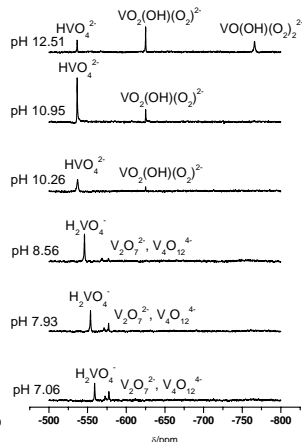
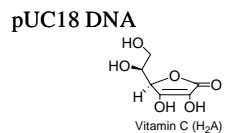
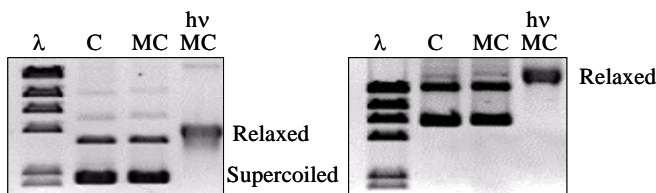
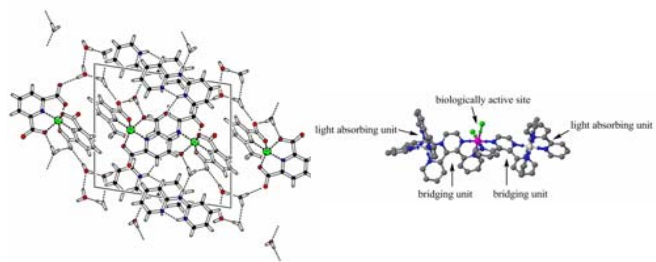




Dr. Alvin A. Holder

Synthesis, Characterization, and Bioinorganic Chemistry of Novel Transition Metal Complexes.



EPR and ^{51}V NMR spectra

Insulin-like vanadium complexes: Design of new analogs of dipicolinic acid and Schiff bases for coordination to vanadium(III/IV/V). Physiological testing on STZ-induced diabetic rats.

Anti-cancer agents: Design of new mixed-metal ruthenium(II){osmium(II)}-containing complexes for DNA photocleavage and inhibition of cell growth.

Vasodilators: Design of NO donors for use in hypertension.

Transition metal complexes of analogs of dipicolinic acid: Design and synthesis.

Physical characterization of various transition metal complexes: Use of X-ray crystallography, EPR, NMR (^{95}Mo , ^{13}C , ^1H , ^{51}V , ^{19}F , and ^{31}P), fluorescence, and electrochemical studies.

Collaborative research in various countries: The Caribbean, Japan, South Korea, U.K., and the U.S.A.