

# BIOMOLECULAR NUCLEAR MAGNETIC RESONANCE

## 5th Biophysical Symposium at College Park

Director, D. Thirumalai

Organizer: David Fushman

**Wednesday, November 7, 2007, 9 am - 5:30 pm**

**Chemistry Building, Marker Seminar Room (0112)**



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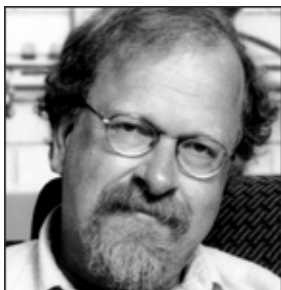
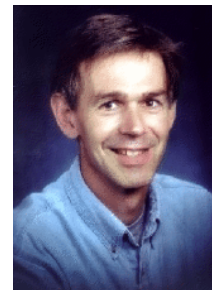
## PROGRAM

- 9:00 am **Welcome: Norma M. Allewell**, Dean, College of Chemical and Life Sciences.
- 9:05 am **Introductory Remarks: D. Thirumalai**, University of Maryland
- 9:10 am **Structures and Carbohydrate Binding of the CVNH Family of Lectins**  
**Angela M. Gronenborn**, University of Pittsburgh
- 10:00 am **Recent Advances in Protein NMR**  
**Ad Bax**, National Institutes of Health
- 10:50 am Coffee Break
- 11:10 am **Discovering the Soul of Hsp70 Chaperones**  
**Erik R. P. Zuiderweg**, University of Michigan
- 12:00 pm **Proton NMR of CH<sub>3</sub> Groups in Proteins**  
**Vitali Tugarinov**, University of Maryland
- 12:30 pm Lunch Break
- 2:00 pm **Challenges in the Structural Biology of Signal Transduction**  
**David Cowburn**, New York Structural Biology Center
- 2:50 pm **Biomolecular Structure by Solid State NMR: New Questions and New Methods**  
**Robert Tycko**, National Institutes of Health
- 3:40 pm Coffee Break
- 4:05 pm **Structure and Dynamics in Multidomain Systems: Polyubiquitin as a Primer**  
**David Fushman**, University of Maryland
- 4:55 pm **Closing Remarks**
- 5:00 pm **Reception**



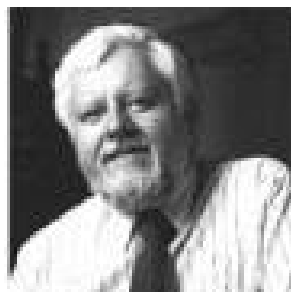
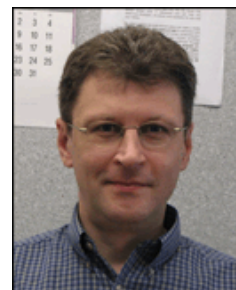
**Dr. Angela M. Gronenborn** is a Rosalind Franklin Professor and Chair of the Department of Structural Biology at University of Pittsburgh. She received her undergraduate and doctoral degrees from the University of Cologne, Germany. After postdoctoral research in London, she worked at the Max-Planck Institute in Munich and then joined the Laboratory of Chemical Physics at NIDDK (NIH) where she served as a Chief of the Structural Biology Section before moving to University of Pittsburgh in 2005. This spring, Dr. Gronenborn was elected to the National Academy of Sciences. Dr. Gronenborn's research interest is in structure and dynamics of biological macromolecules.

**Dr. Ad Bax** received his undergraduate and Ph.D. degrees in applied physics from Delft University of Technology in the Netherlands. After working as a postdoc at Colorado State University, he joined the NIH's Laboratory of Chemical Physics (NIDDK) where he is currently the Chief of the Section on Biophysical NMR Spectroscopy. Dr. Bax is a member of the US National Academy of Sciences and the Royal Netherlands Academy of Sciences. His research interest is in NMR and its application in chemistry, biochemistry, and biology.



**Dr. Erik R. P. Zuiderweg** is a Professor of Biological Chemistry and Chemistry at University of Michigan, Ann Arbor. He received his undergraduate degrees from the University of Amsterdam and a Ph.D. in biophysical chemistry from University of Nijmegen in the Netherlands. He did his postdoctoral training at University of Groningen (Netherlands) and ETH-Zurich (Switzerland), and then worked at Abbott Labs before joining the University of Michigan in 1997. Research Focus: NMR Spectroscopy of Proteins.

**Dr. Vitali Tugarinov** has recently joined the Department of Chemistry and Biochemistry, University of Maryland as an Assistant Professor. He received his Master's degree from Mendeleev Institute of Chemical Technology (Moscow) and a Ph.D. in Structural Biology from the Weizmann Institute of Science (Israel), and did his postdoctoral research at the University of Toronto. Research focus: NMR methods for the studies of structure and dynamics of high-molecular-weight proteins in solution



**Dr. David Cowburn** is the President and CEO of New York Structural Biology Center and the Head of Laboratory of Physical Biochemistry. He received his undergraduate degree from University of Manchester Institute Science and Technology and the Ph.D. and Dr.Sci. degrees from King's College, University of London (United Kingdom). After postdoctoral training at Columbia University he joined the Rockefeller University as an Assistant and then Associate Professor. Dr. Cowburn's research interests are focused on structure - function relationships in biological chemistry.

**Dr. Robert Tycko** has an A.B. from Princeton University and a Ph.D. in chemistry from UC Berkeley. After postdoctoral research in biological NMR at the University of Pennsylvania, he worked at AT&T Bell Labs in Murray Hill, New Jersey. In 1994 Dr. Tycko joined the Laboratory of Chemical Physics at NIH (NIDDK), where he is currently the Chief of the Solid State NMR and Biomolecular Physics Section. Dr. Tycko is a Fellow of the American Physical Society and the American Association for the Advancement of Science. Research focus: solid state NMR spectroscopy and its applications in biophysics and structural biology.



**Dr. David Fushman** is an Associate Professor at the Department of Chemistry and Biochemistry, University of Maryland. After receiving his Master's and Ph.D. degrees in theoretical physics from Kazan State University (USSR), he did postdoctoral training at Kazan Institute of Biology, USSR Acad. Sci.. Before joining the University of Maryland in 2000, he was an Alexander von Humboldt fellow at University of Frankfurt (Germany) and a Research Associate at Rockefeller University (New York). Research Interests: structure – dynamics – function relationships in biological macromolecules.