

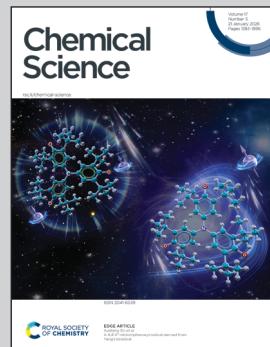
Showcasing research from Professor Popp's laboratory, Institute of Physical Chemistry, Friedrich-Schiller University of Jena and Leibniz Institute of Photonic Technology, Jena, Germany.

Unveiling the molecular dynamics of a nitrile-containing 5-lipoxygenase-activating protein antagonist in primary macrophages through Raman spectroscopy

This work presents a strategy to track the intracellular fate of a nitrile-tagged 5-lipoxygenase-activating protein (FLAP) antagonist using Raman microscopy. The nitrile group of the anti-inflammatory drug candidate BRP-685 modulates its pharmaceutical properties while simultaneously serving as a highly selective vibrational label for spontaneous and stimulated Raman imaging. This dual functionality enables label-free visualization of BRP-685 distribution in differently polarized primary macrophages, allowing unbiased investigation of its subcellular localization after uptake and direct comparison with classical lipid analogues.

Image reproduced by permission of Constanze Schultz and Juergen Popp from *Chem. Sci.*, 2026, **17**, 1613.

## As featured in:



See Juergen Popp *et al.*, *Chem. Sci.*, 2026, **17**, 1613.