BIOGRAPHICAL SKETCH

Give the following information for the key personnel and consultants and collaborators. Begin with the principal investigator/program director. Photocopy this page for each person.

NAME	POSITION TITLE
Parkhurst, Kay Martin	Research Associate

EDUCATION *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE	YEAR CONFERRED	FIELD OF STUDY
University of Nebraska College of Nursing	B.S./R.N.	5/72	R.N.
University of Nebraska, Lincoln	PhD.	5/91	Chemistry

RESEARCH AND PROFESSIONAL EXPERIENCE: Concluding with present position, list, in chronological order, previous employment, experience, and honors. Key personnel include the principal investigator and any other individuals who participate in the scientific development or execution of the project. Key personnel typically will include all individuals with doctoral or other professional degrees, but in some projects will include individuals at the masters or baccalaureate level provided they contribute in a substantive way to the scientific development or execution of the project. Include present membership on any Federal Government public advisory committee. List, in chronological order, the titles, all authors, and complete references to all publications during the past three years and to representative earlier publications pertinent to this application. If the list of publications in the last three years exceeds two pages, select the most pertinent publications. DO NOT EXCEED TWO PAGES.

Honors and Awards:

Pre-doctoral fellowship, American Heart Association, NE affiliate 7/89 - 6/90

Post-doctoral fellowship, Center for Biotechnology, Univ. NE., Lincoln, 3/91 - 2/93

Publications:

1. K.D. Martin, L. Saari, W. Guang-Xin, T. Wang, L. J. Parkhurst, and R. V. Klucas, "Kinetics and Thermodynamics of Oxygen, Co, and Azide Binding by the Subcomponents of Soybean Leghemoglobin", (1990) J. Biol. Chem. 265, 19588-19593.
2. K.D. Martin and L.J. Parkhurst, "Kinetics and Thermodynamics of Oxygen and Carbon Monoxide Binding to the T-State Hemoglobin of Urechis Caupo", (1990) Biochemistry 29, 5718-5726.
3. K.D. Martin and L.J. Parkhurst, "A Multipass Cuvette for Laser Photolysis Studies and Its Uses in Studying Hemoglobin Kinetics and Equilibria", (1990) Anal. Biochem. 186, 288- 295.
4. K.D. Martin and L.J. Parkhurst, "Rapid Preparation of Native Alpha and Beta Chains of Human Hemoglobin", (1992) Intl. J. Biochem. 24, 993-998.
5. L.J. Parkhurst, K.M. Parkhurst, and T.M. Larsen, "Oxygen Equilibrium Studies on Cyano-Met Valency Hybrids as a Function of Protein Concentration and the Question of the Occurrence of Quaternary Enhancement", (submitted, pre-prints available) J. Biol. Chem.
6. Parkhurst, L. J. and Parkhurst, K. M. (1994), "Changes in the End-to End Distance Distribution in an Oligonucleotide Following Hybridization, Proc. Conf. Time-Resolved Laser Spectroscopy in Biochemistry IV", SPIE 2137, 475-483.
7. Hileman, R. E., Parkhurst, K. M., Gupta, N. K., and Parkhurst, L. J., (1994) "Synthesis and Characterization of Conjugates Formed between Periodate-Oxidized Ribonucleotides and Amine-Containing Fluorophores", Bioconjugate Chemistry 5, 436-444.
8. Parkhurst, K. M., Hileman, R. E., Saha, D., Gupta, N. K., and Parkhurst, L. J., (1994) "Thermodynamic Characterization of the Cooperativity of 40S Complex Formation During the Initiation of Eukaryotic Protein Synthesis", Biochemistry 33 15168-15177.
9. Parkhurst, K. M. and Parkhurst, L. J. (1995), "Kinetic Studies by Fluorescence Resonance Energy Transfer Employing a Double-Labeled Oligonucleotide: Hybridization to the Oligonucleotide Complement and to Single Stranded DNA", Biochemistry 34, 285-292.