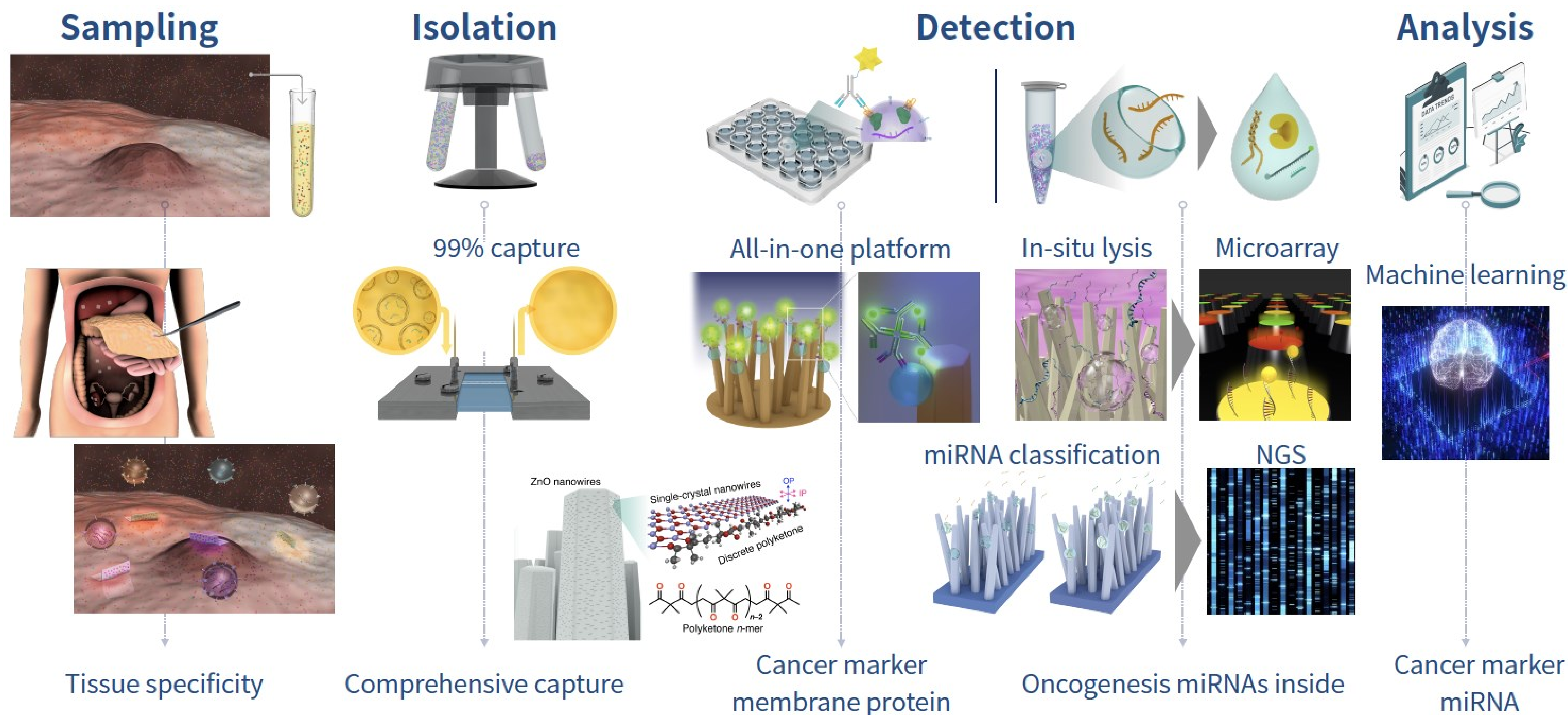


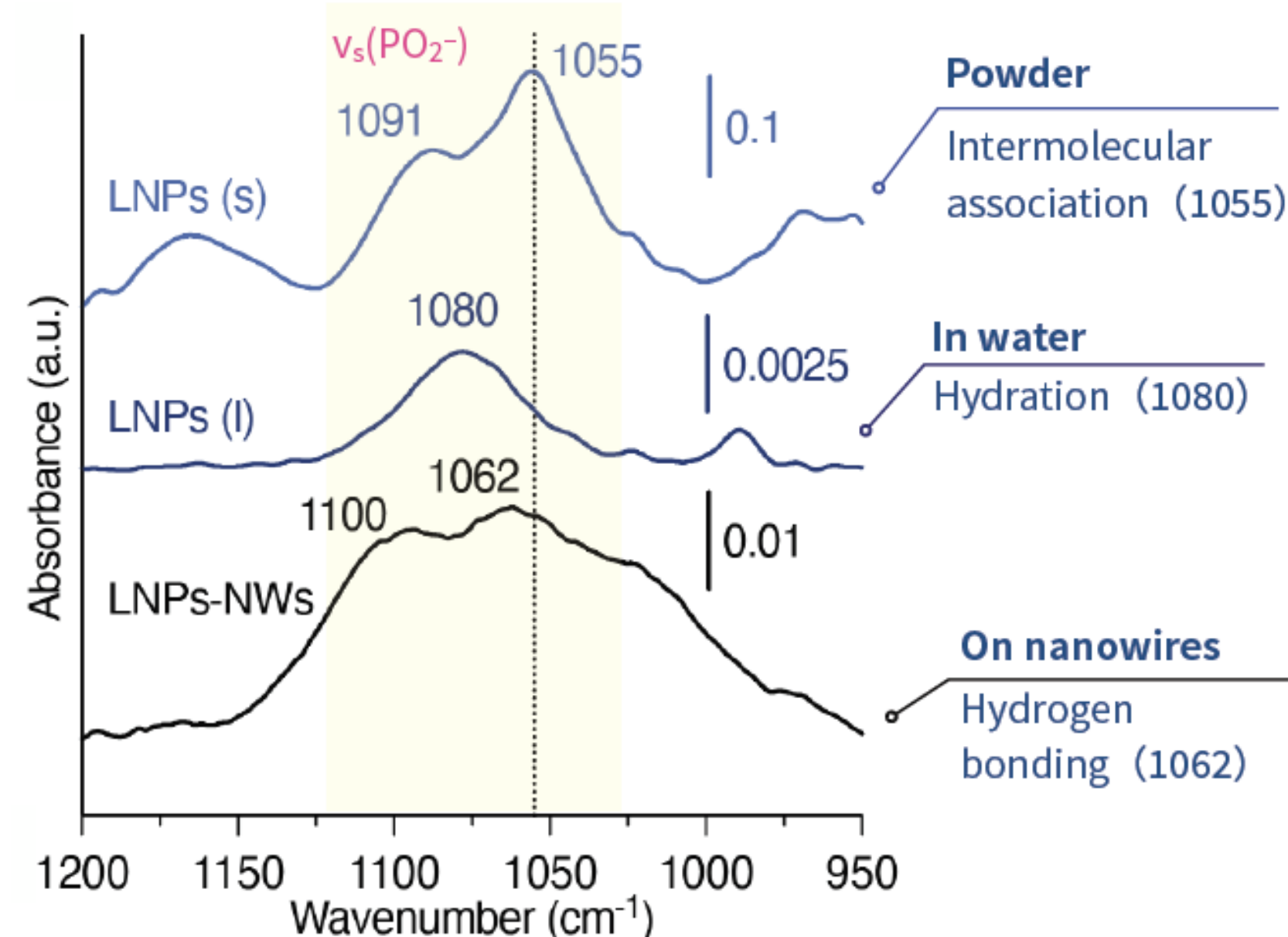
Extracellular vesicle analysis in body fluids: Sampling, separation, detection, and analysis

Nature Commun., 2023
Science Adv., 2017; 2023
ACS Nano, 2011; 2013; 2019; 2023
Biosens. Bioelectron., 2021; 2023; 2024
Device (Cell press), 2024
ACS Appl. Mater. Interfaces, 2021; 2021; 2023; 2024

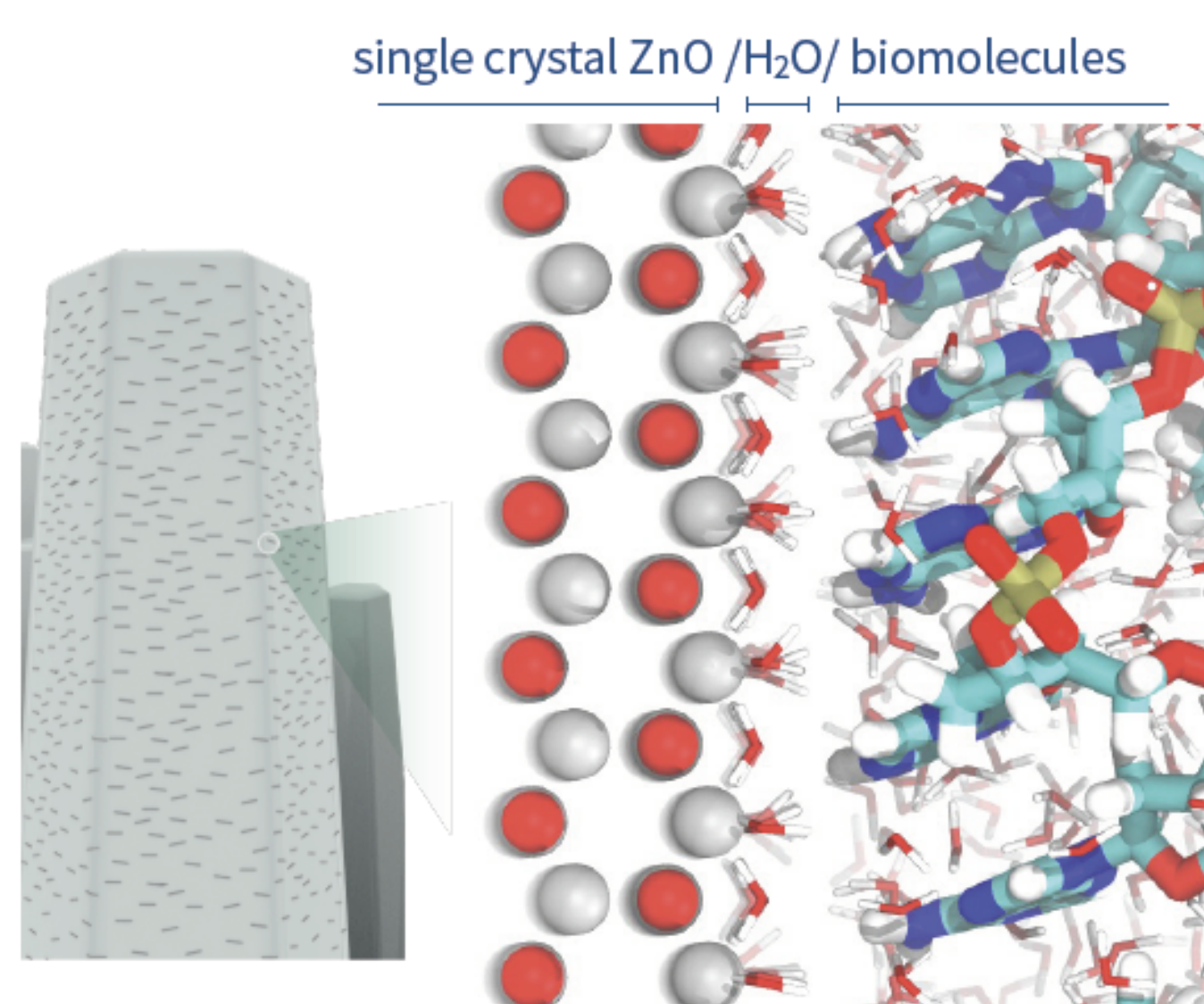


Nanowire-based biomarker detection for cancer diagnosis

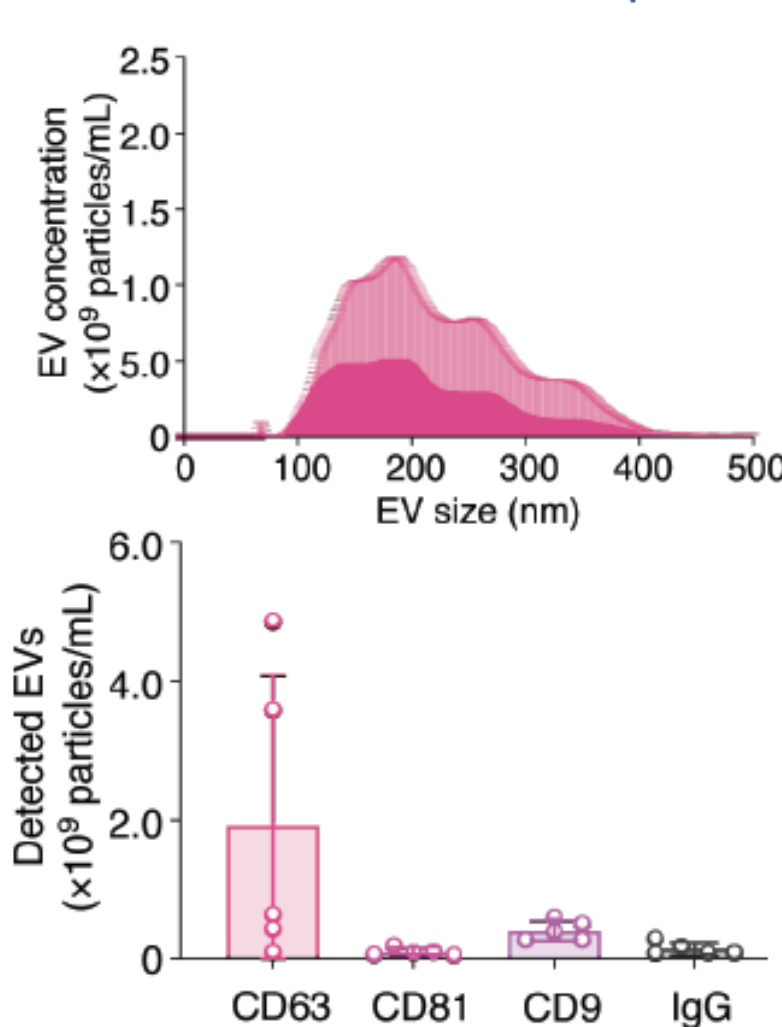
FT-IR analysis : phosphate symmetric stretching vibration



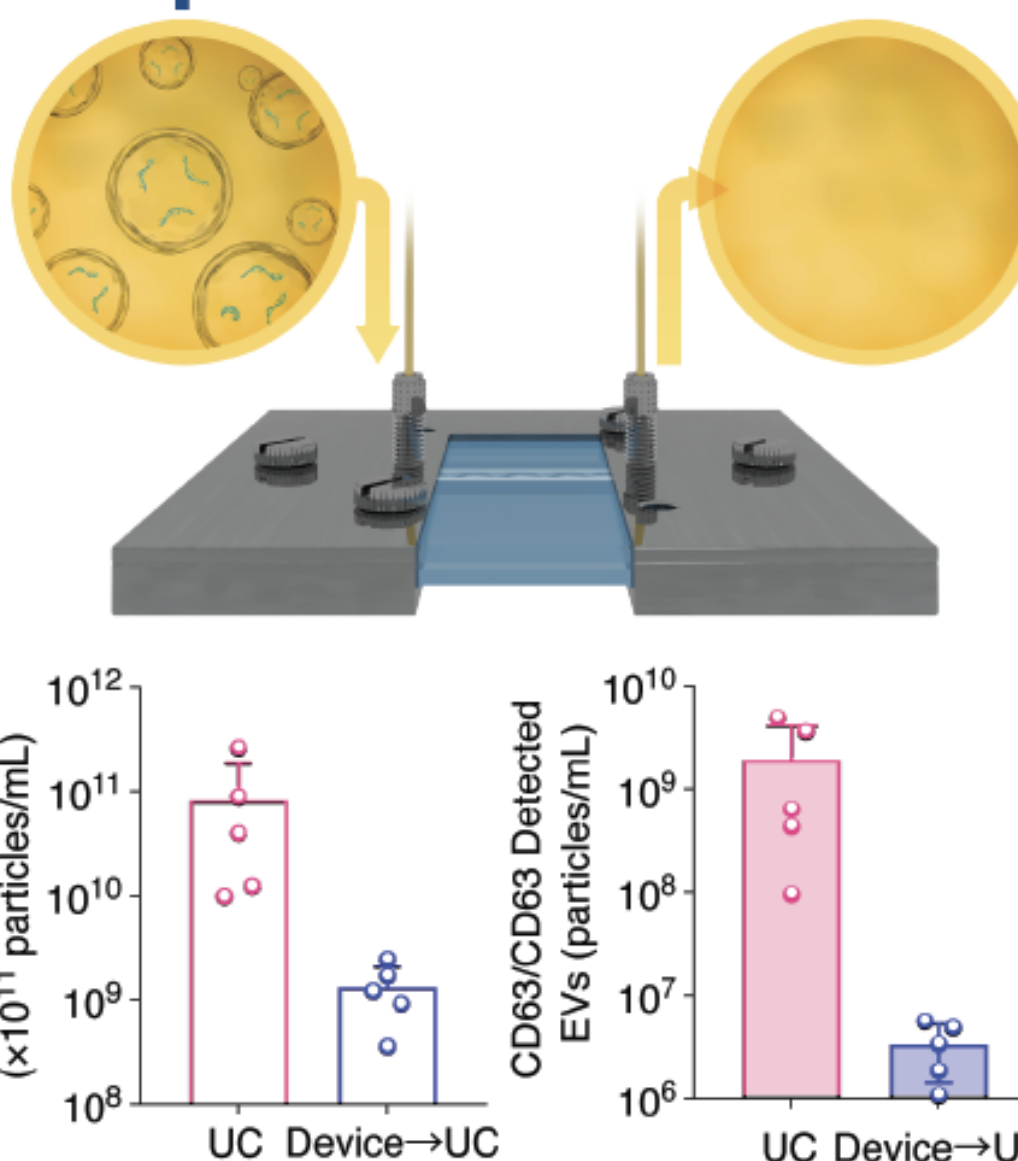
MD simulation (200 ns) : water molecules



Urinary extracellular vesicles after ultracentrifugation
Concentration : ~10¹¹ particles/mL



Capture rate : ~99%



Extracellular vesicles after ultracentrifugation of flow-through
Concentration : ~10⁹ particles/mL

