

Cours 3-Lamellipodes et Kératocytes

J.F. Joanny

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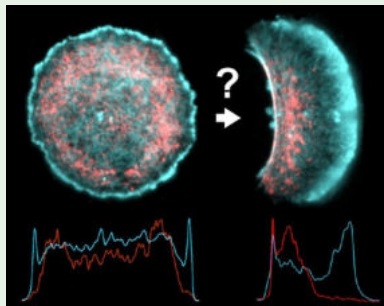
Fragments de kératocytes

Mouvements de kératocytes

Mouvement rapide: $10\mu\text{m}/\text{min}$.

J. Theriot

Fragments cellulaires



Fragments: actine +myosine //

Mouvement de fragments *Blanch Mercader, Casademunt*

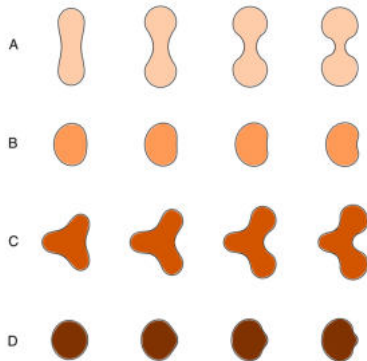
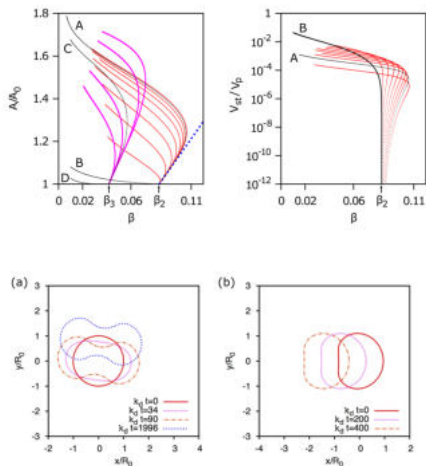
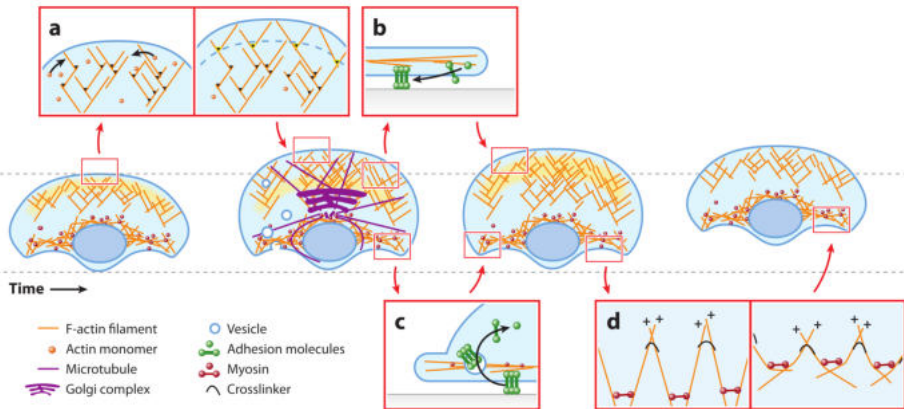


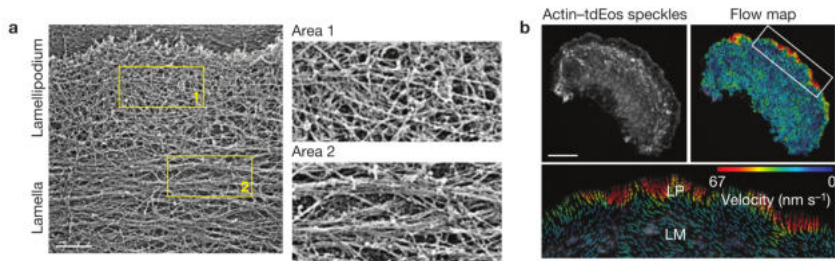
Figure 2.15: (a) Time evolution of a randomly perturbed circular interface for $\beta = 0.06$.
 (b) Time evolution of a randomly perturbed beam-shaped solution for $\beta = 0.04$.

Abercrombie Croonian Lecture 1978



Lamella and lamellipodium

Alexandrova et al.



c Rearward-speckle-flow kymograph



d Edge-protrusion/retraction map

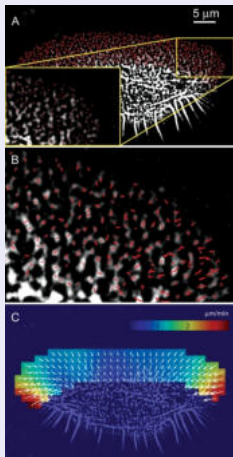


ÉGE
INCE

Burnette et al.

Mouvement de lamellipodes *Verkhovsky*

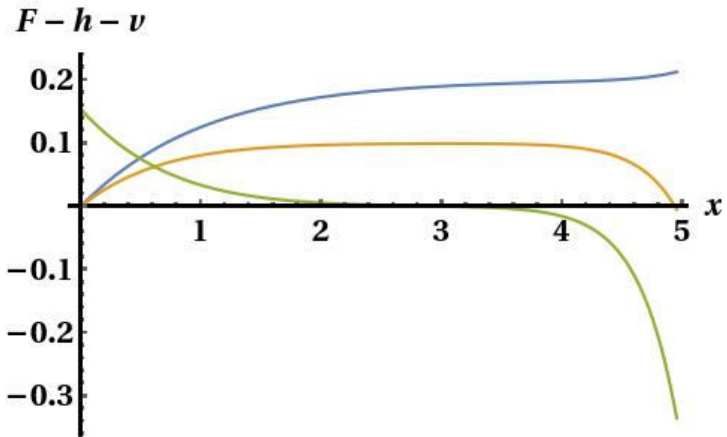
Champ de vitesse de l'actine



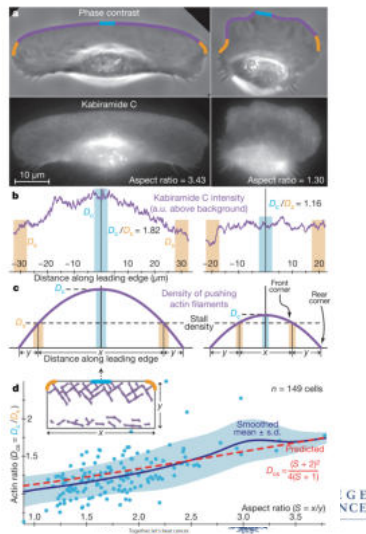
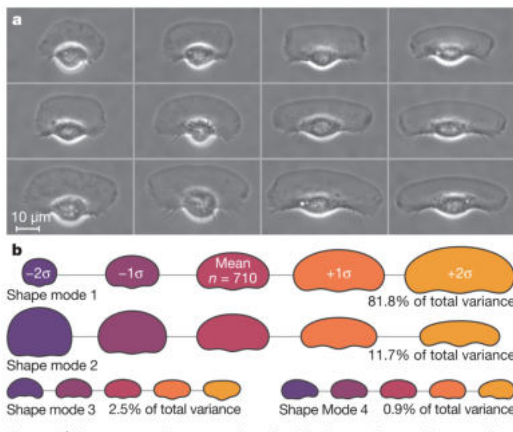
Contrainte sur le substrat

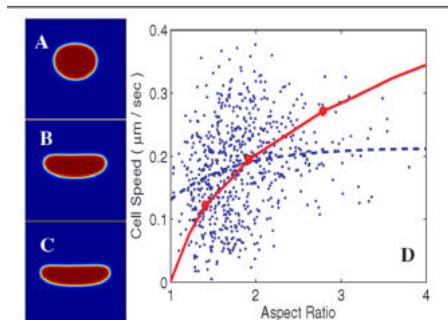
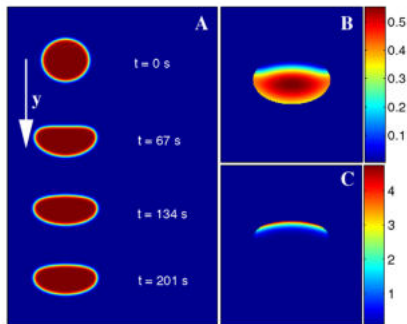
- Champ de vitesse microscopie de speckle **Vallotton et al.**
- Vitesse de la cellule
 $U = 10 \mu\text{m}/\text{min}$.
- Écoulement rétrograde
 $v = 1 \mu\text{m}/\text{min}$.
- Distribution de contrainte sur le substrat: "traction force microscopy"
 $\sigma_{xz} = 4 \cdot 10^2 \text{N}/\text{m}^2$ **Oliver et al.**
- Viscosité de l'actine
 $\eta = 10^5 \text{Pa}\cdot\text{s}$ **Kaes et al.**

Lamellipode



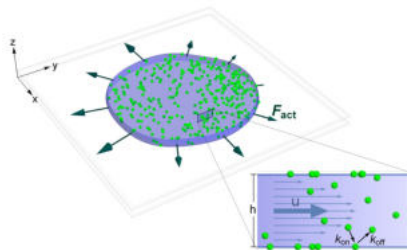
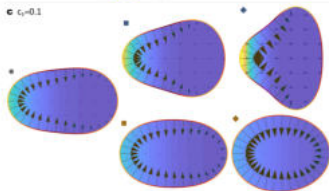
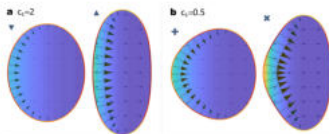
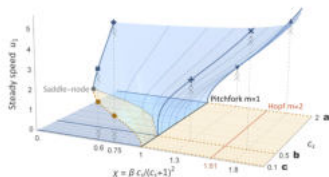
Forme des kératocytes *K. Keren*





Morphodynamique de cellules confinées entre deux plans

Lavi et al.



Symmétries et formes de cellules en migration *Ohta et al.*

