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## Alice (Wenchao) Li, Ph.D., M.P.H.

### Senior Epidemiologist

Dr. Li is an epidemiologist with a diverse research background and expertise in statistical analysis, systematic review, and epidemiology study design and quality evaluation. At Gradient, Dr. Li has worked on a variety of projects involving critical and/or systematic reviews of epidemiology studies on health effects associated with air pollutants or other chemicals. Prior to joining Gradient, she was a doctoral student at the University of Michigan School of Public Health, where she designed and conducted epidemiology studies on nutrition and cardiovascular disease risk factors using a life course approach. During her doctoral training, Dr. Li also worked at ExxonMobil Biomedical Sciences, Inc. as a research intern, where she systematically reviewed the epidemiologic literature on benzene risk assessment and benzene-induced myelodysplastic syndrome and published findings in top toxicology journal. Dr. Li also has cancer research experience at the Minnesota Department of Health and the University of Minnesota Masonic Cancer Center.

### Areas of Expertise

- Epidemiology
- Biostatistics
- Risk Assessment
- Exposure Assessment
- Cancer
- Cardiovascular Disease
- Nutrition

### Services

- Toxicology & Risk Sciences
- Epidemiology
- Database Development
- Air Quality Sciences
- Food & Beverages

### Education

- Ph.D., Epidemiological Science, University of Michigan School of Public Health
- M.P.H., Epidemiology, University of Minnesota School of Public Health
- B.M., Preventive Medicine, Sichuan University West China School of Public Health

### Selected Projects

**Study Review of Air Pollutants:** Critically reviewed recently published epidemiology, toxicology, and exposure studies of criteria air pollutants. Assessed study quality and validity of study findings.

**Study Review of Natural Gas:** Systematically reviewed epidemiology studies that evaluate the proximity to unconventional natural gas development and perinatal outcomes. Evaluated study quality and determined weight of evidence.

**Review of Chemical Standard and Related Literature:** Reviewed benzene standards and systematically reviewed the epidemiology literature on benzene-induced myelodysplastic syndrome.

**Systematic Review of Metallic Nickel:** Systematically reviewed epidemiology studies of metallic nickel and respiratory cancers. Assessed study quality and validity of study findings.

**Epidemiological Methodology Review:** Assessed whether appropriate epidemiology methods were used to evaluate a potential pediatric cancer cluster in a military housing complex.

**Comments on Chemical Standards:** Reviewed and commented on whether the underlying studies and data supported US EPA's approaches and conclusions in promulgating the National Ambient Air Quality Standard for fine particulate matter.

**Meta-Analysis:** Performed a meta-analysis to synthesize findings on the association between personal and ambient air pollutant measurements.

**Study Review of Consumer Product:** Reviewed epidemiology of the health effects of specific chemicals in consumer products. Assessed study quality and validity of study findings.

**Systematic Review and Meta-Analysis:** Conducted a systematic review of long-term exposure to fine particulate matter (PM<sub>2.5</sub>) and all-cause mortality.

### Selected Publications

**Li, W;** Schnatter, AR. 2018. "Benzene risk assessment: Does new evidence on myelodysplastic syndrome justify a new approach?" *Crit. Rev. Toxicol.* 48(6):417-432. doi: 10.1080/10408444.2018.1437389.

**Li, W;** Herrán, OF; Villamor, E. 2017. "Trends in iron, zinc, and vitamin A status biomarkers among Colombian children: Results from 2 nationally representative surveys." *Food Nutr. Bull.* 38(2):146-157. doi: 10.1177/0379572117700976.

Linabery, AM; **Li, W;** Roesler, MA; Spector, LG; Gamis, A; Olshan, AF; Heerema, NA; Ross, JA. 2015. "Immune-related conditions and acute leukemia in children with Down syndrome: A Children's Oncology Group report." *Cancer Epidemiol. Biomarkers Prev.* 24(2):454-458. doi: 10.1158/1055-9965.EPI-14-1181.