

Hans Tuppy-Lecture

Visualizing Dynamic Regulation of the Ubiquitin-Proteasome System in Response to Signals

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Tuesday,
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6:00 p.m.

Austrian Academy of Sciences
Festive Hall
1010 Vienna

Eröffnung und Grußworte

Ulrike Diebold, Vice-President of the Austrian Academy of Sciences

Manuela Baccarini, Vice-Rector of the University of Vienna and Corresponding Member of the Austrian Academy of Sciences

Hans Tuppy Lecture

Abstract und CV

The ubiquitin system is governed by the transient assembly of conformationally dynamic complexes. The molecular machines catalyzing ubiquitylation form and function in response to stimuli ranging from endogenous signals to degrader drugs. We employ an integrated multidisciplinary approach to investigate crosstalk between cellular perturbations and the ubiquitin system—from discovering cellular pathways to uncovering the underlying biochemical and high-resolution structural mechanisms. In this talk, I will present our latest findings on the visualization of dynamic assemblies involved in ubiquitin-mediated regulation.

Brenda Schulman is a Director at the Max Planck Institute of Biochemistry. She is broadly interested in regulation by the ubiquitin system. Her lab discovers and defines ubiquitylation pathways and mechanisms. Structures from the Schulman lab have defined the fundamental enzymology of the major classes of ubiquitylating enzymes, and their regulation from assembly, to activation and inhibition, and ultimate decommissioning. A current focus is using the lab's in-depth structural knowledge to develop new tools to probe dynamic cellular signaling through the ubiquitin system.

Schulman began her faculty appointment at St. Jude Children's Research Hospital in 2001, where she retains an adjunct faculty position. She was an Investigator of the Howard Hughes Medical Institute, and the Joseph Simone Chair in Basic Research at St. Jude until 2017, when she became a full-time Director at the Max Planck Institute of Biochemistry. Schulman received a number of early career awards, and more recently has been recognized by ERC Advanced Grants, the Gottfried Wilhelm Leibniz Prize, an Ernst Jung Prize for Medicine, and a Louis-Jeantet Prize for Medicine. Schulman was elected to the American Academy of Arts and Sciences in 2012, the National Academy of Sciences in 2014 (USA), EMBO in 2018, and the German National Academy of Sciences in 2019.

The Hans Tuppy Lectures are a joint lecture series of the University of Vienna and the Austrian Academy of Sciences in honor of this well-known Austrian biochemist who has significantly shaped the Austrian science and research landscape. This series of lectures brings excellent researchers to Austria who have contributed significantly to biochemistry or molecular biology research.

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REGISTRATION

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