



Laudatio for the Award Ceremony of the Prix Schläfli Biology 2019 of the Swiss Academy of Sciences (SCNAT) for Dr Rebekka Wild

The Jury of the Prix Schläfli (Biology) 2019 of the Swiss Academy of Sciences (SCNAT), consisting of Prof. Dr Roman Ulm (University of Geneva), Dr Marc Creus (University of Basel), and Prof. Dr Christoph Scheidegger (WSL) has reviewed 10 applications and suggested to award the prize to Dr Rebekka Wild for her achievements in the field of Structural Biology and Biochemistry published in the journal *Science* with the title: "Control of eukaryotic phosphate homeostasis by inositol polyphosphate sensor domains".

The board of the Platform Biology has unanimously decided to award the Prix Schläfli Biology 2019 to Dr Rebekka Wild for her discovery that SPX domains are cellular sensors for inositol pyrophosphate signaling molecules and that inositol pyrophosphates control phosphate homeostasis in fungi, plants, and animals. In her PhD work, Rebekka used biochemical and biophysical techniques to characterize a small protein domain, called SPX domain, of previously unknown function. Interestingly, this domain is often found in proteins involved in phosphate transport, signaling, and homeostasis. Phosphorus is an important macronutrient in all organisms and, especially in plants, is often a limiting factor for growth and development. In collaboration with colleagues at the University of Lausanne, Rebekka could show that SPX domains bind inositol polyphosphates with high affinity, suggesting that SPX domains can measure and control phosphate homeostasis in yeast, plants and animals. This work has completely changed the view on how cellular phosphate levels are measured, and how eukaryotic cells regulate its uptake, transport and storage.

Dr Rebekka Wild studied Biochemistry at the Eberhard Karls University, Tübingen, Germany. Then Rebekka performed her PhD work in Biology entitled "Structural and functional characterization of eukaryotic SPX domains as inositol polyphosphate sensors" first at the Friedrich Miescher Laboratory of the Max Planck Society, Tübingen, Germany, and from 2014 at the University of Geneva, Switzerland, under the supervision of Prof. Dr Michael Hothorn. In September 2016, Dr Rebekka Wild became a Postdoctoral Researcher at the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland, in the laboratory of Prof. Dr Kaspar Locher. She is now a CNRS researcher at the "Institut de Biologie Structurale" in Grenoble, France.

Prof. Dr Roman Ulm (University of Geneva), Dr Marc Creus (University of Basel), and Prof. Dr Christoph Scheidegger (WSL), members of the Platform Biology of the Swiss Academy of Sciences (SCNAT)

Award Ceremony, 14 February 2020, LS² Annual Meeting 2020 in Zürich.