

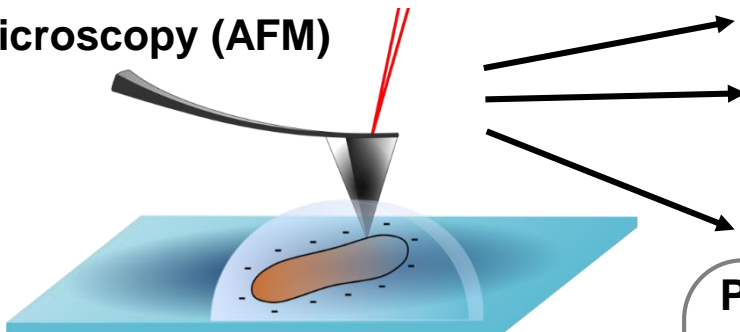
Probing the biophysical properties of microorganisms

2012-2014: PhD at LAAS-CNRS, Toulouse France

2015-2017: FNRS postdoctoral fellow at UCL, Belgium

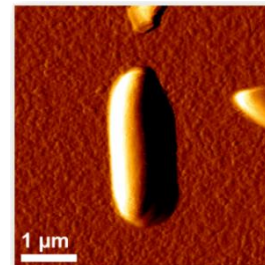
2017-2019: AgreenSkills+ postdoctoral fellow

Atomic Force
Microscopy (AFM)

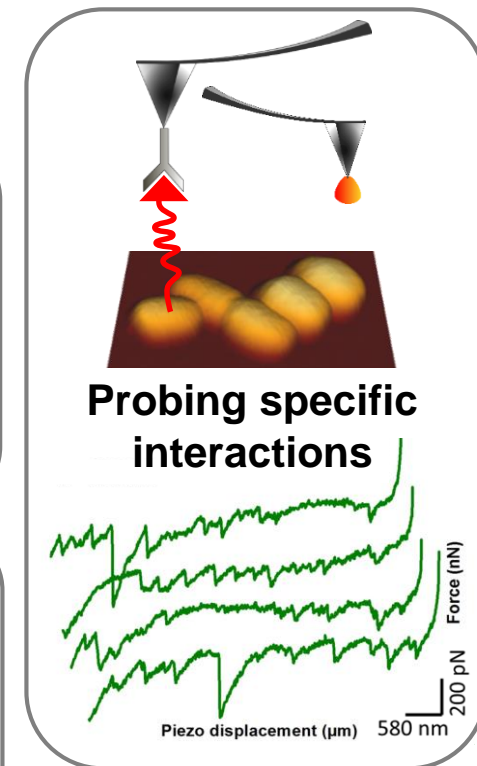
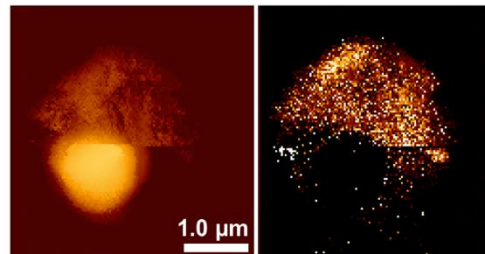


Liquid, living cells,
nanoscale imaging and
force machine (20 pN)

High-resolution
imaging



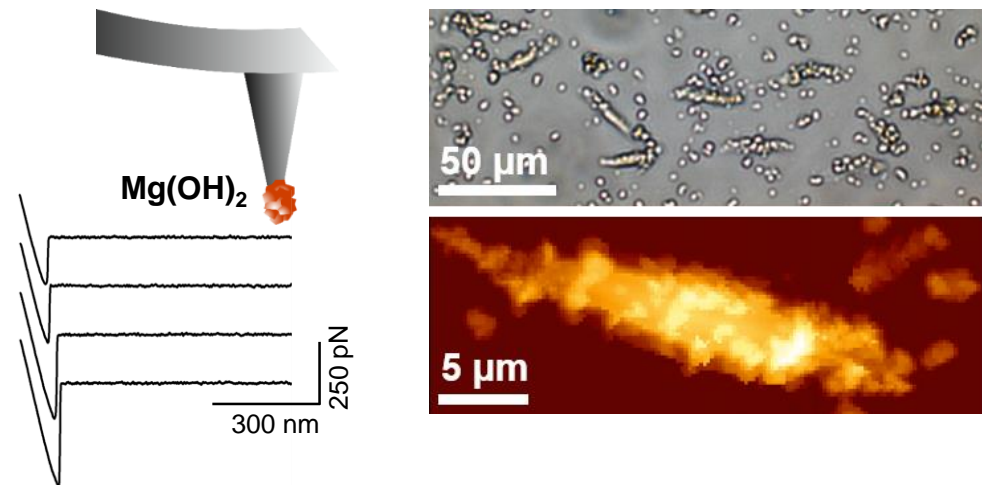
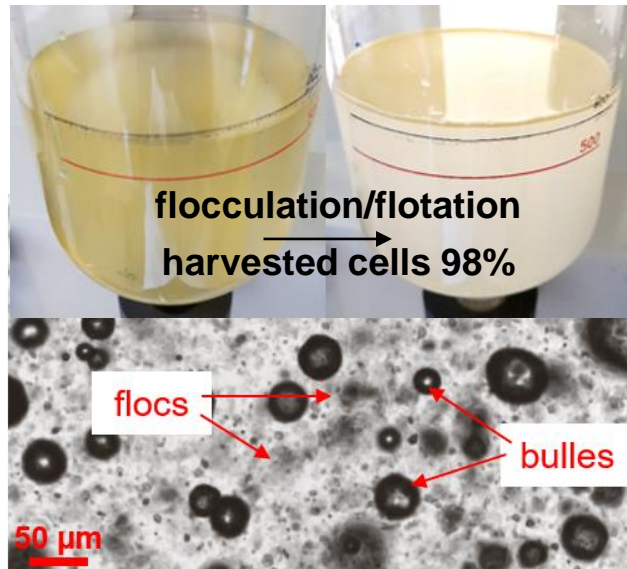
Probing adhesive properties



Biophysics to understand microalgae flocculation/flotation mechanism

Why do microalgae float? Because of the presence in the medium of magnesium hydroxide, a natural flocculant

Phaeodactylum tricornutum



The efficiency of flocculation/flotation is directly linked to the electrostatic interactions between $Mg(OH)_2$ and the cellular interface

Bio-functionalization of bubbles to enhance flotation efficiency without damaging microalgae

