

Faculty Bio



Joseph L. Witztum, MD

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Joseph L. Witztum, MD is a Distinguished Professor of Medicine in the Division of Endocrinology and Metabolism at the University of California, San Diego. For more than 40 years, Dr. Witztum has made major contributions to the field of atherosclerosis. Alongside Dr. Daniel Steinberg, he first described the role of OxLDL in atherogenesis, providing fundamental information on its properties and evidence that it existed in experimental models and humans. He first showed that oxidized low-density lipoprotein (OxLDL) was immunogenic, leading to both adaptive and innate immune responses to what he termed “oxidation-specific epitopes,” which fundamentally contributed to the concept that atherosclerosis was a chronic inflammatory disease. After discovering the IgM natural antibody E06 that specifically bound and neutralized oxidized phospholipids (OxPL), he and his colleagues have shown the central role of OxPL in mediating inflammation and toxicity in a wide variety of settings. Using transgenic mice that express the E06 antibody, they have shown that targeting OxPL ameliorates many disease processes, including atherosclerosis, NASH, myocardial ischemia-reperfusion, and osteoporosis.

Dr. Witztum has had a career-long interest in lipoprotein metabolism, and has been actively involved in both basic and clinical studies to develop novel therapies for unmet needs, especially in the context of hypertriglyceridemia and elevated Lp(a) levels. Most recently, he has contributed to the development of antisense therapy targeting apoC-III, Lp(a), and ANGPTL3. His research has resulted in more than 500 manuscripts and has an h-index of 167. Dr. Witztum has been an Editor of major scientific journals for over 35 years, including being Editor-in-Chief of the *Journal of Lipid Research*.

Dr. Witztum received his Bachelor's Degree from Vanderbilt University, his MD from Washington University School of Medicine in St. Louis, and his residency training at Mt. Sinai Hospital in New York City. This was followed by a fellowship and faculty position in Endocrinology and Metabolism at Washington University School of Medicine. He has been at UCSD since 1979.