

Biophysical Society Celebrates 50 Years of the Protein Data Bank (PDB50)

OCTOBER 6, 2021 ■ 10:30 AM – 3:15 PM USA EASTERN

Program

10:30 AM	Welcome Gaetano T. Montelione, Rensselaer Polytechnic Institute, USA
Session I	Enabling Understanding of Protein Structure, Function, and Design
10:35 AM – 10:45 AM	Helen M. Berman, Rutgers - The State University of New Jersey and RCSB Protein Data Bank, USA <i>The First 50 Years of the Protein Data Bank</i>
10:45 AM – 11:15 AM	John Jumper, DeepMind, Inc, United Kingdom <i>Highly Accurate Protein Structure Prediction with AlphaFold</i>
11:15 AM – 11:45 AM	Ruth Nussinov, NIH, USA, and Tel Aviv University, Israel <i>Unraveling Oncogenic Mechanisms and Signaling with Structures</i>
11:45 AM – 12:15 PM	Christine Orengo, University College London, United Kingdom <i>Enriching the Evolutionary and Functional Insights Enabled by Structural Data from the PDB</i>
12:15 PM – 12:45 PM	David Baker, University of Washington, USA <i>The Coming of Age of De Novo Protein Design</i>
12:45 PM – 1:00 PM	Break
Session II	Molecular Biophysics of Membrane Proteins
1:00 PM – 1:10 PM	Stephen K. Burley, Rutgers - The State University of New Jersey and RCSB Protein Data Bank, USA <i>Looking Ahead to the Next 50 Years of the Protein Data Bank</i>
1:10 PM – 1:40 PM	Jue Chen Rockefeller University and HHMI, USA <i>ABC Transporters: Molecular Pumps Powered by ATP</i>
1:40 PM – 2:10 PM	Nieng Yan, Princeton University, USA <i>The Molecular Choreography of Cav/Nav Channels – A Mission Impossible by Today's AI</i>
2:10 PM – 2:40 PM	Linda Columbus, University of Virginia, USA <i>The Structure, Dynamics, and Function of Proteins Involved in Bacterial Pathogenesis: LspA and Opa</i>
2:40 PM – 3:10 PM	Rod MacKinnon, Rockefeller University and HHMI, USA <i>The Incredible Diversity of K⁺ Channels.</i>
3:10 PM – 3:15 PM	Closing Remarks Gaetano T. Montelione, Rensselaer Polytechnic Institute, USA