



## Paul T. Henderson, Ph.D.

**Clinical Interests** Mechanisms of cellular response to oxidative stress, drug and carcinogen metabolism, pharmacokinetics assay development, mass spectrometry, HPLC. Dr. Henderson is pursuing the development of advanced diagnostics with the goal of predicting patient response to cancer drugs prior to initiation of toxic chemotherapy. The diagnostics development is enabled by accelerator mass spectrometry (AMS), an ultrasensitive technology for detecting rare isotopes such as radiocarbon and tritium in biological samples. AMS is also useful for measuring pharmacokinetics of small drug doses in humans, which Dr. Henderson is applying to drug development and drug formulation studies. Another project involves the incorporation of hydrophobic drugs and membrane proteins into nanoparticles made of apolipoproteins and phospholipids called nanolipoprotein particles (NLPs). NLPs closely mimic the cellular membrane bilayer, and render hydrophobic molecules water soluble. Dr. Henderson is using NLPs for drug delivery and protein biochemistry studies that are related to breast cancer research.

**Title** Associate Adjunct Professor

**Specialty** [Cancer](#), Hematology Oncology, Internal Medicine

**Department** [Internal Medicine](#)

**Division** Hematology and Oncology

**Clinic** UC Davis Cancer Center

**Center/Program Affiliation** [UC Davis Comprehensive Cancer Center](#)

**Education** Ph.D., Georgia Institute of Technology, Atlanta, Georgia, 1999  
B.S., University of Florida, Gainesville, Florida, 1992

**Professional Memberships** American Association for Advancement of Science  
American Association for Cancer Research  
American Chemical Society  
Environmental Mutagen Society

**Select Recent Publications** For a comprehensive list of Dr. Henderson's publications, please [click here](#) (opens new window).

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