

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
Board Certification Elected Fellowships	Certified Nutrition Specialist, National American College of Nutrition, National New York Academy of Medicine, NYC Health Information Technology LAB, NYC

PROFESSIONAL EXPERIENCE

Weinstock Nutrition, LLC, Owner/President, South Orange, NJ

2009-present

Selected Clients

- **Massachusetts Institute of Technology, Langer Labs** – Lead for all aspects of clinical trial planning and execution for proprietary vitamin technology including vendor contracting, protocol development, data collection and analysis, progress reports. Help 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. Work with Bill and Melinda Gates Foundation on wheat and bouillon fortification with new technology of micronutrients, planning clinical and in country pilot studies
- **Health Science Communications** – Expert advisor for new obesity drug
- **Vitamin IQ** – Scientific Advisory Board member of health start-up featuring mobile app for personalized nutrition
- **Kraft Foods** – Expert panelist for product development of Belvita
- **Schlesinger Associates** - Market research, focus groups for proprietary product
- **Sui Generis Health and Eisai, Co.** - Research including focus groups with MDs for weight loss drug, Belviq
- **Ingredient1** - Advisor to CEO on product development, direction, planning, recruitment
- **Breathable Foods** - New product research and development, strategic planning, project management, marketing and outreach, clinical trial development
- **Others** – Heron Therapeutics, African Services Committee

Private practice

- Individual and group practice for all ages focusing on nutrition and chronic disease, weight control, eating disorders, nutrient deficiencies, food allergies, special diets, accepts health insurance

African Services Committee, Clinical Nutrition Specialist and Director, NY/Ethiopia 2011–Present

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

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

- 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

Columbia University Medical Center, Officer, Institute of Human Nutrition NY, NY 2014–2019

- **Academic Advisor and Director of Career Services** – MS program
- **Teaching** - Nutritional Biochemistry and Physiology, Clinical Nutrition, Topics in Public Health Nutrition, Structured Observation in Clinical Practice.

Zymes LLC, Sr. Vice President, Clinical and Scientific Affairs, Hasbrouck Heights, NJ 2009–2011

- 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, research and development, including IP portfolio and regulatory affairs
- Research and development of nutritionally enhanced beverages

Zymes LLC, Director, Clinical and Scientific Affairs, Hasbrouck Heights, NJ. 2005–2009

- 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

Consultant and Scientific Writer, South Orange, NJ 2000 - 2005

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

- Taught Biochemistry, Organic Chemistry and Introductory Chemistry
- Thesis mentor for 10 MS students

Barnard College Dept. of Chemistry, Columbia University, Assistant Professor, NY, NY 1985 -1994

- Taught Biochemistry and Chemistry
- Wrote and received grants from NIH, US Navy, Johnson and Johnson
- Mentored over 30 research thesis projects

Massachusetts Institute of Technology, Langer Labs, Visiting Professor, Cambridge, MA 1991

- Research and development of cartilage cell/polymer for implantation

Harvard School of Public Health, Boston, MA 1982-1985

NIH Post-doctoral Research Fellow, Departments of Physiology and Nutrition
Post-doctoral Research Fellow, Institute for Environmental and Health Policy
Teaching Fellow – Biology

Massachusetts Institute of Technology, NIH Pre-doctoral Research Fellow, Cambridge, MA

1977-1982

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

- American Society for Nutrition, online, 2020
- American College of Nutrition, online, 2020
- Obesity: Etiology, Prevention and Treatment, New York, NY, 2017, 2018, 2019
- Personalized Nutrition: Translating the Science of NutriGenomics into Practice, Seattle, WA 2018
- The 14th US-Japan Symposium on Drug Delivery Systems, Maui, Hawaii, 2017
- Disrupting Cancer: The Role of Personalized Nutrition, Alexandria, VA, October 2017
- Institute of Functional Medicine, Applying Functional Medicine in Clinical Practice, June 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 American and Harvard Medical School, March 2010
- AAFP – Nutrition and Heart Disease, May 2010

SELECTED SPEAKING ENGAGEMENTS

- Cornell University Medical College, Medical Foods, A Case Study.
- Michael J. Fox Foundation, 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, Food and Mood
- Michael J. Fox Foundation, 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, Inhibition of premature senescence of fibroblast cells from Alzheimer's Disease Patients by water-soluble coenzyme Q10.
- Experimental Biology, 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.
- Invited speaker, 12 Annual Drug Delivery Technologies and Deal Making, New Brunswick, NJ.

SELECTED PUBLICATIONS

- Anselmo AC, Xu X, Burkli S, Zeng YY, Tang W, McHugh KJ, Behrens AM, Rosenberg E, Duan A, Sugarman JL, Zhuang J, Collins J, Lu X, Graf T, Tzeng S, Rose S, Nguyen T, Le X, Guerra AS, Freed LE, Weinstock S, Sears C, Nikolic B, Wood L, Oxley J, Moretti D, Zimmermann M, Langer R, Jaklenec A. A heat-stable microparticle platform for oral micronutrient delivery. *Sci. Transl. Med.* 2019; 11(518), eaaw368.
- 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.
- 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.