

PROF. DR. NENAD BAN

has made outstanding contributions to the field of biochemistry and structural biology, particularly in the determination of the atomic structure of large macromolecular assemblies.

For centuries science and society have debated the question whether living organisms are fundamentally different from non-living matter. Research in the 20th century established definitively that the processes of life consist of a myriad of chemical reactions that are catalyzed by biomolecules. This insight was at the root of the field of structural biology.

The molecular machines that catalyze the biosynthesis of proteins, including the ribosomes are among the most complex structures known and essential for every living organism. Nenad Ban has dedicated his scientific career to their structural and functional analysis. As a member of the group of Prof. Thomas Steitz at Yale University and postdoctoral fellow he was instrumental in solving what was perhaps the most challenging and most important structural biology challenge at the time: the structure of the ribosome, a monumental achievement that was recognized in 2009 with the Nobel Prize to Drs. Ramakrishnan, Steitz and Yonath.

In his position as Professor at the ETH Nenad Ban continued his spectacular success in solving the atomic structure of complex molecular machines, including that of fatty acid synthase, the structure of ribosomal complexes with various factors that modulate and control protein synthesis, and the structure of RNA riboswitches. Nenad Ban's group is also internationally recognized for methodological advances in structural biology. This is exemplified by his leadership role in the implementation of the revolutionary cryo EM single particle technology at ETH. In pioneering work he applied this new technology for the determination of the mitochondrial ribosome, a challenge that had eluded structural biologists for decades.

Nenad Ban is recognized as one of the leading structural biologists of his generation. It can be expected that he will remain at the forefront of his field for a long time to come.

ZÜRICH, 10. April 2018

DER PRÄSIDENT DES PREISRATES:

