



Kurt Wüthrich:

Swiss Born Kurt Wüthrich studied Chemistry, Physics and Mathematics at the University of Bern from 1957-62, obtained a Ph.D. in Inorganic Chemistry at the University of Basel in 64. Dr. Kurt Wuthrich was a postdoctoral fellow in the same university, at University of California in Berkeley, CA, USA and at Bell Telephone Laboratories in Murray Hill, NJ, USA.

He joined the prestigious ETH Zürich in 1969 as a Privatdozent and went on to become Chairman of the Department of Biology in 1995, which he held it till 2000.

Since 2001, he shares his time between the ETH, Zurich and The Scripps Research Institute, La Jolla, USA.

He is currently Professor of Biophysics at the ETH, Zürich, Switzerland, and Cecil H. and Ida M. Green Visiting Professor of Structural Biology at The Scripps Research Institute (TSRI), La Jolla, CA, USA.

Kurt Wüthrich's achievements have been recognized by the Prix Louis Jeantet de Médecine, the Kyoto Prize in Advanced Technology, the Nobel Prize in Chemistry, and by a number of other awards and honorary degrees.

Kurt Wüthrich's spectacular contributions have been in the areas of molecular structural biology and proteomics. His specialty is nuclear magnetic resonance (NMR) spectroscopy with biological macromolecules, where his research group contributed the NMR method for three-dimensional structure determination of proteins and nucleic acids in solution, heteronuclear filter techniques for studies of intermolecular interactions in supramolecular structures, NMR experiments for studies of macromolecular hydration in solution, and the extension of solution NMR studies to very large structures using the principles of transverse relaxation-optimized spectroscopy (TROSY).

The introduction of transverse relaxation-optimized spectroscopy (TROSY) in 1997 (9) has made a wide spectrum of novel NMR experiments available for studies of larger biomacromolecular structures in solution. Results include the discovery of scalar spin-spin couplings across the Watson-Crick hydrogen bonds in DNA, NMR assignments for proteins in large supramolecular structures, structure determination of small membrane proteins reconstituted in water-soluble micelles, and data on the conformational states of individual macromolecular components in supramolecular structures with molecular weights in the range up to 900 kDa.

To date, Wüthrich group has solved large number of NMR structures of proteins and nucleic acids, including the immunosuppression system cyclophilin A-cyclosporin A, the homeodomain-operator DNA transcriptional regulatory system, and the prion protein.

His first Indian/TIFR connection dates back to 1974, when he presented his work as one of the invited speakers of the International Society for Magnetic Resonance (ISMAR) conference held at TIFR. Since then he has been a fairly frequent visitor of the country and spent substantial amount of time in teaching and lecturing in several NMR workshops and symposia. His last visit to TIFR has been during the NMRS meeting organized by us in 2000 here in this institute.

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