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Engineering & Scientific Consulting

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Professional Profile

Dr. Mezei is a physician and epidemiologist with over 25 years of experience in research of clinical outcomes and environmental and occupational health issues. He designed, conducted and evaluated epidemiologic investigations and directed multidisciplinary research programs related to children's health (including childhood leukemia and brain cancer), adult cancers (e.g., leukemia, brain and breast cancer), neurodegenerative diseases (e.g., Alzheimer disease and amyotrophic lateral sclerosis [Lou Gehrig disease]), reproductive health outcomes (including birth defects), occupational injuries and ergonomics.

Dr. Mezei has been involved in studies of various occupational and environmental exposures, including electromagnetic fields (EMF), mineral fibers (asbestos), air pollutants and metals (welding fumes). He has expertise and experience in quantitatively and qualitatively aggregating epidemiologic evidence (via literature reviews, meta-analyses, and pooled analyses) for environmental and occupational risk assessments. Dr. Mezei appeared as an expert in hearings at several state (US) and provincial (Canada) public utility commissions and a parliamentary committee in Ireland.

Prior to joining Exponent, Dr. Mezei directed a multidisciplinary scientific research program at the Electric Power Research Institute designated to address potential human and animal health effects associated with residential and occupational exposure to power frequency and radiofrequency EMF. He also directed occupational health and safety research focusing on injury surveillance, ergonomics evaluations, and occupational exposure assessments. Earlier, at the Toronto Western Hospital, University of Toronto, he conducted research to identify clinical factors affecting hospital stay, adverse clinical and surgical outcomes and hospital readmissions following ambulatory surgery. He was a practicing physician at the National Institute for Dermatology in Budapest, Hungary.

Dr. Mezei trained as a physician (M.D.) at the Semmelweis University of Medicine in Budapest, Hungary, and as an epidemiologist (Ph.D.) at the School of Public Health of the University of California in Los Angeles (UCLA). He was the recipient of Fogarty and Fulbright Fellowships. He served as an affiliate associate professor in the Department of Environmental and Occupational Health Sciences of the University of Washington in Seattle, Washington, as a visiting scientist at the Hungarian National Research Institute for Radiobiology and Radiohygiene in Budapest, Hungary, and as an associate editor at the Journal of Exposure Science and Environmental Epidemiology. Dr. Mezei lectured at Stanford University, the UCLA School of Public Health, and the Electrotechnical Committee of the Hungarian Academy of Sciences. Dr. Mezei is an author or co-author of over 60 scientific publications and book chapters on topics related to the epidemiology of environmental and occupational exposures and chronic diseases (such as cancer and neurodegenerative diseases), adverse clinical outcomes, and environmental exposure assessment.

Academic Credentials & Professional Honors

Ph.D., Epidemiology, University of California, Los Angeles (UCLA), 1995

M.D., Medicine, Semmelweis University of Medicine, 1990

Fogarty Fellowship, 1992-1995

Fulbright Fellowship, 1994-1995

Academic Appointments

Affiliate Associate Professor, Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, 2010-2014

Publications

Mezei G, Lau E, Pace ND, Schenk J, Kheifets L. Receipt of electroconvulsive therapy and subsequent development of amyotrophic lateral sclerosis: A cohort study. *Bioelectromagnetics* 2022; 43(2):81-89.

Mezei G, Chang ET, Mowat FS, Moolgavkar SH. Comment on recent case-control study of malignant mesothelioma of the pericardium and the tunica vaginalis testis. *Scandinavian Journal of Work Environment* 2021; 47(1):87-89.

Mezei G, Chang ET, Mowat FS, Moolgavkar SH. Comments on Vimercati et al., 2019, "Asbestos exposure and malignant mesothelioma of the tunica vaginalis testis: a systematic review and the experience of the Apulia (southern Italy) mesothelioma register." *Environmental Health* 2019; 18:111.

Mezei G, Chang ET, Mowat FS, Moolgavkar SH. Epidemiology of mesothelioma of the pericardium and tunica vaginalis testis. *Annals of Epidemiology* 2017; 27(5):348-359. With erratum; *Annals of Epidemiology* 2018; 28(63).

Volberg V, Fordyce T, Leonhard M, Mezei G, Vergara X, Krishen L. Injuries among electric power industry workers, 1995-2013. *Journal of Safety Research* 2017; 60:9-16.

Lewis RC, Minguez-Alarcon L, Meeker JD, Williams PL, Mezei G, Ford JB, Hauser R. Self-reported mobile phone use and semen parameters among men from a fertility clinic. *Reproductive Toxicology* 2017; 67: 42-47.

Fordyce TA, Leonhard MJ, Watson HN, Mezei G, Vergara XP, Krishen L. An analysis of fatal and non-fatal injuries and injury severity factors among electric power industry workers. *American Journal of Industrial Medicine* 2016; 59 (11): 948-958.

Tell RA, Hooper HC, Sias GG, Mezei G, Hung P, Kavet R. Electromagnetic field associated with commercial solar photovoltaic electric power generating facilities. *Journal of Occupational and Environmental Hygiene* 2015; 12 (11): 795-803.

Oksuzyan S, Crespi CM, Cockburn M, Mezei G, Vergara X, Kheifets L. Race/ethnicity and childhood leukemia: a case-control study in California. *Journal of Epidemiology and Community Health* 2015; 69 (8): 795-802.

Kheifets L, Crespi C, Hooper C, Oksuzyan S, Cockburn M, Ly T, Mezei G. Epidemiologic study of residential proximity to transmission lines and childhood cancer in California: Description of design, epidemiologic methods and study population. *Journal of Exposure Science and Environmental Epidemiology* 2015; 25(1):45-52.

Vergara X, Kheifets L, Mezei G. Case-control study of occupational exposure to electric shocks and magnetic fields and mortality from amyotrophic lateral sclerosis in the U.S., 1991-1999. *Journal of Exposure Science and Environmental Epidemiology* 2015; 25(1):65-71.

Mezei G, Sudan M, Izraeli S, Kheifets L. Epidemiology of childhood leukemia in the presence and absence of Down syndrome. *Cancer Epidemiology* 2014; 38(5):479-489.

Slusky DA, Does M, Metayer C, Mezei G, Kavet R, Selvin S, Buffler PA. Potential role of selection bias in the association between childhood leukemia and residential magnetic field exposure: a population-based assessment. *Cancer Epidemiology* 2014; 38(3):307-313.

Souques M, Plante M, Ostiguy G, Goulet D, Deschamps F, Mezei G, Modolo J, Lambrozo J, Legros A. Anecdotal report of magnetophosphene perception in 50 mT 20, 50 and 60 Hz magnetic fields. *Radioprotection* 2014; 49(1):69-71.

Okokon E, Roivainen P, Kheifets L, Mezei G, Juutilainen J. Indoor transformer stations and ELF magnetic field exposure: use of transformer structural characteristics to improve exposure assessment. *Journal of Exposure Science and Environmental Epidemiology* 2014; 24(1):100-104.

Frei P, Poulsen AH, Mezei G, Pedersen C, Salem LC, Johansen C, Roosli M, Schuz J. Residential distance to high voltage power lines and risk of neurodegenerative diseases: A Danish population-based case-control study. *American Journal of Epidemiology*, 2013; 177(9):970-978.

Tell RA, Kavet R, Mezei G. Characterization of radiofrequency field emissions from smart meters. *Journal of Exposure Science and Environmental Epidemiology* 2013; 23 (5):549-553.

Vergara X, Kheifets L, Oksuzyan S, Cho YS, Mezei G. Occupational exposure to extremely low frequency magnetic fields and neurodegenerative diseases: A meta-analysis. *Journal of Occupational and Environmental Medicine* 2013; 55(2):135-146.

Oksuzyan S, Crespi CM, Cockburn M, Mezei G, Kheifets L. Birth weight and other perinatal factors and childhood CNS tumors: A case-control study in California. *Cancer Epidemiology* 2013; 37(4):402-409.

Schüz J, Grell K, Kinsey S, Linet MS, Link MP, Mezei G, Pollock BH, Roman E, Zhang Y, McBride MN, Johansen C, Spix C, Hagihara J, Saito AM, Simpson J, Robison LR, Dockerty JD, Feychting M, Kheifets L, Frederiksen K. Extremely low frequency magnetic fields and survival from childhood acute lymphoblastic leukemia: An international follow up study. *Blood Cancer Journal* 2012; 2: e98.

Oksuzyan S, Crespi CM, Cockburn M, Mezei G, Kheifets L. Birth weight and other perinatal characteristics and childhood leukemia in California. *Cancer Epidemiology* 2012; 36: e359-e365.

Tell RA, Sias GG, Vazquez A, Sahl J, Turman JP, Kavet RI, Mezei G. Radiofrequency fields associated with the Itron smart meter. *Radiation Protection Dosimetry* 2012; 151(1):17-29.

Hicks JB, McCarthy SA, Mezei G, Sayes CM. PM1 particles at coal- and gas-fired power plant work areas. *Annals of Occupational Hygiene* 2012; 56(2):182-193.

Slusky DA, Mezei G, Metayer C, Selvin S, Von Behren J, Buffler PA. Comparison of racial differences in childhood cancer risk in case-control studies and population-based cancer registries. *Cancer Epidemiology* 2012; 36(1):36-44.

Roosli M, Jenni D, Kheifets L, Mezei G. Extremely low frequency magnetic field measurements in buildings with transformer stations in Switzerland. *Science of the Total Environment* 2011; 409(18):3364-3369.

Stone A, Marklin R, Seeley P, Mezei G. A collaborative effort to apply ergonomics to electric utility

workers at generating stations. *WORK: A Journal of Prevention Assessment and Rehabilitation* 2011; 39(2):103-111.

Kheifets L, Ahlbom A, Crespi CM, Feychting M, Johansen C, Monroe J, Murphy M, Oksuzyan S, Preston-Martin S, Roman E, Saito T, Savitz D, Schüz J, Simpson J, Swanson J, Tynes T, Verkasalo P, Mezei G. A pooled analysis of extremely low frequency magnetic fields and childhood brain tumors. *American Journal of Epidemiology* 2010; 172(7):752-761.

Hareuveny R, Kandel S, Yitzhak NM, Kheifets L, Mezei G. Exposure to 50 Hz magnetic fields in apartment buildings with indoor transformer stations in Israel. *Journal of Exposure Science and Environmental Epidemiology* 2011; 21(4):365-371.

Fordyce TA, Morimoto L, Coalson J, Kelsh M, Mezei G. Neck injuries among electric utility workers, 1995-2007. *Journal of Occupational and Environmental Medicine* 2010; 52(4):441-449.

Kheifets L, Ahlbom A, Crespi CM, Draper G, Hagihara J, Lowenthal RM, Mezei G, Oksuzyan S, Schüz J, Swanson J, Tittarelli A, Vinceti M, Wunsch Filho V. Pooled analysis of recent studies of magnetic fields and childhood leukemia. *British Journal of Cancer* 2010; 103(7):1128-1135.

Mezei G, Gadallah M, Kheifets L. Residential magnetic field exposure and childhood brain cancer: a meta-analysis. *Epidemiology* 2008; 19(3):424-430.

Mezei G, Spinelli JJ, Wong P, Borugian M, McBride ML. Assessment of selection bias in the Canadian case-control study of residential magnetic field exposure and childhood leukemia. *American Journal of Epidemiology* 2008; 167(12):1504-1510.

Kheifets L, Monroe J, Vergara X, Mezei G, Afifi AA. Occupational EMF and leukemia and brain cancer: An update to two meta-analyses. *Journal of Occupational and Environmental Medicine* 2008; 50(6):677-688.

Thuroczy G, Janossy G, Nagy N, Bakos J, Szabo J, Mezei G. Exposure to 50 Hz magnetic fields in apartment buildings with built-in transformer stations in Hungary. *Radiation Protection Dosimetry* 2008; 131(4):469-473.

Ilonen K, Markkanen A, Mezei G, Juutilainen J. Indoor transformer stations as predictors of residential ELF magnetic field exposure. *Bioelectromagnetics* 2008; 29(3):213-218.

Kheifets L, Bowman JD, Checkoway H, Feychting M, Harrington M, Kavet R, Marsh G, Mezei G, Renew D, van Wijngaarden E. Future needs of occupational epidemiology of extremely low frequency (ELF) electric and magnetic fields (EMF): Review and recommendations. *Occupational and Environmental Medicine* 2009; 66(2):72-80.

Li CY, Mezei G, Sung FC, Silva M, Chen PC, Lee PC, Chen LM. Survey of residential extremely-low-frequency magnetic field exposure among children in Taiwan. *Environment International* 2007; 33(2):233-238.

Li CY, Sung FC, Chen FL, Lee PC, Silva M, Mezei G. Extremely-low-frequency magnetic field exposure of children at schools near high voltage transmission lines. *Science of the Total Environment* 2007; 376(1-3):151-159.

Mezei G, Benyi M, Muller A. Mobile phone ownership and use among school children in three Hungarian cities. *Bioelectromagnetics* 2007; 28(4):309-315.

Li CY, Mezei G, Sung FC, Silva M, Lee PC, Chen PC, Chen LM. Assessment of nonresponse bias in a survey of residential magnetic field exposure in Taiwan. *Bioelectromagnetics* 2007; 28(5):340-348.

Schuz J, Svendsen AL, Linet MS, McBride ML, Roman E, Feychting M, Kheifets L, Lightfoot T, Mezei G, Simpson J, Ahlbom A. Nighttime exposure to electromagnetic fields and childhood leukemia. An extended pooled analysis. *American Journal of Epidemiology* 2007; 166(3):263-269.

Foliart DE, Mezei G, Iriye R, Silva JM, Ebi KL, Kheifets L, Link MP, Kavet R, Pollock BH. Magnetic field exposure and prognostic factors in childhood leukemia. *Bioelectromagnetics* 2007; 28(1):69-71.

Foliart DE, Pollock BH, Mezei G, Iriye R, Silva JM, Ebi KL, Kheifets L, Link MP, Kavet R. Magnetic field exposure and long-term survival among children with leukemia. *British Journal of Cancer* 2006; 94(1):161-164. (Corrigendum. *British Journal of Cancer* 2006; 94(6):940).

Savitz DA, Herring AH, Mezei G, Evenson KR, Terry JW, Kavet R. Physical activity and magnetic field exposure in pregnancy. *Epidemiology* 2006; 17(2):222-225.

Mezei G, Kheifets L. Selection bias and its implications for case-control studies: a case study of magnetic field exposure and childhood leukemia. *International Journal of Epidemiology* 2006; 35(2):397-406.

Poole C, Greenland S, Luetters C, Kelsey JL, Mezei G. Socioeconomic status and childhood leukemia: A review. *International Journal of Epidemiology* 2006; 35(2):370-384.

Mezei G, Borugian MJ, Spinelli JJ, Wilkins R, Abanto Z, McBride ML. Socioeconomic status and childhood solid tumor and lymphoma incidence in Canada. *American Journal of Epidemiology* 2006; 164(2):170-175.

Szabo J, Mezei K, Thuroczy G, Mezei G. Occupational 50 Hz magnetic field exposure measurements among female sewing machine operators in Hungary. *Bioelectromagnetics* 2006; 27(6):451-457.

Kheifets L, Mezei G, Greenland S. Comment concerning "Childhood leukemia and residential magnetic fields: Are pooled analyses more valid than the original studies?" *Bioelectromagnetics* 2006; 27(8):674-675.

Mezei G, Bracken TD, Senior R, Kavet R. Analyses of magnetic-field peak-exposure summary measures. *Journal of Exposure Science and Environmental Epidemiology* 2006; 16(6):477-485.

Borugian MJ, Spinelli JJ, Mezei G, Wilkins R, Abanto Z, McBride ML. Childhood leukemia and socioeconomic status in Canada. *Epidemiology* 2005; 16(4):526-531.

Mezei G, Cher D, Kelsh M, Edinboro C, Chapman P, Kavet R. Occupational magnetic field exposure, cardiovascular disease mortality and potential confounding by smoking. *Annals of Epidemiology* 2005; 15(8):622-629.

Forssten UM, Mezei G, Nise G, Feychting M. Occupational magnetic field exposure among women in Stockholm County, Sweden. *Occupational and Environmental Medicine* 2004; 61(7):594-602.

Mezei G, Kavet R. Power frequency magnetic field exposure and childhood leukemia—Epidemiologic evidence and research perspectives. *Central European Journal of Occupational and Environmental Medicine* 2004; 10(2):115-126.

Tong D, Wong J, Chung F, Friedlander M, Bremang J, Mezei G, Streiner D. Prospective study on incidence and functional impact of transient neurologic symptoms associated with 1% vs 5% hyperbaric lidocaine in short urologic procedures. *Anesthesiology* 2003; 98(2):485-494.

Higgins PP, Chung F, Mezei G. Postoperative sore throat after ambulatory surgery. *British Journal of Anaesthesia* 2002; 88(4):582-584.

Foliart DE, Iriye RN, Silva JM, Mezei G, Tarr KJ, Ebi KL. Correlation of year-to-year magnetic field

exposure metrics among children in a leukemia survival study. *Journal of Exposure Analysis and Environmental Epidemiology* 2002; 12(6):441-447.

Sahl J, Mezei G, Kavet R, McMillan A, Silvers A, Sastre A, Kheifets L. Occupational magnetic field exposure and cardiovascular mortality in a cohort of electric utility workers. *American Journal of Epidemiology* 2002; 156(10):913-918.

Mezei G, Kheifets LI. Clues to the possible viral etiology of childhood leukemia. *Technology* 2002; 9(1-2):3-14.

Mezei G, Kheifets LI, Nelson LM, Mills KM, Iriye R, Kelsey JL. Household appliance use and residential exposure to 60-Hz magnetic fields. *Journal of Exposure Analysis and Environmental Epidemiology* 2001; 11(1):41-49.

Chung F, Mezei G. Adverse outcomes in ambulatory anesthesia—What can we improve? *Ambulatory Surgery* 2000; 8(2):73-78.

Chung F, Mezei G, Tong D. Adverse events in ambulatory surgery: A comparison between elderly and younger patients. *Canadian Journal of Anesthesia* 1999; 46(4):309-321.

Chung F, Mezei G. Adverse outcomes in ambulatory anesthesia. *Canadian Journal of Anesthesia* 1999; 46(5/II):R18-34.

Sinclair DR, Chung F, Mezei G. Can postoperative nausea and vomiting be predicted? *Anesthesiology* 1999; 91(1):109-118.

Chung F, Mezei G, Tong D. Pre-existing medical conditions as predictors of adverse events in day-case surgery. *British Journal of Anaesthesia* 1999; 83(2):262-270.

Mezei G, Chung F. Return hospital visits and hospital readmissions after ambulatory surgery. *Annals of Surgery* 1999; 230(5):721-727.

Chung F, Mezei G. Factors contributing to a prolonged stay after ambulatory surgery. *Anesthesia & Analgesia* 1999; 89(6):1352-1359.

Book Chapters

Moolgavkar SH, Chang ET, Mezei G, Mowat FS. Epidemiology of mesothelioma. Chapter 3. In: *Asbestos and Mesothelioma*. Testa J (Ed.). Springer Nature. Pages 43-72, 2017.

Mezei G, Vergara X. Adult cancer and extremely low-frequency magnetic fields. In: Rööslä M. *Epidemiology of Electromagnetic Fields*, Chapter 10, pp 161-184. CRC Press, Taylor & Francis Group, Boca Raton, Florida, 2014.

Kheifets L, Mezei G. Extremely low frequency electric and magnetic fields. In: *Hunter's Diseases of Occupations*, 10th edition. Baxter PJ, Aw TC, Cockcroft A, Durrington, Harrington JM (Eds.), Chapter 55, pp. 663-674, Hodder Arnold, United Kingdom, 2010.

Mezei G, Kheifets L. Radiofrequency fields. In: *Hunter's Diseases of Occupations*, 10th edition. Baxter PJ, Aw TC, Cockcroft A, Durrington, Harrington JM (Eds.), Chapter 56, pp. 675-681, Hodder Arnold, United Kingdom, 2010.

Kheifets L, Mezei G. Extremely low frequency electric and magnetic fields. In: *Encyclopedia of Quantitative Risk Assessment*. Everitt B, Melnick E (Eds.), pp. 691-693, John Wiley & Sons, United Kingdom, 2008.