

Nicole M. Gatto, M.P.H., Ph.D.

SENIOR HEALTH SCIENTIST

CONTACT INFORMATION

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PROFESSIONAL PROFILE

Dr. Nicole Gatto is a Senior Health Scientist with ToxStrategies. She is an epidemiologist with 15 years of experience in the health sciences in population and laboratory research, clinical applications, disease surveillance, therapy development and human health risk assessment. Her research has been primarily focused on identifying environmental, biological and lifestyle risk and prognostic factors for chronic conditions, cognitive function, neurological diseases and cancer. She has taught for over six years at the graduate level.

Dr. Gatto earned her doctoral degree in Epidemiology from the Department of Preventive Medicine at the Keck School of Medicine at the University of Southern California. Her dissertation was focused on cardiovascular disease risk factors and cognitive function. She has extended her post-doctoral training to study environmental and genetic risk factors for Parkinson's disease. Dr. Gatto has co-authored about two dozen papers in scientific journals, presented her work at numerous conferences and has served as a reviewer for several journals.

EDUCATION AND DEGREES EARNED

Ph.D., Epidemiology, 2007, University of Southern California
M.P.H., Community Health Sciences (major), Epidemiology (minor), 2003, University of California, Los Angeles
B.A., Biological Psychology, 1995, University of California, Berkeley
Certificate, Geographic Information Science, 2006, University of Southern California

PROFESSIONAL ASSOCIATIONS

International Society of Environmental Epidemiology, 2007-current

Society of Epidemiology, 2004-current

American Heart Association, 2006-current

PROFESSIONAL ACTIVITIES

Journal Reviewer—International Journal of Cancer Diabetes Care

Graduate Student Instructor—University of Southern California, Department of Preventive Medicine, 2003–2006

SELECTED PROFESSIONAL EXPERIENCE

Dr. Gatto has either managed or contributed to developing the epidemiologic knowledge for various team projects pertaining to the assessment of disease risk in humans from exposure to a variety of substances, contaminants and carcinogens. She has also provided extensive litigation support for numerous other projects. Below are highlights of this work.

Authored a meta-analysis of epidemiologic studies of workers employed in chrome production, chrome pigment production, welding, and other industries with occupational exposure to Cr(VI) to assess for gastrointestinal tract cancer risk.

Evaluated the risk of lung cancer from occupational exposure to sulfuric acid, with consideration of smoking history and calculated theoretical risk of lung cancer from radon exposure.

Surveyed the published literature to evaluate the evidence of associations between human health outcomes and exposure to the specific herbicides and herbicide classes used historically in the US and Canada.

Co-authored a report summarizing public health and medical knowledge regarding the diagnosis, distribution, and risk factors for chronic renal insufficiency as a basis for identifying research gaps and for designing future health studies that focus on the current health concern of CRI occurrence in the sugar cane region of northwest Nicaragua.

Conducted a review of the published scientific literature to investigate the issue of bias in reporting asbestosis incidence and mortality, and summarize information pertaining to the threshold of asbestosis.

Summarized available studies that attempted to quantify perchlorate levels in various foodstuffs including produce, milk, and dietary supplements.

Reviewed existing community epidemiologic studies to determine what concentration of beryllium present in a non-occupational environment can cause chronic beryllium disease.

Reviewed and summarized available scientific literature and numerous case materials, including depositions, medical records, and expert reports, and prepared documents in support of various cases. These cases involved a number of exposures of concern, including Cr(VI), asbestos, dioxin and petroleum as well as a number of health outcomes including breast, lung, GI tract cancers, Non-Hodgkin's lymphoma, diabetes, mesothelioma and chronic beryllium disease.

Critiqued a study on the effects of potassium chromate (K₂CrO₄) in drinking water on ultraviolet radiation (UV)-induced skin tumors in hairless mice to assess the relevance to humans.

Involved in the review of approximately two hundred thousand documents from the EPA and other government agencies to identify important documents for advocacy relating to the cleanup of a contaminated site in the US.

Evaluated possible sources of chemicals of interest including Cr(VI), arsenic, antimony, and naphthalene in the sludge waste material at a former glue manufacturing plant in the US.

Contributed to an expert report evaluating the evidence of increased or excess disease occurrence among a population in northern California that could be attributed to trichloroethylene (TCE) or perchlorate in drinking water.

Part of an effort to review and summarize several thousand documents identified in a literature review pertaining to the epidemiology of bone conditions in humans, including myelodysplastic syndrome, and healing of fractures.

PUBLICATIONS

St. John JA, Henderson VW, **Gatto NM**, McCleary CA, Spencer CA, Hodis HN, Mack WJ. Mildly Elevated TSH and Cognition in Middle-Aged and Older Adults. *Thyroid*, 19(2), 2009, 111-117.

Sanossian N, **Gatto NM**, Ovbiagele B. Patterns of Influenza Vaccination among Stroke Survivors. *Neuroepidemiology* 32:165–170, 2009

Gatto NM, Henderson VW, St. John J, McCleary C, Detrano R, Hodis H, Wack WJ. Subclinical Atherosclerosis is Weakly Associated with Lower Cognitive Function in Healthy Hyperhomocysteinemic Adults without Clinical Cardiovascular Disease. *Int J Geriatr Psychiatry*. 2009 Apr;24(4):390-9.

Gatto NM, Henderson VW, St. John J, McCleary C, Hodis H, Wack WJ. The Metabolic Syndrome and Cognitive Function in Healthy Middle-Aged and Older Adults. *Aging, Neuropsychology and Cognition*. 2008; 5:627-41.

Gatto NM, Hodis H, Liu CR, Liu CH, Mack WJ. Correlations Between Brachial Artery Vasoreactivity and Anatomical Measures of Atherosclerosis. *Atherosclerosis*. 2007; 196:674-681.

Gatto NM, Longnecker MP, Press MF, Sullivan-Halley J, McKean-Cowdin R, Bernstein L. Serum Organochlorines and Breast Cancer: A Case-Control Study among African-American Women. *Cancer Causes and Control*. 2007; 18:29-39.

Proctor DM, **Gatto NM**, Allamneni KP. Mode of Action Framework for Evaluating the Relevance of Rodent Forestomach Tumors in Cancer Risk Assessment. *Toxicological Sciences* 2007; 98(2), 313-326.

Minaglia SM, Özel B, **Gatto NM**, Korst, L, Mishell DR, Miller DA. Decreased rate of obstetrical anal sphincter laceration is associated with change in obstetric practice. *International Urogynecology Journal*. 2007; Mar 28.

Goldstein MS, Brown, ER, Ballard-Barbash R, Morgenstern H, Bastani R, Lee J, **Gatto N**, Amba A. The use of complementary and alternative medicine among California adults with and without cancer. *Evid Based Complement Alternat Med*. 2005 Dec; 2(4):557-65.

Haines J, Terwedow H, Burgess K, Pericak-Vance MA, Rimler JB, Martin E, Oksenberg JR, Lincoln R, Zhang DY, Banatao DR, Goodkin DE, **Gatto N**, Hauser SL. Linkage of multiple sclerosis to the MHC is explained by association to HLA-DR2. *Human Molecular Genetics*, 7:1229-1234, 1998.

Goodkin DE, **Gatto N**, Rojas N, Lincoln R, Oksenberg JR, Hauser SL. The Multiple Sclerosis Genetics Group. Clinical Demographics of Multiplex Families with Multiple Sclerosis. *Annals of Neurology*, 1998; 43:530-534

Mohr DC, Goodkin DE, Likosky W, Beutler LE, **Gatto N**, Langan MK. Identification of Beck depression inventory items related to multiple sclerosis. *Journal of Behavioral Medicine*, Vol. 20, No. 4, 1997

Mohr DC, Goodkin DE, Likosky W, **Gatto N**, Baumann KA, Rudick RA. Treatment of Depression Improves Adherence to Interferon Beta-1b Therapy for Multiple Sclerosis. *Archives of Neurology* 1997; 54:531-533.

Mohr DC, Goodkin DE, **Gatto N**, Van Der Wende J. Depression, Coping, and Level of Neurological Impairment in Multiple Sclerosis. *Multiple Sclerosis* 1997: 3, 254-258.

Hauser SL, Goodkin DE, Lincoln R, Usuku K, Garcia-Merino A, **Gatto N**, Young S, Oskenberg JR & The Multiple Sclerosis Genetics Group. A complete genomic screen for multiple sclerosis underscores a role for the major histocompatibility complex. *Nature Genetics*, 13:469-471, 1996

Mohr DC, Goodkin DE, Likosky W, **Gatto N**, Neilley LK, Griffin C, Stiebling B. Therapeutic expectations of patients with multiple sclerosis upon initiating interferon beta 1-b: Relationship to adherence to treatment. *Multiple Sclerosis* 1996: 2, 222-226.

Gatto NM, Cockburn M, Manthripragada A, Bronstein J, Ritz B. Well Water Consumption and Parkinson's Disease in Rural California. *Environmental Health Perspectives*

Rugbjerg K, Friis S, Ritz B, Schernhammer ES, **Gatto NM**, Korbo L, Olsen JH. Autoimmune disease and risk for Parkinson's disease: a population-based case-control study. *Neurology*

Jyrala A, **Gatto NM**, Kay G. EuroSCORE Predicts Other Outcomes than Hospital Mortality. *Scandinavian Cardiovascular Journal*

Jyrala A, **Gatto NM**, Kay G. EuroSCORE for Prediction of Length of Stay, Length of Stay in the Postoperative Intensive Care Unit and Mid-Term Mortality in High-Risk Patients. *European Journal of Cardio-thoracic Surgery / Interactive Cardiovascular and Thoracic Surgery*

Gatto NM, Kelsh M, HaMai D, Suh M, Proctor DM. A Meta-Analysis of the Relationship between Occupational Exposure to Hexavalent Chromium and Cancers of the Gastrointestinal Tract. *Regulatory Toxicology and Pharmacology*

Proctor DM, **Gatto NM**, Madl A, Edinboro C, Leung, HW. Human Health Risk Assessment for Perchlorate in Drinking Water. *Human and Ecological Risk Assessment*

HONORS/AWARDS

Honorable Mention, Moderated Poster Session, 2005 American Heart Association Young Investigators Forum, Irvine, CA, September 30, 2005

President's Undergraduate Research Fellowship, University of California, 1995

Citizen's Scholarship for Outstanding Academic Achievement, University of California, 1991-5

Psi Chi Honors in Psychology, University of California, 1994-5

Alumni Scholarship, University of California, 1991-2

ABSTRACTS / PRESENTATIONS

Gatto NM, St. John JA, Cockburn M, Hodis H, Lurmann F, Mack WJ. Components of Air Pollution are Associated with Lower Cognitive Function among Healthy Adults in Los Angeles. International Society of Environmental Epidemiology, Dublin, Ireland. August 2009.

Gatto NM, Cockburn M, Bronstein J, Farrer M, Ritz B. α -Synuclein Repeat Polymorphisms and Pesticide Exposure in Parkinson's Disease. International Society of Environmental Epidemiology, Dublin, Ireland. August 2009.

Gatto NM, Relys V, Bordelon Y, Ritz B. Personality traits inferred from occupational characteristics differ between Parkinson's patients and controls. Society of Epidemiologic Research, Anaheim, CA, June 2009.

Jacob E, **Gatto NM**, Thompson A, Bordelon Y, Ritz B. Occurrence of Depression and Anxiety prior to Parkinson's Disease. Movement Disorder Society, Paris, France, June 2009

Gatto NM, Kelsh M, HaMai D, Suh M, Proctor D. A Meta-Analysis of the Relationship between Occupational Exposure to Hexavalent Chromium and Cancers of the Gastrointestinal Tract. Society of Toxicology Conference, Baltimore, MD March 2009.

Gatto NM, Wahner A, Bronstein J, Ritz, B. Well Water Consumption and Parkinson's Disease in Rural California. International Society of Environmental Epidemiology Annual Meeting. Pasadena, CA September 2008.

Sanossian N, **Gatto NM**, Ovbiagele B. Patterns of Influenza Vaccination among Stroke Survivors. American Academy of Neurology Annual Meeting, Chicago, IL April 2008.

Suh M, Hamai D, **Gatto NM**, Proctor DM. Iron Deficiency as Mode of Action for Rat Oral Cavity Neoplasms in the 2007 National Toxicology Program Drinking Water Study of Hexavalent Chromium. Society of Toxicology Conference, Seattle, WA March 2008.

Gatto NM, Henderson VW, St. John J, McCleary C, Hodis H, Wack WJ. The Metabolic Syndrome and Cognitive Function in Healthy Middle-Aged and Older Adults. (oral presentation) American Heart Association International Stroke Conference, New Orleans, LA February 2008.

Gatto NM, Alexander DD, Kelsh MA. A Meta-Analysis of Occupational Exposure to Hexavalent Chromium and Stomach Cancer. 19th Annual International Society of Environmental Epidemiology Conference. Mexico City, Mexico. September 5-9, 2007.

Jyrala A, **Gatto NM**, Kay GL. Use of EuroSCORE for predicting hospital stay, postoperative intensive care stay and mid-term mortality in high-risk patients. 56th Annual Meeting of the Scandinavian Association of Thoracic Surgery. Helsinki Finland. August 16-18, 2007.

Jyrala A, **Gatto NM**, Kay GL. Is EuroSCORE able to predict length of stay, length of postoperative intensive care stay and medium-term mortality in medium-risk patients? 56th Annual Meeting of the Scandinavian Association of Thoracic Surgery. Helsinki Finland. August 16-18, 2007.

Gatto NM, Henderson VW, St. John J, Hodis H, McCleary C, Wack WJ. Subclinical Atherosclerosis Explains Differences in Cognitive Function. American Heart Association Scientific Sessions, Chicago, IL, November 12-15, 2006.

St. John J, Henderson V, **Gatto N**, McCleary C, Spencer C, Hodis H, Mack W. Elevated thyroid stimulating hormone and cognition: Age-dependent effects. *Alzheimer Dis Assoc Disord*. 2006;20:suppl 2:S105.

Jyrala A, **Gatto NM**, Kay GL. Prediction of Outcomes by Euroscore in Patients with Repaired Nonischemic Mitral Regurgitation. 16th World Congress of the World Society of Cardio-Thoracic Surgeons, Ottawa, Canada, August 17-20, 2006.

Gatto NM, Hodis H, Liu CR, Liu CH, Mack WJ. Correlations Between Brachial Artery Vasoreactivity and Anatomical Measures of Atherosclerosis. 46th Annual Conference on Cardiovascular Disease Epidemiology and Prevention in association with the Council on Nutrition, Physical Activity and Metabolism, Phoenix, AZ, March 2-5, 2006.

Minaglia SM, Özel B, **Gatto NM**, Mishell DR, Miller DA. Decreased rate of obstetrical anal sphincter laceration reflects change in obstetric practice. 32nd Annual Scientific Meeting of the Society of Gynecologic Surgeons, Tucson, AZ, April 3-5, 2006.

Gatto NM, Hodis H, Liu CR, Liu CH, Mack WJ. Correlations Between Brachial Artery Vasoreactivity and Anatomical Measures of Atherosclerosis. American Heart Association, Young Investigators Forum, Irvine, CA, September 30, 2005 (moderated poster session)

Goldstein MS, Brown ER, Morgenstern H, Bastani R, Grant D, **Gatto N**, Ballard-Barbash R, Willis G, Ambbs A. Utilization of complementary and alternative medicine (CAM) by adults with cancer in California: Results from the California Health Interview Survey Follow-up Study of CAM. American Public Health Association, 131st Annual Meeting and Exposition, San Francisco, CA, November 15-19, 2003 (oral and poster presentation)

Spruijt-Metz D, Reynolds K, Lindsey G, Troped P, Wolch J, Byrne J, Myles R, Hsieh S, Xie B, **Gatto N**, Sallis J. Development of Modular Trail Use Questionnaire. Active Living Conference, Annual Conference, San Diego, CA, February 25-26, 2005 (poster presentation)

Suhy J, Schuff N, Miller RG, **Gatto N**, Maudsley AA, Weiner MW. 1H MRSI Measurement of Early Detection and Longitudinal Changes in ALS. International Society for Magnetic Resonance in Medicine, 8th Scientific Meeting and Exhibition, Denver, CO, April 3-7, 2000 (poster presentation).

Suhy J, Schuff N, Miller RG, **Gatto N**, Maudsley AA, Weiner MW. Quantitation of measurement error for motor cortex NAA in ALS. International Society for Magnetic Resonance in Medicine, 7th Scientific Meeting and Exhibition, Philadelphia, PA, May 22-28, 1999.

Alroy-Rosin D, McCrosky L, Baldessari A, **Gatto N**, Menivar R, Padron R, Harris JN. Role of Attention and Memory Impairment in Alzheimer's Disease: Correlates with Cerebral Glucose Metabolism. Proceedings of the 1995 Annual American Psychological Society Conference, New York, NY, July 1995.

Mohr DC, Neilly L, **Gatto N**, Griffen C, Lakowski W, Steibling B, Goodkin DE. Expectations of Multiple Sclerosis Patients Initiating Betaseron Therapy. American Academy of Neurology Conference. Seattle, WA, May 1995.