Curriculum Vitae

Current affiliation and complete mailing address

Membrane Biophysics Section
Laboratory of Computational Biology
National Heart, Lung, and Blood Institute
National Institutes of Health
Bethesda, MD 20892 MSC 9314

Positions Held

August 1974 - September 1985
Chemist, Division of Drug Chemistry
Food & Drug Admin., Bureau of Drugs

October 1985 – May 2006
Chemist, Laboratory of Biophysics
Food & Drug Admin., CBER/OVRR/DBPAP

May 2006 – present
Research chemist, Lab. of Computational Biology
N.I.H., Natl. Heart, Lung, and Blood Inst.

Education

1969 **B.S.** Pennsylvania State University; chemistry

1973 **M.S.** University of Maryland; theoretical organic chemistry; graduate teaching assistant

1988-1992 Studies in biochemistry, physical biochemistry at American University in Washington, D.C.; Scholastic All-American

Research Interests and Expertise

Current research focuses on computer modeling and simulation of biological molecules, especially lipid membranes and related molecules. Trained in laboratory organic chemistry and instrumental analysis including IR and NMR; evolved toward theoretical modeling, developing skills with computers and several programming languages, notably APL and Fortran. Expert in the use and compiling of the CHARMM program, and skilled with tools for molecular graphics and data visualization. System admin level skills in Linux, and capable of replacing defective parts.

Publications, thesis related

Rearrangements of Bicyclic Carbenes. Temperature Dependence of Product Ratios. Olin, S.S. and Venable, R.M. *Chem. Commun.* **1974**, 104-6 (1974).

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Publications, FDA Div. of Drug Chemistry

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Theoretical Studies of Relaxation of a Monomeric Subunit of HIV-1 Protease in Water Using Molecular Dynamics. Richard M. Venable, Bernard R. Brooks, and Frederick W. Carson, *Proteins* **15**, 374-384 (1993).

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"Molecular and Stochastic Dynamics Simulation of Lipid Membranes", Richard W. Pastor and Richard M. Venable, in *Computer Simulation of Biomolecular Systems: theoretical and experimental applications* (ed. Wilfred F. van Gunsteren, Paul K. Weiner and Anthony K. Wilkinson, ESCOM Science Publishers, Leiden, 1993), pp. 443-463

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