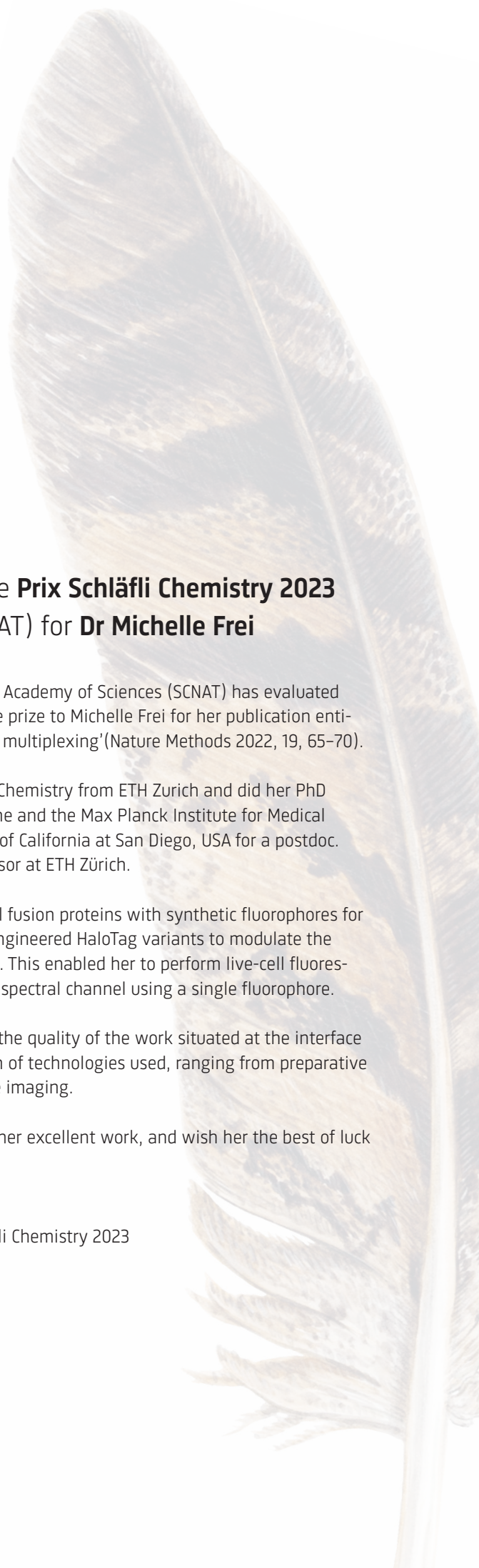# Prix Schläfli

Chemistry 2023

Laudatio for the Award Ceremony of the Prix Schläfli Chemistry 2023 of the Swiss Academy of Sciences (SCNAT) for **Dr Michelle Frei**

The jury of the Prix Schläfli 2023 in Chemistry of the Swiss Academy of Sciences (SCNAT) has evaluated seven high quality applications and proposed to award the prize to Michelle Frei for her publication entitled 'Engineered HaloTag variants for fluorescence lifetime multiplexing'(Nature Methods 2022, 19, 65–70).

Michelle Frei received her Bachelor and Master degrees in Chemistry from ETH Zurich and did her PhD under the supervision of Prof. Kai Johnsson at EPF Lausanne and the Max Planck Institute for Medical Research in Heidelberg. She then moved to the University of California at San Diego, USA for a postdoc. This year she was appointed tenure-track assistant professor at ETH Zürich.

Self-labelling protein tags are powerful tools that can label fusion proteins with synthetic fluorophores for use in microscopy. In her work Michelle Frei successfully engineered HaloTag variants to modulate the brightness and fluorescence lifetime of bound rhodamines. This enabled her to perform live-cell fluorescence lifetime multiplexing of three cellular targets in one spectral channel using a single fluorophore.

The jury of the Prix Schläfli was particularly impressed by the quality of the work situated at the interface between chemistry and biology and the enormous breadth of technologies used, ranging from preparative chemistry and protein engineering to fluorescence lifetime imaging.

Thy jury would like to congratulate again Michelle Frei on her excellent work, and wish her the best of luck for the future.

Prof. Thomas Bürgi, president of the jury of the Prix Schläfli Chemistry 2023
Award Ceremony, Lausanne, 28 September 2023

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