

Andreas Plückthun

Members of the WHO Expert Advisory Panel on The International Pharmacopoeia and Pharmaceutical Preparations serving the INN Expert Group

Biography

Andreas Plückthun is Professor of Biochemistry at the University of Zurich, Switzerland. He was born in Heidelberg, Germany, and studied Chemistry at the University of Heidelberg, where he received his Vordiplom (B.S. degree). He obtained his PhD degree from the University of California at San Diego with Ed Dennis. His postdoctoral training was at Harvard University with Jeremy Knowles.

He became group leader at the Gene Center at the Max-Planck-Institute for Biochemistry (Martinsried near Munich, Germany). Since 1993, he has been Full Professor in the Dept. of Biochemistry, University of Zurich (Switzerland).

His research is focused on protein engineering. His work on antibody engineering included the first-ever antibody expression in *E. coli*, the first fully synthetic antibody libraries, and ribosome display as a true in vitro protein evolution technology. He developed new non-antibody scaffolds (the DARPin technology) for therapy, and other scaffolds for diagnostics and research. More recently, he developed directed evolution of G-protein coupled receptors for structure determination and for drug screening. Another research area in his lab has been designer viruses for creating in vivo biofactories of therapeutic proteins. His laboratory combines biophysics, directed evolution and cell biology.

He has authored over 450 publications with have been cited >45,000 times. He was elected member of the German Academy of Science (Leopoldina), and the European Molecular Biology Organization (EMBO).

He received, among others, the Young Investigator's Award of the German Chemical Industry Trust, the Karl-Heinz-Beckurts Award (Germany), the J. P. Morgan Chase Health Award (USA), the Wilhelm-Exner Medal (Austria), the European Grand Prix for Innovation (Monaco) and the Christian B. Anfinsen award of the Protein Society, naming him "pioneer of protein engineering".

He is cofounder of three publicly traded companies, Morphosys (Martinsried near Munich), Molecular Partners (Schlieren near Zurich) and G7 Therapeutics (divested to Heptares/Sosei, Japan). He stepped down from active roles in these companies.

He has been a biologicals adviser to the WHO INN program, particularly due to his expertise in antibody engineering, therapeutic proteins and protein engineering in general.