

Andrei T. Alexandrescu

Education

Ph.D. (Biochemistry) - University of Wisconsin-Madison, 1990.

B.A. (Chemistry) - Hunter College, City University of New York, 1983.

High School - Bronx Science, New York, 1979.

Research Experience

Professor, Department of Molecular and Cell Biology,
University of Connecticut-Storrs (8/12 – present).

- Biophysical studies of amyloidogenic proteins involved in human disease:
Amylin (type 2 Diabetes)
Amyloid-beta (Alzheimer's Disease)
 α -synuclein (Parkinson's Disease)
SEVI (HIV infectivity)
- NMR structure determination
- Bacteriophage and virus coat proteins

Associate Professor, Department of Molecular and Cell Biology,
University of Connecticut-Storrs (8/06 – 7/12).

- Biophysical studies of amyloidogenic proteins
- Protein structure determination by NMR
- Protein folding and structural characterization of folding intermediates

Visiting Professor, Department of Chemistry,
Yale University (1/08-5/08)

- NMR studies of protein dynamics in Patrick Loria's lab.

Assistant Professor, Department of Molecular and Cell Biology,
University of Connecticut-Storrs (1/00 – 8/06).

- Conserved folding mechanisms in proteins that share an oligonucleotide binding 'OB-fold' structural motif.
- Structural characterization of denatured states, in particular using NMR residual dipolar couplings.
- Structure/function relationships of agrin - a protein involved in synapse development.

Projektleiter (head of independent group), Department of Structural Biology,
Biozentrum of the University of Basel, Switzerland (1/95 - 12/99).

- NMR investigations of protein structure, folding, dynamics, and aggregation.
- Structures of symmetric protein oligomers by NMR.

Post-doctoral Fellow, Department of Biological Chemistry,
Johns Hopkins University School of Medicine (10/92 - 12/94).

- Structure of a 103-residue fragment corresponding to the OB-fold sub-domain of staphylococcal nuclease.
- Structure and dynamics of a 131-residue deletion fragment, a model for the denatured state.

NATO-NSF Post-doctoral Fellow and OCMS Post-doc – Inorganic Chemistry Laboratory,
Oxford University, England (11/89 - 9/92).

- NMR of residual structure in the 'molten globule' forms of α -lactalbumin.

Graduate Student & Research Assistant, - Biochemistry Department,
University of Wisconsin - Madison (1/85 - 10/89).

- Coupling between local structure and global stability of staphylococcal nuclease.

Graduate Student & Research Assistant, Biochemistry Department,
University of Wisconsin - Madison (1/84 - 1/85).

- X-ray crystallography of nucleotides.

Undergraduate Research, Chemistry Department,
Hunter College & Columbia University (1/82 - 6/83).

- Development of chiral Ru^{2+} (phenanthroline)₃ compounds used to assay the handedness of B and Z DNA.