

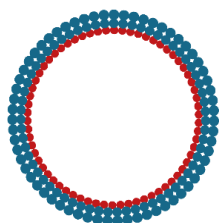
## First year – PhD Nanoscience

### ATTENDED COURSES (with final exam):

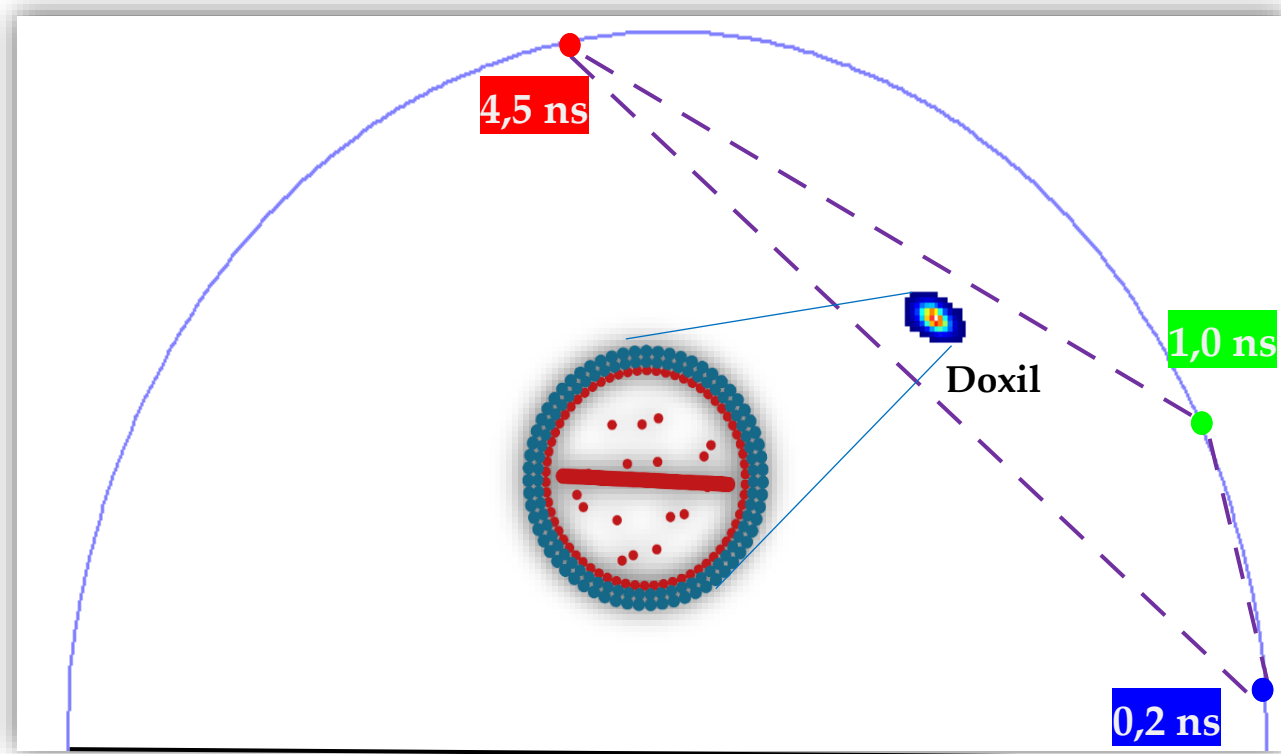
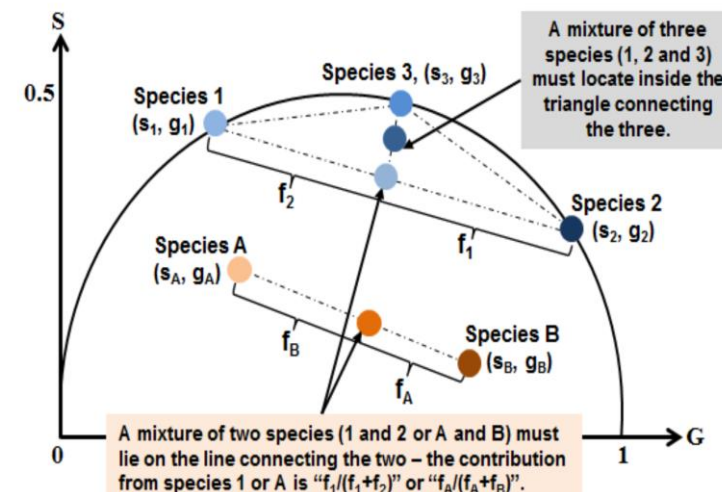
- ✓ Fundamentals of Biophysics at the nanoscale (taught by S. Luin, R. Nifosì, G. Ratto)  
Optical microscopy, spectroscopy, non-linear interactions, perturbation-based methods, super-resolution, FRET, FLIM, SPT;  
macromolecules, molecular dynamics, fluorophores;  
MATLAB programming.
- ✓ Physics of the living cell (taught by F. Cardarelli and R. Bizzarri)  
Cell structures and endocytosis, membrane models, fluctuation-based methods, nuclear pore complex studies, molecular motors;  
cellular thermodynamics, ion exchanges, potential propagation.
- ✓ Seminars – Biophysical Sciences (organized by F. Cardarelli)  
Temporal resolution, synthetic identity, cell penetrating peptides, fingerprint for diabetes; electron microscopy, lab on a chip, synthetic fluorescent biosensors, tissue engineering, state of the art in neurobiology, neuronal sensing, targeting nanoparticles.

# PREVIOUS WORK

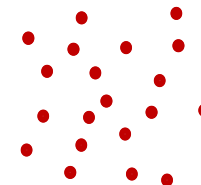
## Membrane-BOUND Doxo



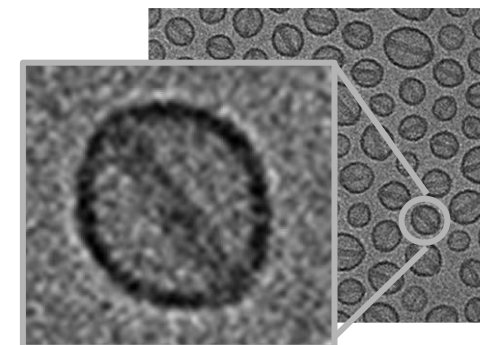
- Xiaohui Wei et al., «Cardinal Role of Intraliposome Doxorubicin-Sulfate Nanorod Crystal in Doxil Properties and Performance», *ACS Omega* March 2, 2018
- Tentori P.M. et al., *In preparation*



## Doxo in water (FREE)

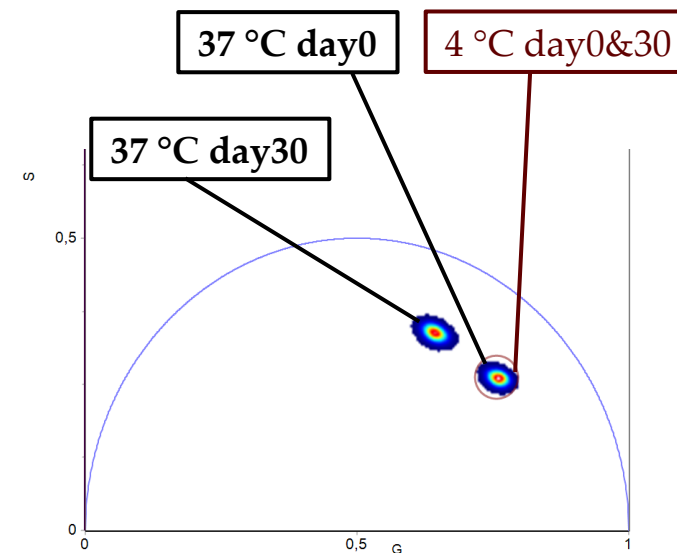
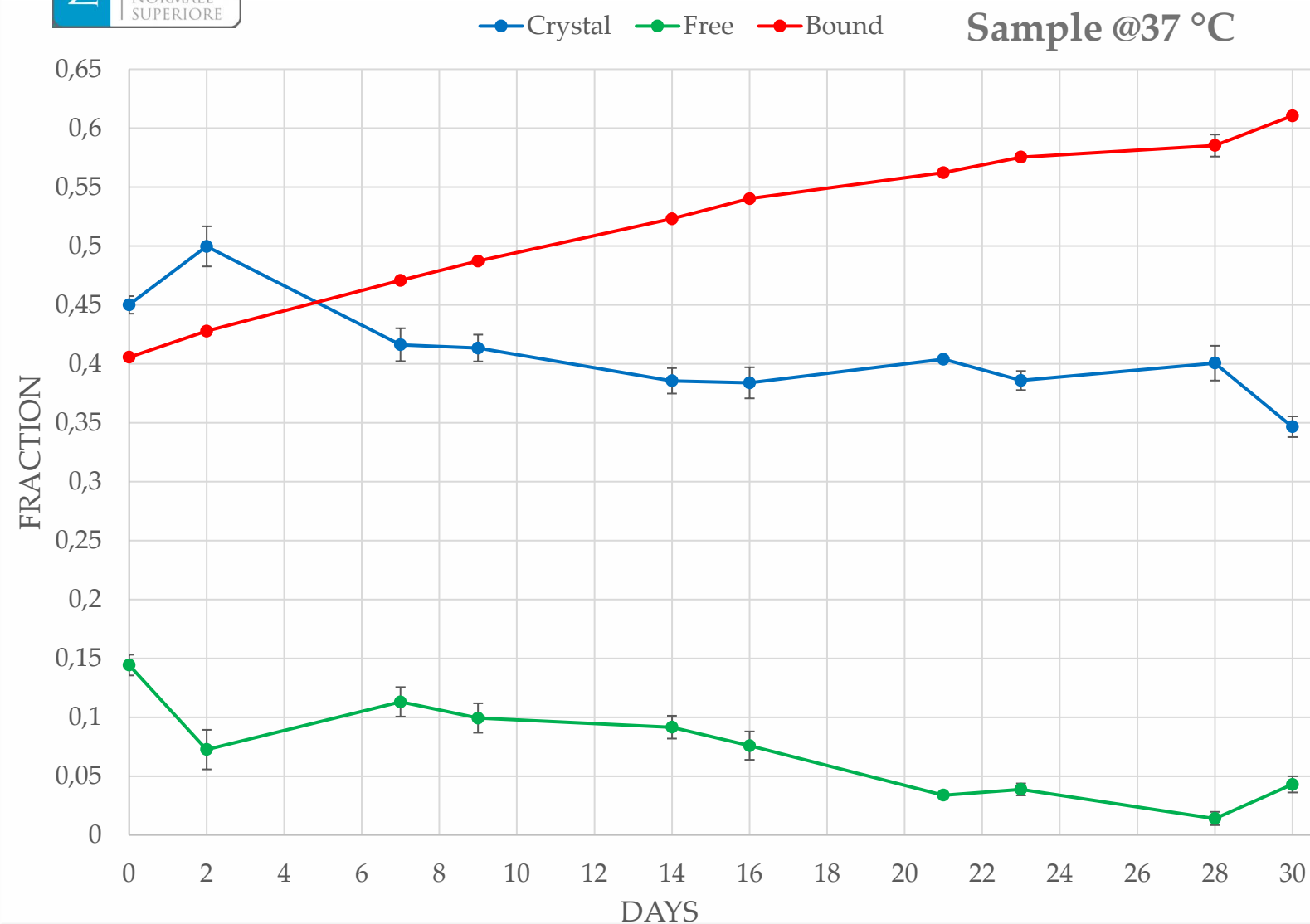


## Nanorod (CRYSTAL)



# MY PROJECT

UNTIL NOW:  
Doxoves lifetime stability  
in solution



## NEXT STEPS:

- Doxoves lifetime in cells
  - Protein corona
  - Membrane
- Doxoves endocytosis