.
884. Turi,J.L., Yang,F., Garrick,M.D., Piantadosi,C.A., Ghio,A.J., 2004. The iron cycle and oxidative stress in the lung, *Free Radic. Biol. Med.* 36, pp. 850-857.
885. Turi,J.L., Wang,X., McKie,A.T., Nozik-Grayck,E., Mamo,L.B., Crissman,K., Piantadosi,C.A., Ghio,A.J., 2006. Duodenal cytochrome b: a novel ferrireductase in airway epithelial cells, *Am J Physiol Lung Cell Mol Physiol* 291, p. L272-L280.
886. Umbuzeiro,G.A., Franco,A., Martins,M.H., Kummrow,F., Carvalho,L., Schmeiser,H.H., Leykauf,J., Stiborova,M., Claxton,L.D., 2008. Mutagenicity and DNA adduct formation of PAH, nitro-PAH, and oxy-PAH fractions of atmospheric particulate matter from São Paulo, Brazil, *Mutation Research/Genetic Toxicology and Environmental Mutagenesis* 621, pp. 72-80.
887. Utell,M.J., Frampton,M.W., 2000. Acute health effects of ambient air pollution: the ultrafine particle hypothesis, *J. Aerosol Med.* 13, pp. 355-359.
888. Utell,M.J., Frampton,M.W., 2000. Toxicologic methods: controlled human exposures, *Environ. Health Perspect.* 108 Suppl 4, pp. 605-613.
889. Utell,M.J., Frampton,M.W., Zareba,W., Devlin,R.B., Cascio,W.E., 2002. Cardiovascular effects associated with air pollution: potential mechanisms and methods of testing, *Inhal. Toxicol.* 14, pp. 1231-1247.
890. Vajanapoom,N., Shy,C.M., Neas,L., Loomis,D., 2002. Associations of particulate matter and daily mortality in Bangkok, Thailand, *Southeast Asian Journal of Tropical Medicine and Public Health* 33, pp. 389-399.
891. Veranth,J.M., Gelein,R., Oberdorster,G., 2003. Vaporization -- Condensation Generation of Ultrafine Hydrocarbon Particulate Matter for Inhalation Toxicology Studies, *Aerosol Sci. Technol.* 37, pp. 603-609.
892. Verma,V., Polidori,A., Cassee,F.R., Schaffer,M., Schauer,J.J., Sioutas,C., 2009. Physicochemical and Toxicological Properties of Particulate Matter from October 2007 Southern California Wildfires, *Atmos. Environ.*
893. Veronesi,B., Carter,J.D., Devlin,R.B., Simon,S.A., Oortgiesen,M., 1999. Neuropeptides and capsaicin stimulate the release of inflammatory cytokines in a human bronchial epithelial cell line, *Neuropeptides* 33, pp. 447-56.
894. Veronesi,B., Oortgiesen,M., Carter,J.D., Devlin,R.B., 1999. Particulate matter initiates inflammatory cytokine release by activation of capsaicin and acid receptors in a human bronchial epithelial cell line, *Toxicol. Appl. Pharmacol.* 154, pp. 106-115.
895. Veronesi,B., Oortgiesen,M., Roy,J., Carter,J.D., Simon,S.A., Gavett,S.H., 2000. Vanilloid (capsaicin) receptors influence inflammatory sensitivity in response to particulate matter, *Toxicol. Appl. Pharmacol.* 169, pp. 66-76.
896. Veronesi,B., Oortgiesen,M., 2001. Neurogenic inflammation and particulate matter air pollutants, *Neurotoxicology* 22, pp. 795-810.
897. Veronesi,B., de Haar,C., Lee,L., Oortgiesen,M., 2002. The surface charge of particulate matter relates to cytokine release in human bronchial epithelial cells (BEAS-2B), *Toxicol. Appl. Pharmacol.* 178, pp. 144-154.

898. Veronesi,B., de Haar,C., Roy,J., Oortgiesen,M., 2002. Particulate matter inflammation and receptor sensitivity are target cell specific, *Inhal. Toxicol.* 14, pp. 159-83.
899. Veronesi,B., Wei,G., Zeng,J.Q., Oortgiesen,M., 2003. Electrostatic charge activates inflammatory vanilloid (VR1) receptors, *Neurotoxicology* 24, pp. 463-473.
900. Veronesi,B., Makwana,O., Pooler,M., Chen,L.C., 2005. Effects of subchronic exposures to concentrated ambient particles (CAPs): VII. Degeneration of dopaminergic neurons in Apo E^{-/-} Mice, *Inhal. Toxicol.* 17, pp. 235-241.
901. Veronesi,B., Oortgiesen,M., 2006. The TRPV1 Receptor: Target of Toxicants and Therapeutics, *Toxicol. Sci.* 89, pp. 1-3.
902. Vesper,S., McKinstry,C., Haugland,R., Neas,L., Hudgens,E.E., Heidenfelder,B., Gallagher,J.E., 2008. Higher Environmental Relative Moldiness Index (ERMIsm) values measured in Detroit homes of severely asthmatic children, *Science of The Total Environment* 394, pp. 192-196.
903. Vijayalaxmi, Kligerman,A.D., Prihoda,T.J., Ullrich,S.E., 2006. Micronucleus studies in the peripheral blood and bone marrow of mice treated with jet fuels, JP-8 and Jet-A, *Mutation Research/Genetic Toxicology and Environmental Mutagenesis* 608, pp. 82-87.
904. von Klot,S., Peters,A., Aalto,P., Bellander,T., Berglind,N., D'Ippoliti,D., Elosua,R., Hormann,A., Kulmala,M., Lanki,T., Lowel,H., Pekkanen,J., Picciotto,S., Sunyer,J., Forastiere,F., 2005. Ambient air pollution is associated with increased risk of hospital cardiac readmissions of myocardial infarction survivors in five European cities, *Circulation* 112, pp. 3073-3079.
905. von Mutius,E., Schwartz,J., Neas,L.M., Dockery,D., Weiss,S.T., 2001. Relation of body mass index to asthma and atopy in children: the National Health and Nutrition Examination Study III., *Thorax* Nov. 56, pp. 835-838.
906. Voynow,J.A., Fischer,B.M., Zheng,S., Potts,E., Grover,A.R., Jaiswal,A.K., Ghio,A.J., 2008. NAD(P)H Quinone Oxidoreductase 1 Is Essential for Ozone-induced Oxidative Stress in Mice and Humans, *Am. J. Respir. Crit. Care Med.*
907. Wallenborn,J.G., McGee,J.K., Schladweiler,M.C., Ledbetter,A.D., Kodavanti,U.P., 2007. Systemic Translocation of Particulate Matter-Associated Metals Following a Single Intratracheal Instillation in Rats, *Toxicol. Sci.* 98, pp. 231-239.
908. Wallenborn,J.G., Schladweiler,M.C., Nyska,A., Johnson,J.A., Thomas,R., Jaskot,R.H., Richards,J.H., Ledbetter,A.D., Kodavanti,U.P., 2007. Cardiopulmonary Responses of Wistar Kyoto, Spontaneously Hypertensive, and Stroke-prone Spontaneously Hypertensive Rats to Particulate Matter (PM) Exposure, *Journal of Toxicology and Environmental Health, Part A* 70, pp. 1912-1922.
909. Walowitz,J.L., Roth,J.A., 1999. Activation of ERK1 and ERK2 is required for manganese-induced neurite outgrowth in rat pheochromocytoma (PC12) cells, *J Neurosci. Res* 57, pp. 847-854.
910. Wang,T., Moreno-Vinasco,L., Huang,Y., Lang,G.D., Linares,J.D., Goonewardena,S.N., Grabavoy,A., Samet,J.M., Geyh,A.S., Breyse,P.N., Lussier,Y.A., Natarajan,V., Garcia,J.G.N., 2008. Murine Lung Responses to Ambient Particulate Matter: Genomic Analysis and Influence on Airway Hyperresponsiveness, *Environ. Health Perspect.*
911. Wang,X., Ghio,A.J., Yang,F., Dolan,K.G., Garrick,M.D., Piantadosi,C.A., 2002. Iron uptake and Nramp2/DMT1/DCT1 in human bronchial epithelial cells, *Am. J. Physiol. Lung Cell Mol. Physiol.* 282, pp. 987-95.

912. Wang,X., Wu,Y., Li,Z., Samet,J.M., Ghio,A.J., 2004. [Activation of ERK1/2 and Elk1 in A549 cells induced by crocidolite], *Wei Sheng Yan. Jiu.* 33, pp. 398-399.
913. Wang,X., Garrick,M.D., Yang,F., Dailey,L.A., Piantadosi,C.A., Ghio,A.J., 2005. TNF, IFN-gamma, and endotoxin increase expression of DMT1 in bronchial epithelial cells, *Am. J. Physiol. Lung Cell Mol. Physiol.* 289, p. L24-L33.
914. Wang,X., Samet,J.M., Ghio,A.J., 2006. Asbestos-induced activation of cell signaling pathways in human bronchial epithelial cells., *Exp. Lung Res.* 32, pp. 229-243.
915. Wang,X.C., Xu,Y.B., Wu,Y.M., Li,Z.W., Samet,J.M., Ghio,A.J., 2005. [Study of IL-8 overexpression in A549 cells induced by crocidolite fibers], *Wei Sheng Yan. Jiu.* 34, pp. 141-143.
916. Wang,X.C., Wu,Y.M., Samet,J.M., Ghio,A.J., 2006. [Expression of phosphorylated ERK1/2 induced by crocidolite fibers in BEAS-2B cells], *Zhonghua Lao. Dong. Wei Sheng Zhi Ye. Bing. Za Zhi* 24, pp. 597-600.
917. Wang,X., Wu,Y., Stonehuerner,J.G., Dailey,L.A., Richards,J.D., Jaspers,I., Piantadosi,C.A., Ghio,A.J., 2006. Oxidant Generation Promotes Iron Sequestration in BEAS-2B Cells Exposed to Asbestos, *Am. J. Respir. Cell Mol. Biol.* 34, pp. 286-292.
918. Ward,M.D.W., Selgrade,M.K., 2007. Animal models for protein respiratory sensitizers, *Methods* 41, pp. 80-90.
919. Warheit,D.B., Reed,K.L., Stonehuerner,J.D., Ghio,A.J., Webb,T.R., 2006. Biodegradability of Para-aramid Respirable-Sized Fiber-Shaped Particulates (RFP) in Human Lung Cells, *Toxicol. Sci.* 89, pp. 296-303.
920. Watkinson,W.P., Campen,M.J., Costa,D.L., 1998. Cardiac arrhythmia induction after exposure to residual oil fly ash particles in the pulmonary hypertensive rat., *Toxicol. Sci.* 41, pp. 209-216.
921. Watkinson,W.P., Campen,M.J., Dreher,K.L., Su,W.-Y., Kodavanti,U.P., Highfill,J.W., Costa,D.L., 2000. Thermoregulatory effects following exposure to particulate matter in healthy and cardiopulmonary-compromised rats., *J. Therm. Biol.* 25, pp. 131-137.
922. Watkinson,W.P., Campen,M.J., Wichers,L.B., Nolan,J.P., Kodavanti,U.P., Costa,D.L., 2001. Impact of toxic agents or diverse conditions on thermoregulatory function in awake rodents., *J. Therm. Biol.* 26, pp. 331-338.
923. Watkinson,W.P., Campen,M.J., Nolan,J.P., Costa,D.L., 2001. Cardiovascular and systemic responses to inhaled pollutants in rodents: Effects of ozone and particulate matter, *Environ. Health Perspect.* 109, pp. 539-546.
924. Watkinson,W.P., Campen,M.J., Wichers,L.B., Nolan,J.P., Costa,D.L., 2003. Cardiac and thermoregulatory responses to inhaled pollutants in healthy and compromised rodents: modulation via interaction with environmental factors, *Environ. Res.* 92, pp. 35-47.
925. Wegesser,T.C., Pinkerton,K.E., Last,J.A., 2009. California wildfires of 2008: Coarse and fine particulate matter toxicity, *Environ. Health Perspect.*
926. Wellenius,G.A., Saldiva,P.H.N., Batalha,J.R.F., Krishna Murthy,G.G., Coull,B.A., Verrier,R.L., Godleski,J.J., 2002. Electrocardiographic Changes During Exposure to Residual Oil Fly Ash (ROFA) Particles in a Rat Model of Myocardial Infarction, *Toxicol. Sci.* 66, pp. 327-335.

927. Wellenius,G.A., Coull,B.A., Godleski,J.J., Koutrakis,P., Okabe,K., Savage,S.T., Lawrence,J.E., Krishna Murthy,G.G., Verrier,R.L., 2003. Inhalation of concentrated ambient air particles exacerbates myocardial ischemia in conscious dogs, *Environ. Health Perspect.* 111, pp. 402-408.
928. Wellenius,G.A., Batalha,J.R., Diaz,E.A., Lawrence,J., Coull,B.A., Katz,T., Verrier,R.L., Godleski,J.J., 2004. Cardiac effects of carbon monoxide and ambient particles in a rat model of myocardial infarction, *Toxicol. Sci.* 80, pp. 367-376.
929. Wellenius,G.A., Yeh,G.Y., Coull,B.A., Suh,H.H., Phillips,R.S., Mittleman,M.A., 2007. Effects of ambient air pollution on functional status in patients with chronic congestive heart failure: a repeated-measures study, *Environ Health* 6, p. 26.
930. Wellenius,G.A., Schwartz,J., Mittleman,M.A., 2005. Air Pollution and Hospital Admissions for Ischemic and Hemorrhagic Stroke Among Medicare Beneficiaries, *Stroke* 36, pp. 2549-2553.
931. Wellenius,G.A., Bateson,T.F., Mittleman,M.A., Schwartz,J., 2005. Particulate Air Pollution and the Rate of Hospitalization for Congestive Heart Failure among Medicare Beneficiaries in Pittsburgh, Pennsylvania, *Am. J. Epidemiol.* 161, pp. 1030-1036.
932. Wellenius,G.A., Schwartz,J., Mittleman,M.A., 2006. Particulate Air Pollution and Hospital Admissions for Congestive Heart Failure in Seven United States Cities, *The American Journal of Cardiology* 97, pp. 404-408.
933. Wellenius,G.A., Coull,B.A., Batalha,J.R.F., Diaz,E.A., Lawrence,J., Godleski,J.J., 2006. Effects of Ambient Particles and Carbon Monoxide on Supraventricular Arrhythmias in a Rat Model of Myocardial Infarction, *Inhal. Toxicol.* 18, pp. 1077-1082.
934. Wellenius,G.A., Mittleman,M.A., 2008. Disparities in myocardial infarction case fatality rates among the elderly: The 20-year Medicare experience, *American Heart Journal.*
935. Welty,L., Zeger,S.L., Dominici,F., 2008. Bayesian distributed lag models: Estimating effects of particulate matter air pollution on daily mortality, *Biometrics.*
936. Wesselkamper,S.C., Chen,L.C., Kleeberger,S.R., Gordon,T., 2001. Genetic variability in the development of pulmonary tolerance to inhaled pollutants in inbred mice, *Am. J. Physiol. Lung Cell Mol. Physiol.* 281, pp. 1200-1209.
937. Wheeler,A., Zanobetti,A., Gold,D.R., Schwartz,J., Stone,P., Suh,H.H., 2006. The Relationship between Ambient Air Pollution and Heart Rate Variability (HRV) Differs for Individuals with Heart and Pulmonary Disease, *Environ. Health Perspect.* 114, pp. 560-566.
938. White,L.D., Cory-Slechta,D.A., Gilbert,M.E., Tiffany-Castiglioni,E., Zawia,N.H., Virgolini,M., Rossi-George,A., Lasley,S.M., Qian,Y.C., Basha,M., 2007. New and evolving concepts in the neurotoxicology of lead, *Toxicol. Appl. Pharmacol.* 225, pp. 1-27.
939. White,P.D., Van,L.P., Davis,B.D., Maddaloni,M., Hogan,K.A., Marcus,A.H., Elias,R.W., 1998. The conceptual structure of the integrated exposure uptake biokinetic model for lead in children, *Environ. Health Perspect.* 106 Suppl 6, pp. 1513-1530.
940. Whitekus,M.J., Li,N., Zhang,M., Wang,M., Horwitz,M., Nelson,S.K., Brechun,N., Diaz-Sanchez,D., Nel,A.E., 2002. Thiol Antioxidants Inhibit the Adjuvant Effects of Aerosolized Diesel Exhaust Particles in a Murine Model for Ovalbumin Sensitization, *J. Immunol.* 168, pp. 2560-2567.

941. Wichers,L.B., Nolan,J.P., Winsett,D.W., Ledbetter,A.D., Kodavanti,U.P., Schladweiler,M.C.J., Hauser,R., Christiani,D.C., Costa,D.L., Watkinson,W.P., 2004. Effects of instilled combustion-derived environmental particles in spontaneously hypertensive rats. Part I. Cardiovascular responses., *Inhal. Toxicol.* 16, pp. 391-405.
942. Wichers,L.B., Nolan,J.P., Winsett,D.W., Ledbetter,A.D., Kodavanti,U.P., Schladweiler,M.C., Costa,D.L., Watkinson,W.P., 2004. Effects of instilled combustion-derived particles in spontaneously hypertensive rats. Part II: Pulmonary responses, *Inhal. Toxicol.* 16, pp. 407-419.
943. Wichers,L.B., Ledbetter,A.D., McGee,J.K., Kellogg,R.B., Rowan,W.H., III, Nolan,J.P., Costa,D.L., Watkinson,W.P., 2006. A method for exposing rodents to resuspended particles using whole-body plethysmography, *Part Fibre. Toxicol* 3, p. 12.
944. Wichers,L.B., Rowan,W.H., III, Nolan,J.P., Ledbetter,A.D., McGee,J.K., Costa,D.L., Watkinson,W.P., 2006. Particle Deposition in Spontaneously Hypertensive Rats Exposed via Whole-Body Inhalation: Measured and Estimated Dose, *Toxicol. Sci.* 93, pp. 400-410.
945. Wiester,M.J., Winsett,D.W., Richards,J.H., Jackson,M.C., Crissman,K.M., Costa,D.L., 2000. Ozone adaptation in mice and its association with ascorbic acid in the lung, *Inhal. Toxicol.* 12, pp. 577-590.
946. Wiester,M.J., Costa,D.L., Tepper,J.S., Winsett,D.W., Slade,R., 2005. Agonist-mediated airway challenge: cardiopulmonary interactions modulate gas exchange and recovery, *Respiratory Physiology & Neurobiology* 145, pp. 183-199.
947. Wilhelm,M., Ritz,B., 2003. Residential proximity to traffic and adverse birth outcomes in Los Angeles county, California, 1994-1996, *Environ. Health Perspect.* 111, pp. 207-216.
948. Wilhelm,M., Ritz,B., 2005. Local Variations in CO and Particulate Air Pollution and Adverse Birth Outcomes in Los Angeles County, California, USA, *Environ. Health Perspect.* 112, pp. 1212-1221.
949. Williams,R., Suggs,J., Zweidinger,R., Evans,G., Creason,J., Kwok,R., Rodes,C., Lawless,P., Sheldon,L., 2000. The 1998 Baltimore Particulate Matter Epidemiology-Exposure Study: part 1. Comparison of ambient, residential outdoor, indoor and apartment particulate matter monitoring, *J. Expo. Anal. Environ. Epidemiol.* 10, pp. 518-32.
950. Wilson,W.E., Mar,T., Koenig,J., 2007. Influence of exposure error and effect modification by socioeconomic status on the association of acute cardiovascular mortality with particulate matter in Phoenix, *Journal of Exposure Science and Environmental Epidemiology* 17, p. S11-S19.
951. Wold,L.E., Simkhovich,B.Z., Kleinman,M.T., Nordlie,M.A., Dow,J.S., Sioutas,C., Kloner,R.A., 2006. In vivo and in vitro models to test the hypothesis of particle-induced effects on cardiac function and arrhythmias, *Cardiovasc. Toxicol.* 6, pp. 69-78.
952. Woodall,G.M., 2005. Acute health reference values: overview, perspective, and current forecast of needs., *Journal of Toxicology and Environmental Health Part A* 68, pp. 901-926.
953. Woodall,G.M., 2008. An exposure–response database for detailed toxicity data, *Toxicol. Appl. Pharmacol.* 233, pp. 14-16.
954. Woodall,G.M., Smith,R.L., 2008. The Air Toxics Health Effects Database (ATHED), *Toxicol. Appl. Pharmacol.* 233, pp. 20-24.

955. Woodall,G.M., Goldberg,R., 2008. Summary of the workshop on the power of aggregated toxicity data, *Toxicol. Appl. Pharmacol.* 233, pp. 71-75.
956. Wu,C.F., Wu,S.y., Wu,Y.H., Cullen,A.C., Larson,T.V., Williamson,J., Liu,L.-J.S., 2009. Cancer risk assessment of selected hazardous air pollutants in Seattle, *Environment International* In Press, Corrected Proof.
957. Wu,W., Graves,L.M., Jaspers,I., Devlin,R.B., Reed,W., Samet,J.M., 1999. Activation of the EGF receptor signaling pathway in human airway epithelial cells exposed to metals, *Am. J. Physiol. Lung Cell Mol. Physiol.* 277, pp. 924-31.
958. Wu,W., Samet,J.M., Ghio,A.J., Devlin,R.B., 2001. Activation of the EGF receptor signaling pathway in airway epithelial cells exposed to Utah Valley PM, *Am. J. Physiol. Lung Cell Mol. Physiol.* 281, pp. 483-489.
959. Wu,W., Graves,L.M., Gill,G.N., Parsons,S.J., Samet,J.M., 2002. Src-dependent phosphorylation of the epidermal growth factor receptor on tyrosine 845 is required for zinc-induced Ras activation, *J. Biol. Chem.* 277, pp. 24252-24257.
960. Wu,W., Jaspers,I., Zhang,W., Graves,L.M., Samet,J.M., 2002. Role of Ras in metal-induced EGF receptor signaling and NF-kappaB activation in human airway epithelial cells, *Am. J. Physiol. Lung Cell Mol. Physiol.* 282, pp. 1040-1048.
961. Wu,W., Wang,X., Zhang,W., Reed,W., Samet,J.M., Whang,Y.E., Ghio,A.J., 2003. Zinc-induced PTEN protein degradation through the proteasome pathway in human airway epithelial cells, *J. Biol. Chem.* 278, pp. 28258-28263.
962. Wu,W., Samet,J.M., Silbajoris,R., Dailey,L.A., Sheppard,D., Bromberg,P.A., Graves,L.M., 2004. Heparin-binding epidermal growth factor cleavage mediates zinc-induced epidermal growth factor receptor phosphorylation, *Am. J. Respir. Cell Mol. Biol.* 30, pp. 540-547.
963. Wu,W., Silbajoris,R.A., Whang,Y.E., Graves,L.M., Bromberg,P.A., Samet,J.M., 2005. p38 and EGF receptor kinase-mediated activation of the phosphatidylinositol 3-kinase/Akt pathway is required for Zn²⁺-induced cyclooxygenase-2 expression, *Am. J Physiol Lung Cell Mol Physiol* 289, p. L883-L889.
964. Wu,W., Silbajoris,R., Cao,D., Bromberg,P.A., Zhang,Q., Peden,D.B., Samet,J.M., 2008. Regulation of cyclooxygenase-2 expression by cAMP response element and mRNA stability in a human airway epithelial cell line exposed to zinc, *Toxicol. Appl. Pharmacol.* 231, pp. 260-266.
965. Xia,T., Korge,P., Weiss,J.N., Li,N., Venkatesan,M.I., Sioutas,C., Nel,A., 2004. Quinones and Aromatic Chemical Compounds in Particulate Matter Induce Mitochondrial Dysfunction: Implications for Ultrafine Particle Toxicity, *Environ. Health Perspect.* 112, pp. 1347-1358.
966. Xia,T., Kovochich,M., Brant,J., Hotze,M., Sempf,J., Oberley,T., Sioutas,C., Yeh,J.I., Wiesner,M.R., Nel,A.E., 2006. Comparison of the Abilities of Ambient and Manufactured Nanoparticles To Induce Cellular Toxicity According to an Oxidative Stress Paradigm, *Nano Lett.* 6, pp. 1794-1807.
967. Xia,T., Kovochich,M., Nel,A., 2006. The role of reactive oxygen species and oxidative stress in mediating particulate matter injury, *Clin Occup Environ Med* 5, pp. 817-836.
968. Xia,T., Kovochich,M., Nel,A.E., 2007. Impairment of mitochondrial function by particulate matter (PM) and their toxic components: implications for PM-induced cardiovascular and lung disease, *Front Biosci.* 12, pp. 1238-1246.

969. Xia,T., Li,N., Nel,A.E., 2009. Potential health effects of nanoparticles, *Annual Review of Public Health*.
970. Xie,S.X., Liao,D., Chinchilli,V.M., 2001. Measurement error reduction using weighted average method for repeated measurements from heterogeneous instruments., *Environmetrics* 12, pp. 785-790.
971. Xu,M., Nelson,G.B., Moore,J.E., McCoy,T.P., Dai,J., Manderville,R.A., Ross,J.A., Miller,M.S., 2005. Induction of Cyp1a1 and Cyp1b1 and formation of DNA adducts in C57BL/6, Balb/c, and F1 mice following in utero exposure to 3-methylcholanthrene, *Toxicol. Appl. Pharmacol.* 209, pp. 28-38.
972. Xu,M., Moore,J.E., Leone-Kabler,S., McCoy,T.P., Swank,A., Nelson,G.B., Ross,J.A., Townsend,A.J., Miller,M.S., 2006. Expression of glutathione S-transferases in fetal lung and liver tissue from parental strains and F1 crosses between C57BL/6 and BALB/c F1 mice following in utero exposure to 3-methylcholanthrene, *Biochem Pharmacol* 72, pp. 115-123.
973. Xu,M., Nelson,G.B., Moore,J.E., McCoy,T.P., Dai,J., Manderville,R.A., Ross,J.A., Miller,M.S., 2005. Induction of Cyp1a1 and Cyp1b1 and formation of DNA adducts in C57BL/6, Balb/c, and F1 mice following in utero exposure to 3-methylcholanthrene, *Toxicol. Appl. Pharmacol.* 209, pp. 28-38.
974. Yacobi,N.R., Phuleria,H.C., Demaio,L., Liang,C.H., Peng,C.A., Sioutas,C., Borok,Z., Kim,K.J., Crandall,E.D., 2007. Nanoparticle effects on rat alveolar epithelial cell monolayer barrier properties, *Toxicol. In Vitro* 21, pp. 1373-1381.
975. Yang,F., Wang,X., Haile,D.J., Piantadosi,C.A., Ghio,A.J., 2002. Iron increases expression of iron-export protein MTP1 in lung cells, *Am. J. Physiol. Lung Cell Mol. Physiol.* 283, pp. 932-9.
976. Yang,F., Liu,X.B., Quinones,M., Melby,P.C., Ghio,A., Haile,D.J., 2002. Regulation of Reticuloendothelial Iron Transporter MTP1 (Slc11a3) by Inflammation, *J. Biol. Chem.* 277, pp. 39786-39791.
977. Yang,F., Haile,D.J., Wang,X., Dailey,L.A., Stonehuermer,J.G., Ghio,A.J., 2005. Apical location of ferroportin 1 in airway epithelia and its role in iron detoxification in the lung, *Am. J. Physiol. Lung Cell Mol. Physiol.* 289, p. L14-L23.
978. Yang,G., Teague,S., Pinkerton,K., Kennedy,I.M., 2001. Synthesis of an ultrafine iron and soot aerosol for the evaluation of particle toxicity., *Aerosol Sci. Technol.* 35, pp. 759-766.
979. Yeatts,K., Svendsen,E., Creason,J., Alexis,N., Herbst,M., Scott,J., Kupper,L., Williams,R., Neas,L., Cascio,W., Devlin,R., Peden,D., 2007. Coarse particulate matter (PM_{10-2.5}) affects heart rate variability, blood lipids, and circulating eosinophils in adults with asthma, *Environ. Health Perspect.* 115, pp. 709-714.
980. Yoon,M., Madden,M.C., Barton,H.A., 2006. Developmental Expression of Aldehyde Dehydrogenase in Rat: a Comparison of Liver and Lung Development, *Toxicol. Sci.* 89, pp. 386-398.
981. Yoon,M., Madden,M.C., Barton,H.A., 2007. Extrahepatic Metabolism by CYP2E1 in PBPK Modeling of Lipophilic Volatile Organic Chemicals: Impacts on Metabolic Parameter Estimation and Prediction of Dose Metrics, *Journal of Toxicology and Environmental Health, Part A* 70, pp. 1527-1541.

982. Yu, O., Sheppard, L., Lumley, T., Koenig, J.Q., Shapiro, G.G., 2000. Effects of ambient air pollution on symptoms of asthma in Seattle-area children enrolled in the CAMP study, *Environ. Health Perspect.* 108, pp. 1209-1214.
983. Yue, W., Schneider, A., Ruckerl, R., Koenig, W., Marder, V., Wang, S., Wichmann, H.E., Peters, A., Zareba, W., 2007. Relationship between electrocardiographic and biochemical variables in coronary artery disease, *Int J Cardiol.* 119, pp. 185-191.
984. Yue, W., Schneider, A., Stolzel, M., Ruckerl, R., Cyrys, J., Pan, X., Zareba, W., Koenig, W., Wichmann, H.E., Peters, A., 2007. Ambient source-specific particles are associated with prolonged repolarization and increased levels of inflammation in male coronary artery disease patients, *Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis* 621, pp. 50-60.
985. Zanobetti, A., Schwartz, J., 2000. Race, gender, and social status as modifiers of the effects of PM10 on mortality, *J. Occup. Environ. Med.* 42, pp. 469-474.
986. Zanobetti, A., Wand, M.P., Schwartz, J., Ryan, L.M., 2000. Generalized Additive Distributed Lag Models: Quantifying Mortality Displacement, *Biostatistics* 1, pp. 279-292.
987. Zanobetti, A., Schwartz, J., Samoli, E., Gryparis, A., Touloumi, G., Atkinson, R., Le Tertre, A., Bobros, J., Celko, M., Goren, A., Forsberg, B., Michelozzi, P., Rabczenko, D., Aranguiz Ruiz, E., Katsouyanni, K., 2002. The Temporal Pattern of Mortality Responses to Air Pollution: a Multicity Assessment of Mortality Displacement, *Epidemiology* 13, pp. 87-93.
988. Zanobetti, A., Schwartz, J., 2002. Cardiovascular damage by airborne particles: are diabetics more susceptible?, *Epidemiology* 13, pp. 588-592.
989. Zanobetti, A., Schwartz, J., Samoli, E., Gryparis, A., Touloumi, G., Peacock, J., Anderson, R.H., Le Tertre, A., Bobros, J., Celko, M., Goren, A., Forsberg, B., Michelozzi, P., Rabczenko, D., Perez Hoyos, S., Wichmann, H.E., Katsouyanni, K., 2003. The temporal pattern of respiratory and heart disease mortality in response to air pollution, *Environ. Health Perspect.* 111, pp. 1188-1193.
990. Zanobetti, A., Canner, M.J., Stone, P.H., Schwartz, J., Sher, D., Eagan-Bengston, E., Gates, K.A., Hartley, L.H., Suh, H., Gold, D.R., 2004. Ambient pollution and blood pressure in cardiac rehabilitation patients, *Circulation* 110, pp. 2184-2189.
991. Zanobetti, A., Schwartz, J., 2007. Particulate air pollution, progression, and survival after myocardial infarction, *Environ. Health Perspect.* 115, pp. 769-775.
992. Zanobetti, A., Schwartz, J., 2008. Temperature and mortality in nine US cities, *Epidemiology* 19, pp. 563-570.
993. Zanobetti, A., Schwartz, J., 2005. The Effect of Particulate Air Pollution on Emergency Admissions for Myocardial Infarction: A Multicity Case-Crossover Analysis, *Environ. Health Perspect.* 113, pp. 978-982.
994. Zanobetti, A., Schwartz, J., 2006. Air pollution and emergency admissions in Boston, MA, *J Epidemiol Community Health* 60, pp. 890-895.
995. Zanobetti, A., Bind, M.A., Schwartz, J., 2008. Particulate air pollution and survival in a COPD cohort, *Environmental Health* 7, p. 48.
996. Zanobetti, A., Schwartz, J., 2008. Is there adaptation in the ozone mortality relationship: A multicity case-crossover analysis, *Environmental Health* 7, p. 22.

997. Zareba,W., Nomura,A., Couderc,J.P., 2001. Cardiovascular effects of air pollution: what to measure in ECG?, *Environ. Health Perspect.* 109, pp. 533-538.
998. Zareba,W., Couderc,J.-P., Oberdorster,G., Chalupa,D., Cox,C., Huang,L.-S., Peters,A., Utell,M.J., Frampton,M.W., 2009. ECG parameters and exposure to carbon ultrafine particles in young healthy subjects., *Inhal. Toxicol.* 21, pp. 223-233.
999. Zeger,S.L., Dominici,F., McDermott,A., Samet,J.M., 2008. Mortality in the Medicare Population and Chronic Exposure to Fine Particulate Air Pollution, *Environ. Health Perspect.*
1000. Zeka,A., Schwartz,J., 2004. Estimating the independent effects of multiple pollutants in the presence of measurement error: an application of a measurement-error-resistant technique, *Environ. Health Perspect.* 112, pp. 1686-1690.
1001. Zeka,A., Zanobetti,A., Schwartz,J., 2005. Short term effects of particulate matter on cause specific mortality: effects of lags and modification by city characteristics, *Occup. Environ. Med.* 62, pp. 718-725.
1002. Zeka,A., Zanobetti,A., Schwartz,J., 2006. Individual-level modifiers of the effects of particulate matter on daily mortality, *Am. J. Epidemiol.* 163, pp. 849-859.
1003. Zeka,A., Sullivan,J.R., Vokonas,P.S., Sparrow,D., Schwartz,J., 2006. Inflammatory markers and particulate air pollution: characterizing the pathway to disease, *Int. J Epidemiol* 35, pp. 1347-1354.
1004. Zeka,A., Melly,S., Schwartz,J., 2008. The effects of socioeconomic status and indices of physical environment on reduced birth weight and preterm births in Eastern Massachusetts, *Environmental Health* 7, p. 60.
1005. Zelikoff,J.T., Schermerhorn,K.R., Fang,K., Cohen,M.D., Schlesinger,R.B., 2002. A role for associated transition metals in the immunotoxicity of inhaled ambient particulate matter., *Environ. Health Perspect.* 110, pp. 871-875.
1006. Zelikoff,J.T., Chen,L.C., Cohen,M.D., Schlesinger,R.B., 2002. The toxicology of inhaled woodsmoke., *J. Toxicol. Environ. Health. B. Crit. Rev.* 5, pp. 269-282.
1007. Zelikoff,J.T., Chen,L.C., Cohen,M.D., Fang,K., Gordon,T., Li,Y., Nadziejko,C., Schlesinger,R.B., 2003. Effects of inhaled ambient particulate matter on pulmonary anti-microbial immune defense, *Inhal. Toxicol.* 15, pp. 131-150.
1008. Zeman,K.L., Scheuch,G., Sommerer,K., Brown,J.S., Bennett,W.D., 1999. In vivo characterization of the transitional bronchioles by aerosol-derived airway morphometry, *J. Appl. Physiol.* 87, pp. 920-927.
1009. Zhang,J., Qian,Z., Kong,L., Zhou,L., Yan,L., Chapman,R.S., 1999. Effects of air pollution on respiratory health of adults in three Chinese cities, *Arch. Environ. Health* 54, pp. 373-381.
1010. Zhang,J., Hu,W., Wei,F., Wu,G., Korn,L.R., Chapman,R.S., 2002. Children's respiratory morbidity prevalence in relation to air pollution in four Chinese cities, *Environ. Health Perspect.* 110, pp. 961-967.
1011. Zhang,J., Ghio,A.J., Chang,W., Kamdar,O., Rosen,G.D., Upadhyay,D., 2007. Bim mediates mitochondria-regulated particulate matter-induced apoptosis in alveolar epithelial cells, *FEBS Letters* 581, pp. 4148-4152.

1012. Zhang,J., Ghio,A.J., Gao,M., Wei,K., Rosen,G.D., Upadhyay,D., 2008. Ambient particulate matter induces alveolar epithelial cell cycle arrest: Role of G1 cyclins, *FEBS Letters* 581, pp. 5315-5320.
1013. Zhang,L., Wang,M., Kang,X., Boontheung,P., Li,N., Nel,A., Loo,J.A., 2009. Oxidative Stress and Asthma: Proteome Analysis of Chitinase-like Proteins and FIZZ1 in Lung Tissue and Bronchoalveolar Lavage Fluid, *Journal of Proteome Research*.
1014. Zhang,Q., Pi,J., Woods,C.G., Jarabek,A.M., Clewell,H.J.I., Andersen,M.E., 2008. Hormesis and Adaptive Cellular Control Systems, *Dose-Response* 6, pp. 196-208.
1015. Zhang,Z., Kleinstreuer,C., Kim,C.S., 2000. Effects of asymmetric branch flow rates on aerosol deposition in bifurcating airways, *J. Med. Eng. Technol.* 24, pp. 192-202.
1016. Zhang,Z., Kleinstreuer,C., Kim,C.S., 2001. Flow structure and particle transport in a triple bifurcation airway model., *J. Fluids Eng.* 123, pp. 320-330.
1017. Zhang,Z., Kleinstreuer,C., Kim,C.S., 2001. Effects of curved inlet tubes on air flow and particle deposition in bifurcating lung models, *J. Biomech.* 34, pp. 659-69.
1018. Zhang,Z., Kleinstreuer,C., Kim,C.S., 2002. Aerosol deposition efficiencies and upstream release positions for different inhalation modes in an upper bronchial airway model., *Aerosol Sci. Technol.* 36, pp. 828-844.
1019. Zhang,Z., Kleinstreuer,C., Kim,C.S., 2002. Gas-solid two-phase flow in a triple bifurcation lung airway model., *Int. J. Multiphase Flow* 28, pp. 1021-1046.
1020. Zhang,Z., Kleinstreuer,C., Kim,C.S., 2002. Cyclic micron-size particle inhalation and deposition in a triple bifurcation lung airway model., *Aerosol Sci. Technol.* 33, pp. 257-281.
1021. Zhang,Z., Kleinstreuer,C., Kim,C.S., 2002. Computational analysis of micron-particle deposition in a human triple bifurcation airway model, *Comput. Methods Biomech. Biomed. Eng.* 5, pp. 135-47.
1022. Zhang,Z., Kleinstreuer,C., Kim,C.S., 2002. Micro-particle transport and deposition in a human oral airway model, *Aerosol Sci. Technol.* 33, pp. 1635-1652.
1023. Zhang,Z., Kleinstreuer,C., Kim,C.S., Hickey,A., 2002. Aerosol transport and deposition in a triple bifurcation bronchial airway models with local tumors., *Inhal. Toxicol.* 14, pp. 1111-1133.
1024. Zhang,Z., Kleinstreuer,C., Kim,C.S., Cheng,Y.S., 2004. Vaporizing micro-droplet inhalation, transport, and deposition in a human upper airway model, *Aerosol Sci. Technol.* 38, pp. 36-49.
1025. Zhang,Z., Kleinstreuer,C., Donohue,J.F., Kim,C.S., 2005. Comparison of micro- and nano-size particle deposition in a human upper airway model, *J. Aerosol Sci.* 36, pp. 211-233.
1026. Zhang,Z., Kleinstreuer,C., Kim,C.S., 2006. Transport and Uptake of MTBE and Ethanol Vapors in a Human Upper Airway Model, *Inhal. Toxicol.* 18, pp. 169-184.
1027. Zhang,Z., Kleinstreuer,C., Kim,C.S., 2008. Airflow and Nanoparticle Deposition in a 16-Generation Tracheobronchial Airway Model, *Annals of Biomedical Engineering* 36, pp. 2095-2110.
1028. Zhang,Z., Kleinstreuer,C., Kim,C.S., 2009. Comparison of analytical and CFD models with regard to micron particle deposition in a human 16-generation tracheobronchial airway model, *J. Aerosol Sci.* 40, pp. 16-28.

1029. Zhang,Z., Kleinstreuer,C., Kim,C., 2006. Water Vapor Transport and Its Effects on the Deposition of Hygroscopic Droplets in a Human Upper Airway Model, *Aerosol Science & Technology* 40, pp. 1-16.
1030. Zhang,Z., Kleinstreuer,C., Kim,C.S., 2006. Isotonic and Hypertonic Saline Droplet Deposition in a Human Upper Airway Model, *J. Aerosol Med.* 19, pp. 184-198.
1031. Zhao,Y., Usatyuk,P.V., Gorshkova,I.A., He,D., Wang,T., Moreno-Vinasco,L., Geyh,A.S., Breyse,P.N., Samet,J.M., Spannhake,E.W., Garcia,J.G.N., Natarajan,V., 2009. Regulation of COX-2 Expression and IL-6 Release by Particulate Matter in Airway Epithelial Cells, *Am. J. Respir. Cell Mol. Biol.* 40, pp. 19-30.
1032. Zheng,S., Byrd,A.S., Fischer,B.M., Grover,A.R., Ghio,A.J., Voynow,J.A., 2007. Regulation of MUC5AC expression by NAD(P)H:quinone oxidoreductase 1, *Free Radic. Biol. Med.* 42, pp. 1398-1408.
1033. Zhou,Y.M., Zhong,C.Y., Kennedy,I.M., Leppert,V.J., Pinkerton,K.E., 2003. Oxidative stress and NFkappaB activation in the lungs of rats: a synergistic interaction between soot and iron particles, *Toxicol. Appl. Pharmacol.* 190, pp. 157-169.
1034. Zhou,Y.M., Zhong,C.Y., Kennedy,I.M., Pinkerton,K.E., 2003. Pulmonary responses of acute exposure to ultrafine iron particles in healthy adult rats, *Environ. Toxicol.* 18, pp. 227-235.
1035. Zhu,Y., Hinds,W.C., Kim,S., Sioutas,C., 2002. Concentration and Size Distribution of Ultrafine Particles near a Major Highway, *J. Air Waste Manag. Assoc.* 52, pp. 1032-1042.
1036. Zhu,Y., Eiguren-Fernandez,A., Hinds,W.C., Miguel,A.H., 2007. In-Cabin Commuter Exposure to Ultrafine Particles on Los Angeles Freeways, *Environ. Sci. Technol.* 41, pp. 2138-2145.