

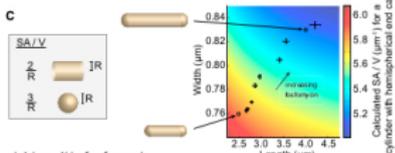
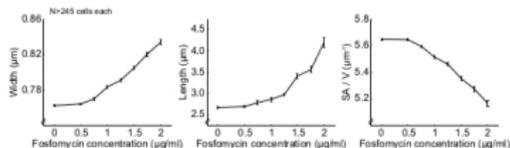
Cours 4 et 5-Fluctuations et régulation du volume cellulaire

J.F. Joanny

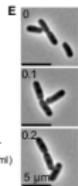
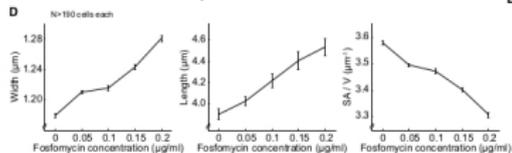
Cours 4 et 5, Collège de France, 26 février et 4 mars 2024

Rapport surface.volume et croissance d'une bactérie *Harris* et Theriot

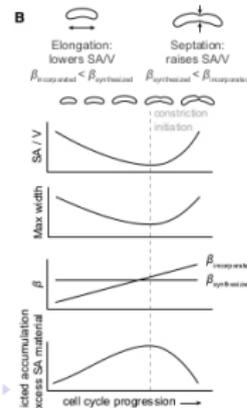
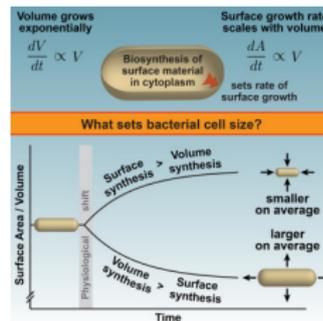
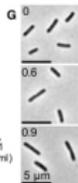
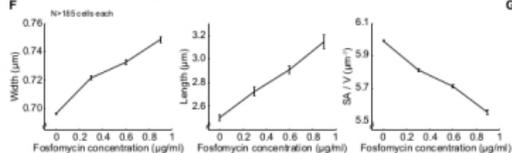
A *Caulobacter crescentus* in fosfomycin



D *Escherichia coli* in fosfomycin

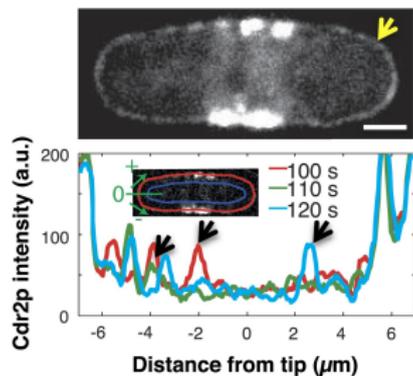


F *Listeria monocytogenes* in fosfomycin

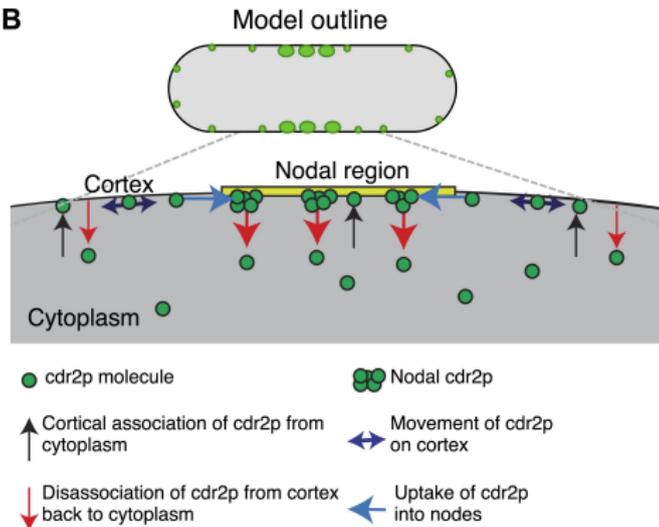


Régulation de la taille de la levure *S. Pombe* *Pan et al*

A

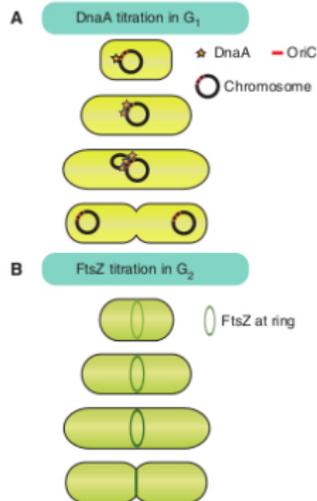


B

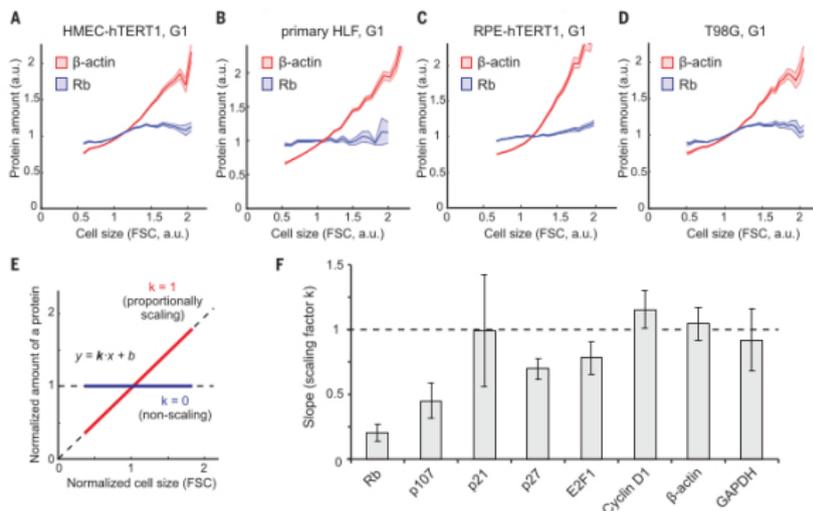


C

Mesure de la taille par titration *J. Skotheim*

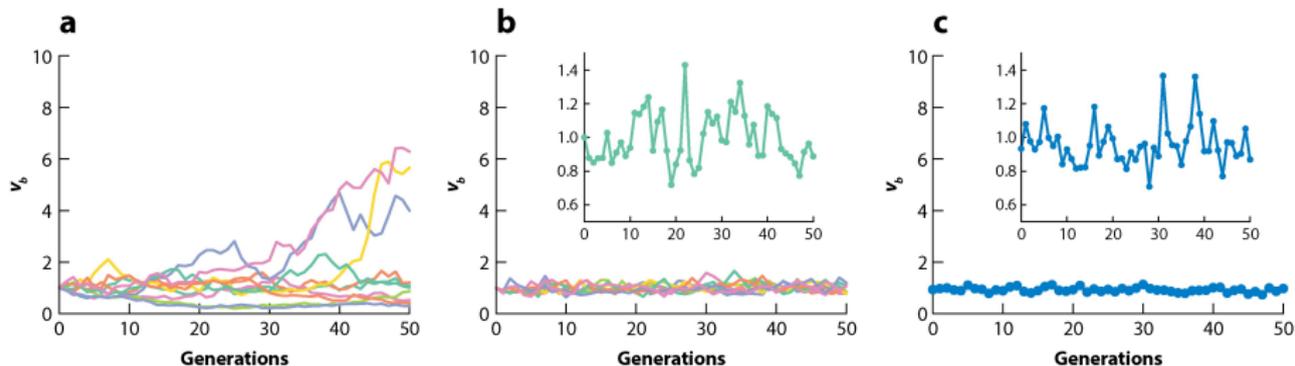


Amodeo



Zatulovskiy

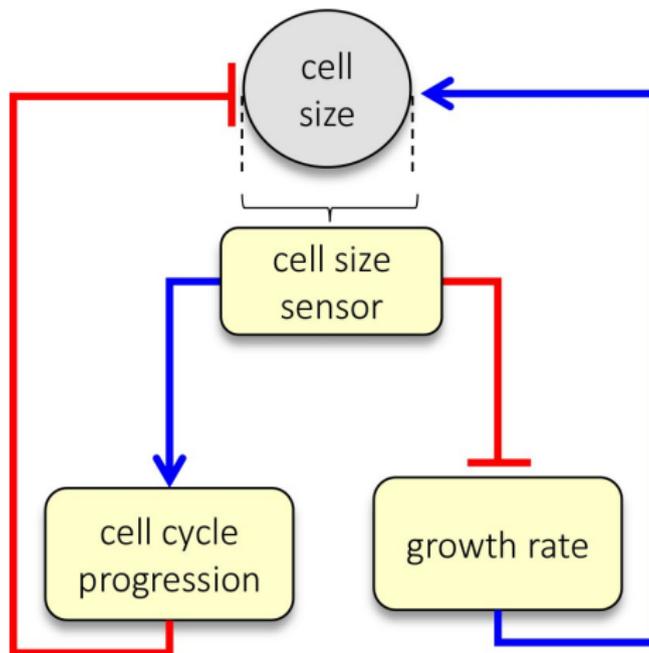
Division par mesure du temps de division *Ho et Amir*



AR Ho P-Y, et al. 2018.
Annu. Rev. Biophys. 47:251–71

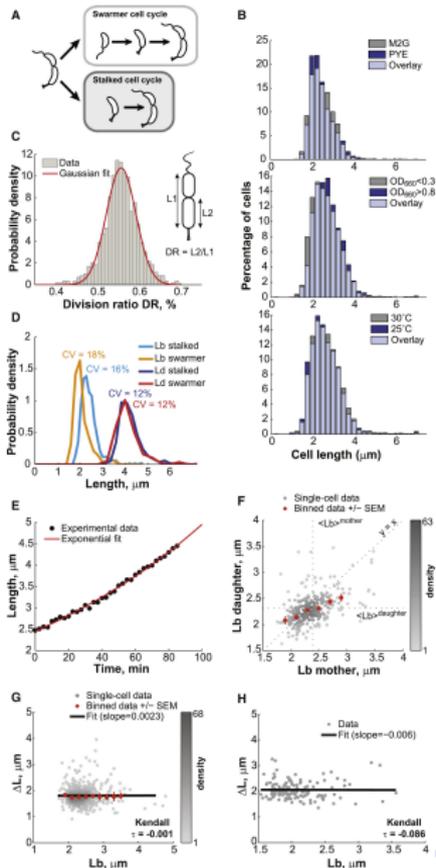
Tanouchi et al.

Division par mesure de taille *Ginzberg et al.*

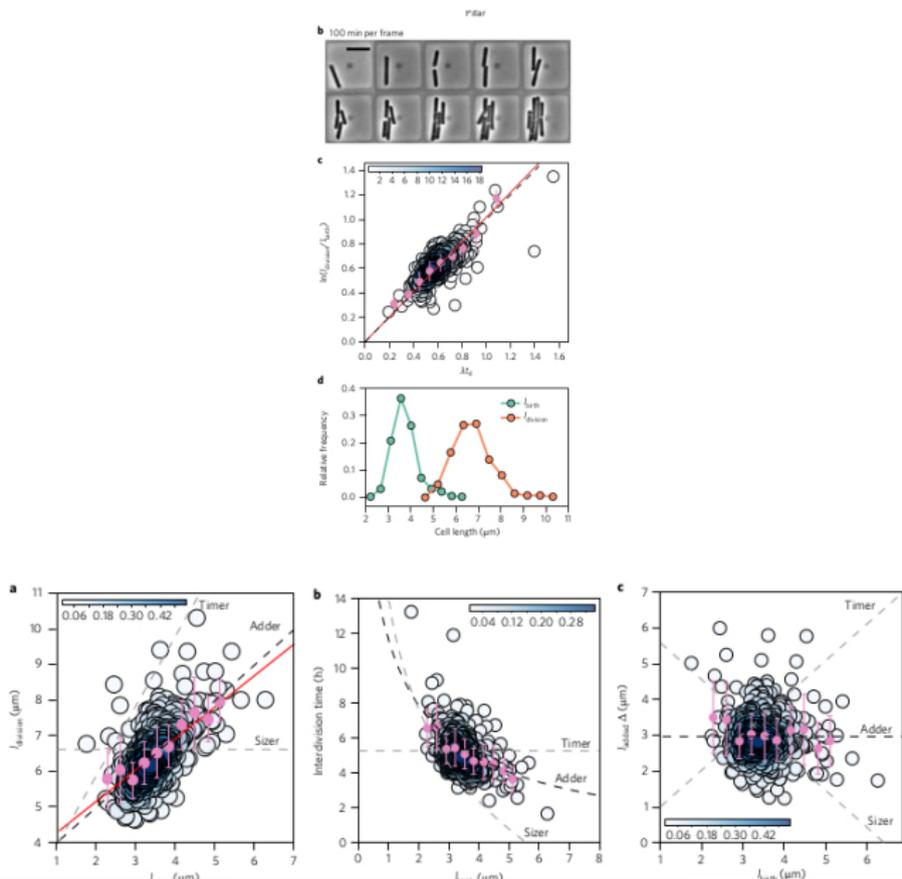


- Variation du taux de croissance avec l'âge de la cellule
- Mesure de la variance du volume à un âge donné

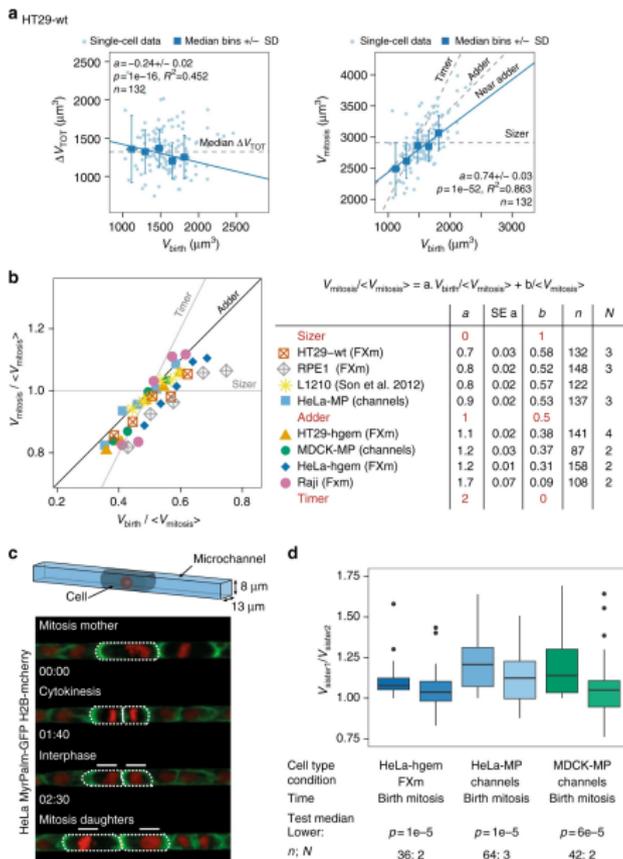
Addition de volume chez *Colaубacter* Campos et al.



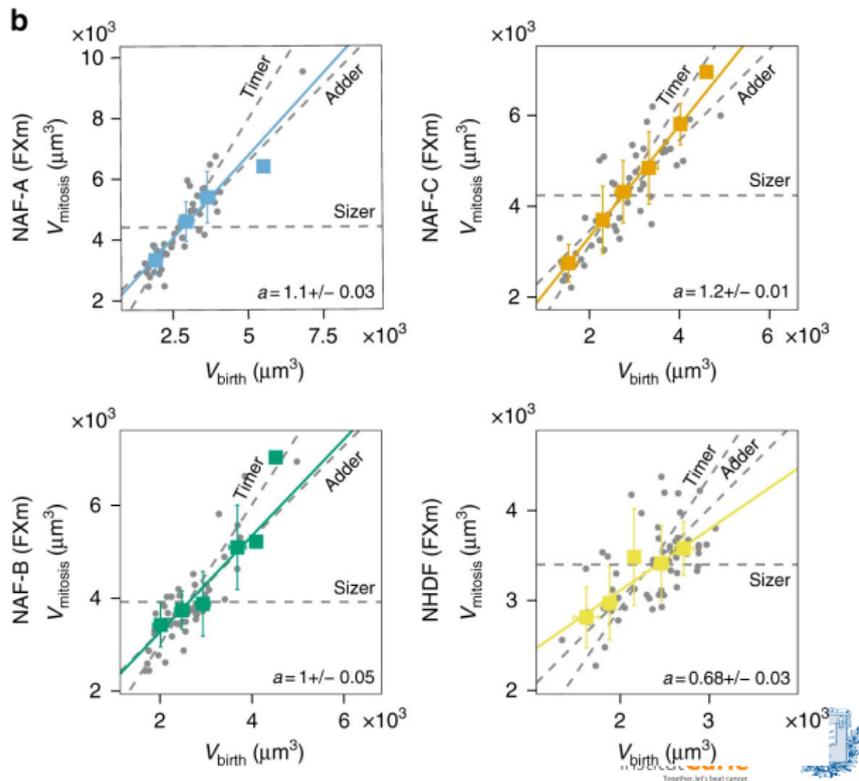
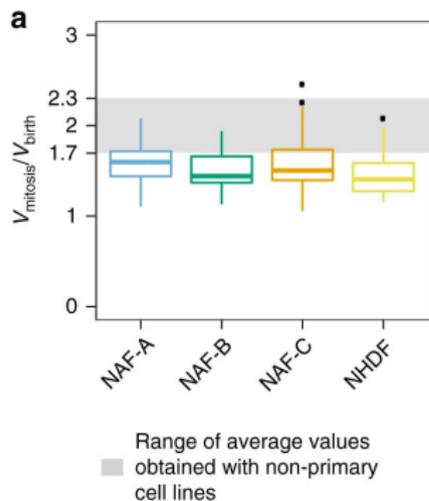
Contrôle du volume des archées *Eun et al.*



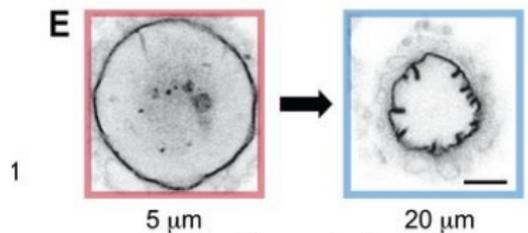
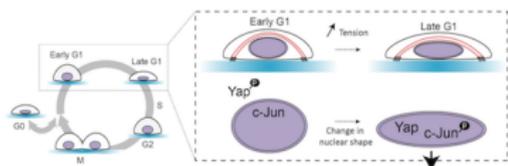
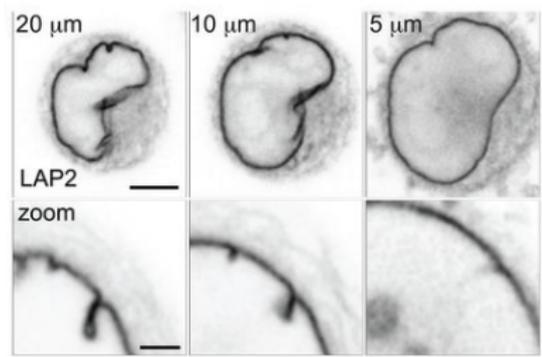
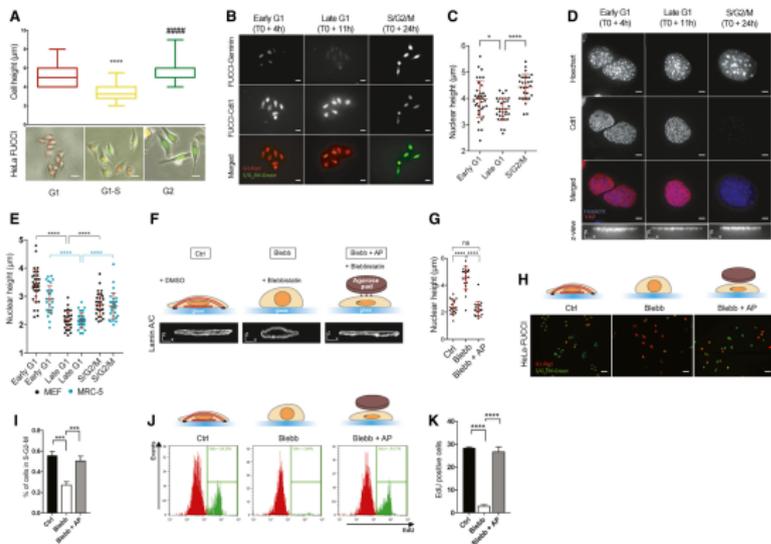
Addition de volume pour les cellules mamifères *Cadart et al.*



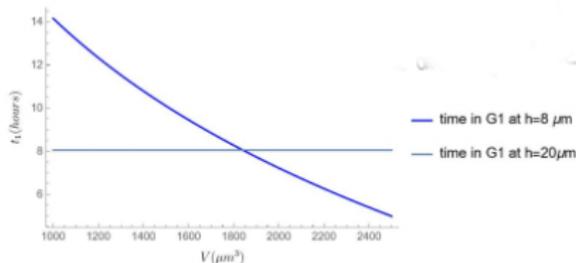
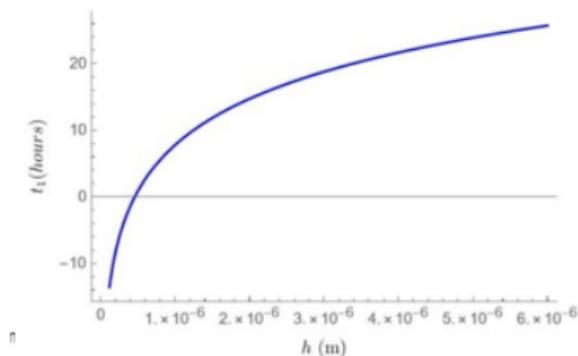
Cellules humaines primaires *Cadart et al.*



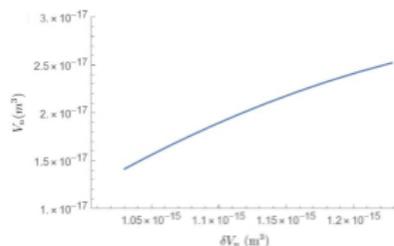
Cellules confinées *Aureille et al., Lomakin et al.*



Tension du noyau *Cocca*

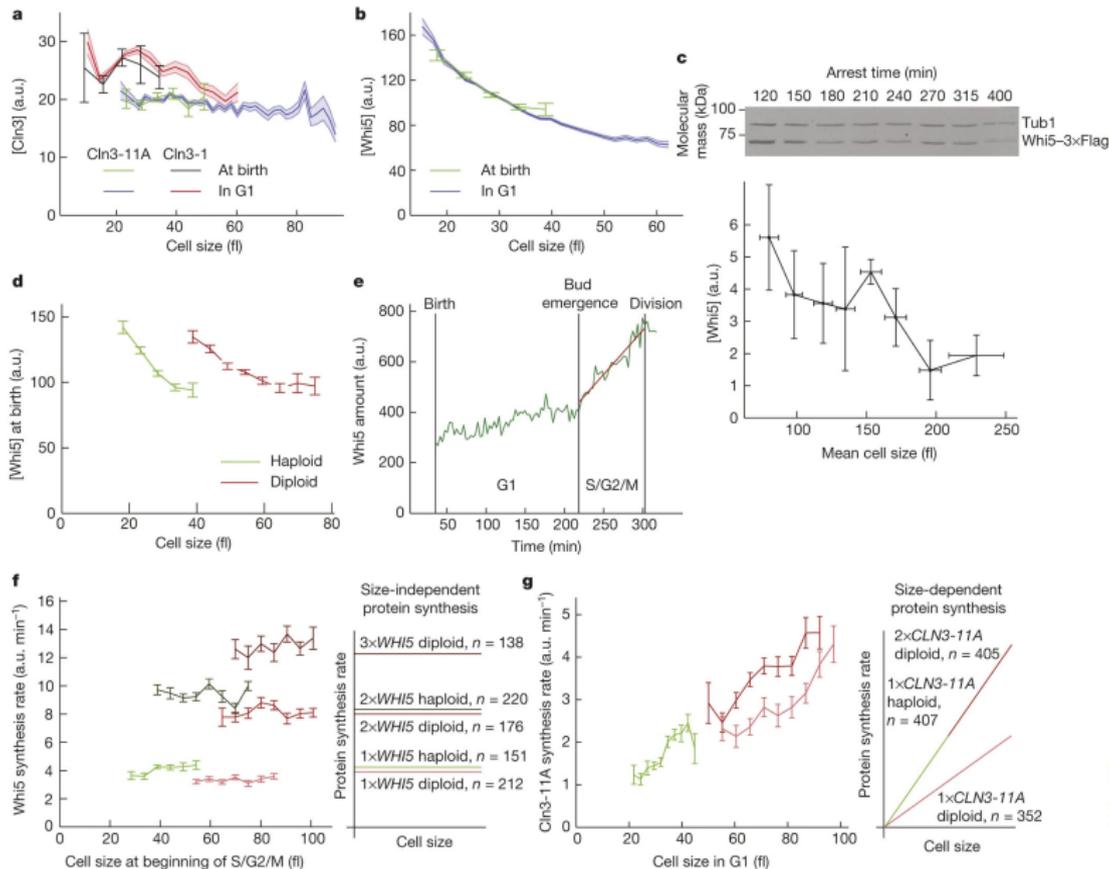


(a) Time in G1 as a function of the total initial volume ($V_n + V_v$)

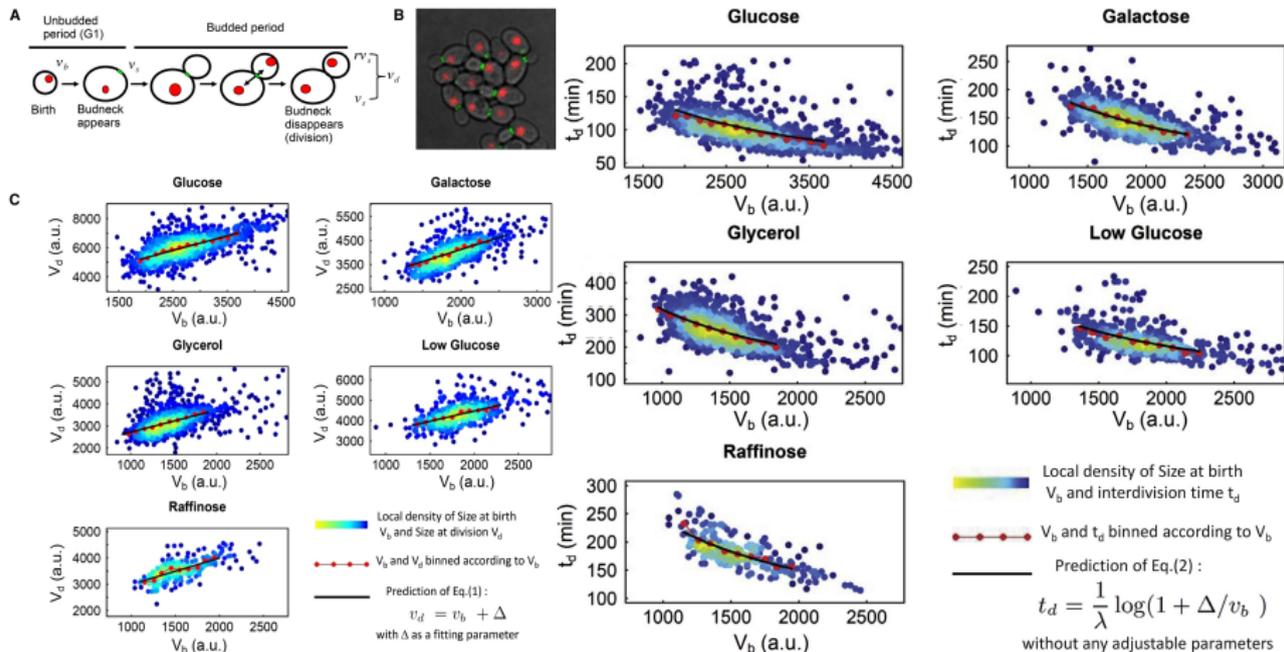


(b) Final volume as a function of the initial volume.

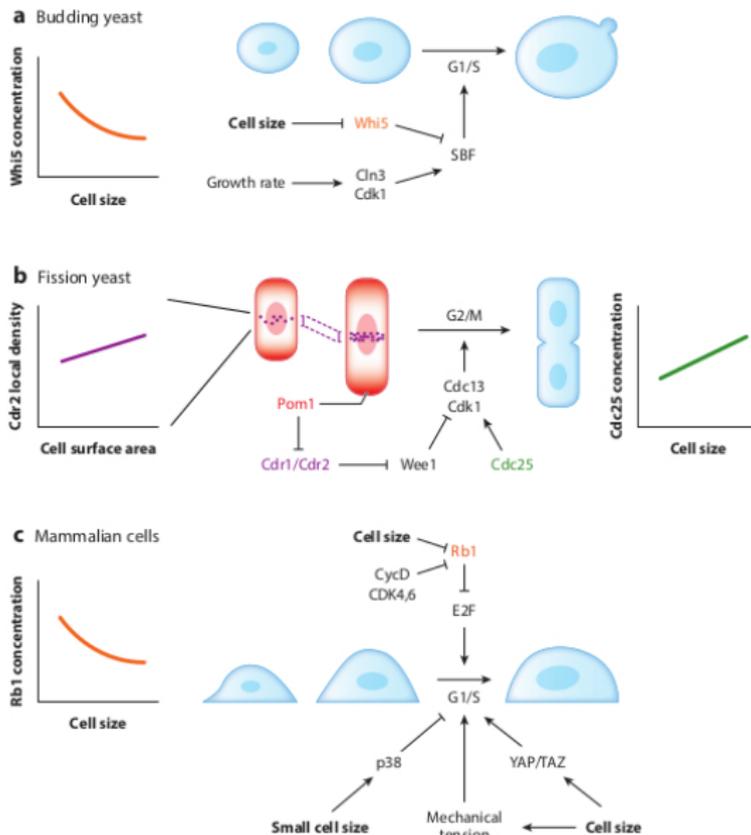
Dilution de l'inhibiteur *Whi5* *Schmoller*



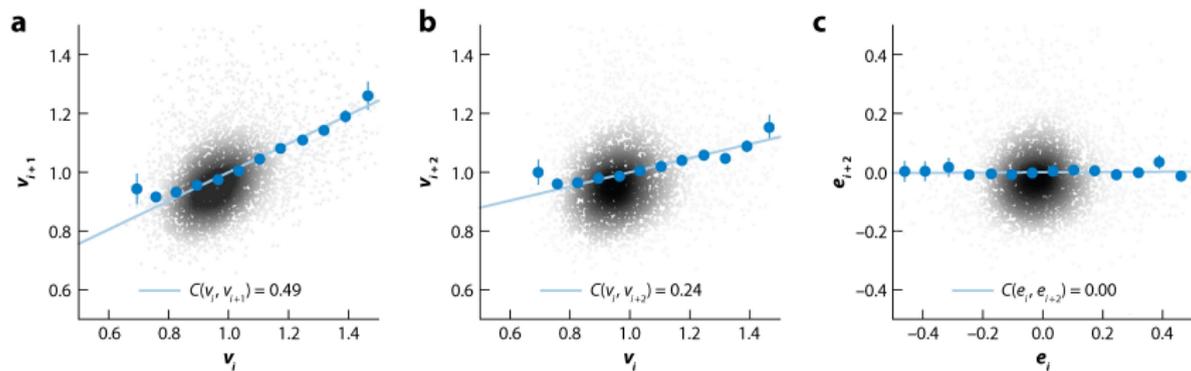
Addition de volume dans la levure *Soifer et al.*



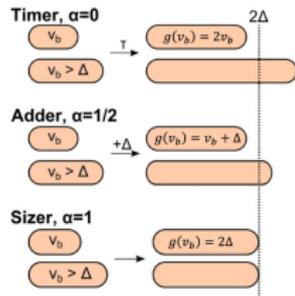
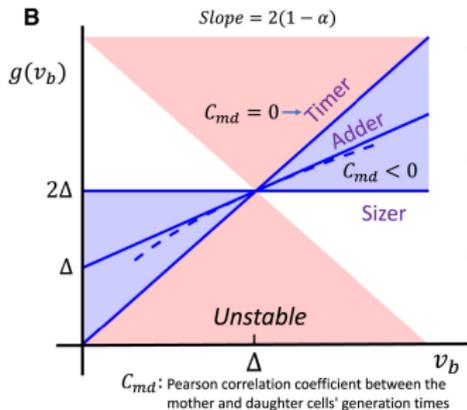
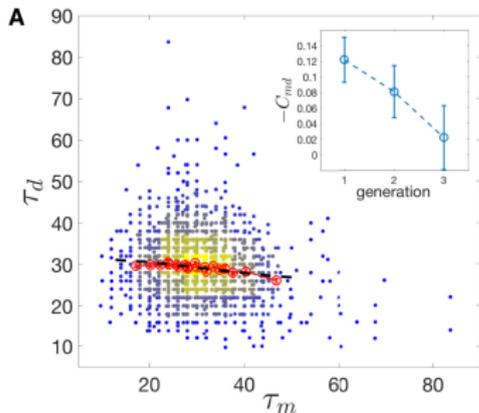
Inhibition du cycle cellulaire dépendant du volume *Xie et al*



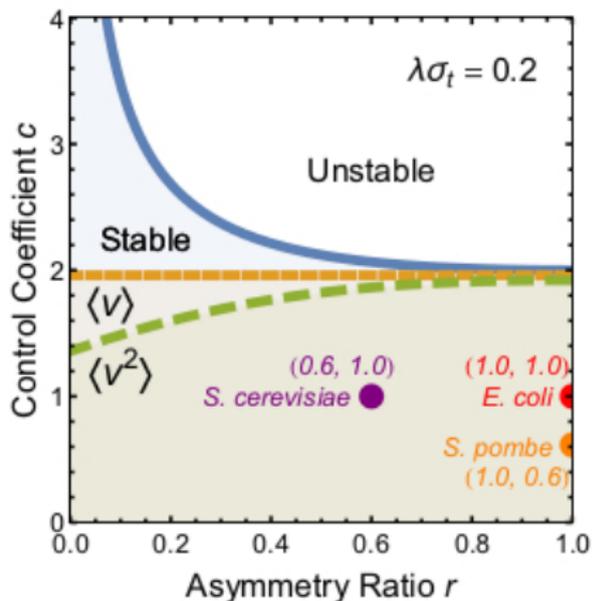
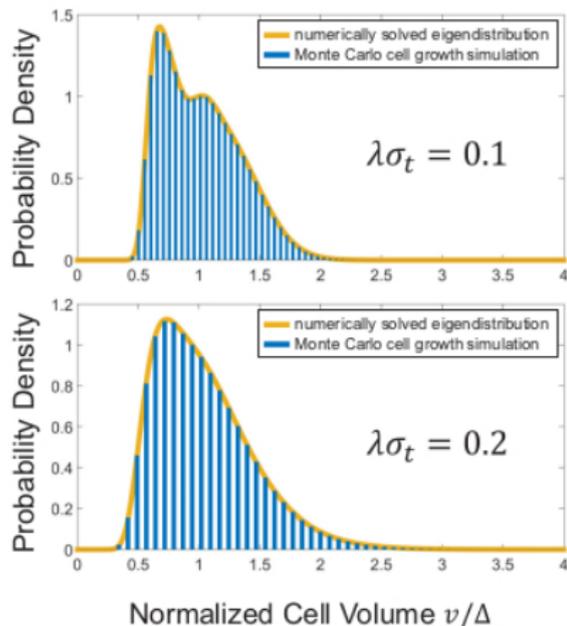
Coefficient de variation du volume *Ho, Lin, Amir*



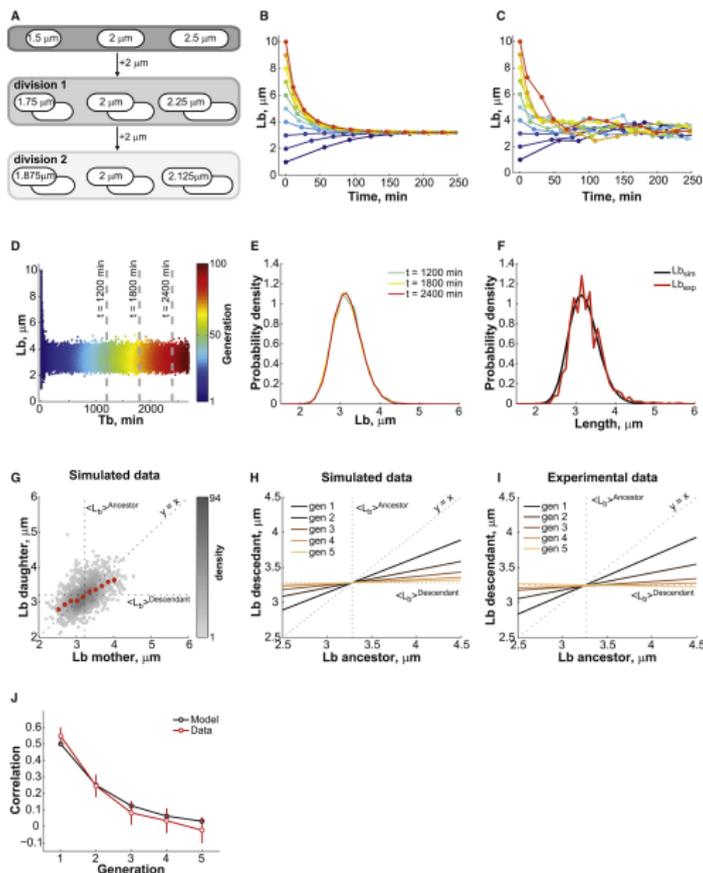
Ho P-Y, et al. 2018.
Annu. Rev. Biophys. 47:251-71



Distribution de volume *Marantan*



Addition de volume pour les bactéries *Campos et al.*



Croissance de la population et croissance d'une cellule *Lin* et Amir

