

Shelley Weinstock, PhD, CNS
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EDUCATION

PhD, 1982	Massachusetts Institute of Technology, Cambridge, MA Nutritional Biochemistry and Metabolism, Neuroendocrine Regulation
BA, 1976	Bard College, Annandale-on-Hudson, NY, Chemistry
Postdoctoral Fellow 1982-1985	Harvard School of Public Health, Boston, MA
Certification	Board for the Certification of Nutrition Specialists, National
Fellowships	American College of Nutrition, National New York Academy of Medicine, NYC Health Information Technology LAB, NYC
Other Training	Institute of Functional Medicine, Applying Functional Medicine in Clinical Practice

PROFESSIONAL EXPERIENCE

2010–present - Teaching Faculty/Officer, Columbia University Medical Center, Institute of Human Nutrition, NY, NY

- Course Co-Director, Tutorial in Clinical Practice, Biochemistry and Physiology, Topics in Public Health Nutrition, Clinical Nutrition
- Academic and career advisor, MS program
- Outreach and development, alumni relations, national recruitment

2009-present - Consultant

- **Massachusetts Institute of Technology Langer Labs** - Leads all aspects of clinical trial planning and development for proprietary vitamin technology including vendor contracting, protocol development, data collection and analysis, progress reports. For technology, define lead product, determine the target markets, develop plans to transition the project from research to a commercial entity either for profit or non-profit
- **Bill and Melinda Gates Foundation (BMGF)** – Lead nutrition scientist along with BMGF nutrition team on wheat and bouillon fortification. KOL interaction, strategic planning, ensuring scientific rigor of outside projects including clinical studies, team tastings, vendor coordination, data collection and analysis, medical writing, presentation development
- **Kraft Foods** – Expert panelist for product development of Belvita
- **Schlesinger Associates** - Market research, focus groups for proprietary product
- **Eisai, Co. and Sui Generis Health**– Market research including focus groups with MD's for weight loss drug, Belviiq, data analysis and report

- Ingredient1 - Advisor to CEO on product development, direction, planning, recruitment
- **Breathable Foods** - New product research and development, project management, marketing and outreach, clinical trial development.

2011–present - Clinical Nutrition Specialist, African Services Committee, NY, NY

- Direct 5 year NYDHMH AIDS Institute grant funded program to provide nutrition education to HIV/AIDS immigrants of African and Caribbean descent including education curriculum development, implementation, interaction with clients, quality assurance evaluation, data collection and analysis, oversees monthly and yearly report writing
- Advised and edited competitive grant renewal for NYDHMH AIDS Institute
- Co-wrote grant to NY State Hunger Prevention and Nutrition Assistance Program

2012–2014 - Chief Scientific Officer, Ubisol-Aqua, LLC, Hasbrouck Heights, NJ

- Served as Scientific Officer to management team
- Represented company nationally and internationally, including partnering with the National Research Council of Canada
- Research and development of new medical food for Parkinson's disease and migraines, responsible for meeting clinical and regulatory objectives, managed IP portfolio, grant writing, vendor hiring and management, budget planning, medical writing
- Designed clinical trials and developed protocols for medical food product, Ubisol-QE
- Provided ongoing scientific training and consultation to company's scientific and marketing teams

2009–2011 - Senior Vice President, Clinical and Scientific Affairs, Zymes LLC, Hasbrouck, Heights, NJ

- Principal Investigator, Michael J. Fox Foundation Therapeutic Development Initiative Grant for preclinical studies of medical food for Parkinson's disease, designed and executed preclinical studies, data analysis, progress reports, medical writing
- Strategic planning and execution of new solubilization method development for drug and nutritional products
- Directed research and development of nutritionally enhanced beverages
- Managed IP portfolio and all regulatory affairs

2005–2009 - Director, Clinical and Scientific Affairs, Zymes LLC, NJ

- Research and development of solubilization technology for drugs and nutrients
- Designed and supervised preclinical studies on new formulations of coenzyme Q10 and omega-3s, data collection and analysis, report writing

1998–2005 – Consultant, Scientific Writer, Educator, South Orange, NJ

- Consultant – Market Research, product development
- Freelance writing, editing – Books, journals
- Chemistry faculty – Joseph Kushner Hebrew Academy

1994–1998 - Assistant Professor, Department of Chemistry, Montclair State University, Montclair, NJ

- Taught Biochemistry, Organic Chemistry and Introductory Chemistry
- Thesis mentor for BS and MS students
- Grant supported research on tissue engineering of pancreatic beta cells

1985–1994 - Assistant Professor, Department of Chemistry, Barnard College, Columbia University, New York, NY

- Wrote and awarded grants from NIH, US Navy, Johnson and Johnson
- Grant supported research on liver physiology during perfluorocarbon- based artificial blood perfusion in a rodent model
- Mentored over 30 research thesis projects

1991 - Visiting Professor, Langer Labs, MIT, Cambridge, MA

- Participated in research and development of cartilage cell/polymer for implantation that led to formation of a new company, Neomorphogenesis

1982-1985 - NIH Post-doctoral Research Fellow, Departments of Physiology and Nutrition; Post-doctoral Research Fellow, Institute for Environmental and Health Policy, Harvard School of Public Health, Boston, MA

- Researched liver phagosomal metabolism in rodent model
- Wrote on environmental impact on physiology
- Biology tutor, Harvard University

1977-1982 - NIH Pre-doctoral Research Fellow, MIT, Cambridge, MA

- Thesis research on statins and cholesterol metabolism
- Teaching assistant, Biochemistry Laboratory Techniques

OTHER PROFESSIONAL ACTIVITIES

- Private practice – Individual and group practice for adults, teens and pediatrics focusing on nutrition and behavior change, chronic disease (HIV, cancer, diabetes), weight control, eating disorders
- Peer reviewer, Biomaterials, Journal of the American College of Nutrition, American Society of Nutrition, NIH

Professional memberships

- New York Academy of Medicine, Elected Fellow
- American College of Nutrition, Elected Fellow, Board of Directors
- Health Innovation Technology LAB (HITLAB), Elected Fellow
- New York Academy of Sciences, Member; Global Stem Alliance, 1000 Girls, 1000 Futures, Mentor
- American Society for Nutrition
- Academy of Nutrition and Dietetics

- Past member: AAAS, American Association of University Women, American Chemical Society, American Society for Artificial Internal Organs, International Society for Artificial Cells, Blood Substitutes, and Immobilization Biotechnology, Sigma Xi

Recent Conferences

- Institute of Functional Medicine, Applying Functional Medicine in Clinical Practice, Washington, DC, 2017
- Micronutrient Forum Global Conference, ‘Positioning Women’s Nutrition at the Centre of Sustainable Development, Cancun, Mexico 2016
- American College of Nutrition, “Translational Nutrition: Optimizing Brain Health, Orlando, FL, 2015
- NutritionPro, Medical Nutrition Therapy in Practice, Orlando, FL 2015
- American College of Nutrition, “Turning Research into Practice”, San Antonio, TX 2014
- American College of Nutrition, “Controversies in Nutrition”, San Diego, CA 2013
- Assessing Malnutrition Globally, NYC 2013
- American Society of Nutrition, Boston, April 2013
- American College of Nutrition, “Overfed and Undernourished”, November 2012
- New York Academy of Sciences, Sixth Annual Parkinson’s Disease Therapeutic Conference, October 2012
- Healthy Kitchens, Healthy Lives, Culinary Institute of America and Harvard Medical School, March 2010
- AAFP – Nutrition and Heart Disease, May 2010

Selected Speaking Engagements

- Cornell University Medical College, 2013, Medical Foods, A Case Study.
- Michael J. Fox Foundation, 2013 - Evaluation of neuroprotective ability of Zymes' water-soluble CoQ10 in animal models of PD: preclinical validation and dose optimization for clinical study.
- Overlook Hospital psychiatric outpatient clinic, 2011 - Food and Mood
- Michael J. Fox Foundation, 2011 – Progress report: Evaluation of neuroprotective ability of Zymes' water-soluble CoQ10 in animal models of PD: preclinical validation and dose optimization for clinical study.
- Gerontology Society of America 2010 –Inhibition of premature senescence of fibroblast cells from Alzheimer’s Disease Patients by water-soluble coenzyme Q10.
- Experimental Biology 2010 - Protection of SNpc neurons by water soluble CoQ10 in paraquat-induced rat model of Parkinson's disease: the role of neurotrophic factors.
- Invited speaker, NJ Technology Center Forum on Nanotechnology in Foods, Drugs and Cosmetics, March 2009
- Invited speaker, 12 Annual Drug Delivery Technologies and Deal Making, New Brunswick, NJ, September 2007

SELECTED PUBLICATIONS

- Muthukumaran K, Leahy S, Harrison K, Sikorska S, Sandhu, JK, Cohen, J, Keshan C, Lopatin D, Miller H, Borowy-Borowski H, Lanthier P, Weinstock S, Pandey S. Orally delivered water-soluble Coenzyme Q10 (Ubisol-Q10) blocks on-going neurodegeneration in rats exposed to paraquat: potential for therapeutic application in Parkinson's disease. *BMC Neuroscience* 2014; 15(1):21.
- Lee, KY, Bae, ON, Weinstock S, Kassab M, Majid A. Neuroprotective effect of Asiatic acid in rat model of focal embolic stroke. *Biol Pharm Bull.* 2014;37(8):1397-401.
- Muthukumaran K, Leahy S, Harrison K, Sikorska M, Sandhu JK, Cohen J, Keshan C, Lopatin D, Miller H, Borowy-Borowski H, Lanthier P, Weinstock S, Pandey S Orally delivered water soluble Coenzyme Q10 (Ubisol-Q10) blocks on-going neurodegeneration in rats exposed to paraquat: potential for therapeutic application in Parkinson's disease. *BMC Neurosci.* 2014 Jan 31;15:21. doi: 10.1186/1471-2202-15-21.
- Cherry CL, Mobarok M, Wesselingh SL, Fain R, Weinstock S, Tachedjian G, Srivastava S, Tyssen DP, Glass JD, Hooker DJ. Coenzyme Q10 is Superior to Acetyl-L-Carnitine for Preventing NRTI-Associated Toxic Neuropathy in an *in vitro* *Curr HIV Res.* 2010 Apr;8(3):232-9.
- Beach, MC, Morley, J, Spiryda, L and Weinstock, SB. "Effects of liposome encapsulated hemoglobin on the reticuloendothelial system." *Biomaterials, Artificial Cells, and Immobilization Biotechnology Journal* 20: 2-4, 1992.
- Bottalico, L, Betensky, HT, Min, YB, and Weinstock, SB. "Perfluorochemical emulsions decrease Kupffer cell phagocytosis." *Hepatology* 14: 169-174, 1991.
- Betensky, HT and Weinstock, SB. "Effects of Fluosol-DA on ⁵¹Cr-Sheep red blood cells clearance in the rat *in vivo* and in the isolated perfused liver." *Artificial Organs* 14(3): 208-210, 1990.
- Weinstock, SB, and Bottalico, L. "Effects of perfluorochemical emulsion on particle clearance in the isolated perfused rat liver." In: *Blood Substitutes*. Chang, TMS, and Geyer, RP, eds. Marcel Dekker, NY, 687-689, 1989.
- Weinstock, SB, and Brain, JD. "Comparison of particle clearance and macrophage phagosomal motion in liver and lungs of rats." *J. Appl. Physiol.* 65(4): 1811-1820, 1988.
- Weinstock, SB, and Beck, B. "Effects of age and nutrition on non-neoplastic lung disease." In: *Variations in Susceptibility to Toxic Agents in the Air: Identification, Mechanisms and Policy Implications*. Brain, JD, Beck, B, Warren, J, and Shaikh, R, eds. Johns Hopkins Press, Baltimore, MD, 104-126, 1988.
- Beck, B. and Weinstock, SB. "Effects of gender on non-neoplastic lung disease." In: *Variations in Susceptibility to Toxic Agents in the Air: Identification, Mechanisms and Policy Implications*. Brain, JD, Beck, B, Warren, J, and Shaikh, R, eds. Johns Hopkins Press, Baltimore, MD, 127-141, 1988.
- Warren, J, and Weinstock, SB. "Effects of aging on neoplastic lung disease." In: *Variations in Susceptibility to Toxic Agents in the Air: Identification, Mechanisms and Policy*

Implications. Brain, JD, Beck, B, Warren, J, and Shaikh, R, eds. Johns Hopkins Press, Baltimore, MD, 253-268, 1988.

- Weinstock, SB, Brain, JD, and Geyer, RP. "Measurements of phagosomal motion by non-invasive magnetometry in Kupffer cells of rats treated with perfluorochemicals." In: Cells of the Hepatic Sinusoid, Vol. 1, Kupffer Cell Foundation, The Netherlands, 33-34, 1986.
- Weinstock, SB, Kopito, RR, Tomera, JF, Marnier, E, Murray, DM, and Brunengraber, H. "The shunt pathway of mevalonate metabolism in the isolated perfused rat liver." J. Biol. Chem. 259 (14): 8939-8944, 1984.
- Kopito, RR, Weinstock, SB, Freed, LE, Murray, DM, and Brunengraber, H. "Metabolism of plasma mevalonate in rats and humans." J. Lipid Res. 23: 577-583, 1982.
- Brunengraber, H, Weinstock, SB, Story, DL, and Kopito, RR. "Urinary clearance and metabolism of mevalonate by the isolated perfused rat kidney." J. Lipid Res. 22: 916-920, 1981.
- Weinstock, SB, Brunengraber, H, Imamura, T. "Effect of insulin on lipogenesis and glycolysis in the perfused rat lung." The Pharmacologist 22: 202, 1980.
- Clifton, D, Weinstock, SB, Fraenkel, D. "The isolation of glycolysis mutants in *S. Cerevisiae*." Genetics 88: 11, 1978.