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Objective: Seeking a research position in Biophysics.

Education:

B.S., *Cum Laude*, Chemistry, (1989) Longwood College, Farmville, VA., U.S.A.

M.A., Chemistry, (1995) Washington University, St. Louis, MO., U.S.A.

Ph.D., Biophysics, (2003) Boston University, Boston, MA., U.S.A.

Work Experience:

Senior Scientist (Biophysics), National Institute of Biotechnology & Genetic Engineering (Pakistan Atomic Energy Commission), October 2004-present

Written a grant for AccuSync Medical Research Corporation (Milford, Conn. U.S.A.), November 2003-March 2004

Postdoctoral Fellow, Penn State Hershey Medical Center (Hershey, PA., U.S.A.), July 2002-June 2003

Research Assistant, Boston University (Boston, MA., U.S.A.), September 1996-July 2002

Research Assistant/Teaching Assistant, Washington University (St. Louis, MO., U.S.A.), September 1992-June 1996

Research Skills:

Biophysics:

Experienced in the sequential chemical shift assignment of a 133 amino acid protein by the help of 2-D and 3-D NMR spectra

Experienced in the use of methodology employed to solve the structure of a protein using NMR data by distance geometry calculation, simulated annealing and restrained molecular dynamics

Experienced in the expression of ¹⁹F-labeled Fatty Acid Binding Proteins in DL 39 *E. coli* cells

Experienced in isolation of Fatty Acid Binding Proteins from animal tissue and DL 39 *E. coli* cells using Ion Exchange and Size Exclusion Chromatography

Experienced in the preparation of Phosphatidyl Choline Small Unilamellar Vesicles (SUVs)

Experienced in performing fluorimetric assays to measure different biophysical processes in model systems

Chemistry:

Experienced in multi-step organic synthesis involving isolation and spectral characterization of organic compounds

Experienced in the use of HPLC, TLC, FTIR, UV-Vis, ¹H and ¹³C NMR spectroscopy

Experience of Programming Languages, Operating Systems and Software Packages:

Experienced in the use of UNIX and different Windows operating systems

Experience in programming by the use of FORTRAN, PASCAL and C++

Experience in the use of various software packages used for structural biology such as XWIN NMR, NMR View, NMR Draw, Crystallography and NMR Software (CNS) and DYANA

Publications and Published Abstracts (*Total Impact Factor: 14*)

“The Role of Biophysics in Medicine” (manuscript submitted) *Proceedings of the International Symposium on “Physics in Our Lives”*, February 23-24, 2005, Islamabad, Pakistan.

“Solution state structure of a muscle fatty acid binding protein isolated from *Locusta migratoria*.” Kizilbash, N., Lücke, C. & Hamilton, J. *Proceedings of the 8th International Symposium on “Protein Structure-Function Relationship”* January 7-10, 2005, Karachi, Pakistan.

"NMR assignment and structural characterization of the fatty acid binding protein from the flight muscle of *Locusta migratoria*." Lücke, C., Kizilbash, N., van Moerkerk, H., Veerkamp, J. & Hamilton, J. *Journal of Biomolecular NMR*, **25**: 355-356, 2003.

"Sulfonylureas rapidly cross phospholipid membranes by a free-diffusion mechanism." Kamp, F., Kizilbash, N., Corkey, B., Berggren, P. & Hamilton, J. *Diabetes*. **52**: 2526-2531, 2003.

"Biophysical studies of fatty acid binding proteins and hydrophobic ligands." (published abstract for doctoral dissertation) *Abstracts International*, 2003, Kizilbash, N.

"Sulfonylureas rapidly diffuse across phospholipid bilayer membranes." (*published abstract*) Kamp, F., Kizilbash, N., Corkey, B., Berggren, P. & Hamilton, J. 43rd annual American Biophysical Society Meeting, February, 1999, Baltimore, MD.

"Syntheses of a series of electron donor and electron acceptor derivatives." Hoefler, C., Kizilbash, N. & Wamsler, C. *Synthetic Communications*. **23**: 1339-1349, 1993.

"Synthesis of electron donor and electron acceptor compounds." (*published abstract*) Kizilbash, N. & Wamsler, C. American Chemical Society (A.C.S.) Northwest Regional Meeting, January, 1992, Willamette, OR.

Awards:

Henry I. Russek Student Achievement Award, Boston University School of Medicine (April, 2001)

Outstanding Chemistry Senior, American Chemical Society (ACS) Award (1989)

Pi Mu Epsilon (Mathematics Honors Fraternity)

Writing Experience:

Written a grant titled, "First Pass Perfusion Cardiac Magnetic Resonance Imaging Study to investigate Ischemia," for the National Institute for Biotechnology & Genetic Engineering, P.O. Box 577, Jhang Road, Faisalabad, Pakistan

Written a grant titled, "Contrast Enhanced ECG-gated Cardiac Magnetic Resonance Imaging (MRI) for Initial Diagnosis and Confirmation of Treatment of Cardiac Ischemia after Angioplasty," for the Dept. of Radiology, The Aga Khan University Hospital, Karachi, Pakistan

Co-written a National Science Foundation, U.S.A. grant proposing to solve the structure of $\alpha_2\mu$ -Globulin fragment with Dr. Steve C. Borkan in August 1999

Teaching Experience:

Freshman Chemistry, Washington University, Fall '92, Spring '93, Fall '93, Spring '94, Spring '96

Organic Chemistry, Washington University, Summer '93

References:

Dr. Gaylen Bradley, Ph.D.
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