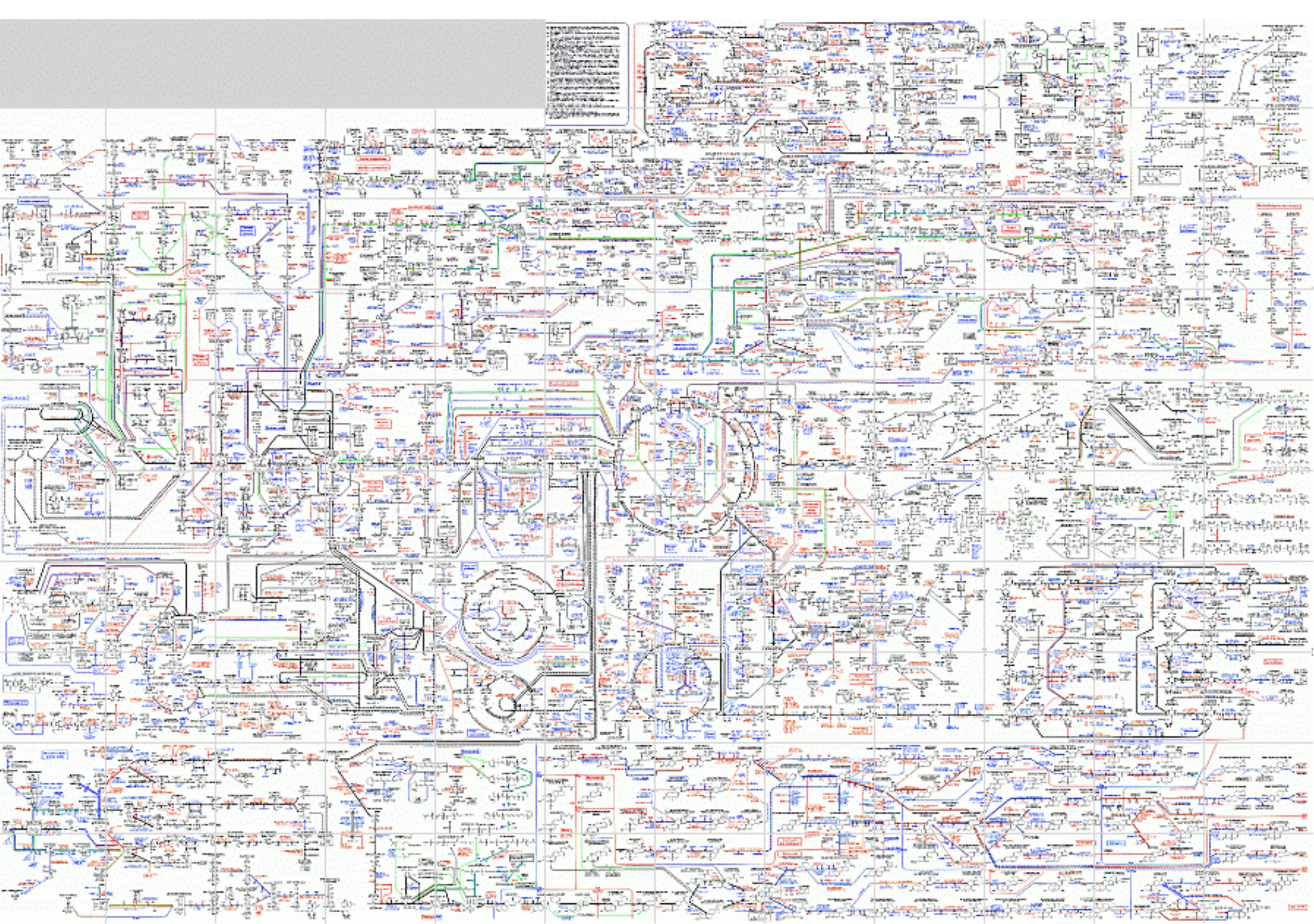


**Electron
cryotomography:
example
applications**

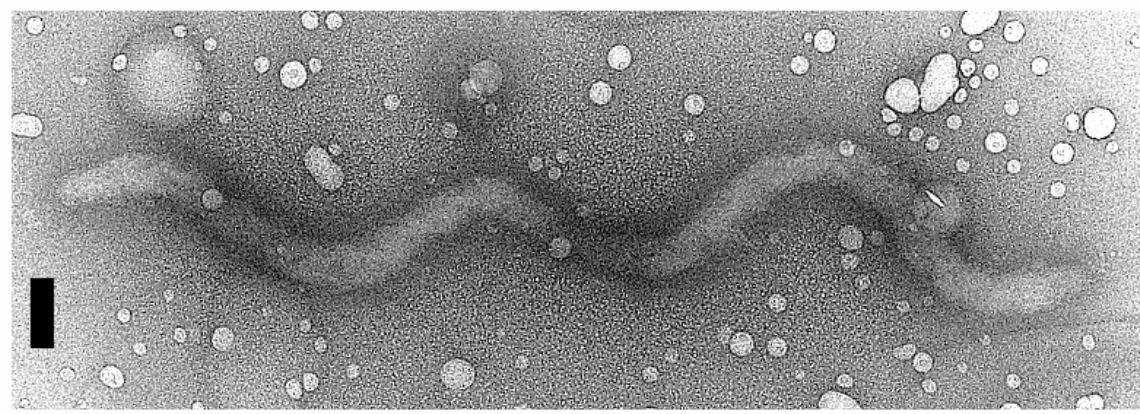
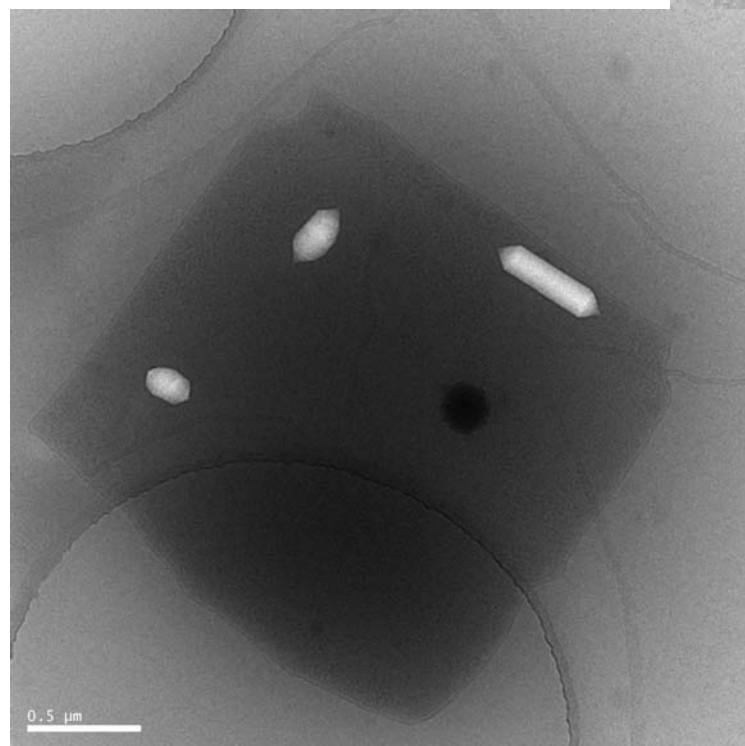
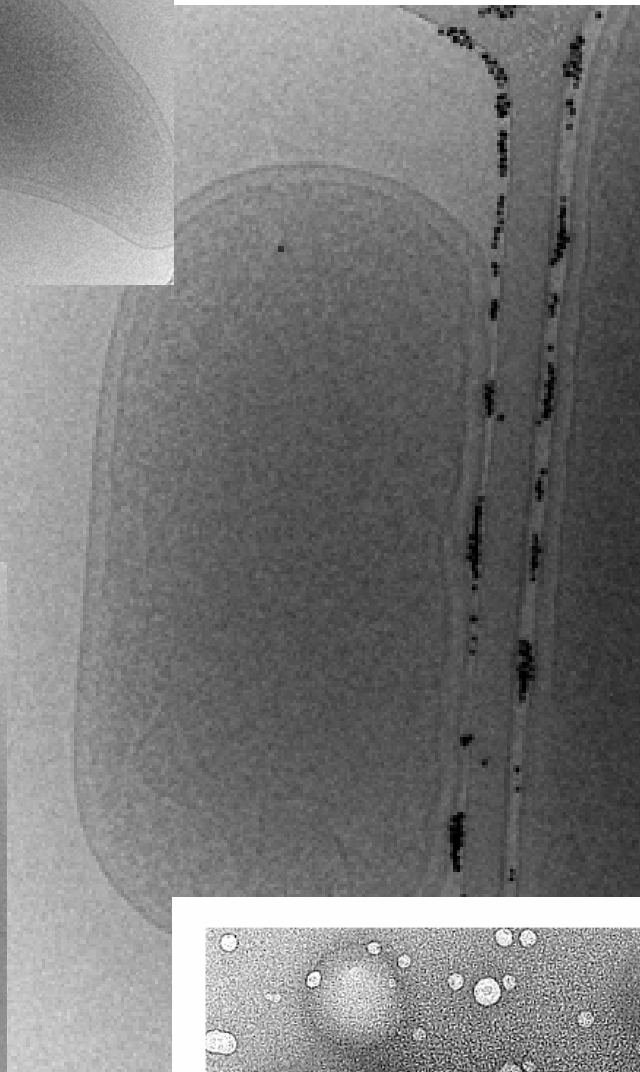
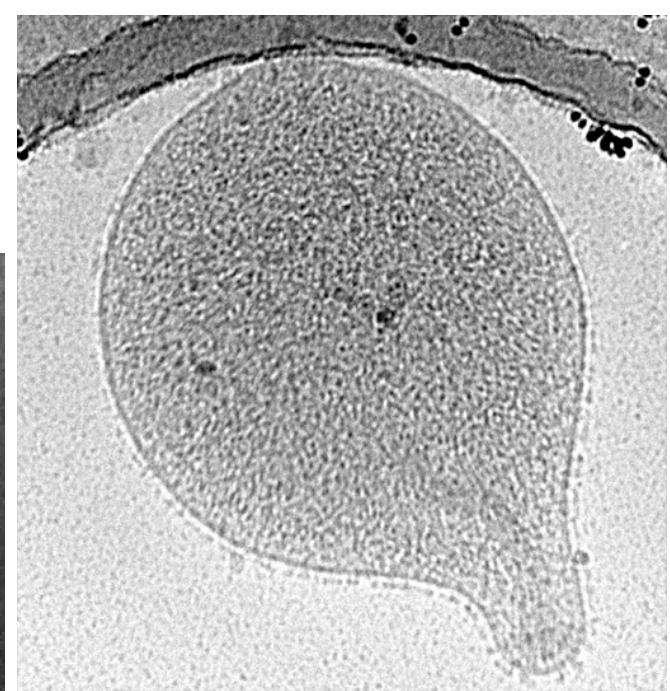
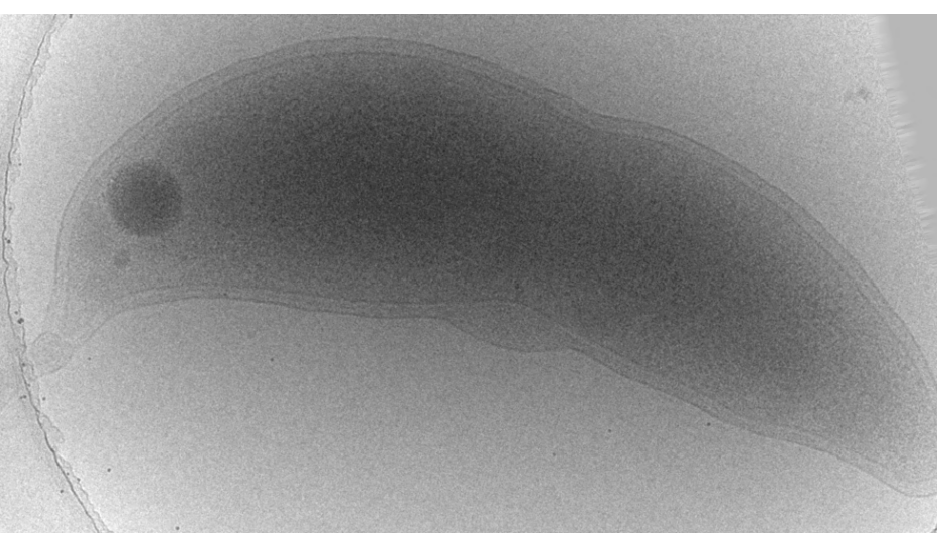
***Grant Jensen
Caltech***



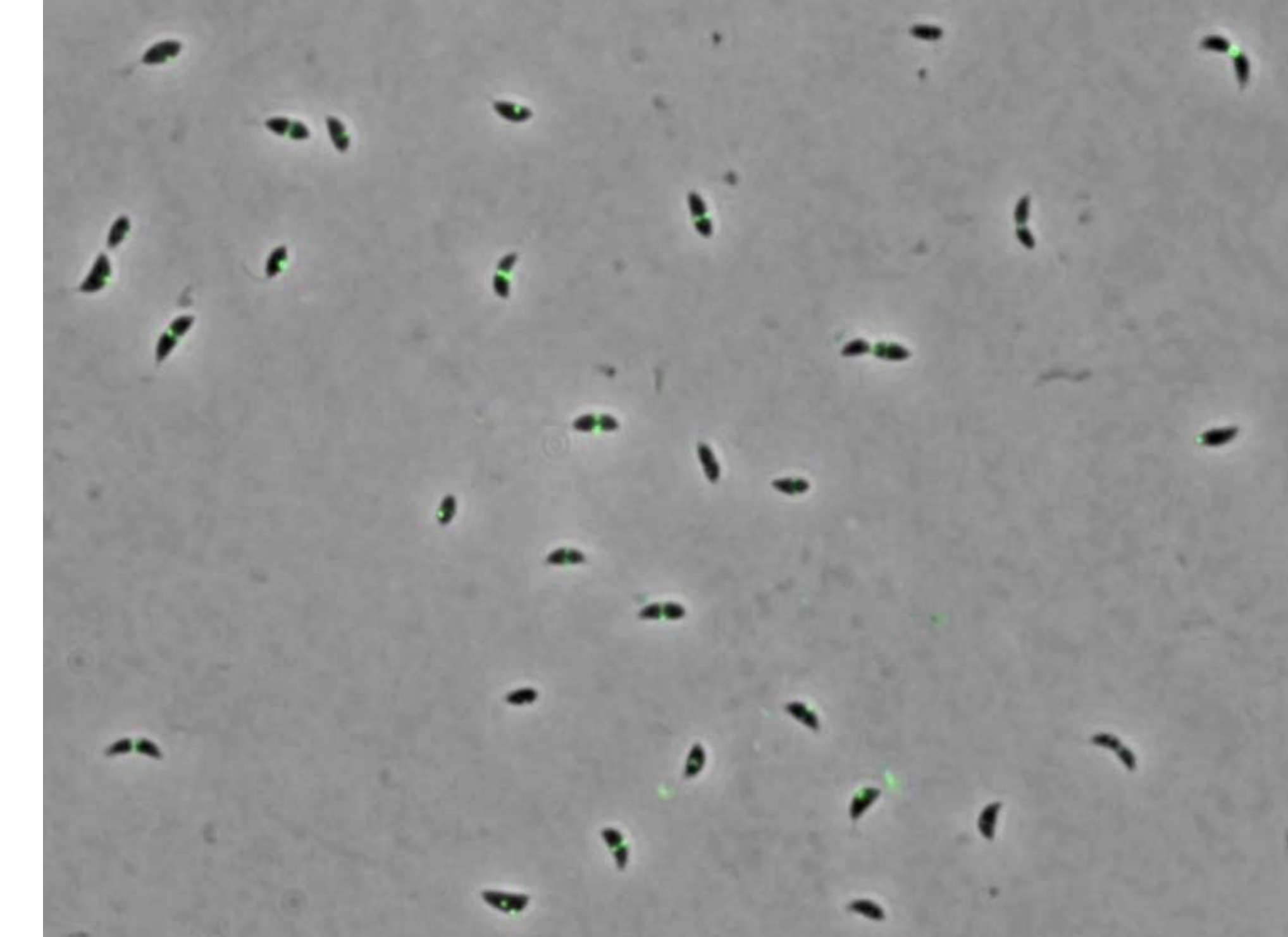
basic metabolism

from http://www.expasy.org/cgi-bin/show_thumbnails.pl

Movie

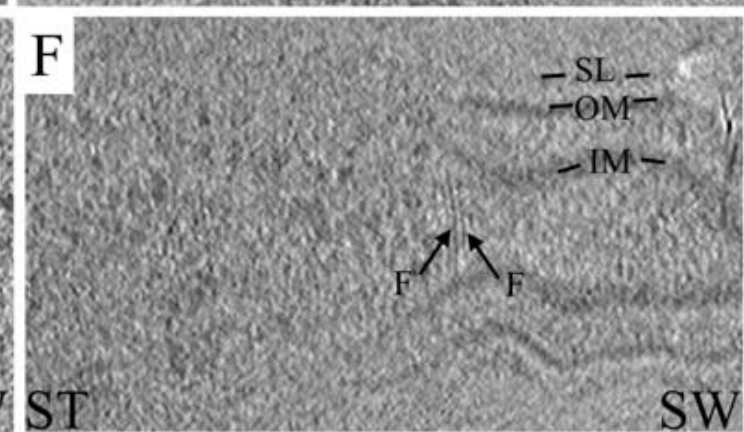
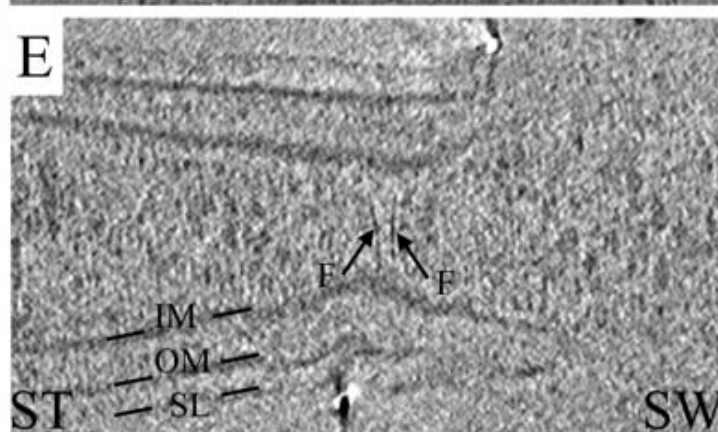
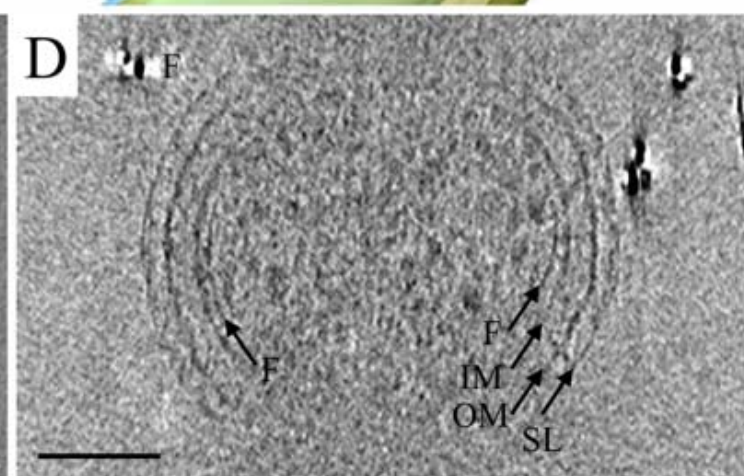
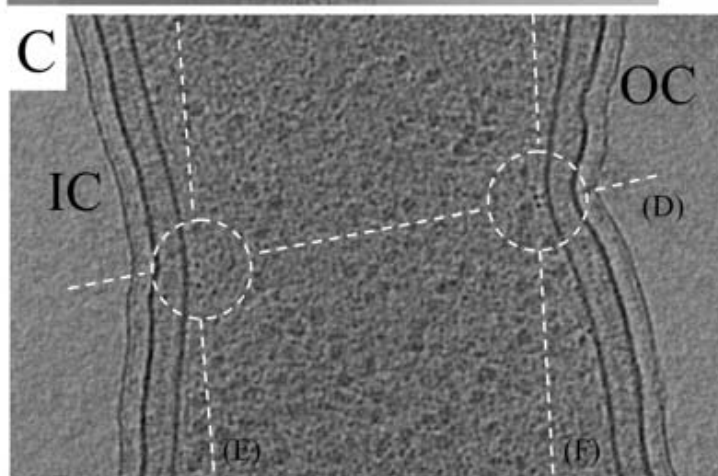
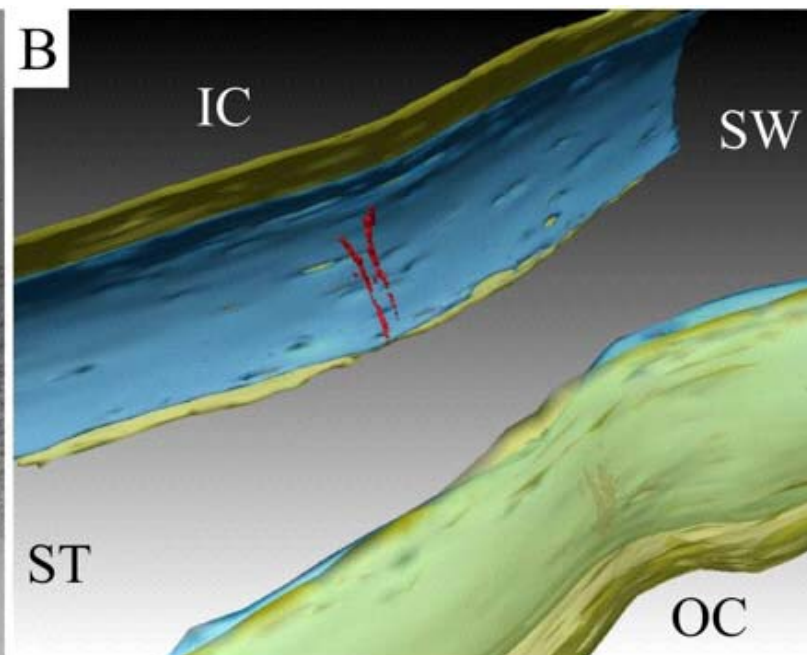
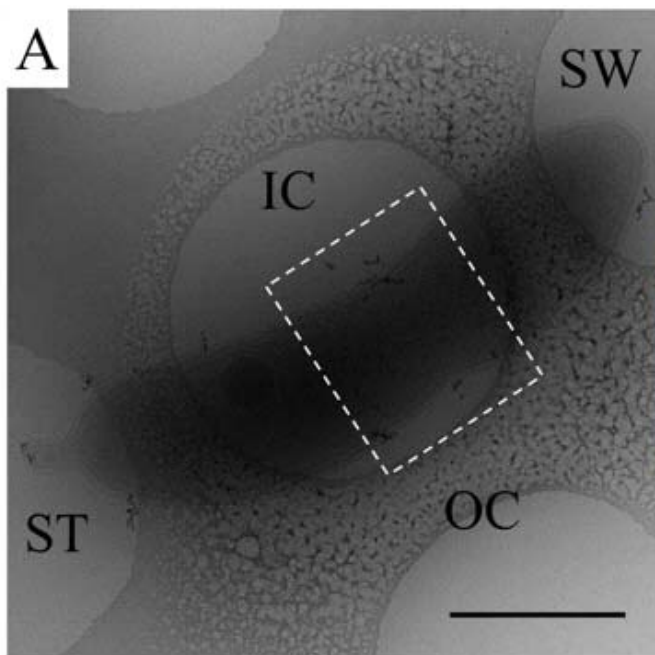




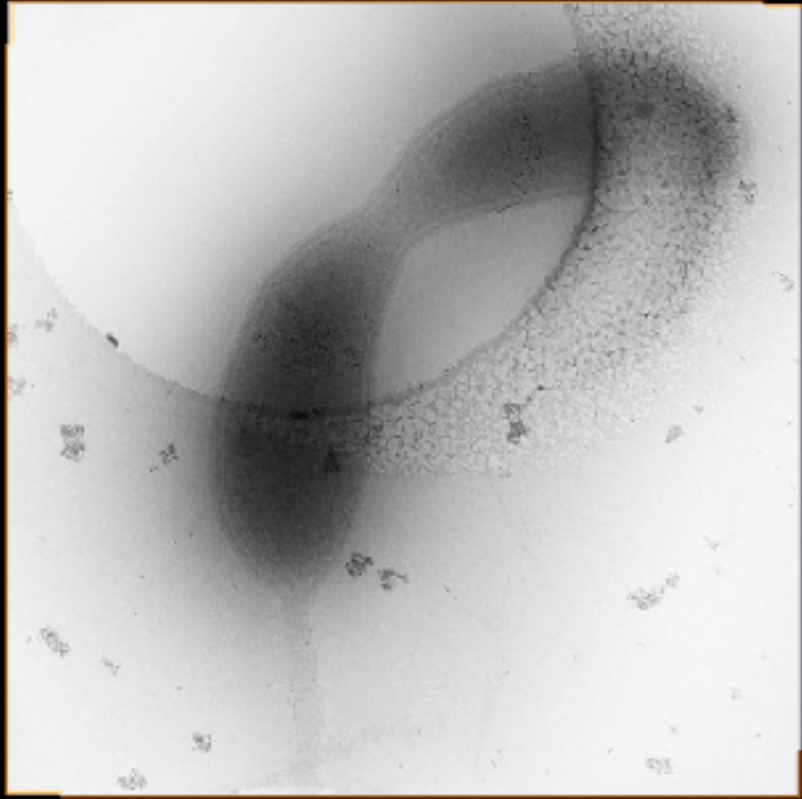


Caulobacter crescentus ftsZ-yfp

Movie

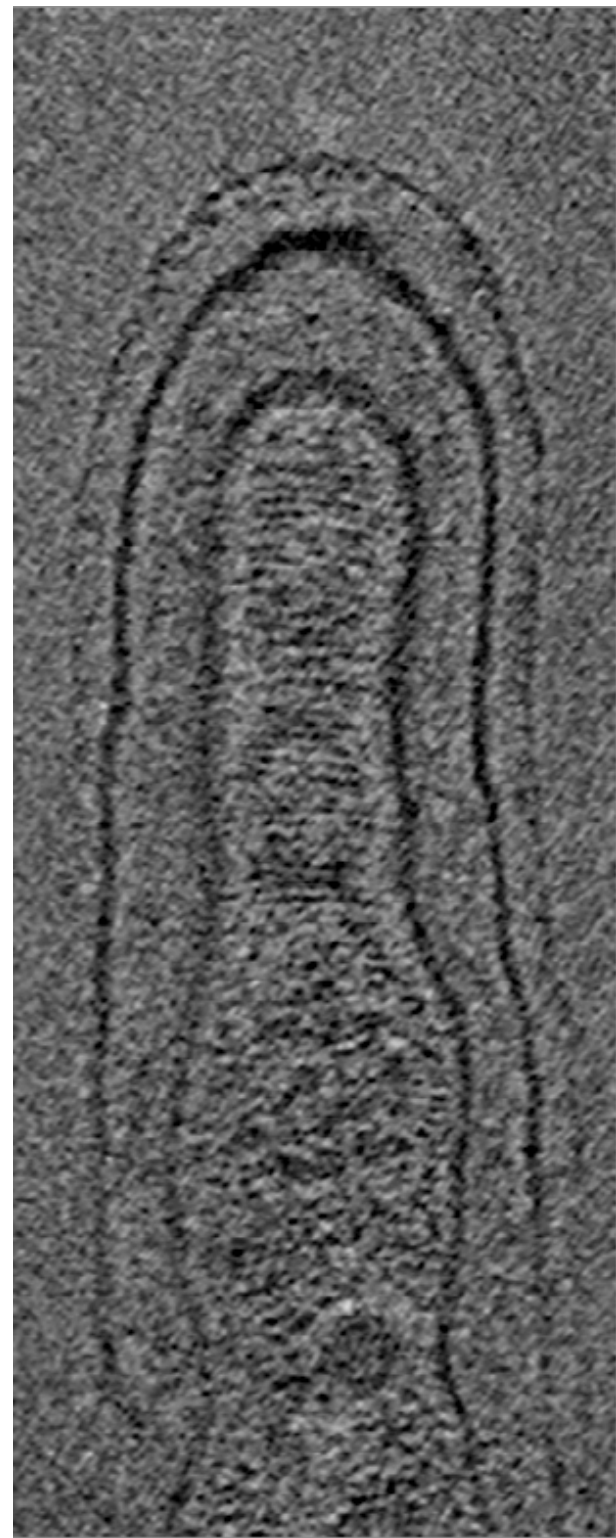
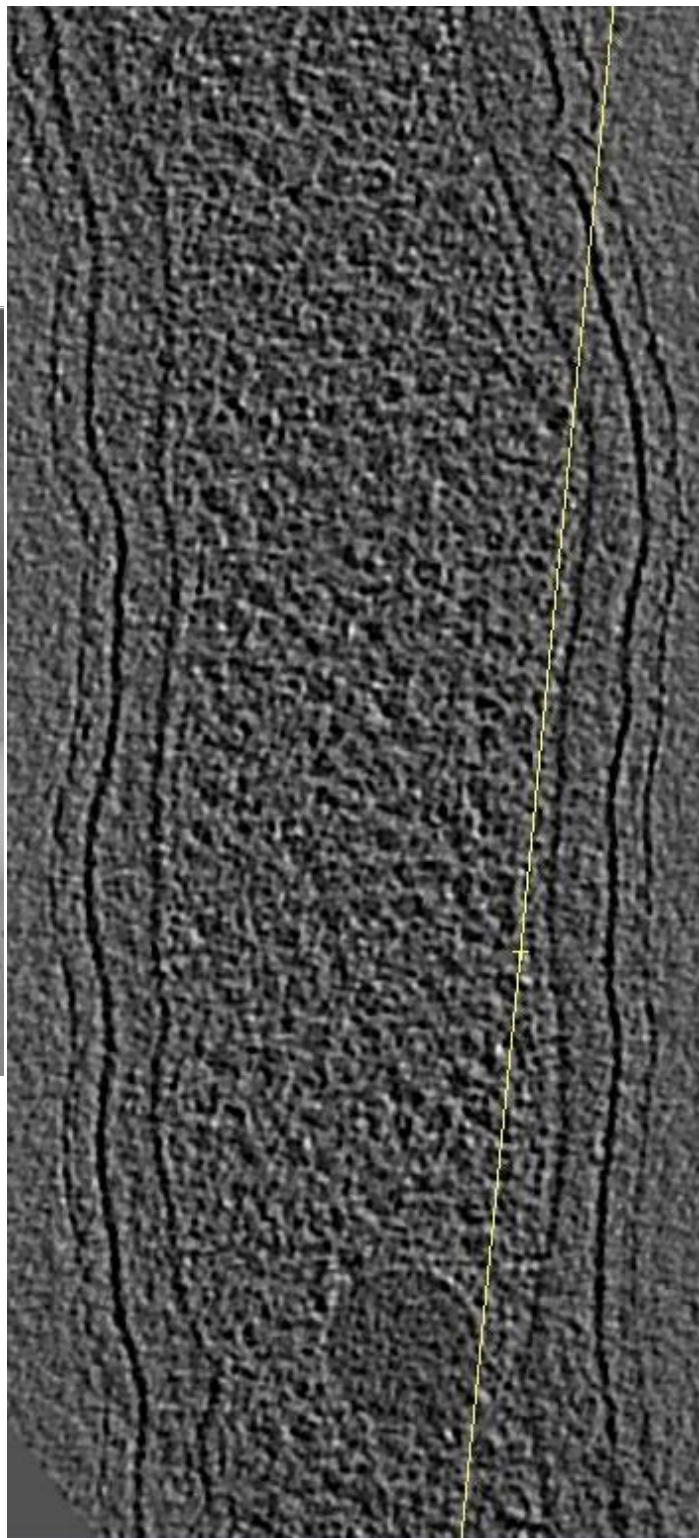
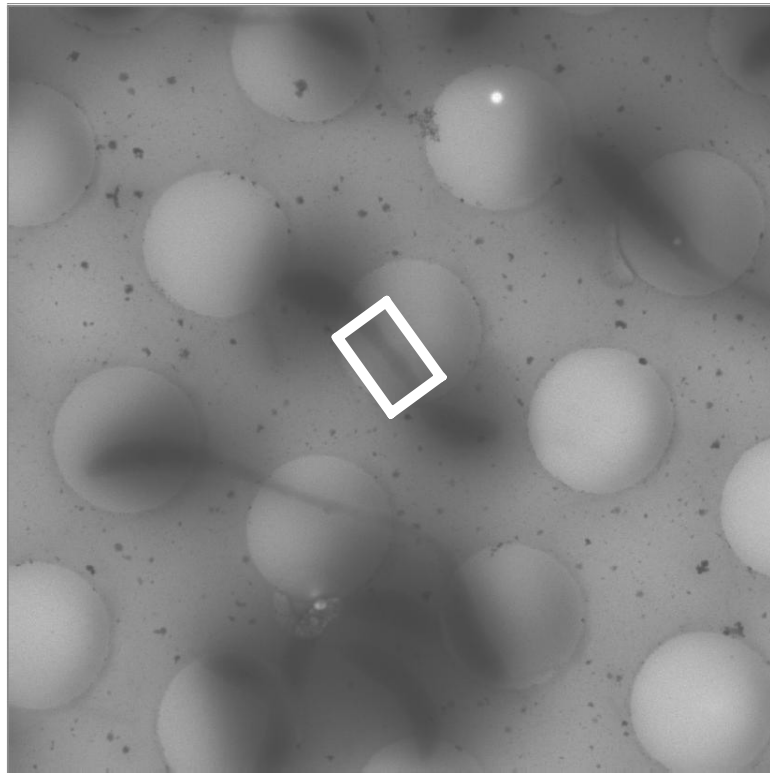


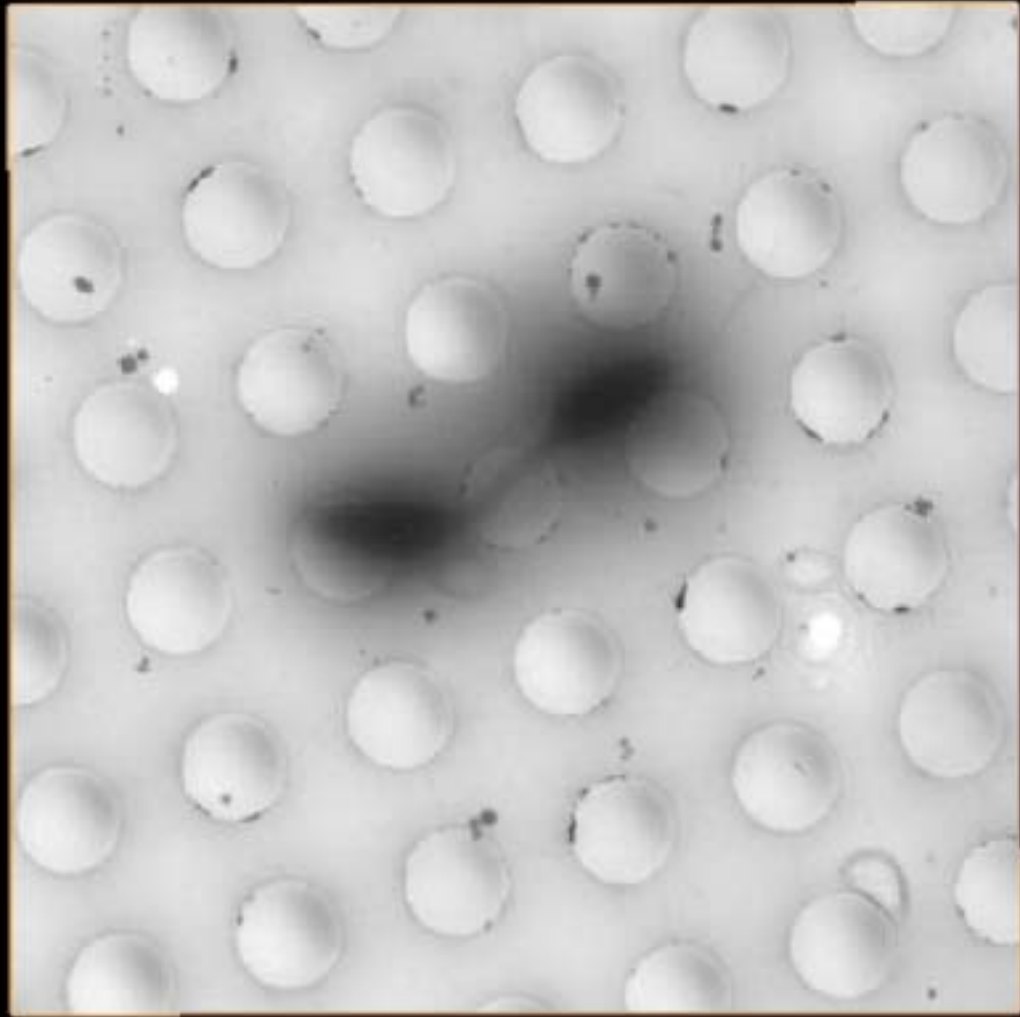
Movie

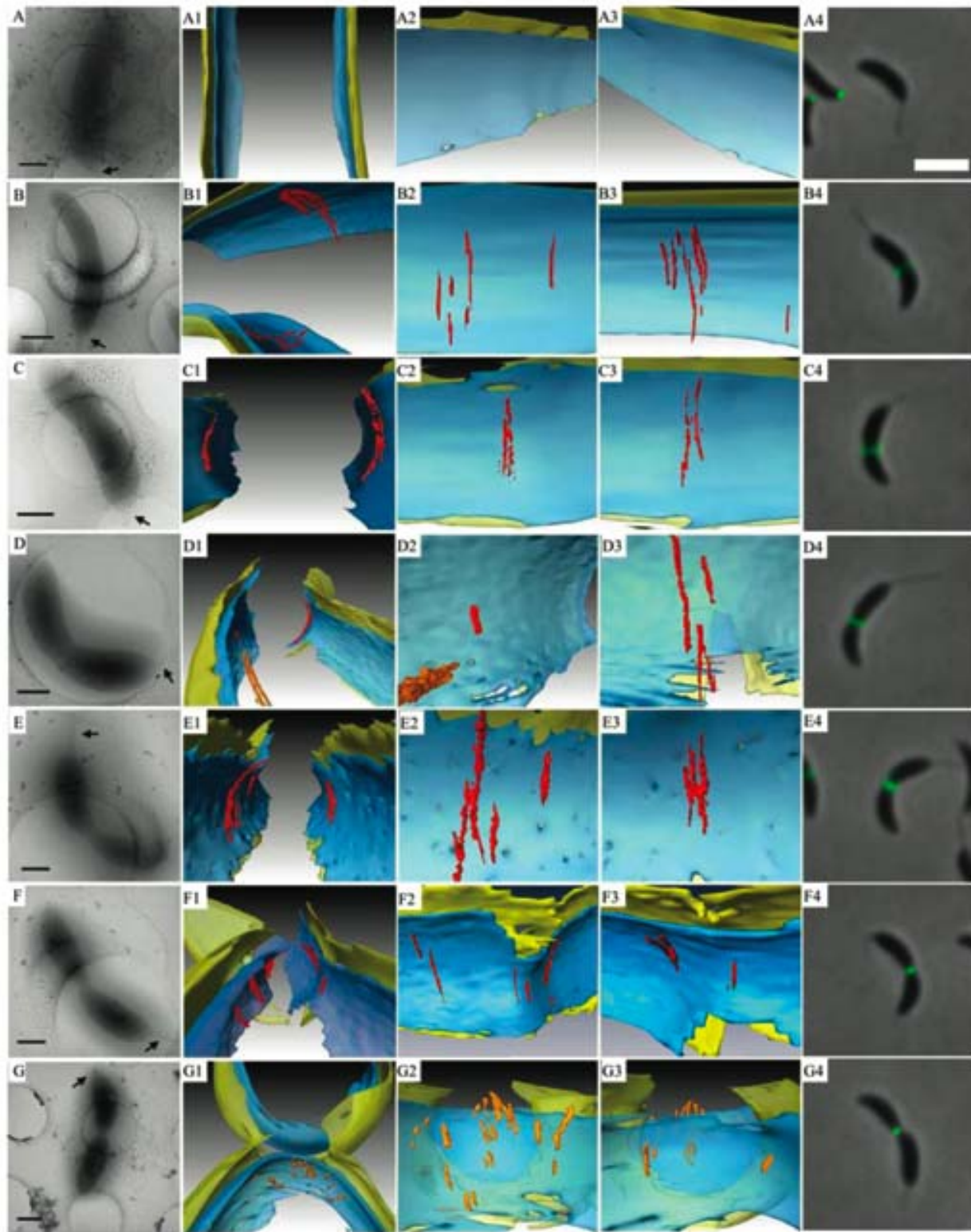


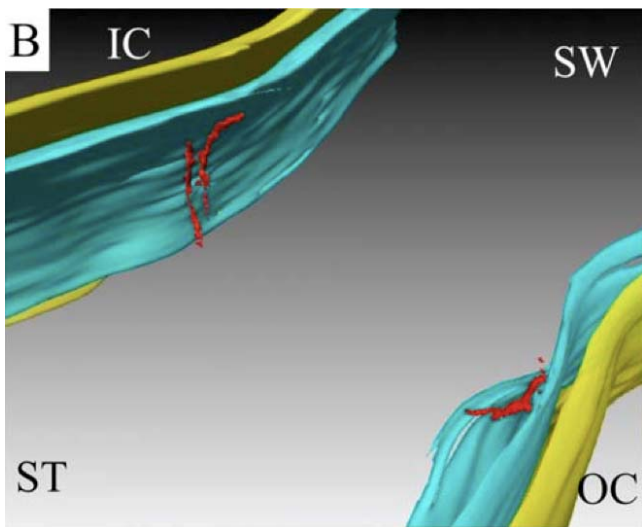
FtsZ G109S (Yves Brun lab)



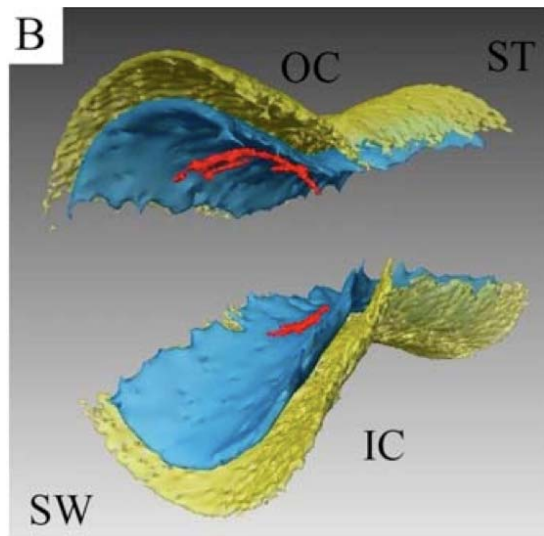




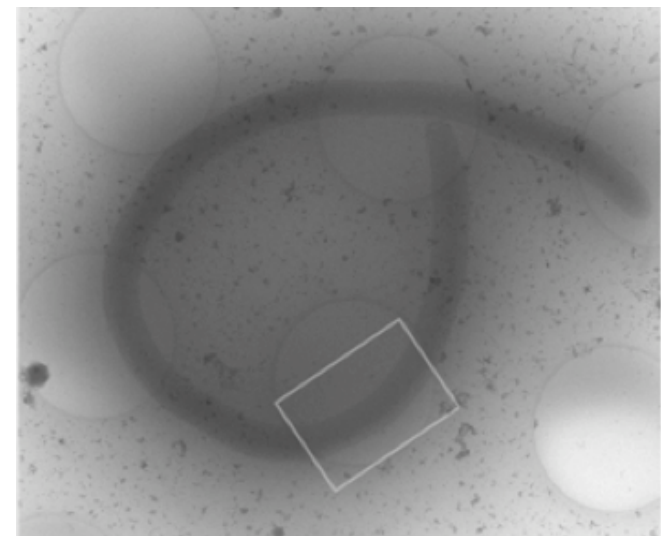




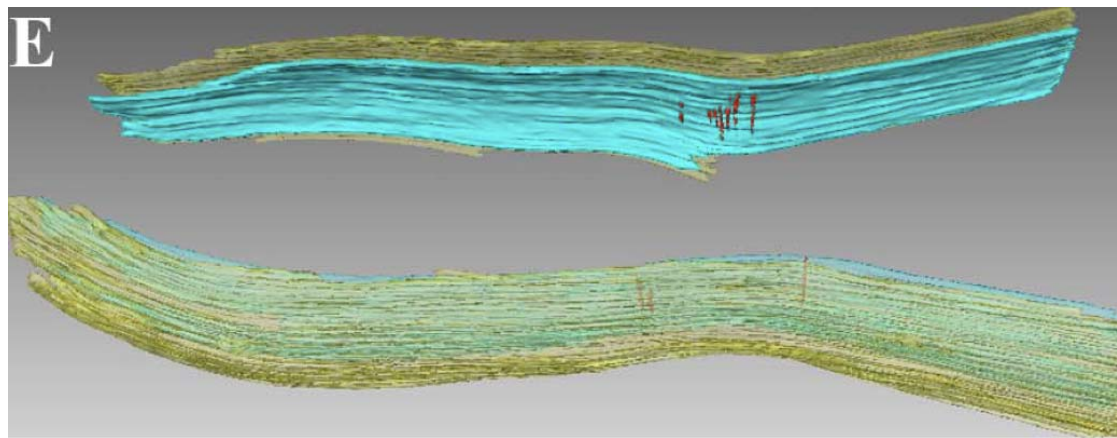
Wildtype



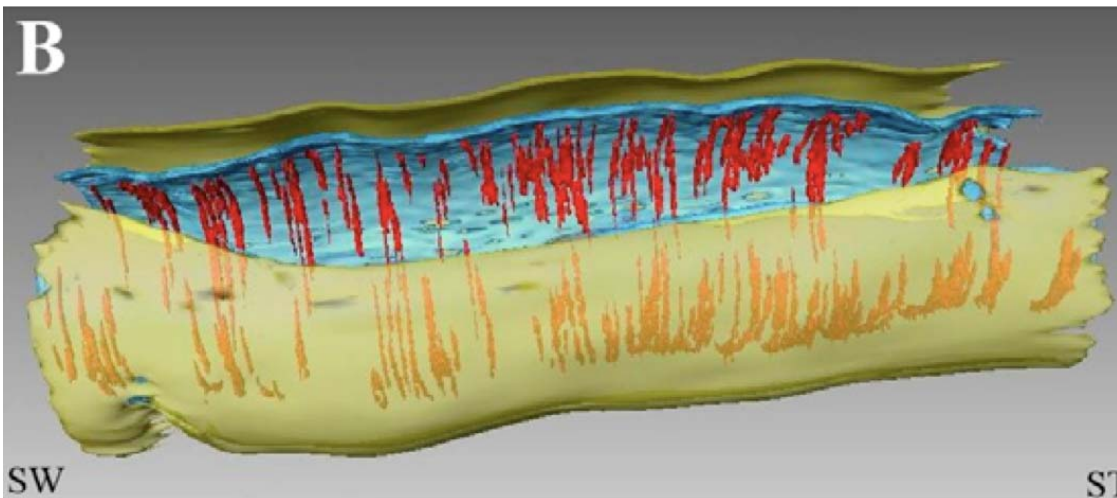
Wildtype + A22



FtsZ depletion

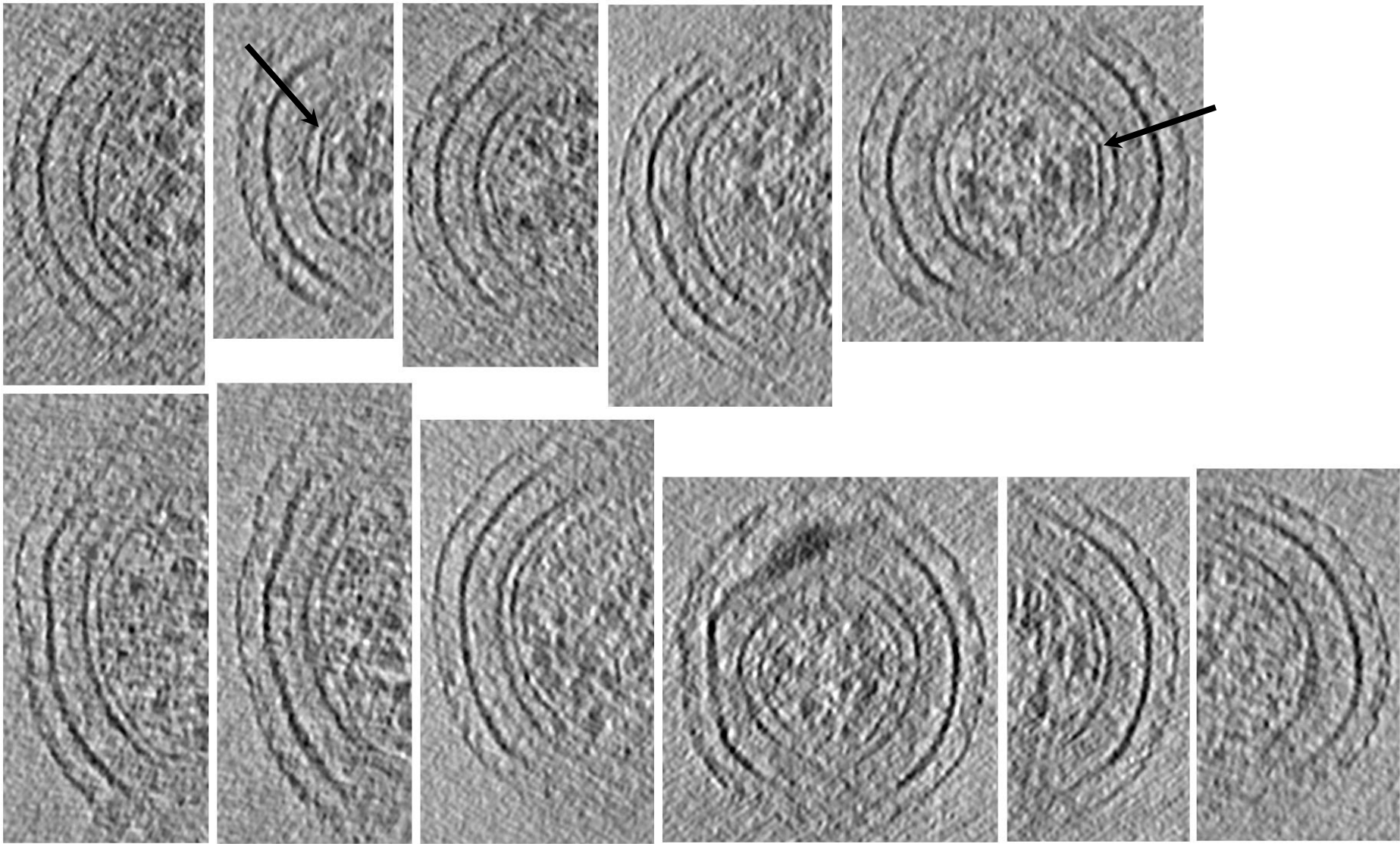


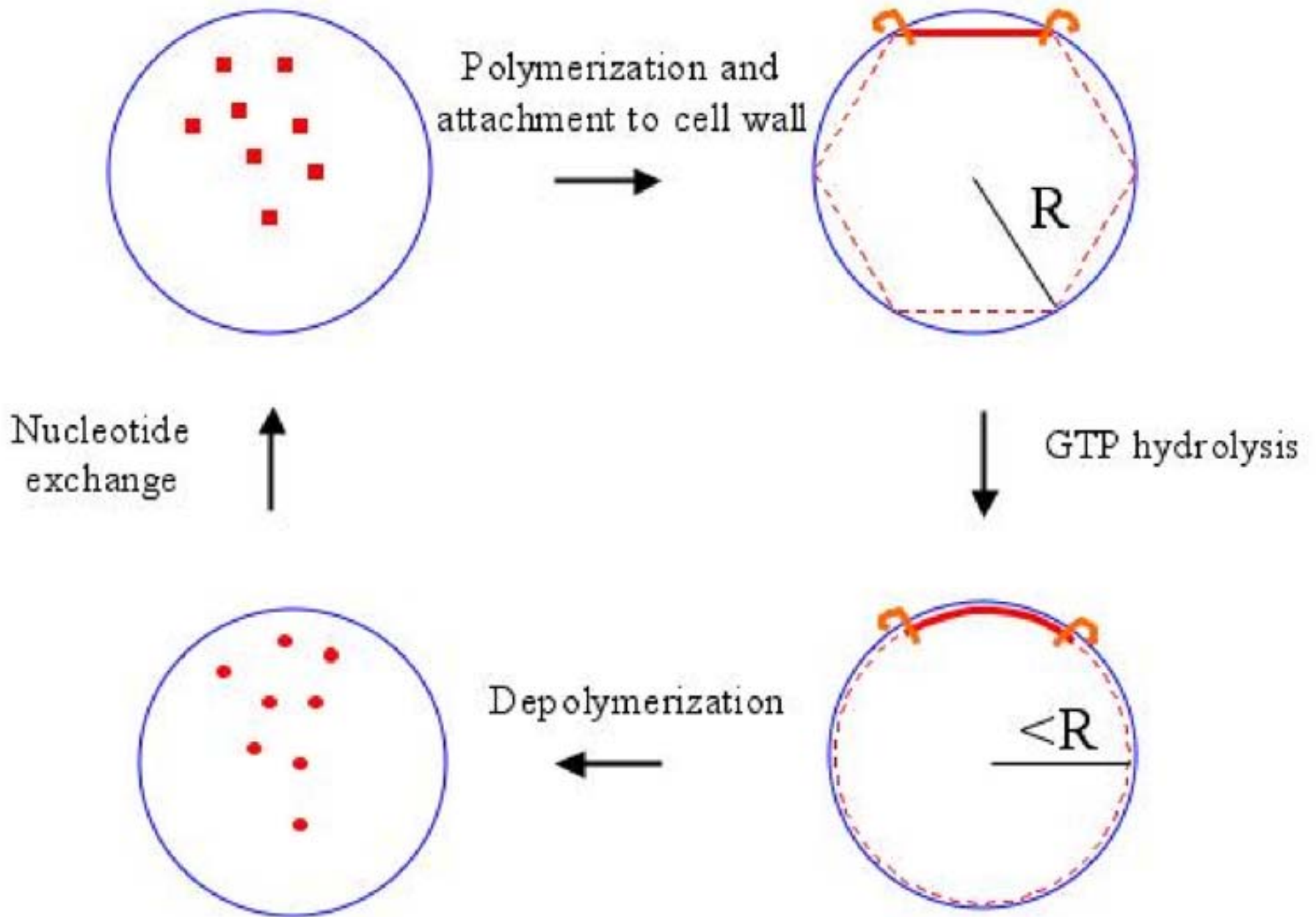
Overexpression
of wildtype FtsZ



Overexpression of
stable mutant FtsZ

sZ filaments are sometimes straight and sometimes curved

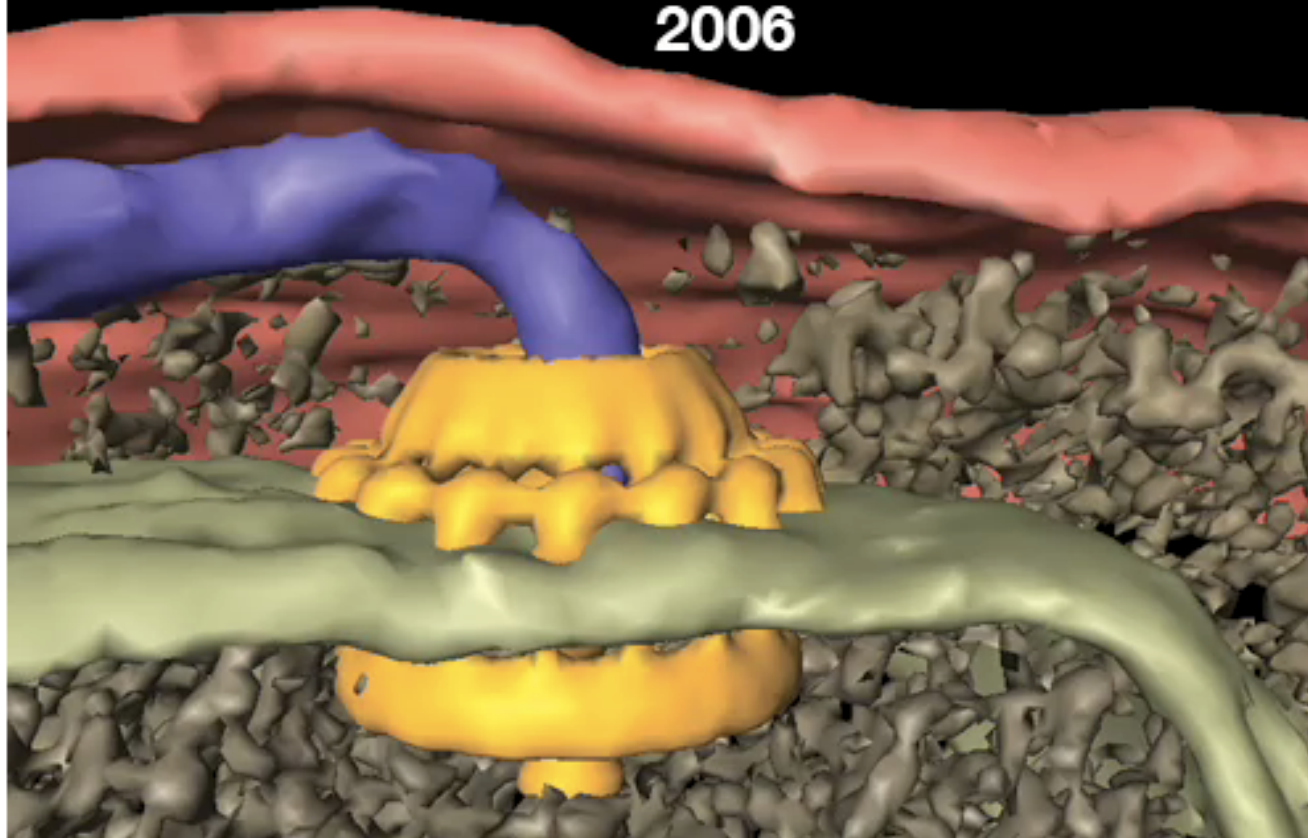




Movie

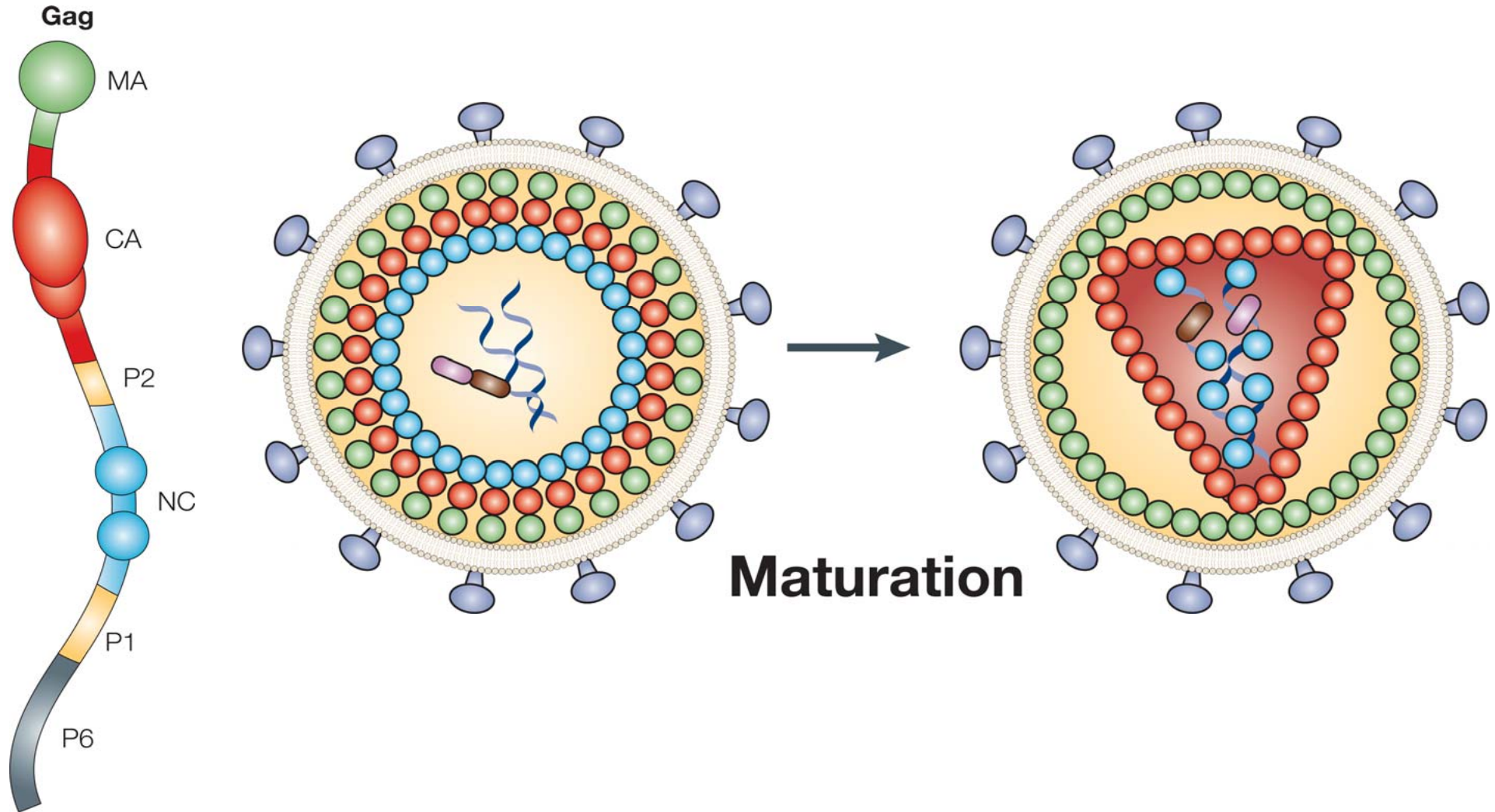
**Electron Cryotomography of
Treponema primitia and its
periplasmic flagellar motor**

**Gavin Murphy
Jensen Lab
2006**

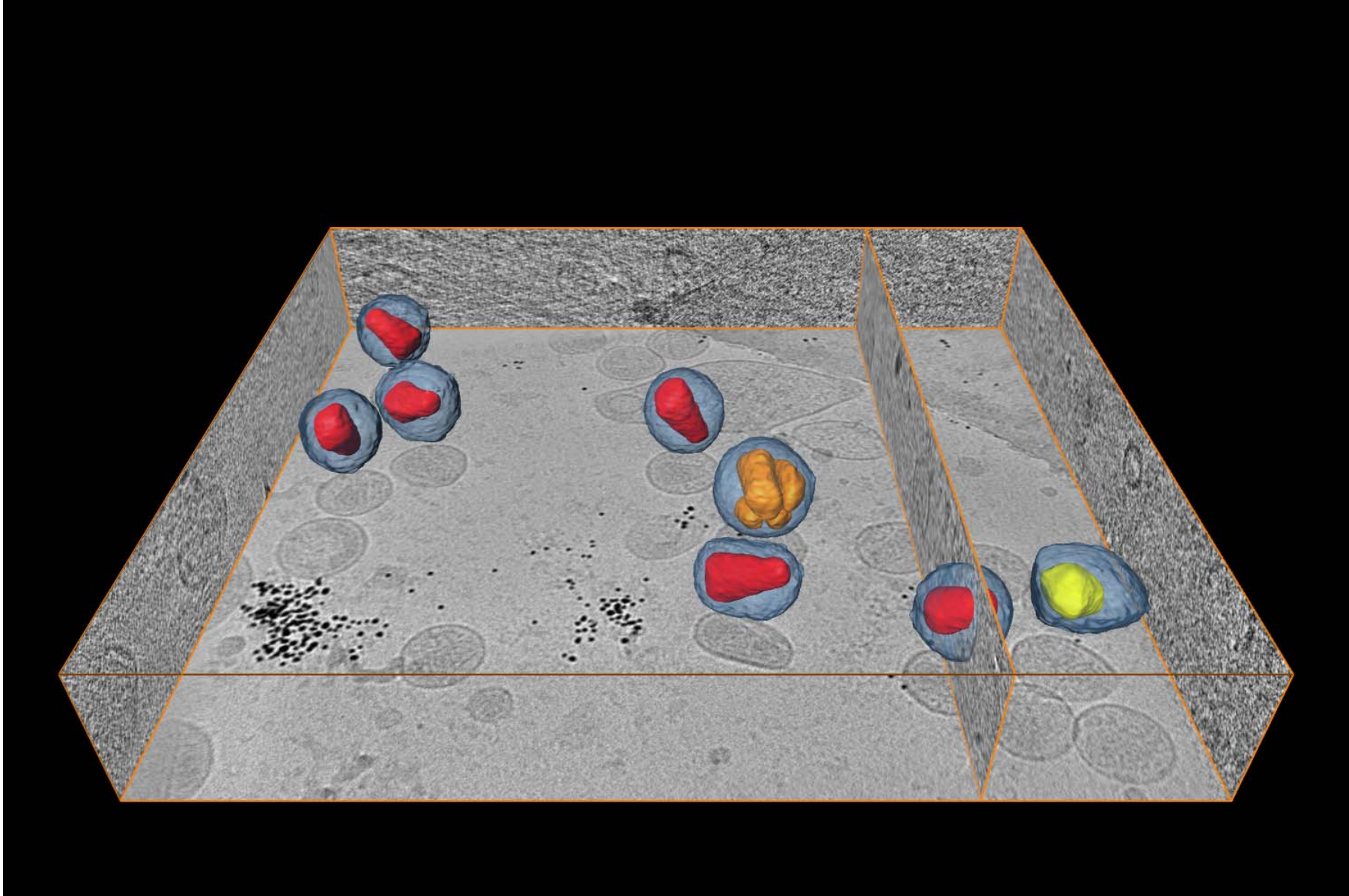


Now for something else... a virus

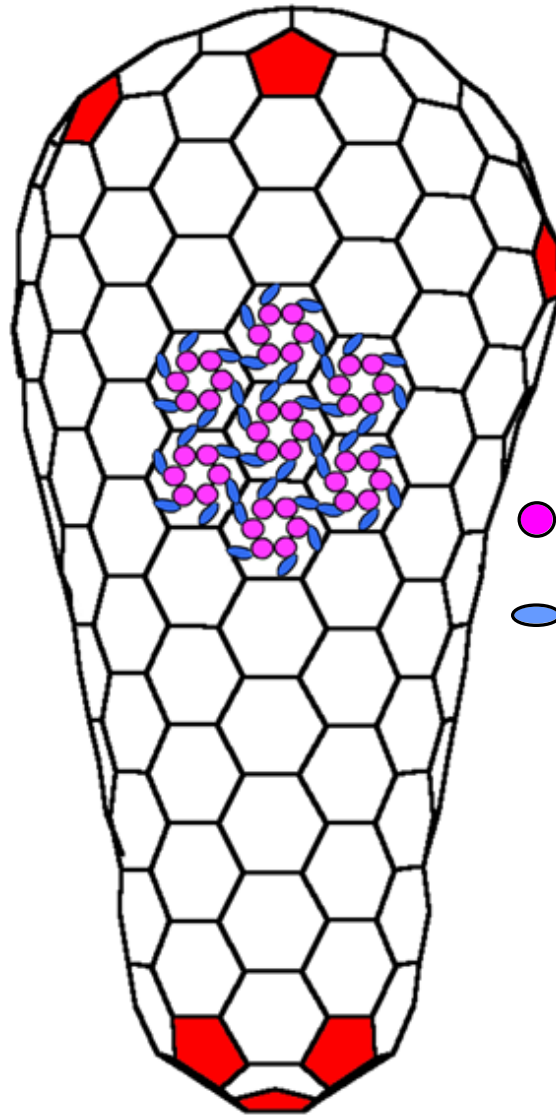
HIV-1 Maturation



Movie



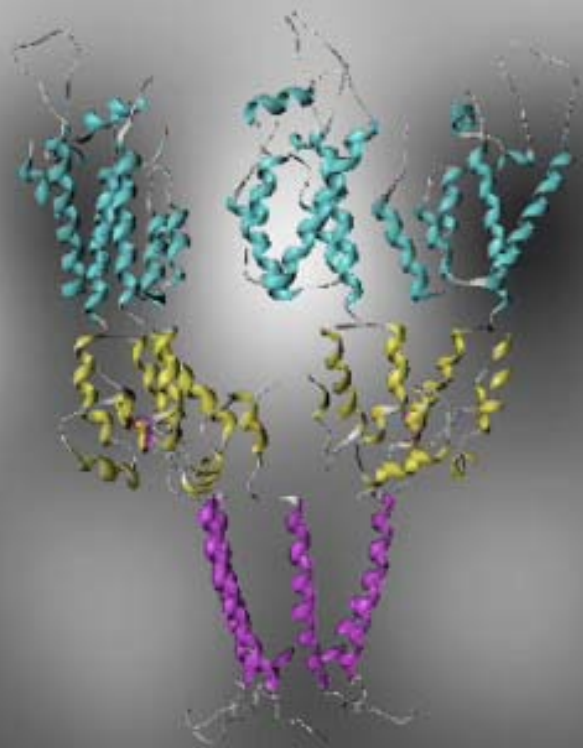
Fullerene Cone Model of the HIV-1 Capsid



- N-Terminal Domain
- C-Terminal Domain

Courtesy Wes Sundquist

Electron Cryotomography of Immature HIV-1 Virions Reveals the Structure of the CA and SP1 Domains of Gag



Elizabeth R. Wright, Jordan B. Schooler, H. Jane Ding,
Collin Kieffer, Christopher Fillmore, Wesley I. Sundquist,
and Grant J. Jensen

Movie created by H. Jane Ding and Jordan B. Schooler

The Jensen Laboratory
California Institute of Technology
July 2006

Movie

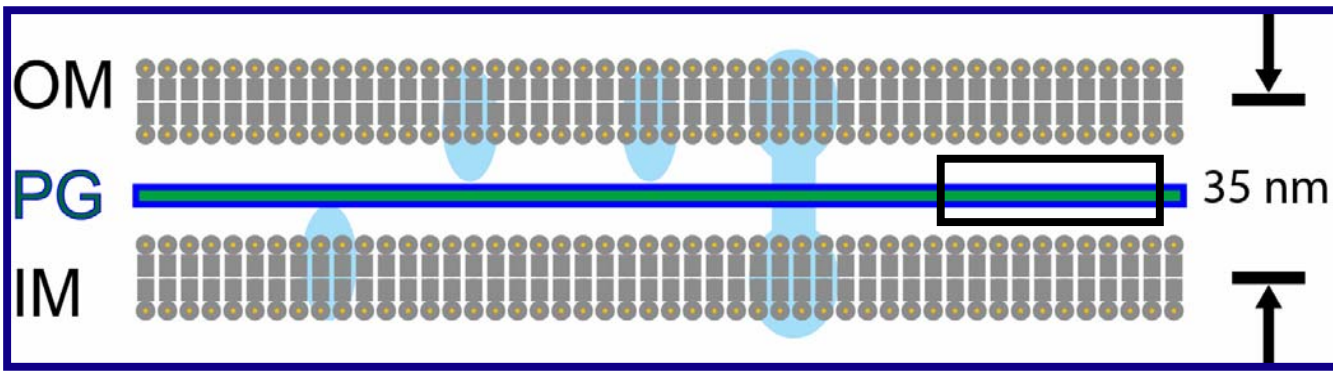
Now for something else...

a purified protein complex

And finally, the very smallest thing
we've ever tried...

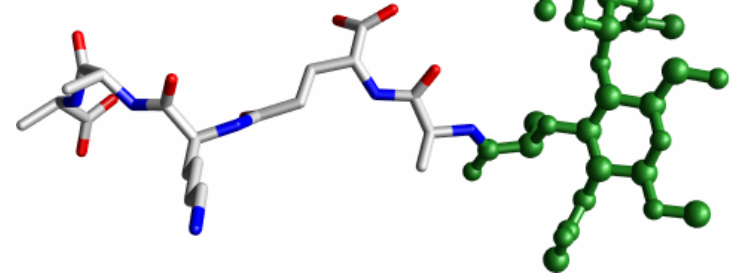
peptidoglycan

Movie



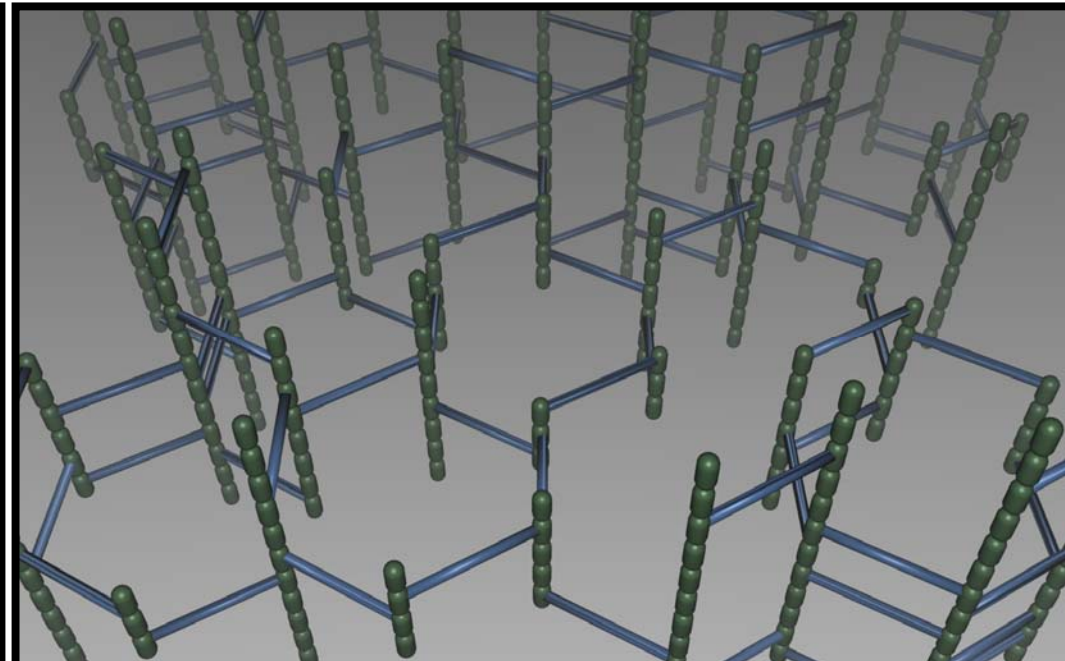
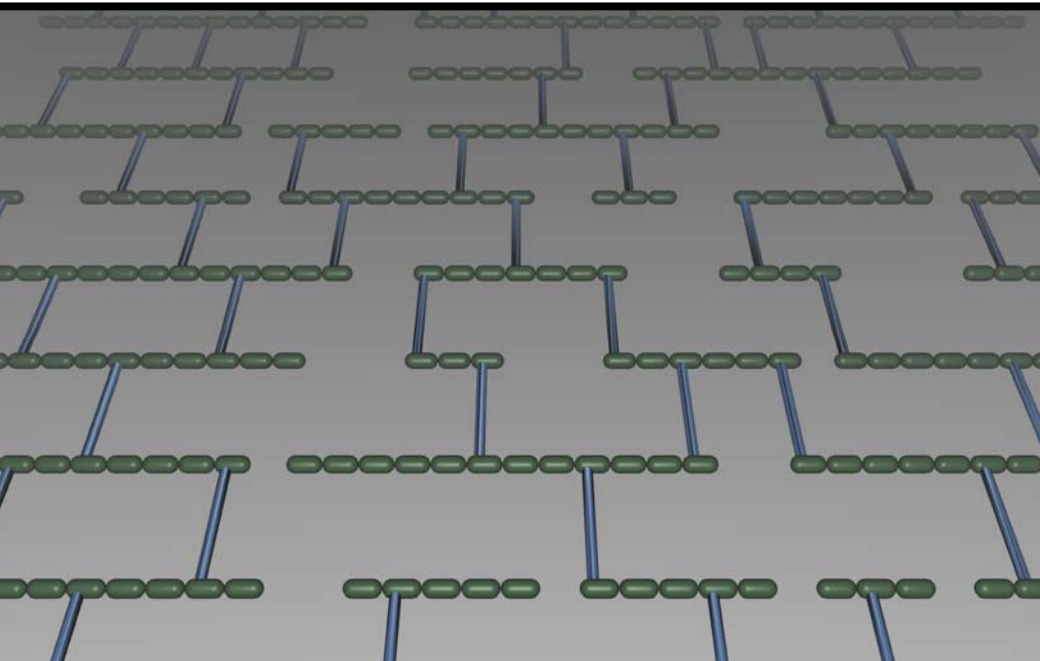
NAM-NAG
(glycan)

Peptide crosslink



Layered?

Scaffold?



Movie

Current group members



- *Bill Tivol*
- *Prabha Dias*
- *Jane Ding*
- *Andy Rawlinson*
- *Cristina Iancu*
- *Elizabeth Wright*
- *Zhiheng Yu*
- *Zhuo Li*
- *Ariane Briegel*
- *Lu Gan*
- *Greg Henderson*
- *Gavin Murphy*
- *Peter Leong*
- *Dylan Morris*
- *Christian Suloway*