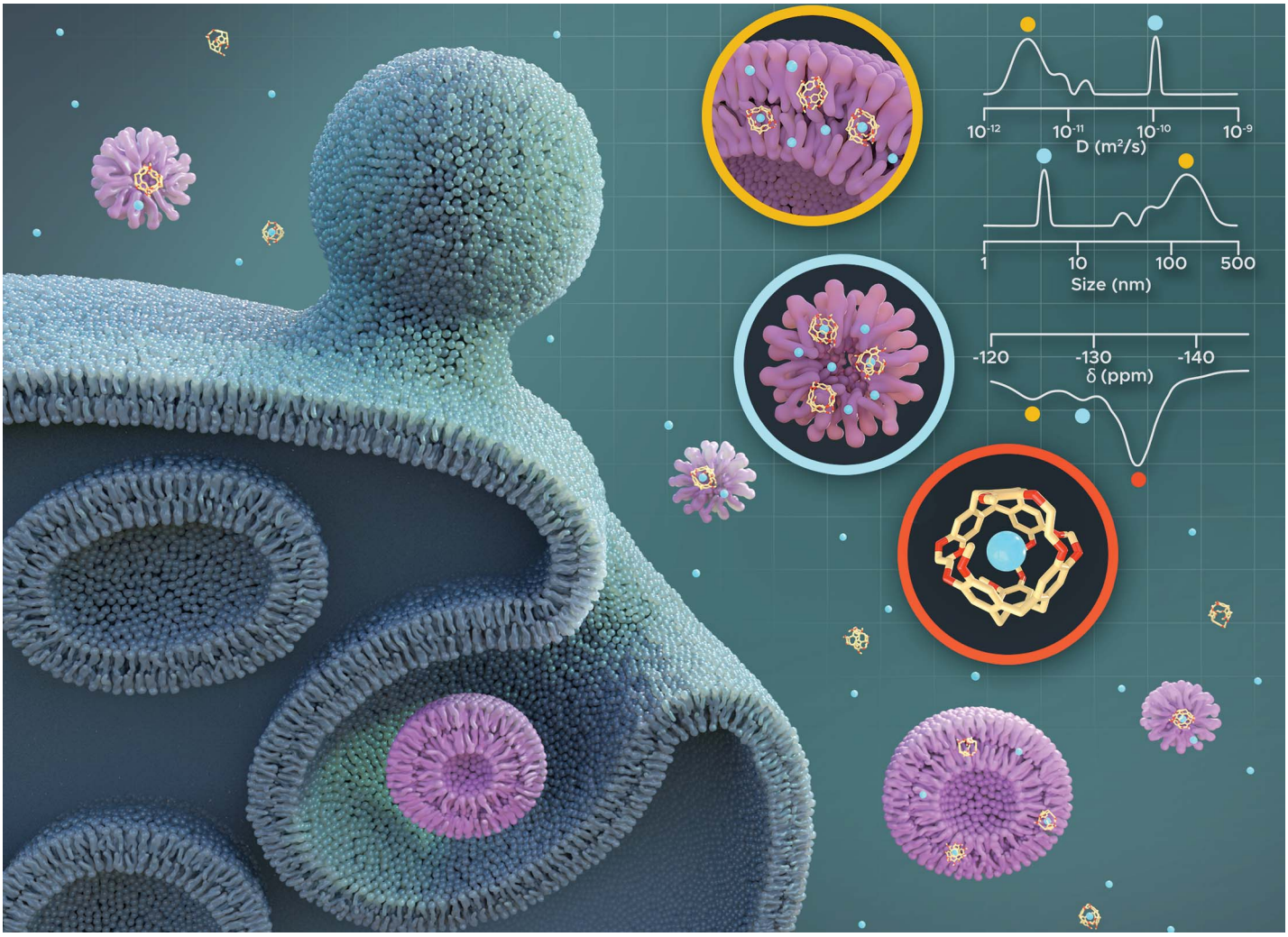


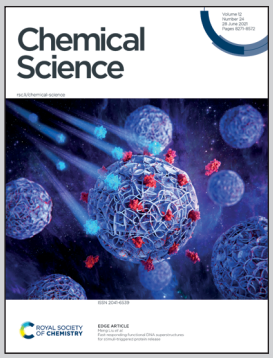
Showcasing research from laboratories of Profs. Ville-Veikko Telkki and Seppo Vainio, University of Oulu, Finland, as well as Dr. Leif Schröder, DKFZ Heidelberg and FMP Berlin, Germany.

Identification of extracellular nanoparticle subsets by nuclear magnetic resonance

Two novel and information-rich nuclear magnetic resonance (NMR)-based methods are introduced for characterization of extracellular vesicle (EV) samples: ^{1}H diffusion ordered spectroscopy (DOSY) enables the determination of complete size distribution of nanoparticles included in the EV samples after isolation, without labelling or chemical modification; ^{129}Xe hyperpolarized chemical exchange saturation transfer (Hyper-CEST) provides a highly sensitive means to identify subsets of EV samples and monitor exchange phenomena in the samples.

Image by Barth van Rossum, FMP.

As featured in:



See V. V. Zhivonitko, A. Samoylenko, L. Schröder, V.-V. Telkki *et al.*, *Chem. Sci.*, 2021, **12**, 8311.

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