# Cours 3-Variation du volume au cours du cycle cellulaire

J.F. Joanny

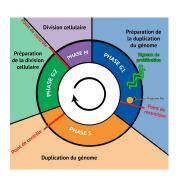
Cours 3, Collège de France, 19 février 2024

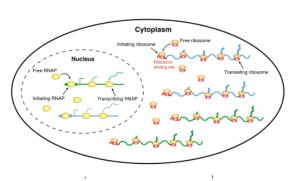




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## Traduction et transcription





Wang and Li

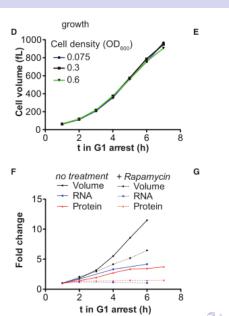
◆□ト→□ト→三ト→三ト





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## Croissance linéaire du volume Neurohr and Amon

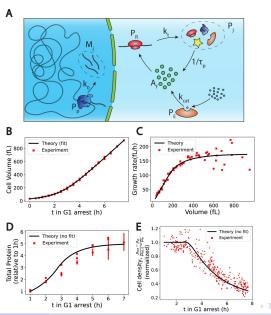




Collège



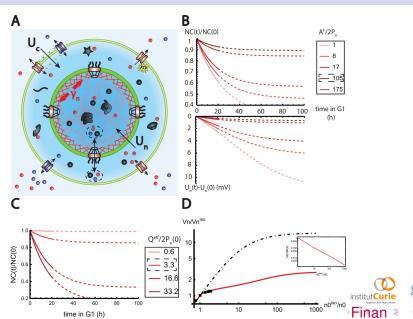
## Modèle de pompes et fuites Rollin et al.



Collège

## Rapport karyoplasmique

Joanny



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### Ploidie

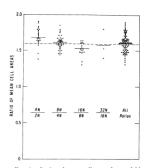
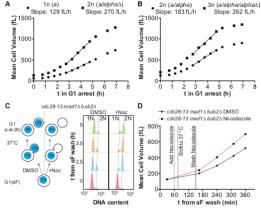


Fig. 6.-Ratios of mean cell areas for twofold differences in cell ploidy. Each point represents a separate determination carried out on cells a separate usermination carried out on cells from a mouse, rat, or human liver. The hori-zontal dashed line indicates a ratio of 1.59, the value theoretically expected for a twofold dif-ference in mean cell volumes.



#### **Epstein**

#### Neurohr et al

2n (a/alpha)



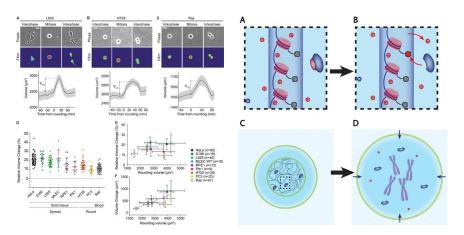
3n (a/alpha/alpha\lambda)



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1n (a)

# Gonflement mitotique Zlotek-Zlotkiewicz et al., Rollin et al.

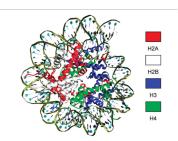






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## Déacétylation des histones Papoian



#### Materese et al.

Table 1. Summary of Results from Our All-Atom Nucleosome Simulation Describing the Charge Distribution within 1 nm of the DNA Surface

	charge	% of DNA charge
Net charge of DNA	-292	100%
Net charge of counterions	174	60%
Net charge of histones	76	26%
Net charge of system	-42	$\gamma = 14\%$
Radial center of mobile charges	4.40 Å	
Radial center of protein charges	4.34 Å	

