Director of Research

Head of the Microbial Molecular Genetics Laboratory

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Curriculum Vitae

Research Staff

Christos Gournas: Researcher

Curriculum Vitae

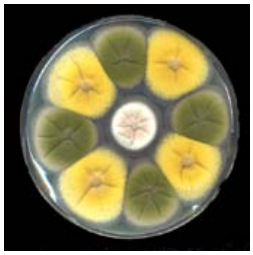
Ada Biratsi, Post-Graduate Fellow (PhD candidate)

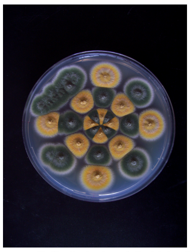
Mirsini Charicleous, Undergraduate Student (Diploma Thesis)

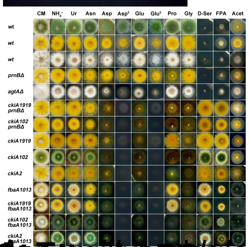
Loudres Arias Salazar, Erasmus student

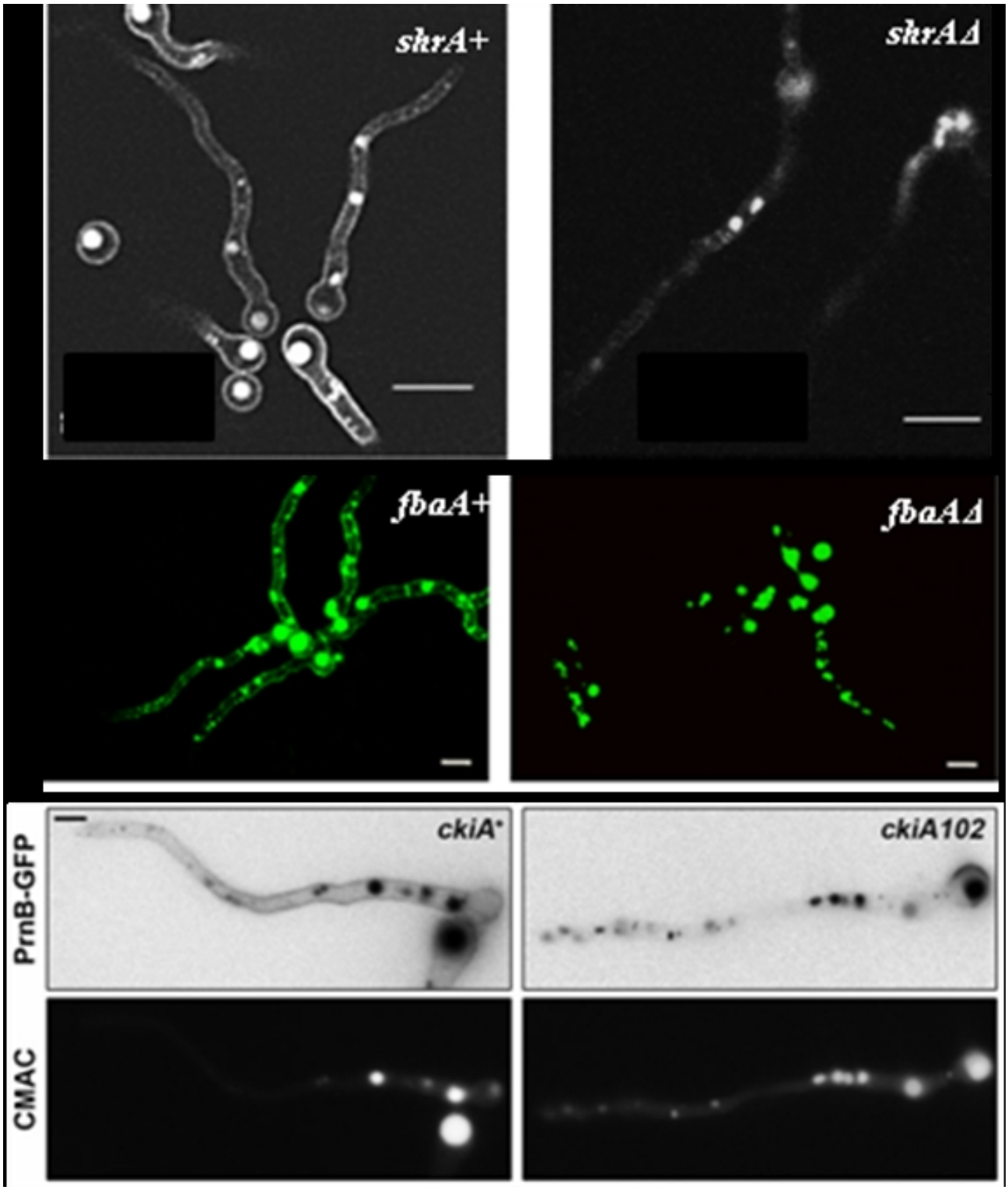
Research Interests

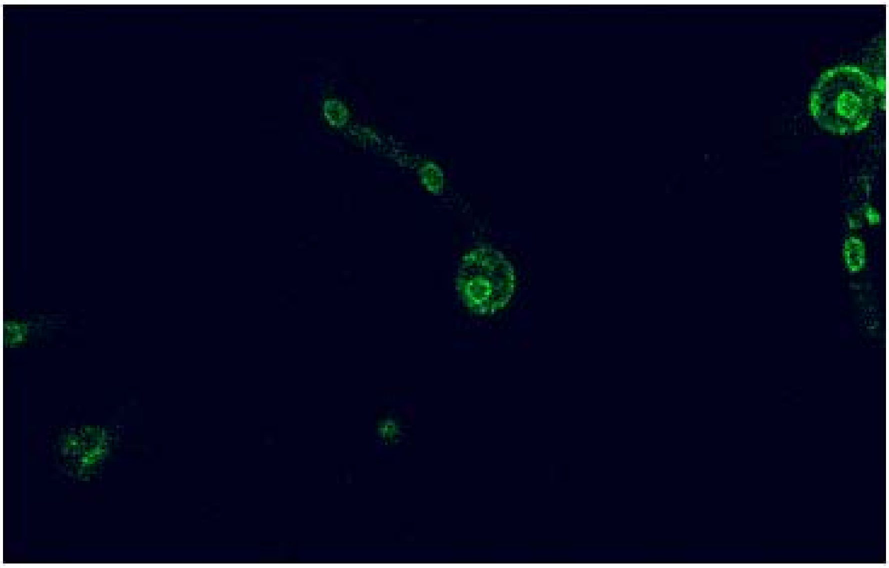
Our group is primarily interested in several aspects concerning: 1) regulation of expression, structure-function relationships, specificity, cell biology and evolution of amino acid transporter proteins and 2) the lateral organization of the fungal plasma membrane. Our model organism of choice is the 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).

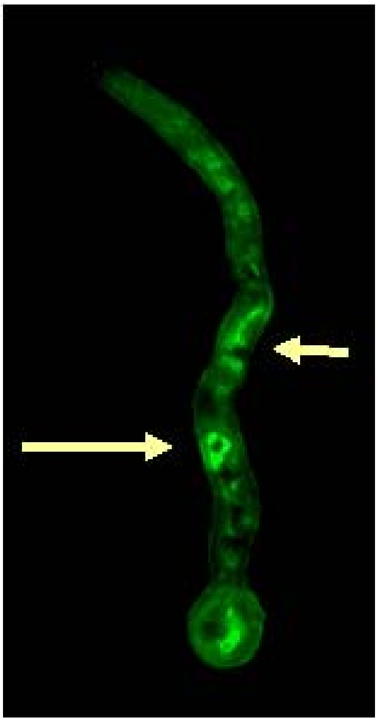


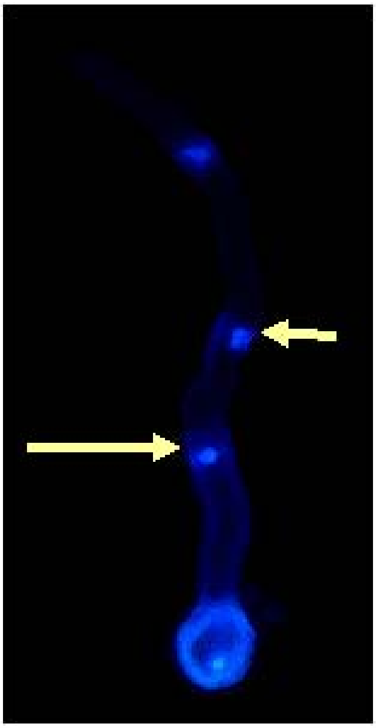



CM
NH_4^+
Ur
Asn
Asp
Asp⁵
Glu
Glu⁵
Pro
Gly
D-Ser
FPA
Acet
wt
wt
wt
prnBΔ
agtAΔ
ckiA1919 prnBΔ
ckiA102 prnBΔ
ckiA1919
ckiA102
ckiA2
fbaA1013
ckiA1919 fbaA1013
ckiA102 fbaA1013

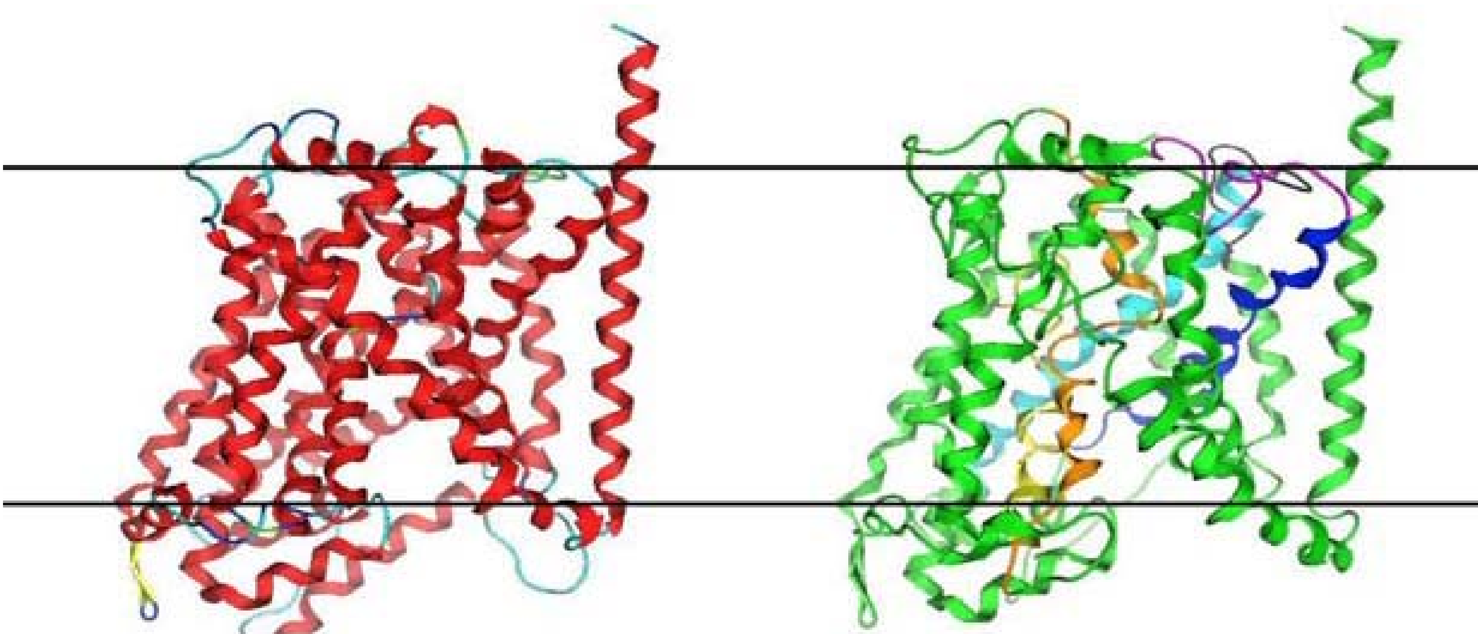

shrA+
shrAΔ
fbaA+
fbaAΔ
PrnB-GFP
CMAC
ckiA*
ckiA102







ShrA is an endoplasmic reticulum (ER) protein *Aspergillus nidulans* an enzyme of carbon metabolism (FbaA) and a casein kinas



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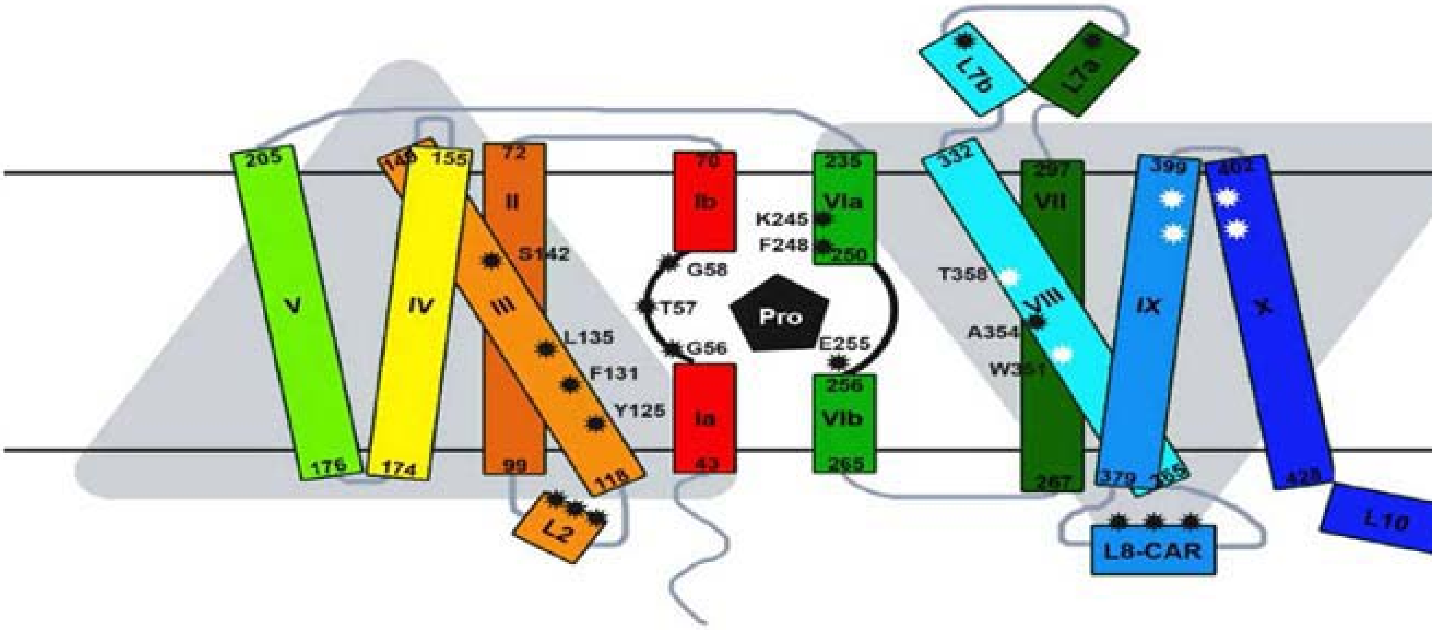
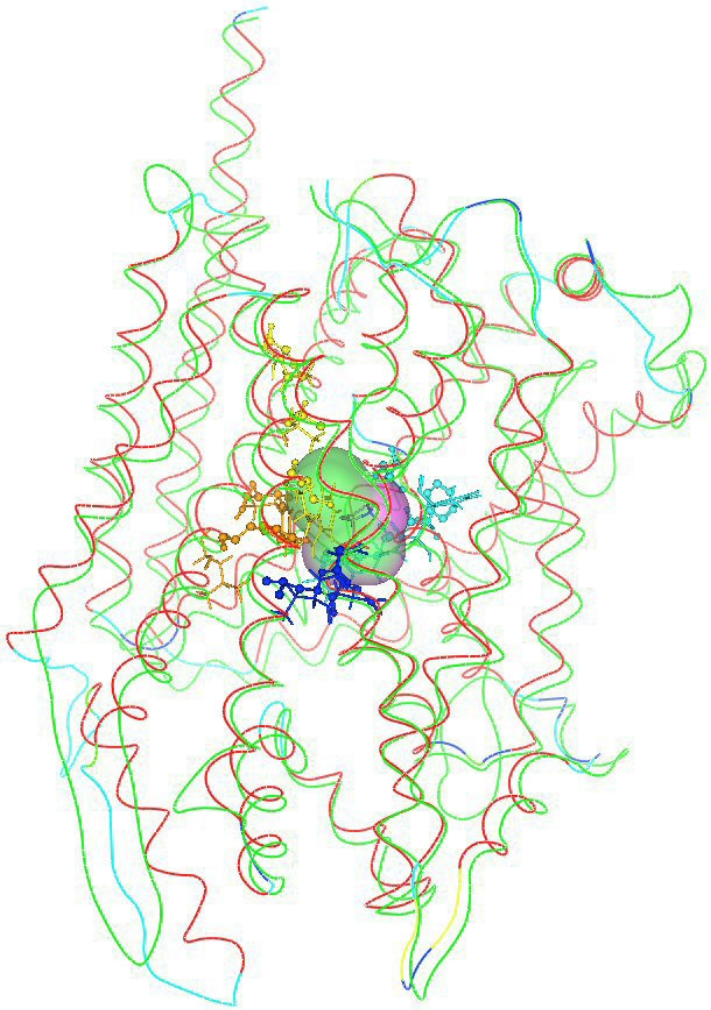
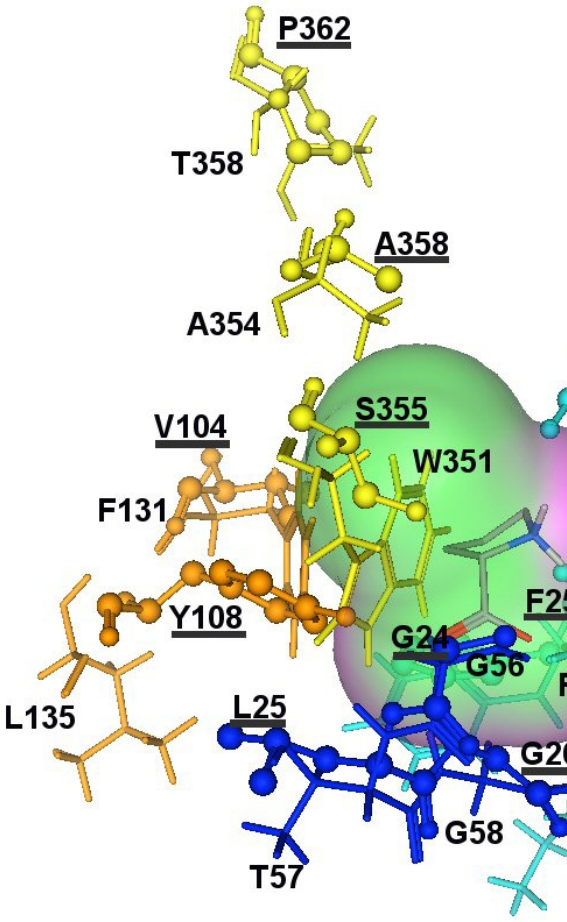

L7b
L7a
205
V
176
149
155
IV
174
72
II
99
S142
III
L135
F131
Y125
118
L2
70
Ib
Ia
43
G58
T57
G56
Pro
K245
F248
235
VIa
250
E255
256
VIb
265
332
T358
VIII
A354
W351
297
VII
267
399
IX
379
385
402
X
428
L10
L8-CAR

[illegible]

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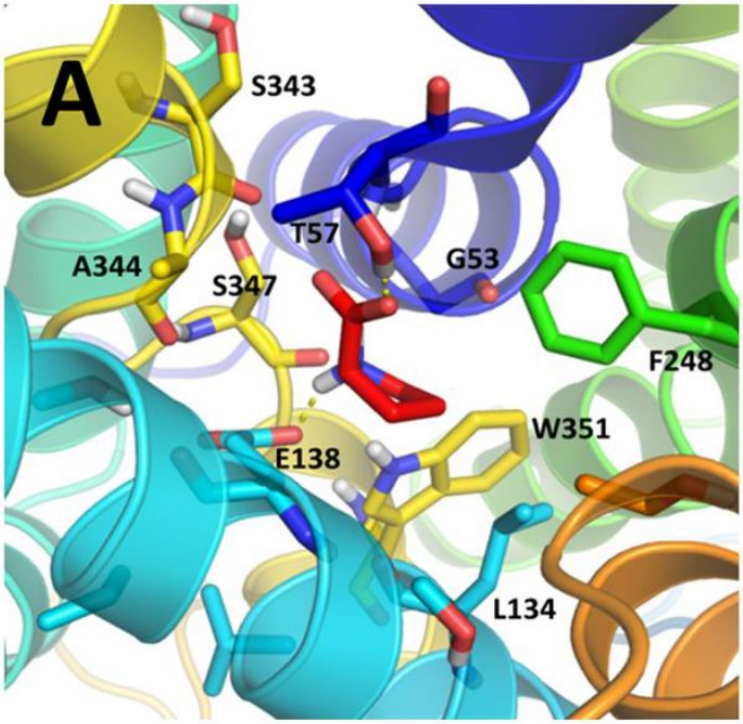
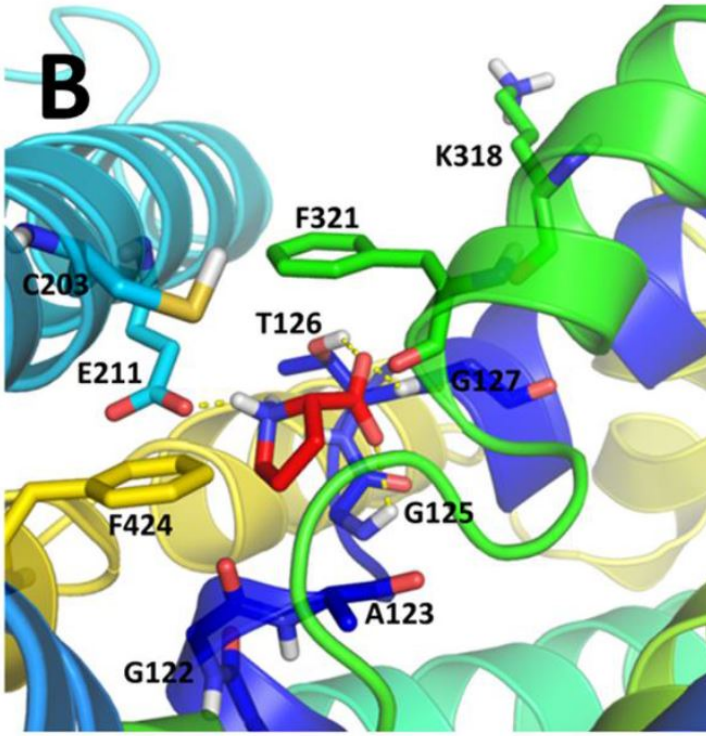
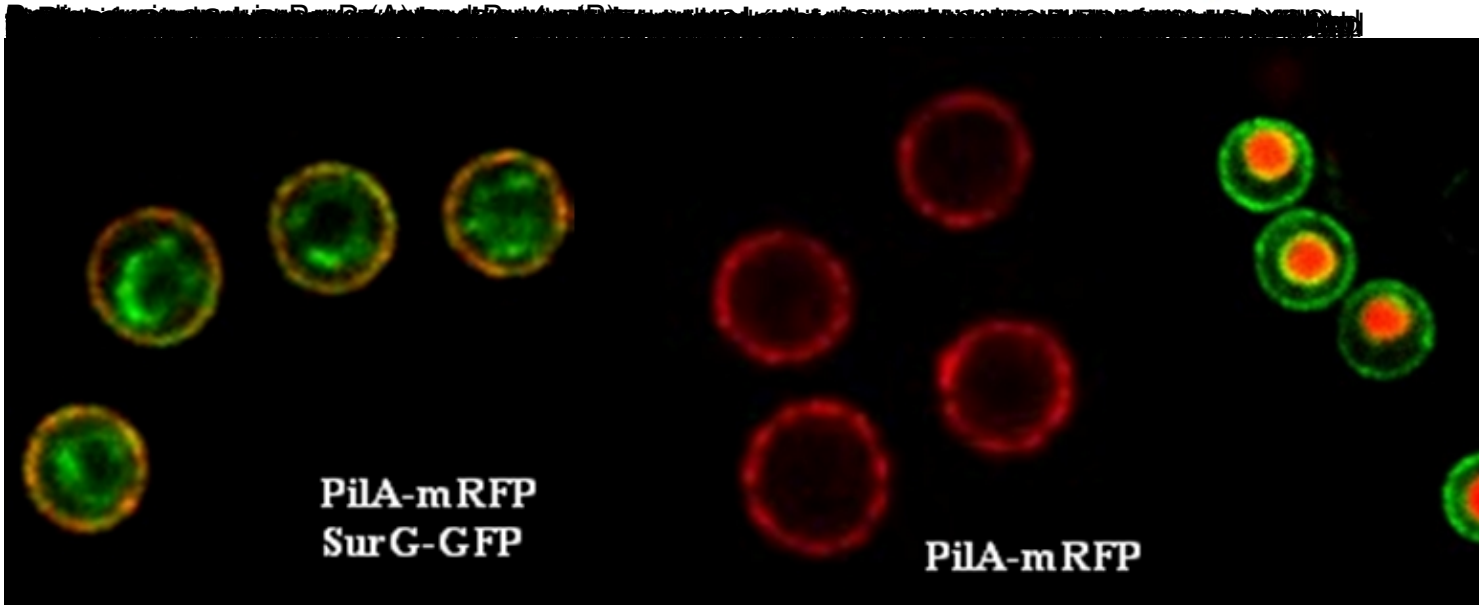
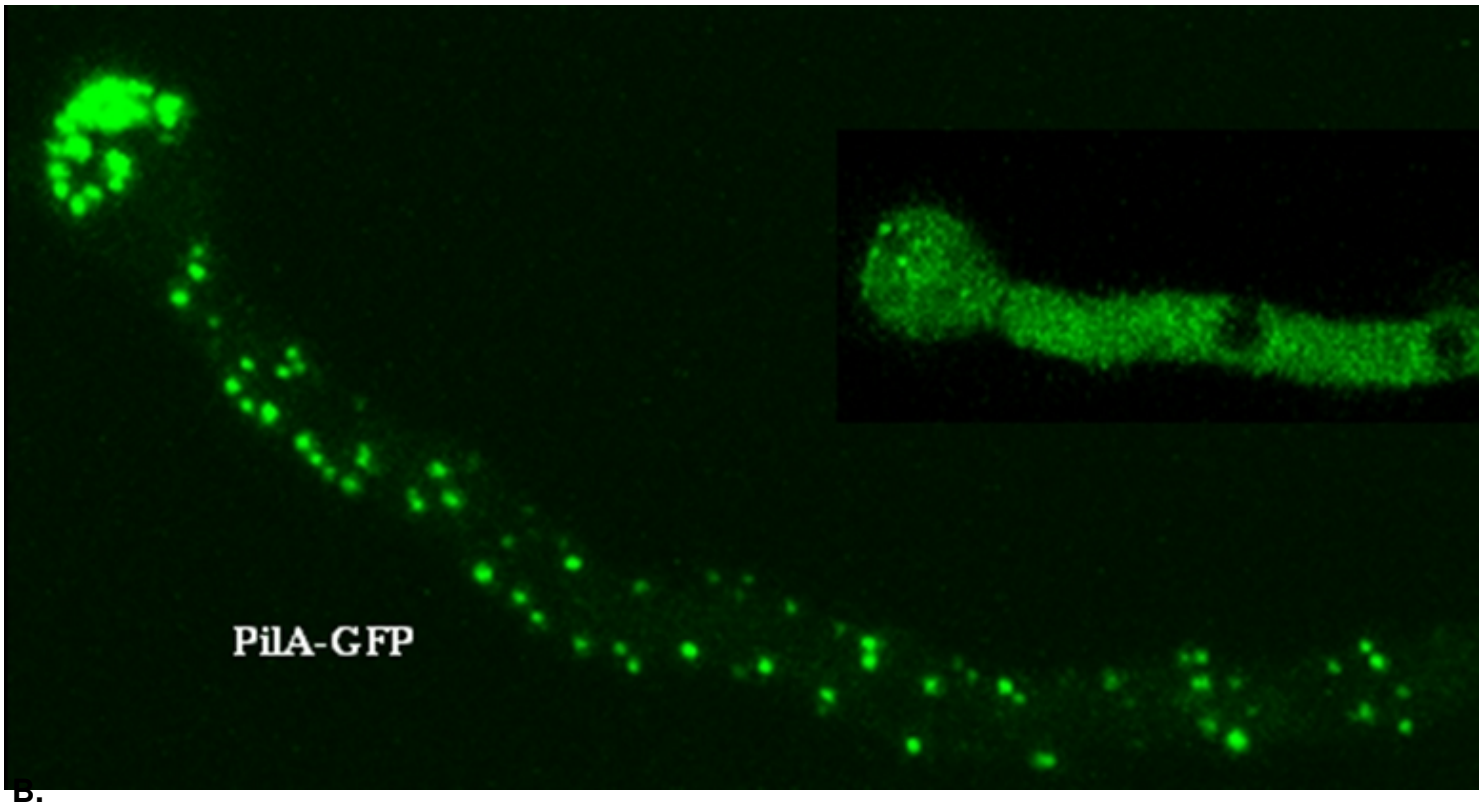
A354
S355
V104
W351
F131
Y108
G24
G56
L135
L25
G58
T57


A
S343
T57
A344
S347
G53
F248
W351
E138
L134

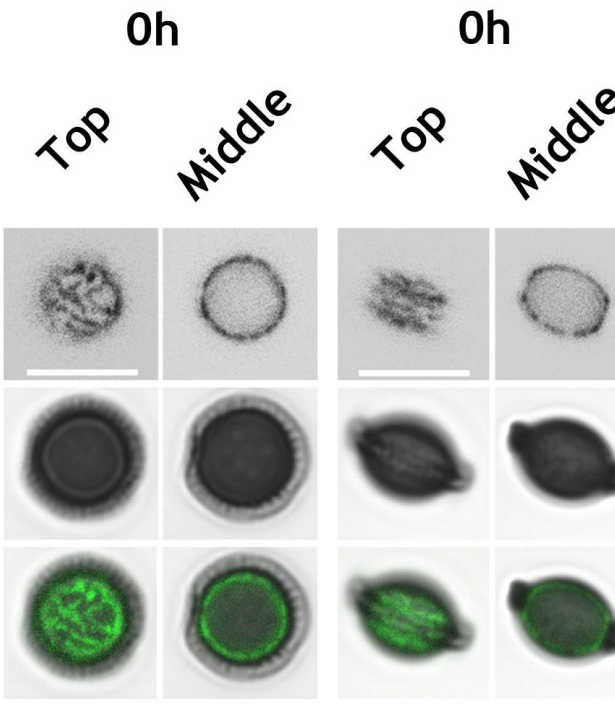

B
K318
F321
C203
T126
E211
G127
G125
F424
A123
G122

PrnB Put4p


PilA-mRFP
SurG-GFP
PilA-mRFP


PilA-GFP

B.


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