

The **2021 Ariens laureate** is **Professor dr. Margareta Hammarlund-Udenaes**. PhD. She is a Professor of Pharmacokinetics and Pharmacodynamics at Uppsala University, Sweden, since 1999. Her Ariens lecture will have the title: **“From ligand-receptor interactions to whole-body pharmacokinetics – and back. On tissue uptake and the importance of unbound drug concentrations”**. Margareta has supervised 19 PhD’s and published more than 130 original articles, and was Editor of the book Drug Delivery to the Brain – Principles, Methodology and Applications (Springer, 2014; 2<sup>nd</sup> Ed 2021). She was the Dean of the Faculty of Pharmacy in Uppsala 2017-2020. She became a Fellow of the American Association of Pharmaceutical Scientists in 2005 and an Honorary Member of the Swedish Academy of Pharmaceutical Sciences in 2016. She is a former Associate Editor of Pharmaceutical Research, former EAB member of the Journal of Pharmaceutical Sciences and presently an EAB member of Fluids and Barrier of the CNS. She was the Chair of the Gordon Conference on Barriers of the CNS in 2014 and of the 8<sup>th</sup> International Symposium on Microdialysis in 2016, and is co-organizing the 14<sup>th</sup> Cerebrovascular Biology meeting to be held in Uppsala 2023. Her main scientific interest is drug delivery to the brain, based on PK-PD principles with a translational perspective. This is a critical area for pharmaceutical research, because of the severe limitations imposed on the development of drugs for the CNS by the blood-brain barrier (BBB). The work to date has revealed the basic relationships of BBB function and brain physiology regarding the transport of exogenous compounds and has provided a new understanding of how drugs are handled by the BBB and the brain. Disease influence and the role of nanodelivery on BBB transport of drugs and peptides are also investigated.