

Matt Grespin, M.S.

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Professional Profile

Mr. Matthew Grespin is an environmental epidemiologist and registered nurse. He has academic and professional experience in clinical patient care, molecular biology, epidemiology, and human health risk assessment. His expertise focuses on identifying and characterizing potential environmental and occupational exposures and determining appropriate preventive or mitigating measures, as well as examining the potential human health risk associated with such exposures. He has worked in laboratory settings, clinical settings, and in both the public and private sectors, including over 15 years in the consulting field. Mr. Grespin has performed or assisted in performing human health risk assessments in occupational, environmental, consumer product, and medical device contexts, examining a variety of chemical, biological, and physical exposures.

Academic Credentials & Professional Honors

M.S., Environmental Health, Harvard T.H. Chan School of Public Health, 2010

M.S., Biology, The College of William and Mary, 2008

B.S., Biology, James Madison University, 2005

University of Colorado College of Nursing Community Engagement Award, 2017

Academic Appointments

Adjunct Faculty, College of Nursing, University of Colorado, 2018-present

Adjunct Faculty, Department of Biology, Temple University, 2008

Prior Experience

Senior Health Scientist, JS Held, 2024-2025

Senior Health Scientist, CTEH, 2022-2024

Project Manager/Epidemiologist, GZA GeoEnvironmental, 2019-2022

Staff Registered Nurse, Presbyterian/St. Luke's Medical Center, 2018-2020

Independent Consultant in Occupational Health, 2018-2019

Health Scientist, Cardno ChemRisk, 2010-2018

Environmental Health Associate, City of Cambridge (MA), 2009-2010

Professional Affiliations

American Association of Occupational Health Nurses (AAOHN)

American Industrial Hygiene Association (AIHA)

American Nurses Association (ANA)

American Public Health Association (APHA)

Society for Environmental Toxicology and Chemistry (SETAC)

Society for Risk Analysis (SRA)

Publications

Barlow CA, Grespin M, Best E. Asbestos fiber length and its relation to disease risk. *Inhalation Toxicology* 2017; 29:541-554.

Towle KM, Grespin M, Monnot AD. Personal use of hair dyes and risk of leukemia: a systematic literature review and meta-analysis. *Cancer Medicine* 2017; 6:2471-2486.

Gaffney SH, Grespin M, Garnick L, Drechsel DA, Hazan R, Paustenbach DJ, Simmons BD. Anthophyllite asbestos: state of the science review. *Journal of Applied Toxicology* 2017; 37:38-49.

Eum K, Seals R, Taylor K, Grespin M, Umbach D, Hu H, Sandler D, Kamel F, Weisskopf M. Modification of the association between lead exposure and amyotrophic lateral sclerosis by iron and oxidative stress related gene polymorphisms. *Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration* 2015; 16:27-29.

Fillos D, Scott LLF, Anderle De Saylor M, Grespin M, Luksemburg WJ, Finley B. PCB concentrations in shrimp from major import markets and the United States. *Environmental Toxicology and Chemistry* 2012; 31:1063-1071.

Grespin M, Bonamy GM, Roggero VR, Cameron NG, Adam LE, Atchison AP, Fratto VM, Allison LA. Thyroid hormone receptor $\alpha 1$ follows a cooperative CRM1/calreticulin-mediated nuclear export pathway. *Journal of Biological Chemistry* 2008; 37:25576-25588.

Presentations

Hussey MR, Grespin G, Stock A. An expanded review and meta-analysis of associations between exposure to gasoline vapor and hematopoietic malignancies. Poster presentation, International Society for Environmental Epidemiology Annual Meeting, Atlanta, GA, 2025.

Barlow C, Kemp M, Grespin M. PFAS toxicology: the science behind the variation in drinking water standards. Poster presentation, Emerging Contaminants Summit, Westminster, CO, 2020.

Novick RM, Grespin M, Thuett KA. Increased prevalence and severity of asbestos-related lung markers in peritoneal mesothelioma patients relative to pleural mesothelioma patients. Poster presentation, Society of Toxicology Annual Meeting, Baltimore, MD, 2017.

Gaffney S, Simmons B, Grespin M, Garnick L, Paustenbach D. Anthophyllite asbestos: state of the science review. American Industrial Hygiene Association Annual Meeting, Baltimore, MD, 2016.

Le MH, Monnot A, Grespin M, Ward R. Systematic review and evaluation of health risks associated with sepiolite exposure. American Industrial Hygiene Association Annual Meeting, Salt Lake City, UT, 2015.

Grespin M. Evaluation of a population in Oakland, California, using CalEnviroScreen Version 1.1: a case study. International Society of Exposure Science Annual Meeting, Cincinnati, OH, 2014.

Grespin M, Donovan EP, Ward R, Madl A, Finley BL. Asbestos content of heavy equipment brake wear debris and associated airborne exposures during brake work. Society of Toxicology Annual Meeting, Phoenix, AZ, 2014.

Eum KD, Seals R, Grespin M, Umbach DM, Sandler DP, Hu H, Kamel F, Weisskopf M. Interaction between HFE polymorphisms and cumulative lead exposure on the risk of amyotrophic lateral sclerosis. International Society for Environmental Epidemiology Annual Meeting, Basel, Switzerland, 2012.

Donovan EP, Grespin M, Cyrs WD, Patton AN, Finley BL. Airborne asbestos concentrations during work involving asbestos-containing floor tiles: a review of the published and unpublished literature. International Society of Exposure Science Annual Meeting, Seattle, WA, 2012.

Grespin M, Le MH, Panko JM. Safety data sheet alteration during alignment with the Globally Harmonized System of Classification (GHS) and implications for chemical manufacturers, suppliers, and distributors. Society for Risk Analysis Annual Meeting, Charleston, SC, 2011.

Grespin M, Allison LA. Nuclear export of the thyroid hormone receptor $\alpha 1$. The Endocrine Society Annual Meeting, Toronto, Canada, 2007.

Project Experience

Epidemiology

Provided expert deposition and trial testimony in toxic tort litigation. Cases have involved potential occupational, bystander, consumer product, and environmental exposure to asbestos and ethylene oxide (EtO) and analyses of alleged adverse human health effects.

Provided technical support related to human health risks for projects involving asbestos, talc, heavy metals, EtO, medical devices, food flavorings, supplements, organic compounds, mold, carbon monoxide, silica, infectious disease, traumatic injury, and other topics. Performed extensive review, analysis, and critical appraisal of relevant epidemiological literature in support of such work.

Conducted systematic literature reviews and meta-analyses of the risk of hematopoietic cancers as a result of certain chemical exposures. Exposures have included aromatic amines in hair dye products and gasoline vapors in various industrial and environmental settings.

Examined the association between cumulative lead exposure and risk of amyotrophic lateral sclerosis (ALS) among individuals predisposed to certain genetic conditions, including hemochromatosis. Work involved analysis of data from a population of individuals with single nucleotide polymorphisms (SNPs) in relevant genes.

Conducted a literature review and analysis to determine whether there is an increased prevalence of asbestos-related lung markers among peritoneal mesothelioma patients as compared to pleural mesothelioma patients.

Performed a systematic literature review and analysis of published studies to examine health outcomes associated with the phyllosilicate mineral sepiolite due to consumer product use and in mining operations.

Exposure Assessment

Reviewed, summarized, and critically appraised chemical exposure assessment and sampling methodology related to work with or near commercial and consumer products, as well as environmental hazards. Specific projects have related to exposures including asbestos, silica, mold, polychlorinated biphenyls, per- and polyfluoroalkyl substances, EtO, dioxins and furans.

Examined PCB concentrations in domestic and internationally caught or farmed shrimp. Compared potential cumulative exposures to various PCB congeners to established health-based exposure benchmarks.

Examined potential exposure to benzene associated with use of gas stoves and from oil and gas extraction and refining. Assisted clients with regulatory compliance and human health considerations.

Assessed associations between socioeconomic factors and demographics and potential residential pollution using an environmental justice screening tool (CalEnviroScreen) developed by the California Office of Environmental Health Hazard Assessment (OEHHA).

Reviewed and analyzed published and unpublished airborne asbestos concentrations during aggressive and passive work involving asbestos-containing floor tiles and heavy equipment friction components.

Clinical Patient Care - Nursing

Provided direct patient care for individuals admitted to the medical/surgical unit of an acute-care hospital. Tasks involved physical assessment, insertion and management of lines and drains, collection and interpretation of provider-ordered laboratory tests, medication administration, medical record review, and communication with various stakeholders.

Designed a floor-wide pilot analysis of the timing of insulin administration following point-of-care capillary blood glucose monitoring (CBGM) to determine the degree to which non-optimal administrative timing resulted in elevated or critical patient blood glucose levels.

Served as on-site faculty coordinator, liaison, and resource for undergraduate nursing students enrolled in a community and population health nursing course in Denver, Colorado. Duties involved working with students and clinical staff to examine and understand social determinants of health that effect medical and nursing provision in certain settings.

Served in a consulting role for corporate programs developing COVID-19 best practices related to employee health and safety, and return-to-work protocols.

Worked with Missouri Breaks Industries Research, Inc. (MBIRI) and the University of Colorado College of Nursing to establish an internship focused on environmental and population health for high school students residing at Pine Ridge Indian Reservation in South Dakota.

Molecular Biology and Physiology

Used high performance liquid chromatography (HPLC) to analyze metabolites in tissue collected from the Spotted Salamander, *Ambystoma maculatum*, to better understand physiology related to excess post-exercise oxygen consumption (EPOC).

Utilized various biochemical, microscopy, and cell culture techniques to elucidate cellular signaling pathways utilized by hormone-responsive transcription factors. Specific procedures involved transient and stable cellular transfection, DNA subcloning, Western blotting, confocal microscopy, and scanning and transmission electron microscopy (SEM/TEM).

Editorships & Editorial Review Boards

Workplace Health & Safety Journal (2018-2020)

Peer Reviews

Workplace Health & Safety Journal (2018-2022)