Director of Research

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Curriculum Vitae

Research Staff

Christos Gournas: Researcher

Curriculum Vitae

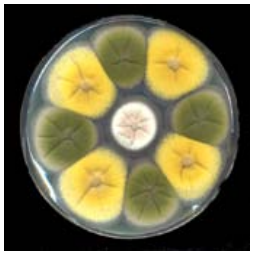
Ada Biratsi, Post-Graduate Fellow (PhD candidate)

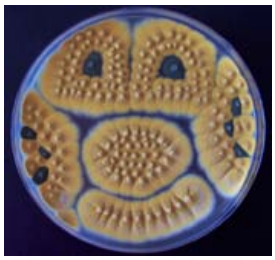
Mirsini Charicleous, Undergraduate Student (Diploma Thesis)

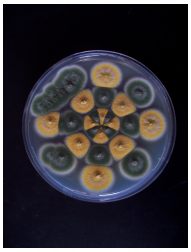
Loudres Arias Salazar, Erasmus student

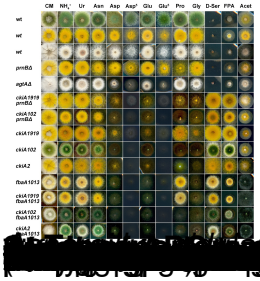
Research Interests

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).








CM
Ur
Asn
Asp
Glu
Pro
Gly
D-Ser
FPA
Acet
wt
wt
wt
pmiB∆
agtA∆
cskA1919 pmiB∆
cskA102 pmiB∆
cskA1919
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cskA2
flaA1013
cskA1919 flaA1013
cskA102 flaA1013
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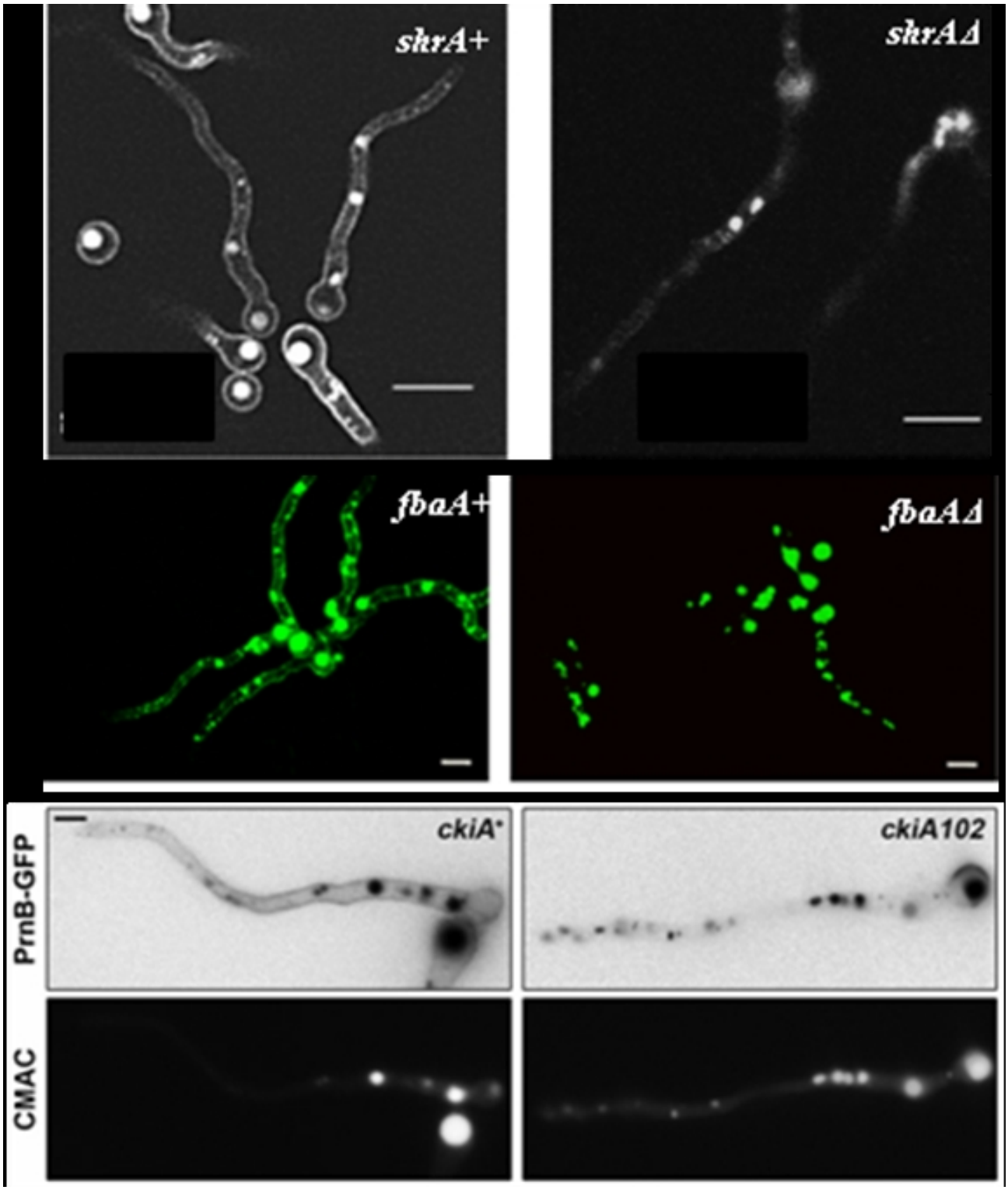
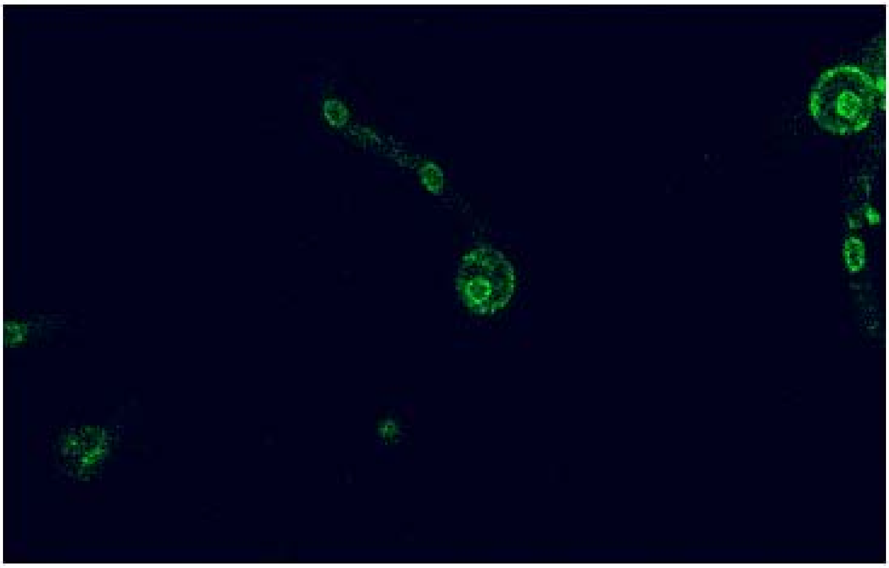
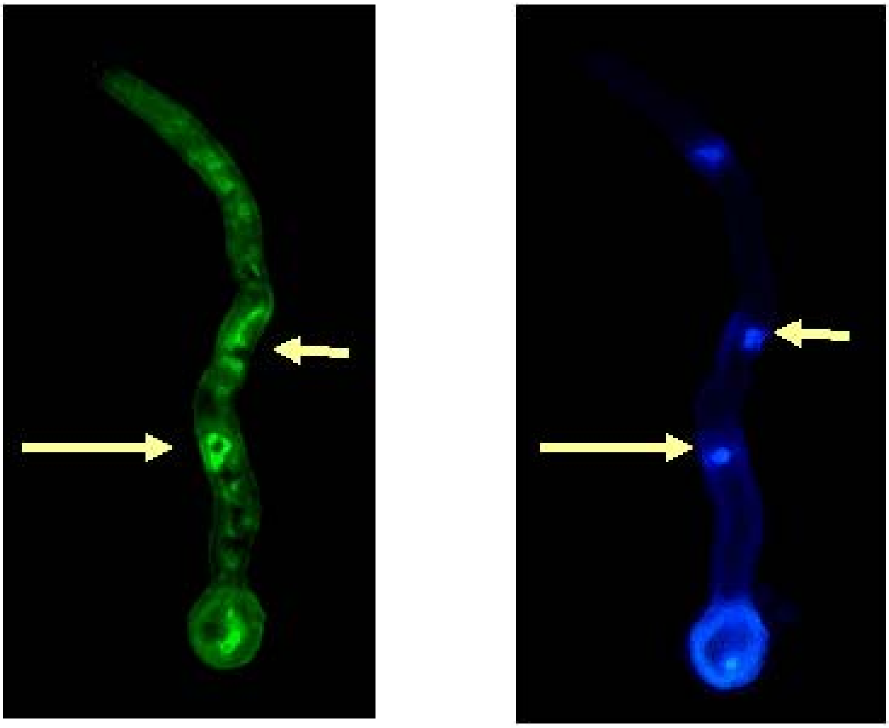
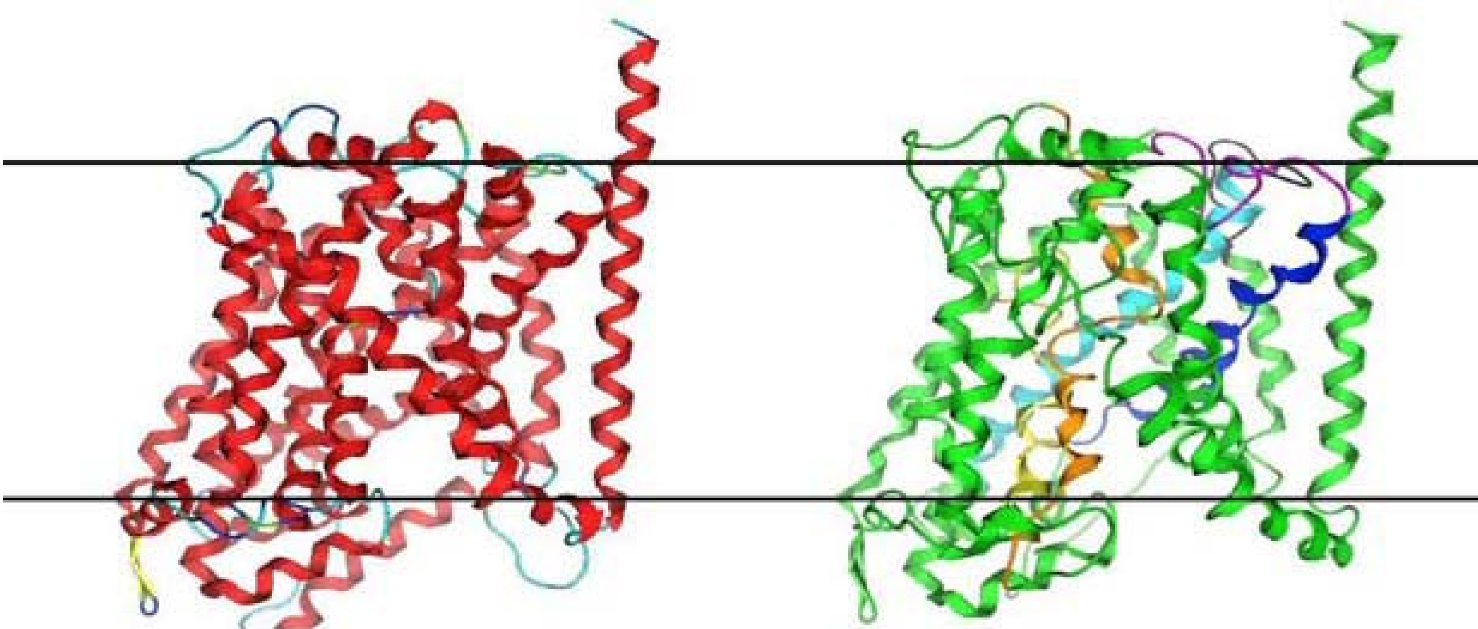

shrA+
shrAΔ
fbaA+
fbaAΔ
PrnB-GFP
CMAC
ckiA*
ckiA102





ShrA is an endoplasmic reticulum (ER) protein

An *Aspergillus nidulans* enzyme of carbon metabolism (FbaA) and a casein kinas



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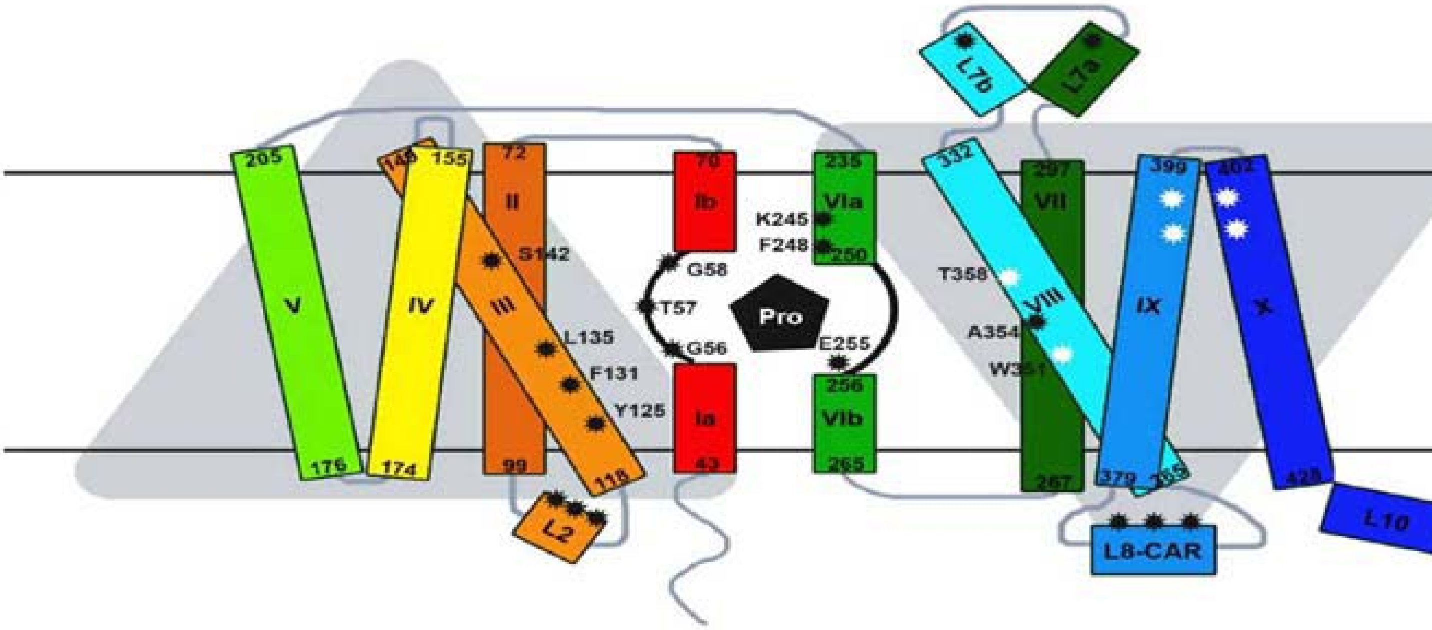
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L7a
205
149
155
72
70
235
332
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399
402
V
IV
II
III
Ib
VIa
VII
VIII
IX
X
S142
K245
F248
250
G58
T57
Pro
G56
E255
L135
F131
Y125
256
Ia
VIb
T358
A354
W351
176
174
99
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43
265
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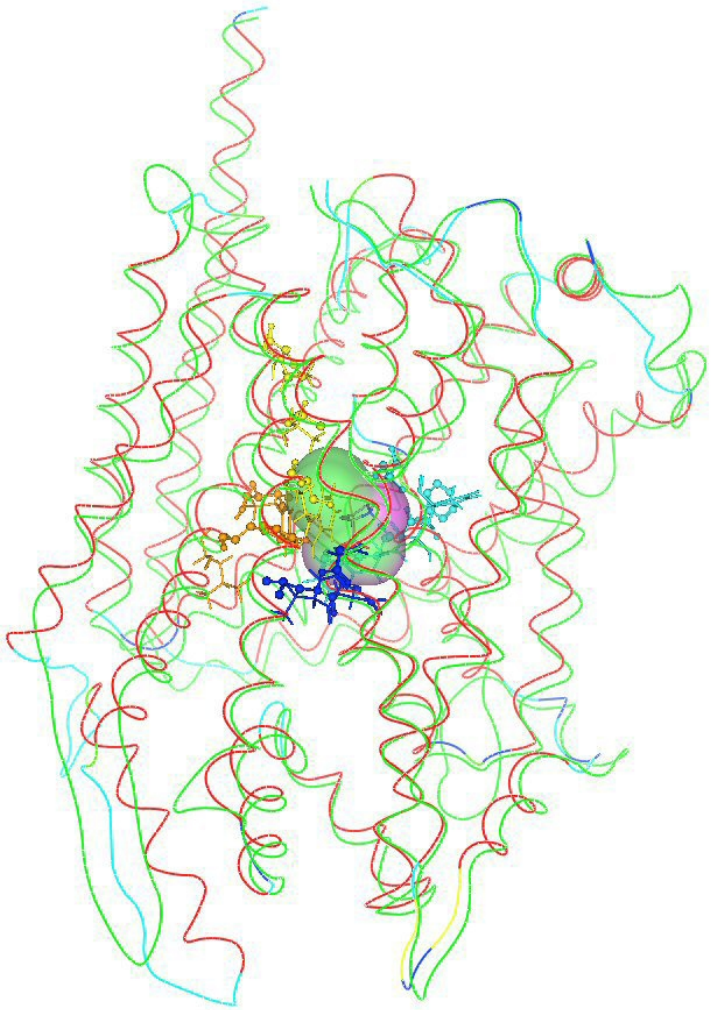
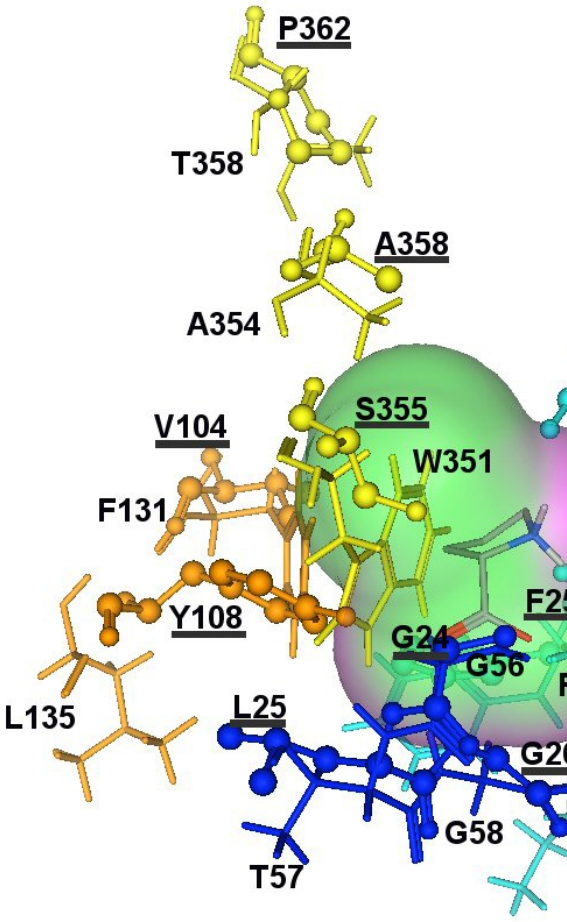
385
425
L2
L8-CAR
L10

[illegible]

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A354
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Y108
G24
G56
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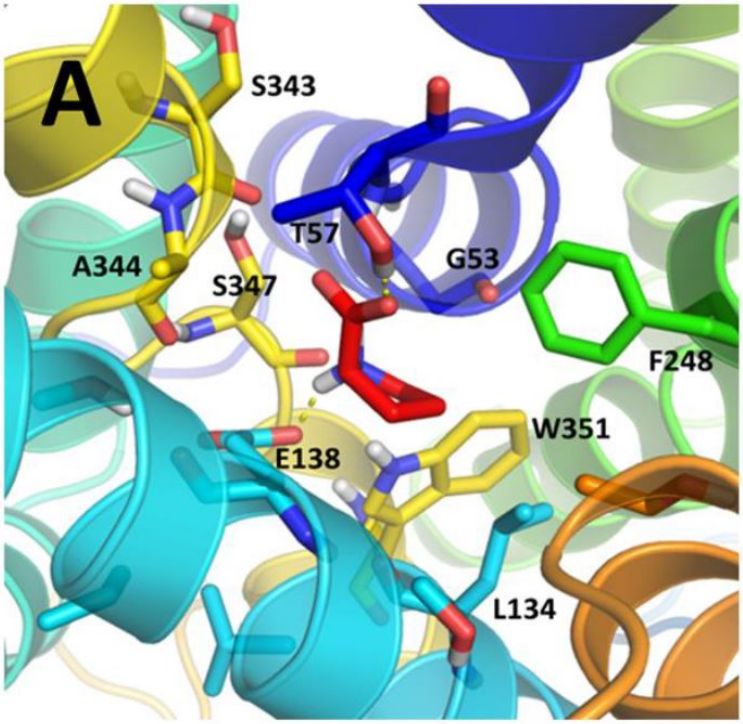
L25
G58
T57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T57
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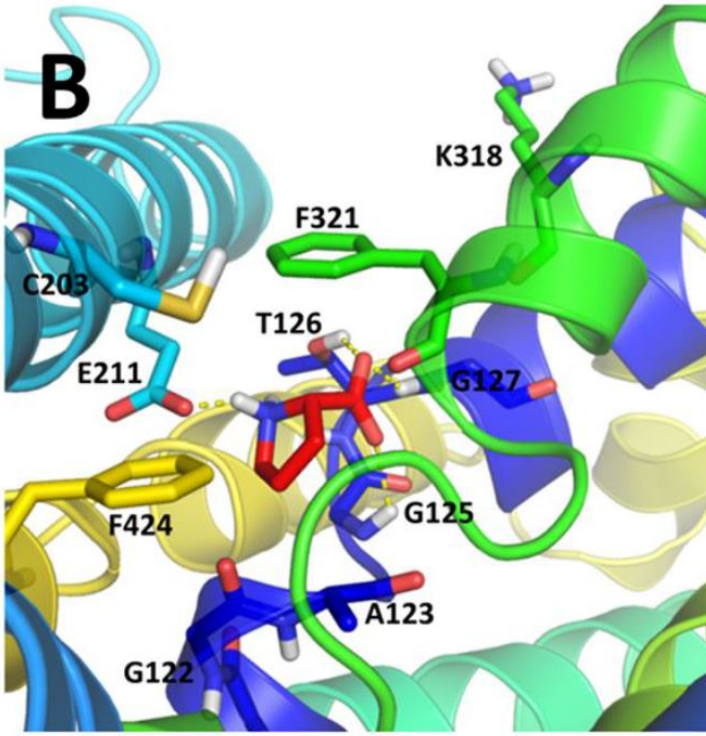
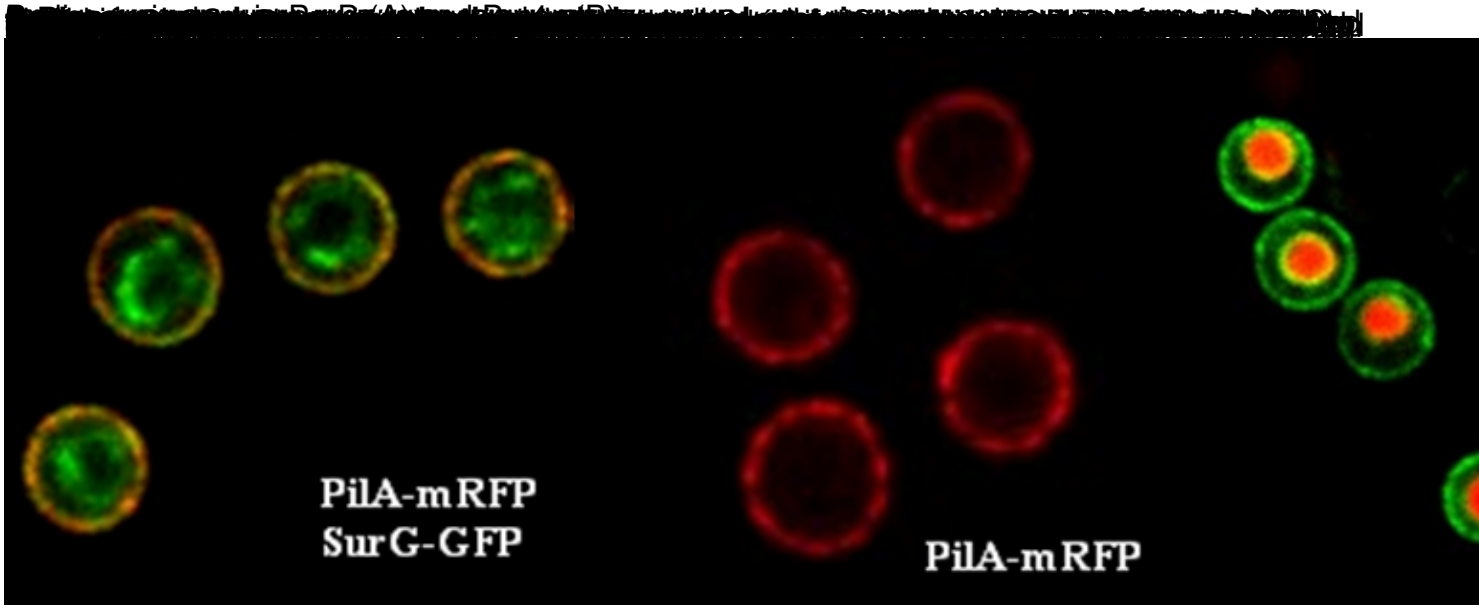
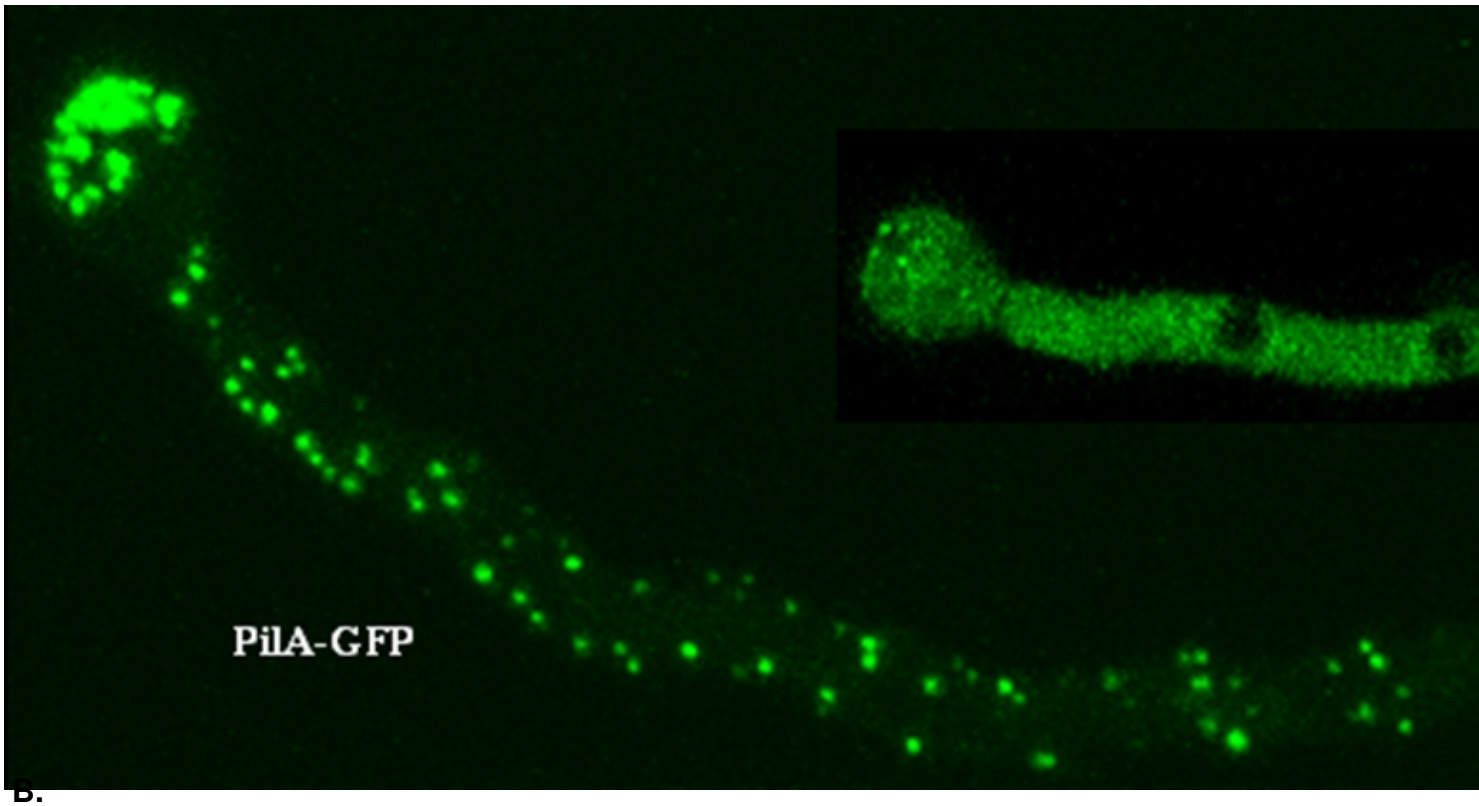
S347
G53
F248
W351
E138
L134

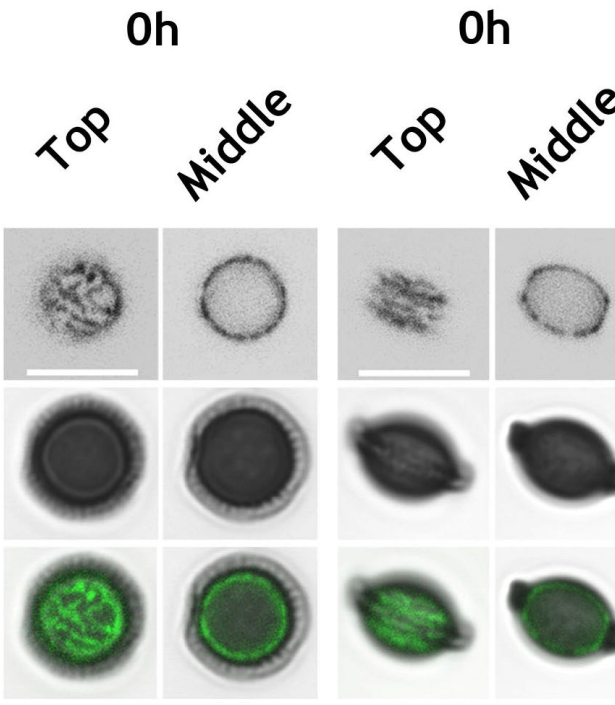

B
K318
F321
C203
T126
E211
G127
G125
F424
A123
G122

PrnB Put4p


PilA-mRFP
SurG-GFP
PilA-mRFP


PilA-GFP

B.


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