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PROFESSIONAL EXPERIENCE

Synapse Energy Economics Inc, Cambridge, MA. Associate, 2008 – present.

Consults and provides analysis of technologies and policies, electric policy modeling, evaluation of air emissions of electricity generation, and other topics including energy efficiency, consumer advocacy, environmental compliance, and technology strategy within the energy industry.

Conducts analysis in utility rate-cases focusing on reliability metrics and infrastructure issues and analyzes the benefits and costs of electric and natural gas energy efficiency measures and programs.

Environmental Health and Engineering, Newton, MA. Senior Scientist, 2001 - 2008.

Managed complex EPA-mandated abatement projects involving polychlorinated biphenyls (PCBs) in building-related materials. Provided green building assessment services for new and existing construction projects. Communicated and interpreted environmental data for clients and building occupants. Initiated and implemented web-based health and safety awareness training system used by laboratories and property management companies.

The Penobscot Group, Inc, Boston, MA. Analyst, 1994-2000.

Authored investment reports on Real Estate Investment Trusts (REITs) for buy-side research boutique. Advised institutional clients on REIT investment strategies and real estate asset exchanges for public equity transactions. Wrote and edited monthly publications of statistical and graphical comparison of coverage universe.

Harvard University Extension School, Cambridge, MA. Teaching Assistant, 1995-2002.

Teaching Assistant for Environmental Management I and Ocean Environments.

Brigham and Womens Hospital, Boston, MA. Cancer Laboratory Technician, 1992 - 1994.

Studied the biological mechanism of tumore eradication in mouse and human models.

Organized and performed immunotherapy experiments for experimental cancer therapy.

Analyzed and authored results in peer-reviewed scientific journals.

EDUCATION

Harvard University, MS, Environmental Science and Engineering, 2000.

Cornell University, BA, Biology/Classics, 1992.

REPORTS

Chang M, White D, Johnston L, and Biewald B. October 2010. *Electricity Energy Efficiency Benefits of RGGI Proceeds: An Initial Analysis*. Prepared for Regulatory Assistance Project.

Fisher J, Levy J, Kirshen P, Wilson R, Chang M, Kallay J, and James C. March 2010. *Co-Benefits of Energy Efficiency and Renewable Energy in Utah*. Prepared for the State of Utah Energy Office.

Napoleon A, Steinhurst W, Chang M, Takahashi K, Fagan R, et al. February 2010. *Assessing the Multiple Benefits of Clean Energy: A Resource for States*. Prepared for the U.S. Environmental Protection Agency.

Hornby RJ, Chernick P, Swanson CV, White DE, Goodman I, Grace B, Biewald BE, James CA, Warfield B, Gifford J, and Chang MP. 2009. *Avoided Energy Supply Costs in New England: 2009 Report*. Prepared for Avoided-Energy-Supply-Component Study Group.

Biewald BE, White DE, Fisher J, Chang MP, Johnston L. 2009. *Incorporating Carbon Dioxide Emissions Reductions in Benefit Calculations for Energy Efficiency: Comments on the Department of Energy's Methodology for Analysis of the Proposed Lighting Standard*. Prepared for the New York State Attorney General.

ARTICLES

Barry BE, Chang MP, Bloom SB, Moss NE, Dilwali KW, Bates CB. 2002. Assessment of exposures to airborne toxic chemicals and the development or exacerbation of asthma in the general population. In: *Indoor Air 2002: Proceedings of the 9th International Conference on Indoor Air Quality and Climate Vol. 1*. Levin H, ed. Santa Cruz, CA: Indoor Air 2002, pp.125-130.

Coghlan KM, Chang MP, Jessup DS, Fragala MA, McCrillis K, and Lockhart TM. 2002. Characterization of polychlorinated biphenyls in building materials and exposures in the indoor environment. In: *Indoor Air 2002: Proceedings of the 9th International Conference on Indoor Air Quality and Climate Vol. 4*. Levin H, ed. Santa Cruz, CA: Indoor Air 2002, pp.147-152.

Chang MP, Coghlan KM, and McCarthy JF. 2002. Remediating PCB-containing building products; strategies and regulatory considerations. In: *Indoor Air 2002: Proceedings of the 9th International Conference on Indoor Air Quality and Climate Vol. 4*. Levin H, ed. Santa Cruz, CA: Indoor Air 2002, pp.171-176.

Burger, U.L., Chang, M.P., Goedegebuure, P.S., Eberlein, T.J., (1994) Recruitment of host CD8+ T cells by tumor- infiltrating lymphocytes and recombinant interleukin-2 during adoptive immunotherapy of cancer. *Surgery*. (117), 325-333.

Goedegebuure, P.S., Zuber, M., Leonard-Vidal, D.L., Burger, U.L., Cusack, J.C., Chang, M.P., Douville, L.M., Eberlein, T.J., (Re)Activation of murine tumor-infiltrating lymphocytes with solid phase anti-CD3 antibody: in vitro cytokine production is associated with in vivo efficacy. *Surgical Oncology*. (1994);3: 79-89.

Smith, B.L., Bertagnolli, M., Klein, B.B., Batter, S., Chang, M.P., Douville, L.M., Eberlein, T.J., Evaluation of the contralateral breast. The role of biopsy at the time of treatment of primary breast cancer. *Annals of Surgery*. (1992 Jul.); 216(1); 17-21.

ABSTRACTS

Koehler, Dinah, Chang, Max (1999) Search and Disclosure: Corporate Environmental Reports. *Environment*. 41(2); 3.

Makoto Nagoshi, Peter S. Goedegebuure, Ulrike L. Burger, Maximilian P. Chang, Timothy J. Eberlein., Successful adoptive immunotherapy (AIT) is dependent on the infiltration of host CD8+ and CD4+ T cells into tumor. *Surgical Forum* (1995); 66, 528-531.

Burger, U.L., Chang, M.P., Goedegebuure, P.S., Eberlein, T.J., Changes in host T-cell concentrations but not in donor TIL concentrations at the tumor site following adoptive immunotherapy. *Surgical Forum*. (1994); 65.

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Zuber, M., Leonard-Vidal, D.L., Rubinstein, A.L., Massaro, A.F., Chang, M.P., Schoof, D.D., Eberlein, T.J., In vivo efficacy of murine tumor-infiltrating lymphocytes (TIL) reactivated by anti-CD3. *Journal of Cancer Research and Clinical Oncology*. (1990); 116; A3.112.28.

Eberlein, T.J., Massaro, A.F., Jung, S., Rubinstein, A.L., Burger, U.L., Chang, M.P., Schoof, D.D., Cyclophosphamide (Cy) immunosuppression potentiates tumor-infiltrating lymphocytes (TIL) therapy in the mouse. *Proceedings Annual Meeting: American Association Cancer Research*. (1989); A30.A1472.

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