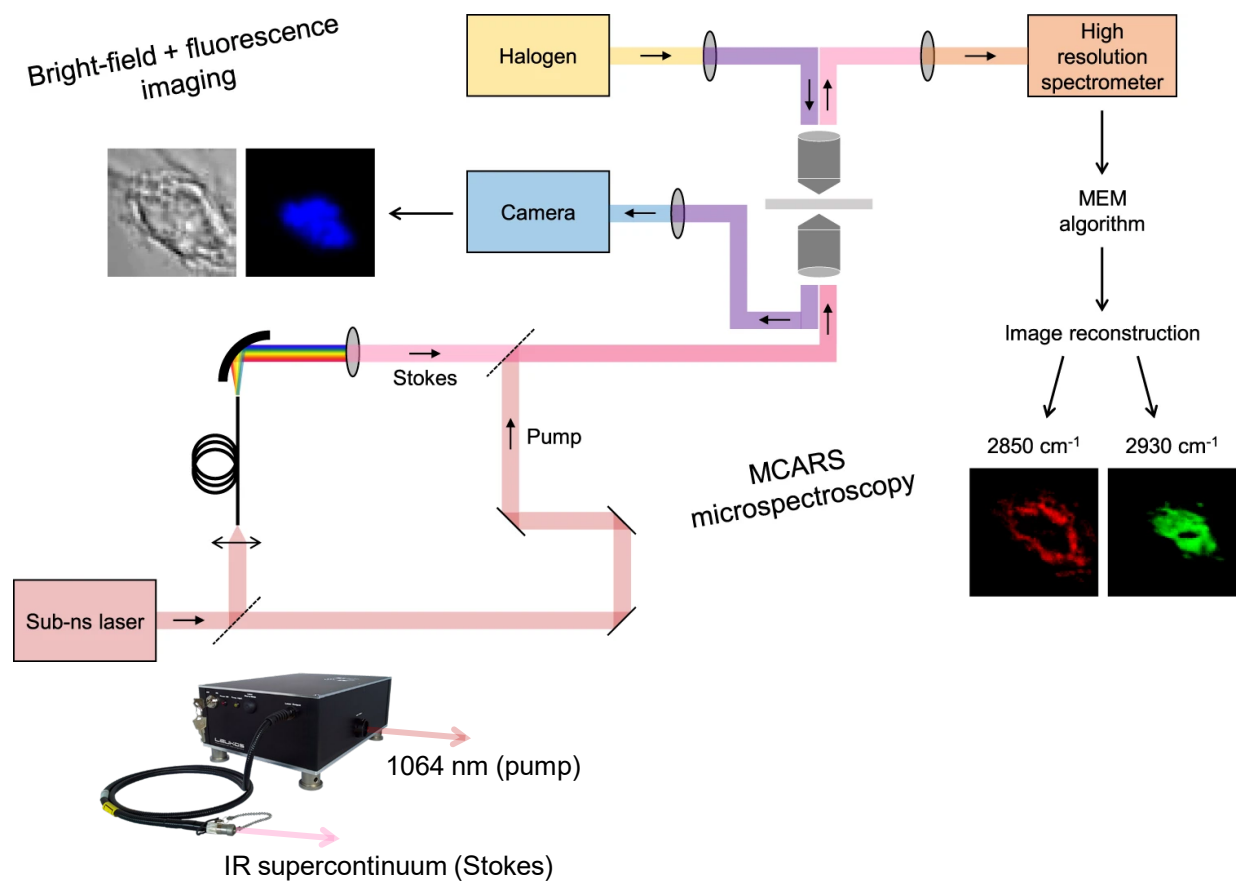
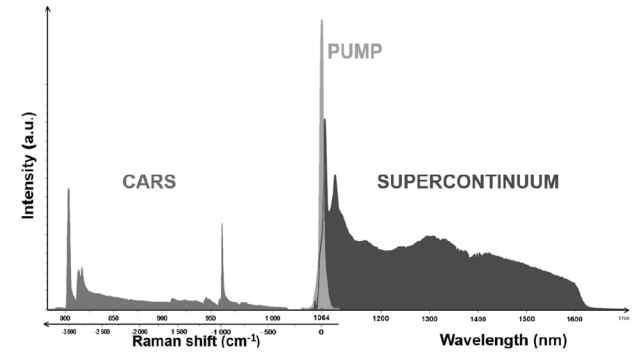


CARS vibrational imaging



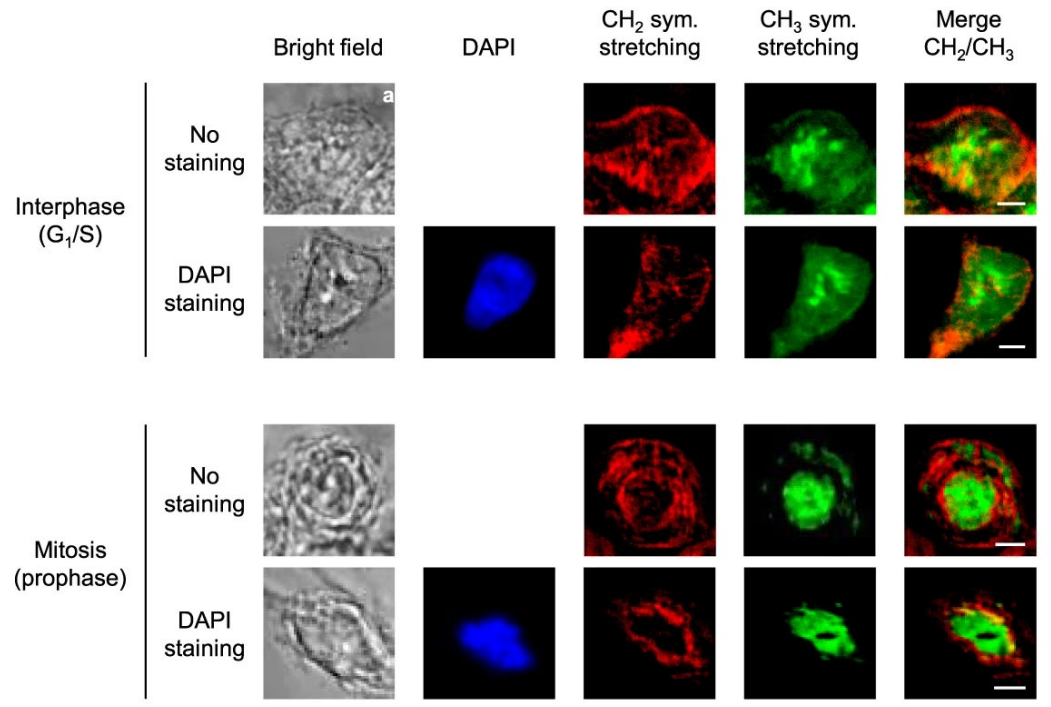
Challenges

- ❑ Dual-output laser (monochromatic pump, broadband Stokes)
- ❑ Pump spectral bandwidth < 10 cm⁻¹ (=> spectral resolution)
- ❑ Pump peak power > few kW (nonlinear process)
- ❑ Synchronization between pump and Stokes pulses

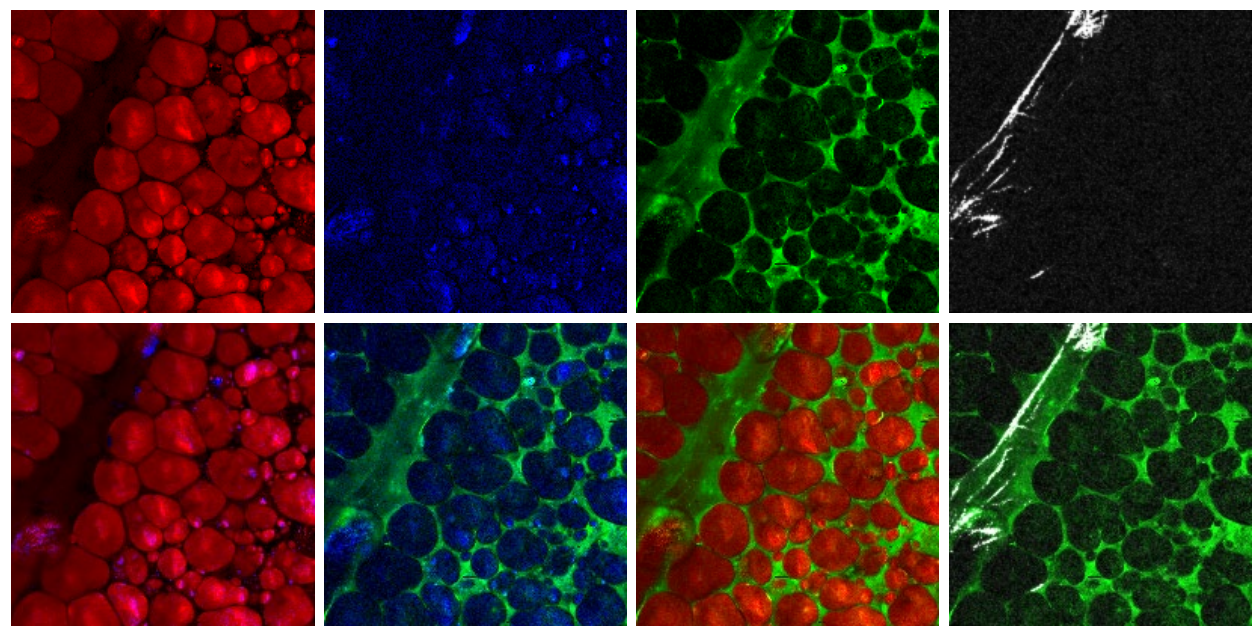


Guerrene-Del Ben et al., Scientific Reports 9, 13862 (2019)

Cell imaging



Tissue imaging



Future applications/experiments

➔ **Multimodal** imaging

Electronic control of:

- ❑ Supercontinuum bandwidth and power
- ❑ Pump power
- ❑ Pulse duration / repetition rate
- ❑ Pump/Stokes timing

