

Exponent®
Engineering & Scientific Consulting

Fionna Mowat, Ph.D.

Principal Scientist | Health Sciences
Menlo Park
+1-650-688-1782 | fmowat@exponent.com

Professional Profile

Dr. Mowat has over 20 years of multidisciplinary experience in the field of risk assessment, primarily focusing on exposure science. Her primary areas of interest are exposure assessment from metals (e.g., hexavalent chromium, manganese, lead), mineral fibers (e.g., asbestos and erionite), and nanoparticles (e.g., metal oxides, carbon nanotubes, nanosilver) in both occupational and non-occupational settings, and evaluating potential exposures resulting from use (and misuse) of consumer products.

She has also focused on the potential for exposure from the workplace to domestic contacts and placing these exposures in the context of various regulatory exposure guidelines and health-based benchmarks. Dr. Mowat has designed, conducted, and published exposure simulation tests on and reviews of current and historic products such as mastics/adhesives, phenolic materials, automotive brakes and clutches, jewelry, roofing cements, gaskets, coatings and paints, welding operations, and children's toys. She has used the results from these simulations in conjunction with other information to evaluate the potential for airborne asbestos fiber / chemical release during the handling of these products. Dr. Mowat has served as a testifying expert related to her work in the areas of risk assessment and exposure science.

Dr. Mowat has developed a risk assessment framework for assessing exposures and possible health risks to nanomaterials in consumer products, including sunscreens and diaper creams, and use of control banding in evaluation of risk associated with these products. She has also performed and participated in pilot-scale and large manufacturing-scale studies of nano-sized particles used in products such as conductive inks.

Dr. Mowat had also designed, led, and conducted various projects of interest to the pharmaceutical industry, including analyses of clinical data, claims records, and electronic medical or health records (EMR/EHR); literature review of various diseases and conditions, particularly as they relate to identification of market share; and life-cycle management assessment for various diseases and drugs. As part of this research, Dr. Mowat has performed evaluations of rare bone and blood conditions in various subpopulations, investigated the clinical and economic burden and risk factors associated with various cancer outcomes, evaluated standards of care in breast and ovarian cancer patients, and described the healthcare utilization for different subpopulations. Dr. Mowat summarized this work in written manuscripts and has contributed to epidemiologic, safety, and other sections of regulatory documents for use in both the U.S. and Europe.

Academic Credentials & Professional Honors

Ph.D., Biomedical Engineering, Tulane University, 2000

B.S.E., Biomedical Engineering, Duke University, 1994

Exponent HERO Award for Best Colleague Development, 2021

© 2026 Exponent, Inc. All Rights Reserved

Exponent HERO Award for Best Technical Achievement in a Project, 2021

Licenses and Certifications

PADI Certified Open Water Scuba Diver

Prior Experience

Project Manager, Mare Island Naval Shipyard and Skaggs Island, Tetra Tech EM, Inc., 2002

Deputy Installation Coordinator, Naval Base Ventura County Point Mugu, Tetra Tech EM, Inc., 2001–2002

Toxicologist/Ecological Risk Assessor, Tetra Tech EM, Inc., 2000–2002

Medical Research Technician, Tulane University Department of Pharmacology, 2000

Research Scientist/Technical Consultant, Shell Technology Ventures, Inc., 1997

Professional Affiliations

Women in Bio, 2012–2013

International Society for Pharmacoeconomics and Outcomes Research, 2011–2012 (member)

American Industrial Hygiene Association, 2005–present (member)

Society for Risk Analysis, 2004–present (member)

Sigma Xi, 2002–2006 (member)

International Technology Roadmap for Semiconductors (member; Environment, Safety, and Health)

Languages

French (France)

Spanish

Publications

McCoy MJ, Lewis RC, Mowat FS. Airborne concentrations of chrysotile asbestos during operation of industrial crane controls and maintenance of associated arc chutes. Toxicology and Industrial Health 2021; 37(3):124-133.

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. Scand J Work Environ 2021; 47(1):85–86.

Fordyce TA, Leonhard M, Mowat F, Moolgavkar S. Response to Finkelstein re: the Fordyce et al. Vermont talc miners and millers cohort study update. J Occup Environ Med 2020; 62(4):e172–e173.

Fordyce TA, Leonhard MJ, Mowat FS, Moolgavkar SH. Letter to the editor: Misrepresentation by Egilman

et al. of the Fordyce et al. (2019) Vermont talc miners and millers cohort study update. J Occup Environ Med 2020; 62(1):e19–e21.

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." Environ Health 2019; 18:111.

Fordyce TA, Leonhard MJ, Mowat FS, Moolgavkar SH. A 37-year update on mortality patterns in an expanded cohort of Vermont talc miners and millers. J Occup Environ Med 2019; 61(11):916-923.

Mowat FS, Sheehan PJ. Letter to the editor. Am J Ind Med 2018;61(3):270-271.

Chang ET, Lau E, Mowat FS, Teta MJ. Therapeutic radiation for lymphoma and risk of secondary primary malignant mesothelioma. Cancer Causes Control 2017; 28:971-979.

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

Goswami E, Craven V, Dahlstrom D, Alexander D, Mowat F. Domestic asbestos exposures: A review of epidemiologic and exposure data. Int J Environ Res Publ Health 2013; 10(11):5629-5670.

Lowe K, Chia VM, Taylor A, O'Malley C, Kelsh M, Mohamed M, Mowat FS, Goff B. An international assessment of ovarian cancer incidence and mortality. Int J Gyn Cancer 2013; 130(1):107-114.

Kanas G, Taylor A, Primrose JN, Langeberg W, Kelsh M, Mowat F, Alexander D, Choti M, Poston G. Survival after liver resection in metastatic colorectal cancer: Review and meta-analysis of prognostic factors. Clin Epi 2012; 4:283-301.

Lau E, Mowat FS, Kelsh MA, Legg JC, Engel-Nitz NM, Watson HN, Collins HL, Nordyke RJ, Whyte JL. Use of electronic medical records (EMR) for oncology outcomes research: Assessing the comparability of EMR information to patient registry and claims data. Clin Epi 2011; 3:259-272.

Sheehan P, Mowat F, Weidling R, Floyd M. Simulation tests to assess occupational exposure to airborne asbestos exposures from artificially weathered asphalt-based roofing products. Ann Occup Hyg 2010; 54:880-892. Corrigendum in Ann Occup Hyg 2011; 55:827.

Yong, M, Schoonen WM, Li L, Kanas G, Coalson J, Mowat F, Fryzek J, Kaye JA. Pediatric immune thrombocytopenic purpura in the General Practice Research Database. Br J Haematol 2010; 149 (6):855-864.

Morimoto L, Coalson J, Mowat F, O'Malley C. Factors affecting treatment decision making in receipt of chemotherapy for metastatic breast cancer: A review of the literature. Int J Women's Health 2010; 2:107-122.

Kanas G, Morimoto L, Mowat F, O'Malley C, Fryzek J, Nordyke R. Use of electronic medical records in outcomes research. ClincoEcon Outcomes Res 2010; 2:1-14.

Schoonen WM, Kucera G, Coalson J, Li L, Rutstein M, Mowat F, Fryzek J, Kaye JA. Epidemiology of immune thrombocytopenic purpura in the General Practice Research Database. Br J Haematology 2009; 145(2):235-244.

Kurtz SM, Ong K, Schmier J, Zhao K, Mowat F, Lau E. Primary and revision arthroplasty surgery caseloads in the United States from 1990 to 2004. J Arthroplasty 2009; 24(2):195-203.

Kurtz SM, Ong K, Schmier J, Mowat F, Saleh K, Dybvik E, Kärrholm J, Garellick G, Havelin L, Furnes O, Malchau H, Lau E. Future clinical and economic impact of revision total hip and knee arthroplasty. J Bone

Joint Surg Am 2007; 89:144-151.

Kelsh MA, Craven VA, Teta MJ, Mowat FS, Goodman M. Mesothelioma in vehicle mechanics: Is the risk different for Australians? Occup Med 2007; 57:581-589.

Santamaria AB, Cushing CA, Antonini J, Finley BL, Mowat FS. State-of-the-science review: Does manganese exposure during welding pose a neurological risk? J Toxicol Environ Health Part B, 2007; 10:417-465.

Mowat F, Weidling R, Sheehan P. Simulation tests to assess occupational exposure to airborne asbestos from asphalt-based roofing products. Ann Occup Hyg 2007; 51:451-462.

Finley BL, Richter RO, Mowat FS, Mlynarek S, Paustenbach DJ, Warmerdam JL, Sheehan PJ. Cumulative asbestos exposure for U.S. automobile mechanics involved in brake repair (circa 1950s-2000). J Exp Sci Environ Epidemiol 2007; 17:644-655.

Clarke C, Mowat F, Kelsh M, Roberts M. Pleural plaques: Review of diagnostic issues and possible non-asbestos etiologies. Arch Environ Health: An Int J 2007; 61(4):183-192.

Kurtz SM, Ong K, Lau E, Mowat F, Halpern M. Projections of primary and revision hip and knee arthroplasty in the United States from 2005 to 2030. J Bone Joint Surg Am 2007; 89:780-785.

Ong K, Mowat F, Chan N, Lau E, Halpern M, Kurtz S. Economic burden of revision hip and knee arthroplasty in Medicare enrollees. Clin Orthop Relat Res 2006; 446:22-28.

Mowat FS, Bono M, Lee RJ, Tamburello S, Paustenbach D. Occupational exposure to airborne asbestos from phenolic molding material (Bakelite) during sanding, drilling, and related activities. J Occup Environ Hyg 2005; 2:497-507.

Kurtz S, Mowat F, Ong K, Chan N, Lau E, Halpern M. Prevalence of primary and revision total hip and knee arthroplasty in the United States (1990-2002). J Bone Joint Surg Am 2005; 87:1487-1497.

Paustenbach DJ, Sage A, Bono M, Mowat F. Occupational exposure to airborne asbestos from coatings, mastics, and adhesives. J Exp Anal Environ Epidemiol 2004; 14(3):234-244.

Paustenbach DJ, Finley BL, Mowat FS, Kerger BD. Human health risk and exposure assessment of chromium (VI) in tap water. J Toxicol Environ Health Part A 2003; 66(14):1295-1339.

Mowat FS, Bundy KJ. A mathematical algorithm to identify toxicity and prioritize pollutants in field sediments. Chemosphere 2002; 49(5):499-513.

Mowat FS, Bundy KJ. Experimental and mathematical/computational assessment of the acute toxicity of chemical mixtures from Microtox ® assay. Adv Environ Res 2002; 6(4):547-558.

Mowat FS, Bundy KJ. Correlation of field-measured toxicity with chemical concentration and pollutant availability. Environ Internat 2001; 27(6):479-489.

Book Chapters

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

Tsuji JS, Mowat FS, Donthu S, Reitman M. Application of toxicology studies in assessing the health risks of nanomaterials in consumer products. Chapter 25. In: Nanotoxicity: In vivo and in vitro models to health risks. Sahu SC, Casciano DA (Eds.), Wiley, 2009.

Mowat, F, Shum M, Kelsh M. Exposure assessment. pp. 369-373. In: Encyclopedia of Epidemiology, Sage Publications, Thousand Oaks, CA, 2007.

Bundy K, Mowat F, Taverna P, Shettlemore M. Measurement of pollution distribution toxicity and effectiveness of emerging soil remediation techniques. pp. 113-154. In: Remediation Engineering of Contaminated Soils, Second Edition. Wise DL, Trantolo DJ, Cichon EJ, Inyang HI, and Stottmeister U (Eds.), Marcel Dekker Inc., New York, NY, 2000.

Articles

Mezei G, Chang ET, Willson L, Mowat F, Bishop B. Two rare types of malignant mesothelioma: A legal and scientific analysis. The Newsletter of the Toxic Tort and Environmental Law Committee (TTEL), Defense Research Institute (DRI) 2017 Aug; 20(2).

Tsuji JS, Duggan A, Mowat F. Beyond buckyballs - Nanomaterial product development amidst regulatory uncertainty. Exponent Health Sciences News Release 2012; 12.

Mowat F, Tsuji J. Carbon nanotubes: The next asbestos? TTEL Committee Fall Newsletter 2009. Pages 1, 18-20.

Mowat F, Tsuji J. Primer on emerging health and environmental issues for nanomaterials. Michigan Defense Trial Counsel Law Quarterly 2006; 23(3):26-30.

Sheehan PJ, Mowat FS, Tarry, Jr., SL. Havner, mechanics, and asbestos friction products: A convincing science case. Environmental Litigation and Toxic Torts Committee Newsletter 2005; 8(1).

Selected Invited Presentations

Mowat F, Pugh L. State of the art relevant to domestic / “take-home” exposures. Presented at the DRI Asbestos Medicine Conference. Austin, Texas. November 15-17, 2023.

Mowat FS. Household asbestos exposures: When are they associated with an increased risk of developing mesothelioma? Presented at the DRI Asbestos Medicine Conference. Boston, Massachusetts. November 14-15, 2019.

Mowat F. The use and abuse of science in the courtroom. Blowout at the Biltmore: Hot topics in toxic torts & environmental law. American Bar Association (ABA), Toxic Torts & Insurance Practice Section (TTIPS) and TTEL Committee. Panel moderated by A.O. McCready. Panel members: A Perez, G Glanders, F Mowat, H Sandler, MJ McCabe. Phoenix, Arizona. April 5-7, 2018.

Mowat F. Domestic asbestos exposures: Is there a risk? Presented at the DRI Asbestos Medicine Conference. San Francisco, CA, November 5-7, 2014.

Mowat F, Stenner H. Getting dirty: Digging for clues in rocks and soils. Presented at the Asbestos Litigation Conference: A National Overview & Look, Perrin Conferences, San Francisco, CA, September 16-18, 2013.

Mowat F. Nanotechnology update: Toxic cosmetics? Presented to the ABA TTIPS, TTEL Committee, Phoenix, AZ, March 31-April 2, 2011.

Mowat F. Nano-size me: Responsible development of nanomaterials. Presented at the DRI Product Liability Conference - It's Not Easy Being Green: Navigating the New Landscape of Product Liability Law, San Diego, CA, April 15-17, 2009.

Mowat F. Size does matter: The impact of nanotechnology on human health and the environment. Presented to the ABA TTIPS, TTEL Committee, Phoenix, AZ, April 2-4, 2009.

Mowat FS. Carbon nanotubes: What the heck are they? Presented at the California section of the American Chemical Society, Oakland, CA, September 17, 2008.

Kelsh MA, Mowat FS. Epidemiology, exposure, and risk assessment: The story of asbestos friction products. Presented at the Associated Defense Counsel of California and Nevada, San Francisco, CA, April 29, 2008.

Mowat FS. Nanomaterials: What are they and why should I care? Presented at the Defense Trial Counsel of Indiana, Lafayette, IN, November 17-19, 2006.

Mowat FS. Health, safety, and risk management of nanomaterials. Panel speaker and moderator. Presented at the Society for the Advancement of Materials and Process Engineering (SAMPE), Dallas, TX, November 6-9, 2006.

Tsuji JS, Mowat FS. Risk assessment of nanoscale metal particles. Presented at the Environmental Protection Agency (EPA) Region 5 Nanotechnology for Site Remediation Workshop, Chicago, IL, September 6-7, 2006.

Mowat FS. Nanomaterials: Emerging health and environmental issues. Presented at the Ohio Association of Civil Trial Attorneys Summer Meeting. Dayton, OH, June 15-16, 2006.

Mowat FS, Sheehan PJ. Estimating asbestos exposures from historical products: Issues related to industrial hygiene and toxicology. Presented at the Andrews Asbestos Litigation Conference, San Antonio, TX, April 26-27, 2006.

Mowat FS. Nanomaterials 101. Guest lecture for course entitled "Exposure Assessment for Occupational and Environmental Epidemiology." Presented at the University of California, Los Angeles, Los Angeles, CA, February 21, 2006.

Mowat FS. Estimating human exposures from consumer products. Guest lecture for course entitled "Exposure Assessment for Occupational and Environmental Epidemiology." Presented at the University of California, Los Angeles, Los Angeles, CA, February 21, 2006.

Mowat F. Nanotoxicity: Lessons learned from other small particles and fibers. Presented at the MIT/Stanford/U.C. Berkeley Nanotechnology Forum at swissnex. Nanotechnology Applications and Implications: A Focus on the Health and Environmental Effects of Nanomaterials, San Francisco, CA, December 7, 2005.

Mowat FS. Nanomaterials: Emerging health and environmental issues. Presented at the 2005 Annual Meeting of the DRI. Chicago, IL, October 19-23, 2005.

Mowat F. Exposure simulation studies of historical work environments. Presented at the American Industrial Hygiene Conference & Expo (AIHce) Round Table RT226, "Asbestos: Everything Old is New Again - An Updated on Recent Research Regarding Asbestos Exposure and Health Risks," Anaheim, CA, May 23-26, 2005.

Published Abstracts of Presentations

Santamaria AB, Tsuji JS, Mowat FS, Hicks JB. Risk assessment of nanomaterials using control banding. Accepted for presentation at the 54th Annual Meeting of the Society for Toxicology (SOT), San Diego, California, March 22-26, 2015.

Chia VM, Lowe K, O'Malley C, Kelsh M, Taylor A, Mowat F, Goff B. An updated assessment of global ovarian cancer trends. Presented at the International Gynecologic Cancer Society (IGCS), Vancouver, Canada, October 13-16, 2012.

Fordyce T, Mowat F, Lau E, Fryzek J. Incidence of metastatic hormone receptor positive (HR+) breast cancer in the United Kingdom: Data needed! Presented at the 17th Annual International Meeting of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR), Washington DC, June 2-6, 2012.

Mowat FS, Lau EL, Kelsh MA, Legg J, Engel-Nitz NM, Watson HN, Collins H, Nordyke RJ, Whyte JL. Assessing the comparability of electronic medical records information to tumor registry and health claims data for oncology outcomes research. Abstract 546. Pharmacoepidemiol Drug Safety 20(Supp 1):S238. Presented at the 27th International Conference on Pharmacoepidemiology and Therapeutic Risk Management (ICPE), Chicago, IL, August 14-17, 2011.

Lau EL, Legg J, Watson HN, Steffey D, Mowat FS, Kelsh MA. The problem of missing data: Using imputation methods to facilitate oncology outcomes research across four databases. Abstract 631 Pharmacoepidemiol Drug Safety 20(Supp 1):S275-276. Presented at the 27th ICPE, Chicago, IL, August 14-17, 2011.

Taylor A, Kanas G, Primrose JN, Langeberg WJ, Alexander DD, Kelsh MA, Mowat F, Choti MA, and Poston G. Survival after surgical resection of hepatic metastases from colorectal cancer: An updated review and meta-analysis. Presented at the 13th World Congress on Gastrointestinal Cancer, Barcelona, Spain, June 22-25, 2011.

Lau EL, Mowat FS, Kelsh MA, Legg J, Engel-Nitz NM, Watson HN, Collins H, Nordyke RJ, Whyte JL. Use of electronic medical records (EMR) for oncology outcomes research: Assessing the comparability of EMR information to patient registry and health claims data. Value in Health 2011; 14:A178. Presented at the 16th Annual Meeting of ISPOR, Baltimore, MD, May 21-25, 2011.

Sheehan PJ, Mowat F. Simulation tests of occupational asbestos exposures from removal of artificially weathered roof coating and cements. Presented at the AIHce, Portland, OR, May 14-19, 2011.

Taylor A, Langeberg WJ, Primrose JN, Kanas G, Kelsh MA, Mowat F, Choti M, Poston G. Survival after surgical resection of hepatic metastases from colorectal cancer: A systematic review and meta-analysis. Presented at the European Society for Medical Oncology, Milan, Italy, October 8-12, 2010.

Goswami E, Craven V, Dahlstrom D, Mowat F. Domestic asbestos exposures: A review of epidemiologic and exposure data. Presented at the AIHce, Denver, CO, May 22-27, 2010.

Kelsh MA, Berman DW, Lau E, Kelly C, Lundin J, Mowat F. NOA in California and mesothelioma: Is there a link? Presented at the Geological Society of American National Annual Meeting, "Issues surrounding exposure to asbestos and other potentially hazardous fibrous minerals occurring in their natural settings," Portland, OR, October 21, 2009.

Tsuji J, Mowat F. Application of toxicology studies for risk assessment in the real world. Presented at the 47th Annual Meeting of the SOT. Workshop entitled, "Agglomeration versus dispersion: How nanoparticle behavior affects exposure and toxicity in vitro, in vivo, and the real world," March 15-19, 2009.

Malzahn D, Mowat F, Armstrong P. Simulation of asbestos release during dismantling of a residential sectional boiler. Presented at AIHce, Minneapolis, MN, June 2-5, 2008.

Mowat F. Emerging issues in health risk assessment of nano-engineered materials. Presented at the Northern California Society for Risk Analysis, Fall Symposium on Risk Assessment in Homeland Security and Emerging Risk Assessment Issues. Berkeley, CA, October 4, 2007.

Tsuji JS, Mowat F. Exposure and toxicity of nanotechnology in products. Presented at SAMPE. Baltimore, MD, June 3-7, 2007. Co-chair and moderator.

Mowat FS, Hartzell AL, da Silva MG, Tsuji J. Health risk assessment of products containing nano-engineered materials. Abstract 993. Presented at the 10th Annual National Standards and Technology Institute (NSTI) Nanotechnology Conference and Trade Show. Santa Clara, CA, May 20-24, 2007.

Mowat FS, Hartzell AL, da Silva MG, Tsuji J. Health risk assessment of products containing nano-engineered materials. Abstract 993. Presented at 10th Annual National Standards and Technology Institute (NSTI) Nanotechnology Conference and Trade Show, Santa Clara, CA, May 20-24, 2007.

Mowat FS, Tsuji JS. Assessment of health risks of carbon nanotubes: Where do we go from here? Presented at the 46th Annual Meeting of SOT. Workshop entitled, "Health risks of carbon nanotubes: What can we learn from mineral fibers or ultrafine particulates?" Charlotte, NC, March 25-29, 2007.

Tsuji JS, Mowat FS. Introduction to carbon nanotubes and health concerns. Presented at the 46th Annual Meeting of SOT. Workshop entitled, "Health risks of carbon nanotubes: What can we learn from mineral fibers or ultrafine particulates?" Charlotte, NC, March 25-29, 2007.

Kurtz S, Ong K, Schmier J, Mowat F, Saleh H, Malchau H, Lau E. Future clinical and economic impact of revision THA and TKA. Scientific exhibit presented at the 74th Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS), SE 49, San Diego, CA, February 14-17, 2007.

Ong KL, Mowat FS, Lau E, Saleh KJ, Schmier J, Kurtz SM. Projected economic burden of revision THA and TKA for Medicare enrollees in the next decade. Presented at the 74th Annual Meeting of the AAOS. Paper No. 22, San Diego, CA, February 14-17, 2007.

Kurtz S, Ong K, Schmier J, Mowat F, Lau E. The surgeons' revision burden: analysis of caseload disparities in the United States from 1990 to 2003. Presented at the 74th Annual Meeting of the AAOS. Poster P134, San Diego, CA, February 14-17, 2007.

Brorby G, Kalmes R, Goswami E, Mowat F, Sheehan P. Evaluating exposures to consumer products. Presented at the Society for Risk Analysis (SRA). Abstract W.3-I.2, Baltimore, MD, December 3-6, 2006.

Lau E, Kurtz S, Mowat F, Ong K, Halpern M. Survival of total hip and knee arthroplasty in the Medicare population in the U.S. Presented at the 16th Annual Meeting of the American Association of Hip and Knee Surgeons (AAHKS), Dallas, TX, November 3-5, 2006.

Tsuji J, Mowat F. Assessment of products containing nanomaterials. Symposium entitled, "Regulating nanotechnology: Developing stakeholder consensus for future rulemaking by EPA, FDA and OSHA." Presented at the Division of Chemistry and the Law of the 232nd American Chemical Society National Meeting. San Francisco, CA, September 10-14, 2006.

Sheehan P, Mowat F, Weidling R. Simulation of asbestos release from asphalt-based roofing products. Presented at the AIHce, Chicago, IL, May 13-18, 2006.

Mowat FS, Tsuji J. Nanotechnology and the water market: Applications and health effects. Abstract 747. Presented at the 9th Annual National Standards and Technology Institute (NSTI) Nanotechnology Conference and Trade Show, Volume 2, pp. 416-419, Boston, MA, May 7-11, 2006.

Tsuji J, Mowat F, Kaetzel R. Approaches for risk assessment and risk management of nanomaterials: "Inert" metal oxides. Toxicologist 90(1), Abstract 2201. Presented at the 45th Annual Meeting of SOT, San Diego, CA, March 5-9, 2006.

Ong KL, Lau EL, Mowat FS, Kurtz SM, Chin KR, Villarraga ML. Changes in revision spine fusion rates at all levels in the United States from 1990-2003. Poster No. P394 presented at the 73rd Annual Meeting of the AAOS, Chicago, IL, March 22-26, 2006.

Lau E, Mowat F, Ong K, Zhao K, Halpern M, Kurtz S. The future burden of hip and knee revisions: U.S.

projections from 2005 to 2030. Paper No. PAPR403 presented at the 73rd Annual Meeting of the AAOS, Chicago, IL, March 22-26, 2006.

Lau E, Mowat F, Ong K, Halpern M, Kurtz S. The future burden of hip and knee revisions: U.S. projections from 2005 to 2030. Scientific exhibit No. SE53 presented at the 73rd Annual Meeting of the AAOS, Chicago, IL, March 22-26, 2006.

Kurtz SM, Lau E, Ong K, Mowat F, Halpern M. Nationwide trends in revision surgery caseload in the U.S. from 1990 to 2003. Paper No. 179 presented at the 52nd Annual Meeting of the Orthopedic Research Society (ORS), Chicago, IL, March 19-22, 2006.

Kurtz SM, Lau E, Ong K, Mowat F, Halpern M. The future revision burden in the United States: National projections from 2005 to 2030. Paper No. 1576 presented at the 52nd Annual Meeting of ORS, Chicago, IL, March 19-22, 2006.

Ong KL, Lau EL, Mowat FS, Kurtz SM, Chin KL, Villarraga ML. Age and gender prevalence of revision spine fusion rates in the United States from 1990 to 2003. Poster No. 1265 presented at the 52nd Annual Meeting of ORS, Chicago, IL, March 19-22, 2006.

Mowat F. Exposure simulation for asbestos products. Presented at the 15th Annual Joint Conference of the California Industrial Hygiene Council and the American Society of Safety Engineers, San Francisco, CA, December 5-7, 2005.

Lau, E., Mowat F, Ong K, Halpern M, Kurtz S. Primary and revision hip and knee arthroplasty rates in minority populations of the United States (1990-2003). Presented at the 15th Annual Meeting of the AAHKS, Dallas, TX, November 4-6, 2005.

Lau, E., Mowat F, Ong K, Halpern M, Kurtz S. The future revision burden for hip and knee arthroplasty in the U.S.: Projections from 2005 to 2030. Presented at the 15th Annual Meeting of the AAHKS, Dallas, TX, November 4-6, 2005.

Mowat FS, Yarborough CM. Nanotoxicity: What can we learn from other small particles and fibers? Presented at the 2nd International Symposium on Nanotechnology and Occupational Health. Proceedings and Final Program, p. 69, Minneapolis, MN, October 3-6, 2005.

Tsuji JS, Mowat FS. Potential benefits and hazards of nanotechnology in water. Session on Natural Poisons and Unnatural Products. American Water Works Association Annual Conference, San Francisco, CA, June 12-16, 2005.

Sheehan P, Brorby G, Kalmes R, Mowat F, Richter R, Finley B. Characterization of the cumulative exposures of U.S. automobile brake mechanics. Presented at AIHce, Anaheim, CA, May 23-26, 2005.

Finley B, Mowat F, Richter R, Brorby G, Craven V, Sheehan P. Evaluation of proposed threshold doses for chrysotile exposure and respiratory disease. Presented at the 44th Annual Meeting of SOT, New Orleans, LA, March 6-10, 2005.

Kurtz S, Mowat F, Ong K, Chan N, Lau E, Halpern M. The revision burden for hip and knee arthroplasty in the United States. Presented at the 72nd Annual Meeting of the AAOS, Washington, DC, February 23-27, 2005.

Mowat FS, Ong KL, Chan N, Lau E, Halpern M, Kurtz SM. Economic burden of hip and knee arthroplasty procedures to the Medicare population. Presented at the 51st Annual Meeting of ORS, Washington, DC, February 20-23, 2005.

Kurtz SM, Mowat FS, Ong KL, Chan N, Lau E, Halpern M. Total hip and knee arthroplasty rates in the U.S.: Implications for a national registry. Presented at the 51st Annual Meeting of ORS, Washington, DC,

February 20-23, 2005.

Finley BL, Richter RO, Mowat FS, Mlynarek S, Paustenbach DJ, Warmerdam JL, Sheehan PJ. Cumulative occupational asbestos exposures of U.S. brake repair mechanics. Abstract T6.2, pp. 62-63. Presented at the Society of Risk Analysis Annual Meeting, Palm Springs, CA, December 5-8, 2004.

Mowat FS, Bono M, Lee RJ, Paustenbach D. Occupational exposure to airborne chrysotile asbestos during use of a historic phenolic molding compound (BMMA-5353). Abstract W2Dp 01, p. 348, presented at the 15th Annual Meeting for the International Society of Exposure Assessment, Philadelphia, PA, October 17-21, 2004.

Mowat FS, Bono M, Paustenbach D. Occupational exposure to airborne chrysotile asbestos during normal use and removal of mastics, coatings, and adhesives. Abstract W2D-02, p. 297. Presented at the 15th Annual Meeting for ISEA, Philadelphia, PA, October 17-21, 2004.

Mowat FS, Bono M, Paustenbach D. Occupational exposure to airborne chrysotile asbestos during use and removal of mastics, coating, and adhesives (circa 1940s-present day). Toxicologist 78(S-1):525. Presented at the 43rd Annual Meeting of SOT, Baltimore, MD, March 21-25, 2004.

Santamaria A, Li A, Mowat F, Cushing C, Finley B. Potential neurological effects of Manganese exposure during welding: a "state-of-the-science" review. Toxicologist 78(S 1):394. Presented at the 43rd Annual Meeting of SOT, Baltimore, MD, March 21-25, 2004.

Mowat FS, Bundy KJ. An approach to identifying contributors to toxicity and prioritizing pollutants in sediment mixtures. Abstract P247, p. 207. Presented at the 23rd Annual meeting of the Society of Environmental Toxicology and Chemistry (SETAC), Salt Lake City, UT, November 16-20, 2002.

Bundy KJ, Jacob JT, Shettlemore MG, Bi J, Mowat FS. Biosensor hydrogels based on biomolecular recognition principles. Proceedings, Annual Conference of the Institute of Biological Engineering, Volume 3. Eiteman M, Cuello J, Nokes S, Richard T (eds), p. 89, Baton Rouge, LA, January 18-21, 2002.

Mowat FS, McConathy BM, Kalies E, Linder G, Godsey D. Incorporating bioavailability information for metals into food-chain models. Presented at the 22nd Annual Meeting of SETAC, Baltimore, MD, November 11-15, 2001.

Bernhard TS, Pound M, Linder G, Mowat F. The derivation and application of toxicity reference values derived by the Navy and EPA Region 9 BTAG. Presented at the Northern California Chapter of SETAC, Santa Cruz, CA, June 17-19, 2001.

Bundy KJ, Shettlemore MG, Mowat FS, Jacob JT, Bi J. Technology transfer between the fields of biomaterials and environmental science. Presented at the 6th World Biomaterials Congress, Kamuela, HI, May 15-20, 2000.

Mowat FS, Bundy KJ. A novel approach for prioritizing pollutant influences in mixtures. Presented at the 4th Annual Environmental State of the State Conference, p. 36, New Orleans, LA, November 5, 1999.

Bundy KJ, Mowat FS, Shettlemore MG, Jacob JT. Feasibility of hydrogel biosensors for environmental contaminant monitoring. Abstract PMP043, p. 150. Presented at the 20th Annual Meeting of SETAC, Philadelphia, PA, November 14-18, 1999.

Mowat FS, Taverna PJ, Shettlemore MG, Bundy KJ. Monitoring sediment and aquatic toxicity under field conditions. p. 75. In: Abstract Book of the ASTM Ninth Symposium on Environmental Toxicology and Risk Assessment: Recent Achievements in Environmental Fate and Transport. Seattle, WA, April 19-21, 1999.

Mowat FS, Shettlemore MG, Bundy KJ. Toxicity assessment directly in the field. Abstract PTA228, p. 205. In: Abstract Book of the 19th Annual Meeting of SETAC, Charlotte NC, November 15-19, 1998.

Taverna PJ, Mowat FS, Bundy KJ. Environmental field assessment of Louisiana waterways. p. 36. In: Abstract Book of the 3rd Annual Environmental State of the State, Baton Rouge, LA, November 19, 1998.

Shettlemore MG, Bundy KJ, Mowat FS. Toxicity of corrosion products from orthopedic metals using a bacterial assay. Presented at the 1998 Annual Meeting of the Society for Biomaterials, San Diego, CA, April 22-26, 1998.

Bundy K, Mowat F, Taverna P, Shettlemore M. Toxicity assays and chemical analysis under field conditions. Abstract 3B/004, p. 46. Presented at the 8th Annual Meeting of SETAC-Europe, Bordeaux, France, April 14-18, 1998.

Shettlemore M, Bundy K, Mowat F, Greene M. Bioluminescent bacterial assays of implant corrosion product toxicity. Proceedings, 16th Southern Biomedical Engineering Conference, pp. 190-193, Biloxi, MS, April 4-6, 1997.

Bundy K, Mowat F. Speciation, complexation, and sorption effects of toxicity of heavy metal mixtures in water and sediment. Abstract 152, pp. 28-29. Presented at the 17th Annual Meeting of SETAC, Washington DC, November 17-22, 1996.

Bundy K, Mowat F, Taverna P. Direct sensing of heavy metal concentrations, speciation, and toxicity in the field. Presented at the Defense Nuclear Agency Bioenvironmental Research Program, New Orleans, LA, June 6, 1996.

Bundy K, Mowat F. Speciation and toxicity studies of complex heavy metal mixtures. Proceedings, Hazardous Substance Research Consortium and Waste Management Education Research Consortium Joint Conference on the Environment. Erickson LE, et al. (Eds.), p. 3547, Albuquerque, NM, May 21-23, 1996.

Bundy K, Mowat F, Berzins D. Laboratory and field methodology for speciation studies and toxicity assessment of complex heavy metal mixtures. Presented at the DNA Bioenvironmental Research Program, New Orleans, LA, June 15, 1995.