

Frederick W. Carson, Ph.D.

EDUCATION

Ph.D. in Chemistry, University of Chicago (1965)
M.A. in Chemistry, Washington University (1963)
B.S. in Chemistry, Massachusetts Institute of Technology (1961)

PROFESSIONAL EXPERIENCE

1998-1999, 1990-1991: Sabbatical Research Chemist IPA, DCRT, NIH
1995-present: Premedical Programs Coordinator, CAS, American University
1990-1994 Guest Scientist, Biophysics Laboratory, CBER, FDA
1983-1984: Sabbatical Visiting Scientist IPA, Malaria Branch, Naval Med. Res. Institute
1985-1993: Faculty Member, FAES Graduate School, NIH
1971 - present: Associate Professor, Dept. of Chemistry, American University
1970 - 1971: Assistant Professor; Dept. of Chemistry, American University
1966 - 1970: Assistant Professor, Dept. of Chemistry, Indiana University
1965 - 1966: NIH Postdoctoral Fellow, Dept. of Chemistry, Princeton University

GRANTS, AWARDS AND HONORS

2000: University Award for Outstanding Contributions to Academic Development
1995-1998: NIH/NIGMS, Modeling of Leucine Zippers Using Molecular Dynamics, \$108,258
1988-1990: NIH/NIAID, Prediction of AIDS Candidate Vaccine Peptide Structures, \$70,339
1987: Faculty Award for Outstanding Teaching, College of Arts and Sciences
1982: USDI/OWRR, Enzymatic Analysis of Nutrients in Water - Phase III, \$13,590
1981-1982: NFCR, Affinity Labels and Transition-State Analog Inhibitors of Enzymes
Associated with Cancer, \$14,000
1978-1980: NFCR, Studies of the Biochemistry of Cancer, \$57,000
1978-1980: USDI/OWRR, Enzymatic Analysis of Nutrients in Water - Phase II, \$28,834
1974: Young Teacher's Award in Chemistry, DC Institute of Chemists, AIC

PUBLICATIONS

15. R. M. Venable, B. R. Brooks, and F. W. Carson: "Theoretical Studies of Relaxation of a Monomeric Subunit of Human Immunodeficiency Virus Type 1 Protease in Water Using Molecular Dynamics," *Proteins*, **15**, 374-384 (1993).
14. R. M. Venable, R. W. Pastor, B. R. Brooks, and Frederick W. Carson: "Theoretically Determined Three-Dimensional Structures for Amphipathic Segments of the HIV-1 gp41 Envelope Protein," *AIDS Research and Human Retroviruses*, **5**, 7-22 (1989).
13. B. R. Brooks, R. W. Pastor, and F. W. Carson: "Theoretically Determined Three-Dimensional Structure for the Repeating Tetrapeptide Unit of the Circumsporozoite Protein of the Malaria Parasite *Plasmodium falciparum*," *Proceedings of the National Academy of Sciences USA*, **84**, 4470-4474 (1987).
12. J. J. Guth, R. L. Gross and F. W. Carson: "Anomalous Hydrogen-Deuterium Exchange of Cyclic Beta-Ketosulfides," *Journal of Organic Chemistry*, **47**, 2666-2668 (1982).