Director of Research

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Curriculum Vitae

Research Staff

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Curriculum Vitae

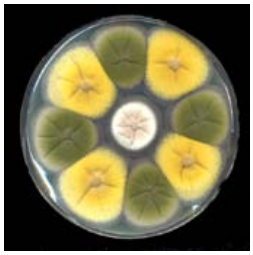
Ada Biratsi, Post-Graduate Fellow (PhD candidate)

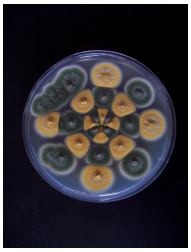
Mirsini Charicleous, Undergraduate Student (Diploma Thesis)

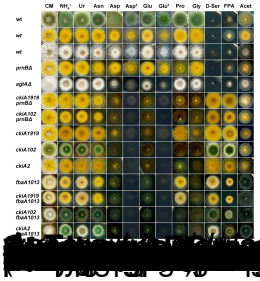
Loudres Arias Salazar, Erasmus student

Research Interests

Our group is primarily interested in several aspects concerning: 1) regulation of expression, structure-function relationships, specificity, cell biology and evolution of amino acid transporter proteins and 2) the lateral organization of the fungal plasma membrane. Our model organism of choice is the non-pathogenic ascomycetes *Aspergillus nidulans*, a classic model genetic system since the 1950's. Two *A. nidulans* amino acid transporters have been cloned and studied in detail in respect to their transcriptional, post-translational/functional and cellular control of expression. In addition, we have introduced *A. nidulans* as a novel model system for the expression and/or functional characterization of heterologous transporter genes (Argyrou et al. 2001). In parallel, the last 7 years we have been studying the lateral compartmentation of *A. nidulans* plasma membrane and how this organization is implicated in different cellular processes. In particular we are focusing on “eisosomes” static plasma membrane compartments that constitute nanoscale furrow-like invaginations of the plasma membrane, where proteins and lipids segregate and their implication in fundamental cellular processes (sphingolipid biosynthesis, endocytosis of membrane proteins, function of efflux pumps and fungal pathogenicity).



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Ur
Asn
Asp
Glu
Pro
Gly
D-Ser
PPA
Acet
wt
wt
wt
pmtBΔ
sglAΔ
cikA1919 pmtBΔ
cikA102 pmtBΔ
cikA1919
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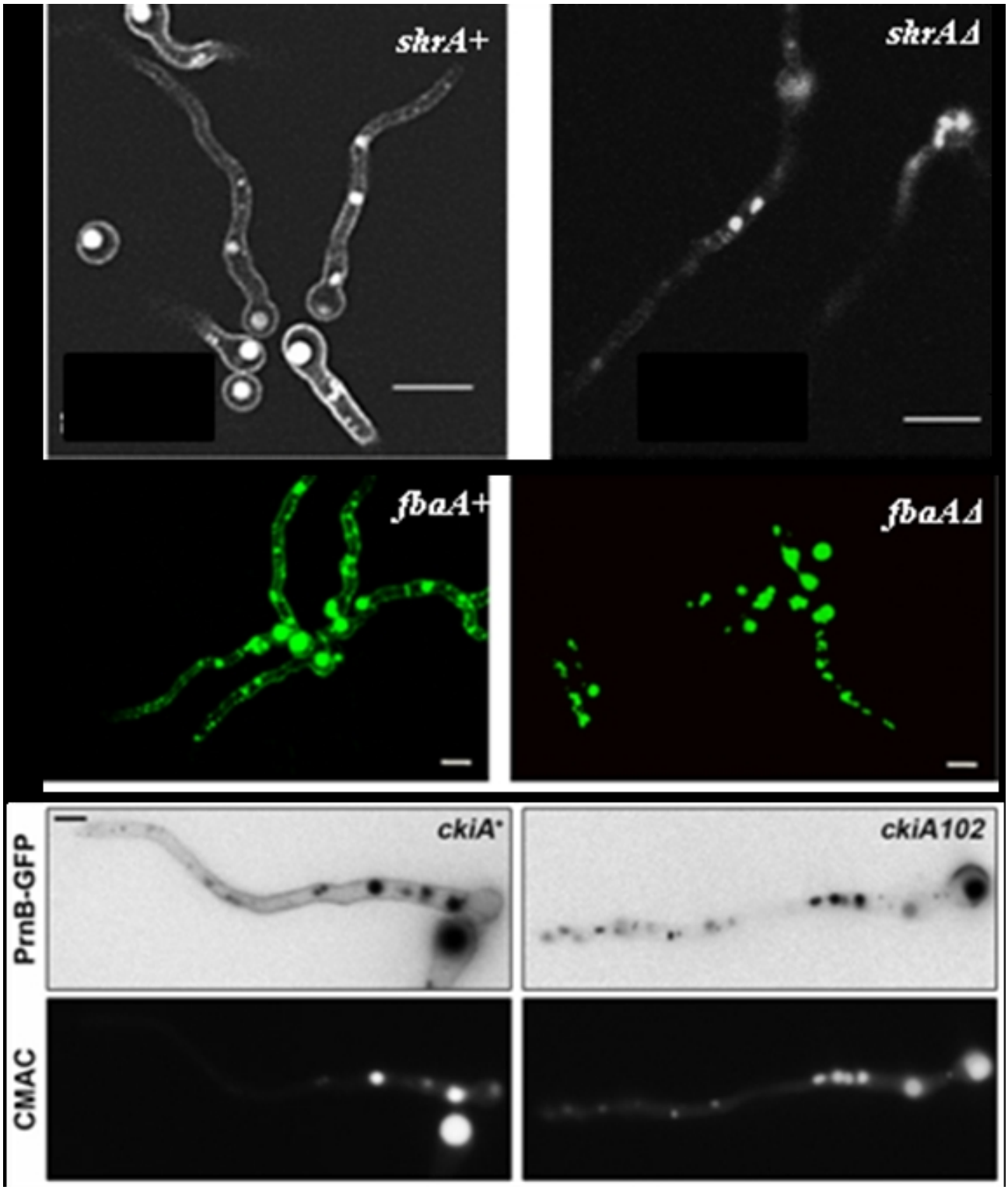
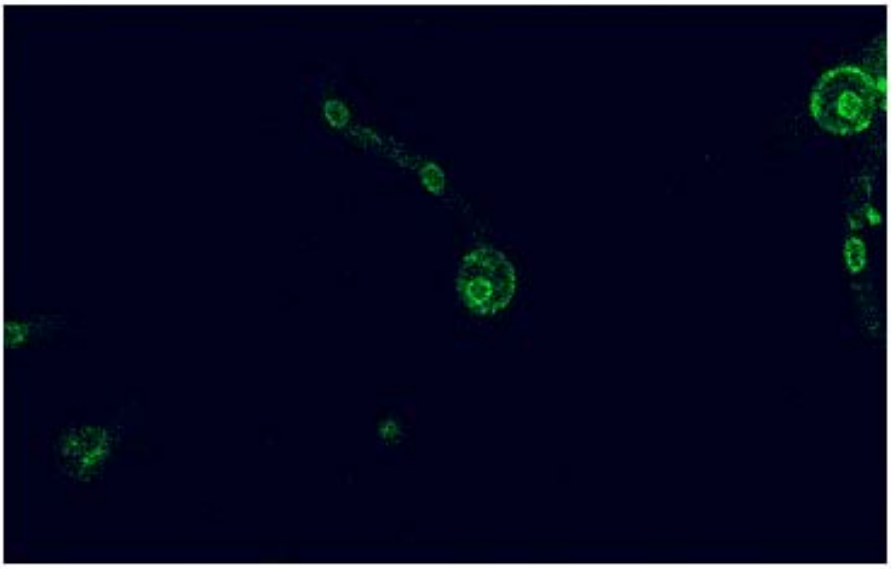
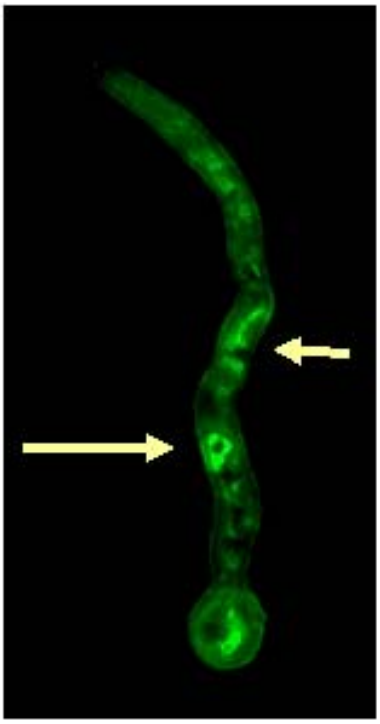
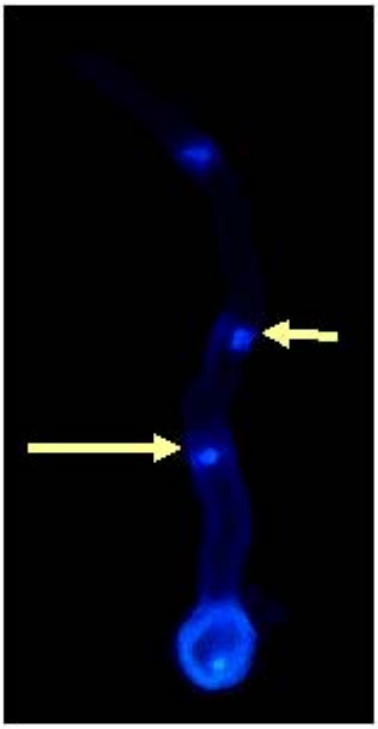
flaA1013
cikA1919 flaA1013
cikA102 flaA1013
cikA2 flaA1013

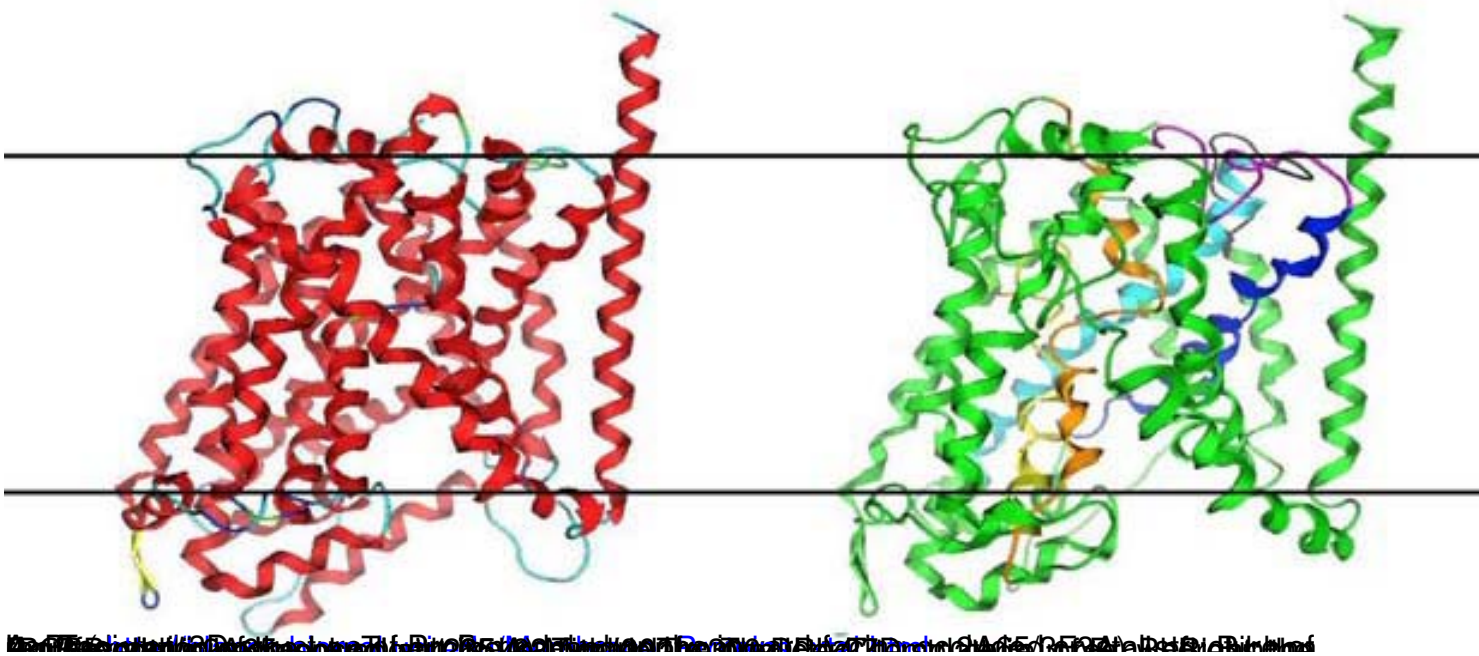

shrA+
shrAΔ
fbaA+
fbaAΔ
PrnB-GFP
CMAC
ckiA*
ckiA102

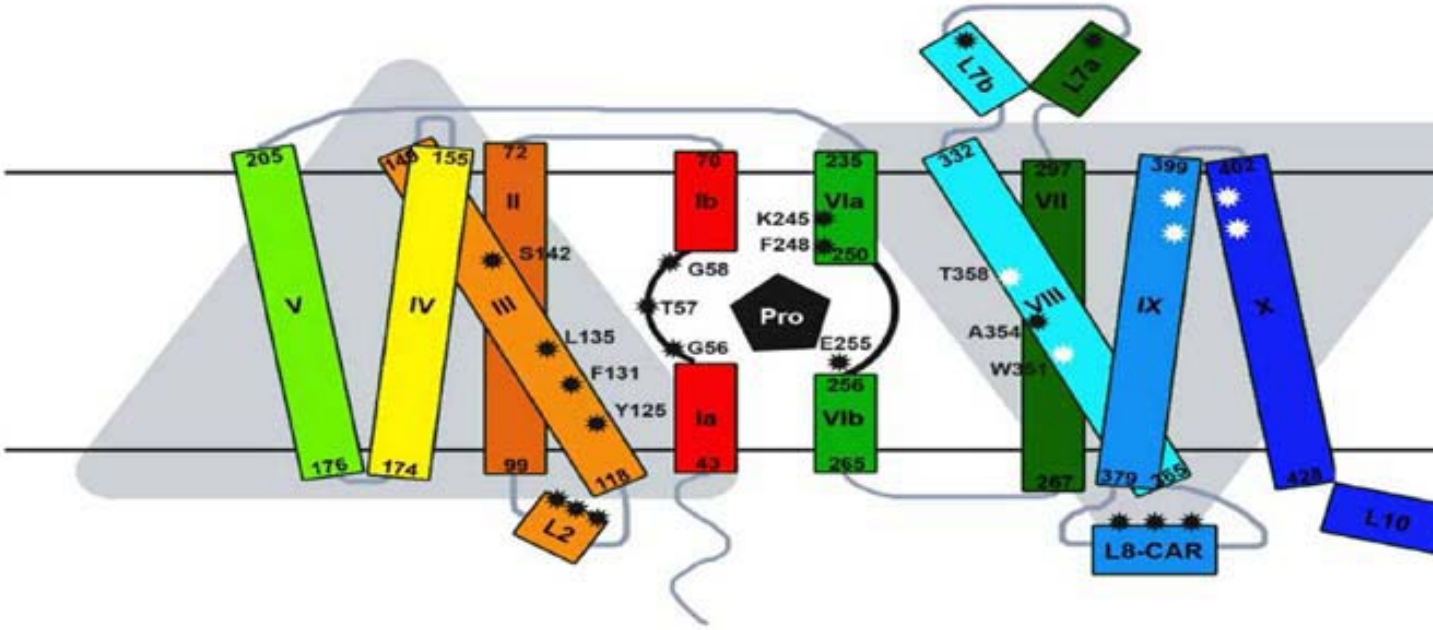




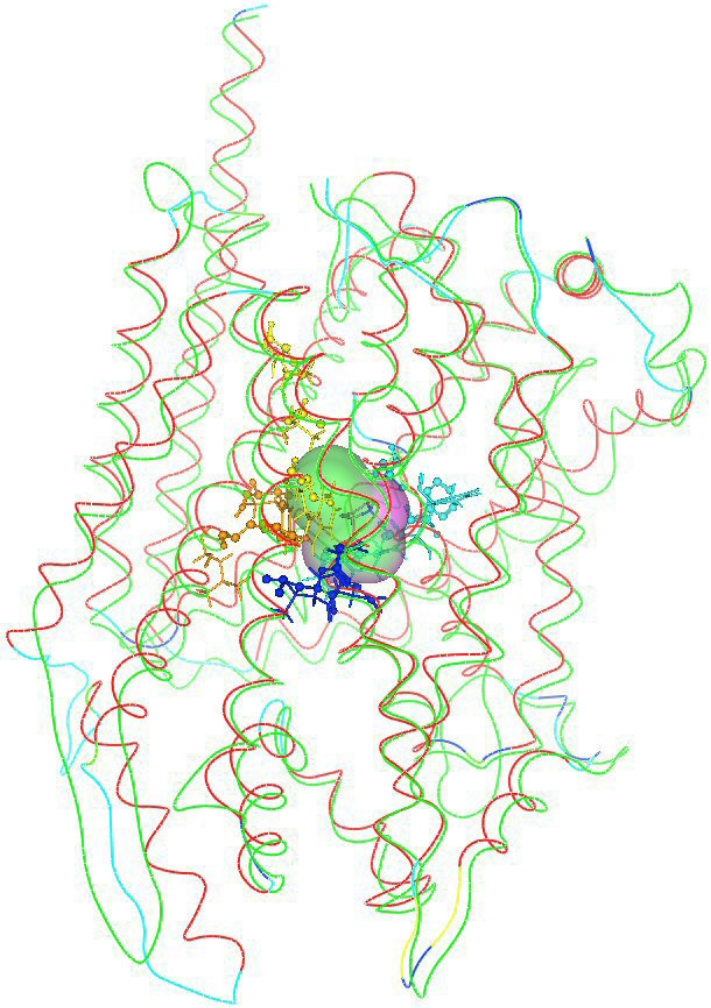


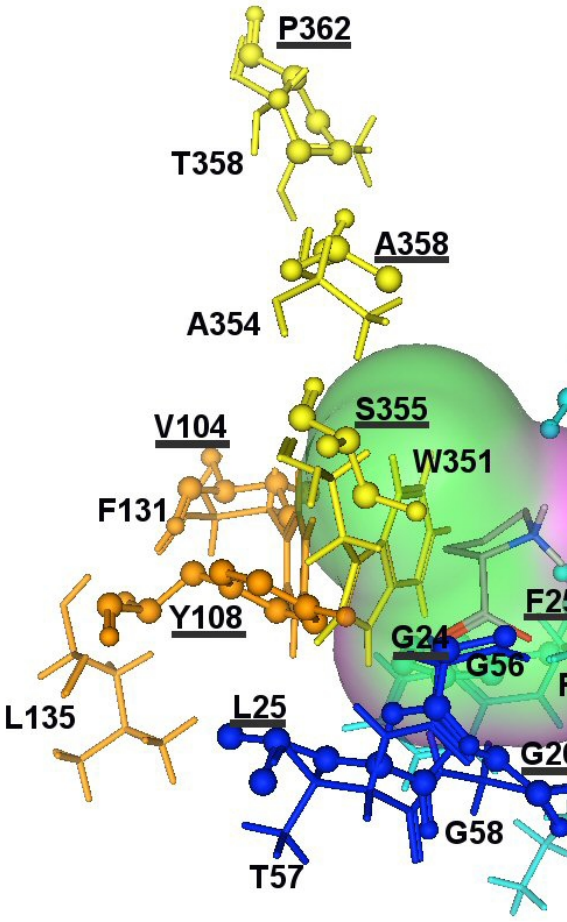
Shrimp plasmid *Aspergillus* (SP) promoter in A nidulans. Fluorescence microscopy image of





Basal and the two dispersal TMDs, TMD3 and TMD6, are shown in blue. Amino acid residues The figure is

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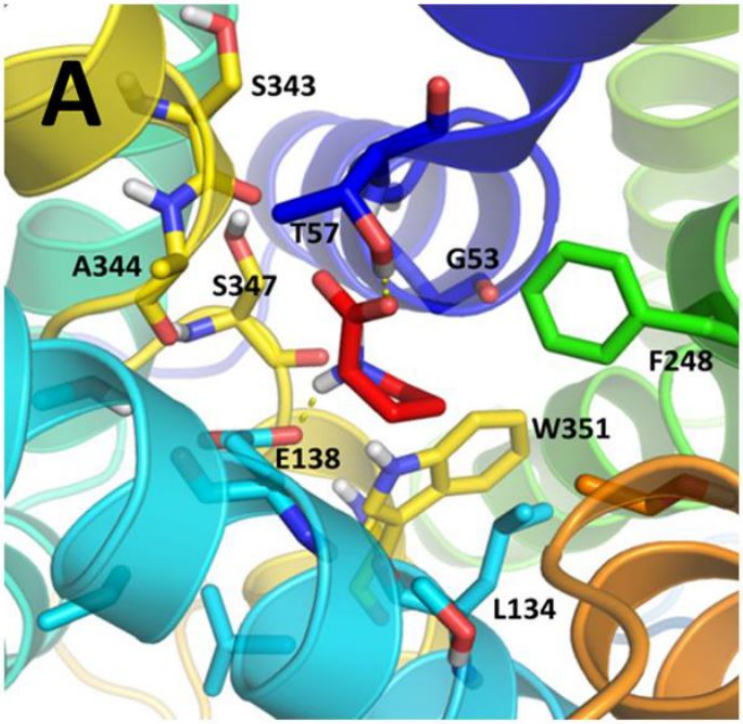
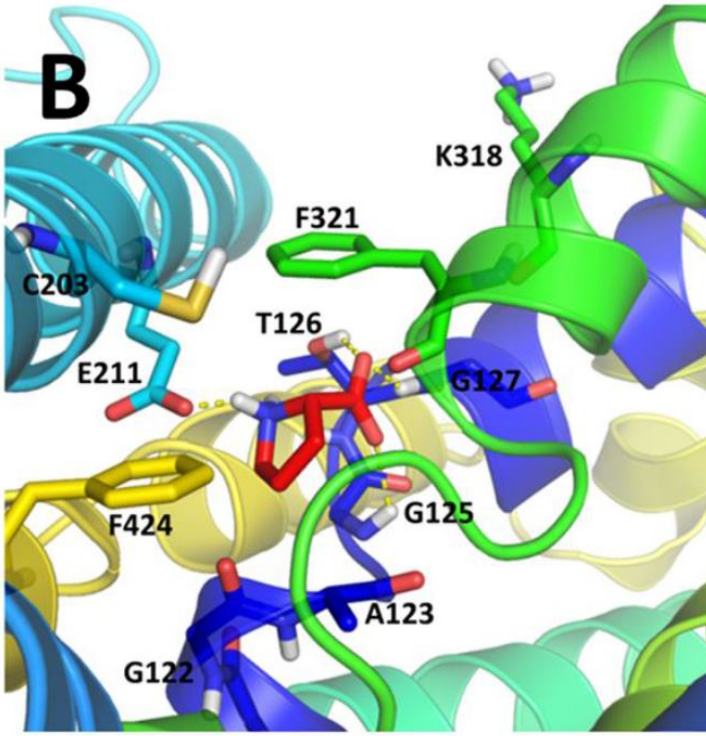
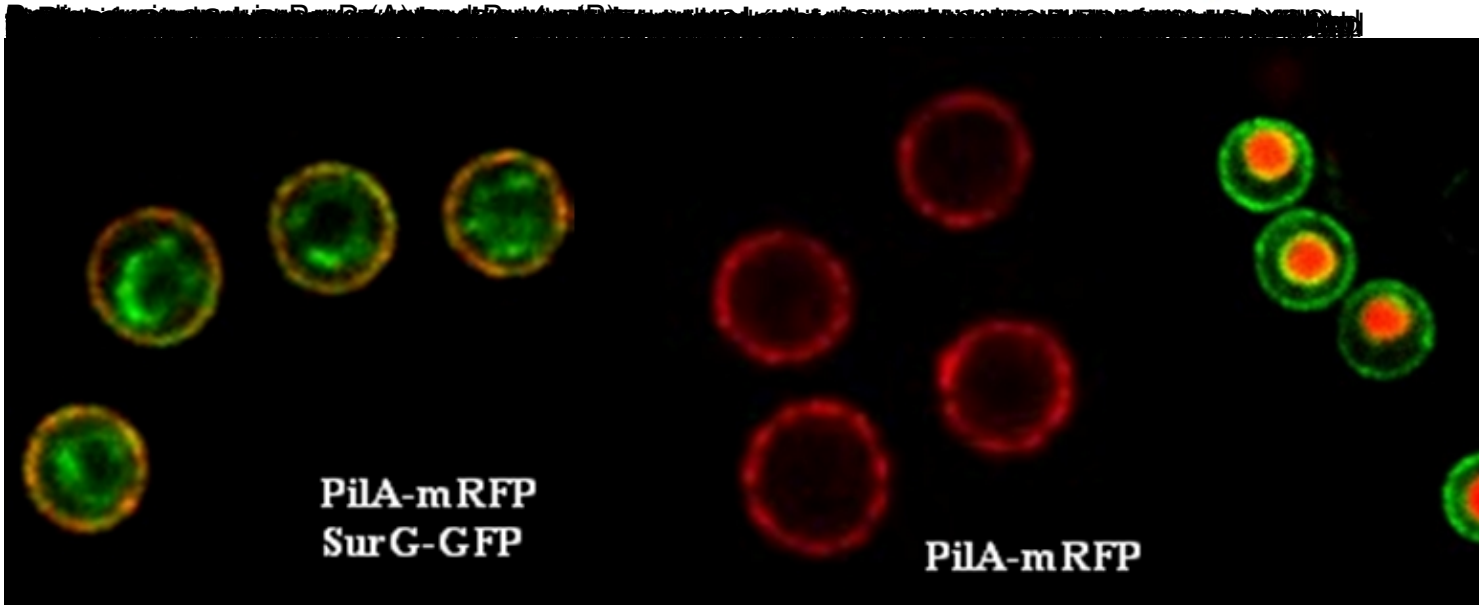
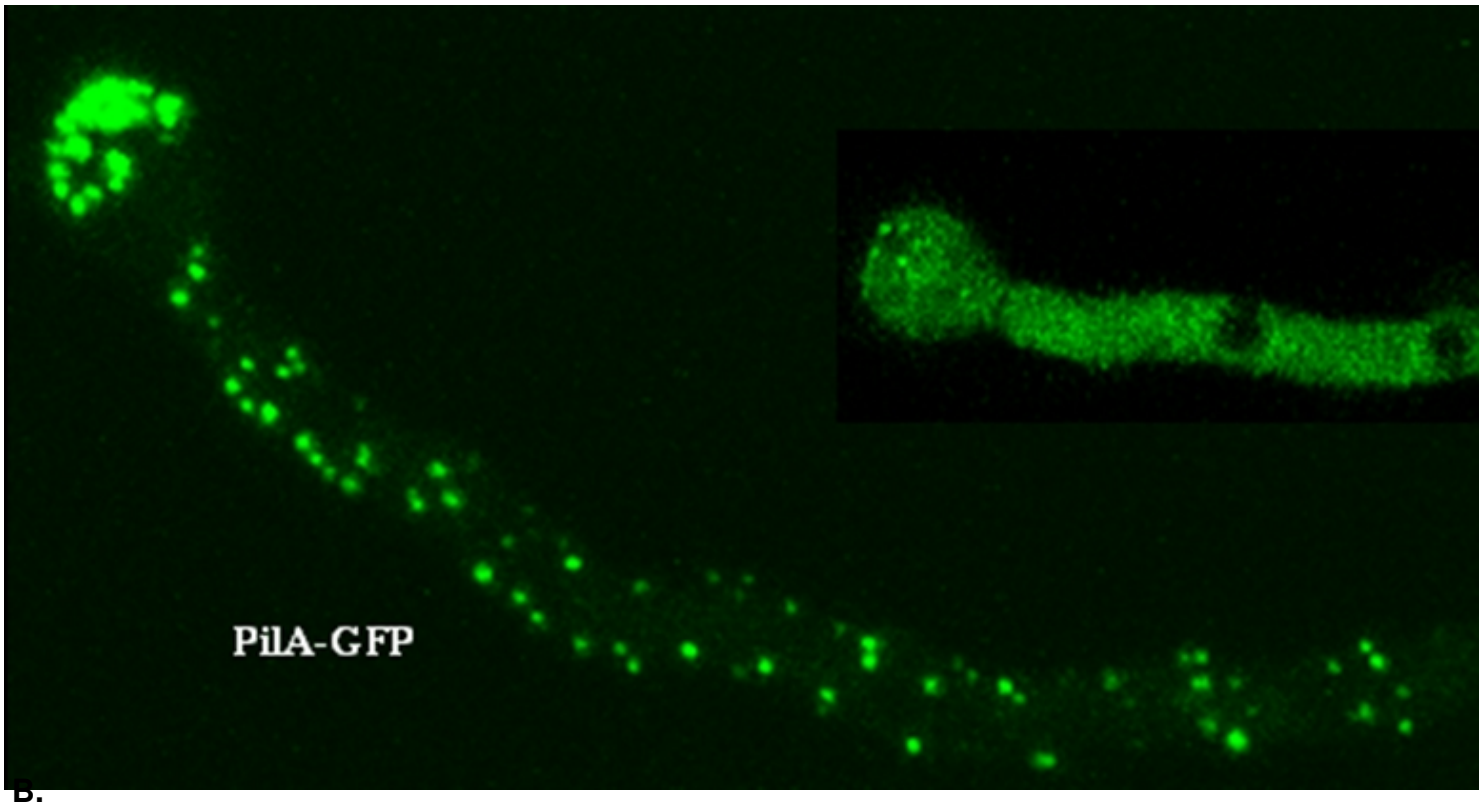
A354
S355
V104
W351
F131
Y108
G24
G56
L135
L25
G58
T57


A
S343
T57
A344
S347
G53
F248
W351
E138
L134

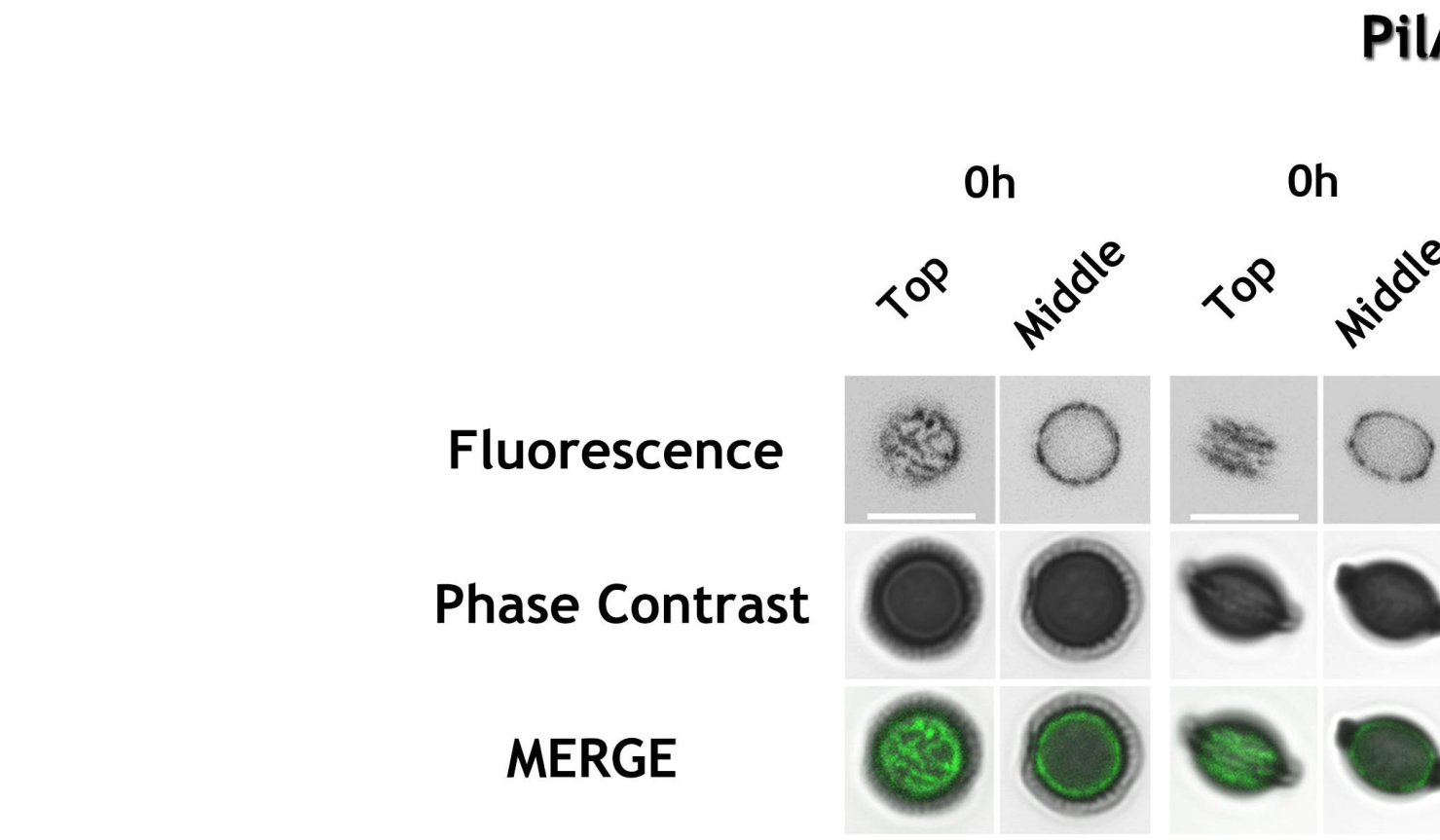

B
K318
F321
C203
T126
E211
G127
G125
F424
A123
G122

PrnB Put4p


PilA-mRFP
SurG-GFP
PilA-mRFP


PilA-GFP

B.


Pil
0h
0h
Top
Middle
Top
Middle
Fluorescence
Phase Contrast
MERGE