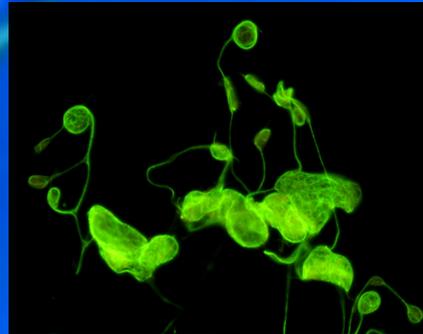
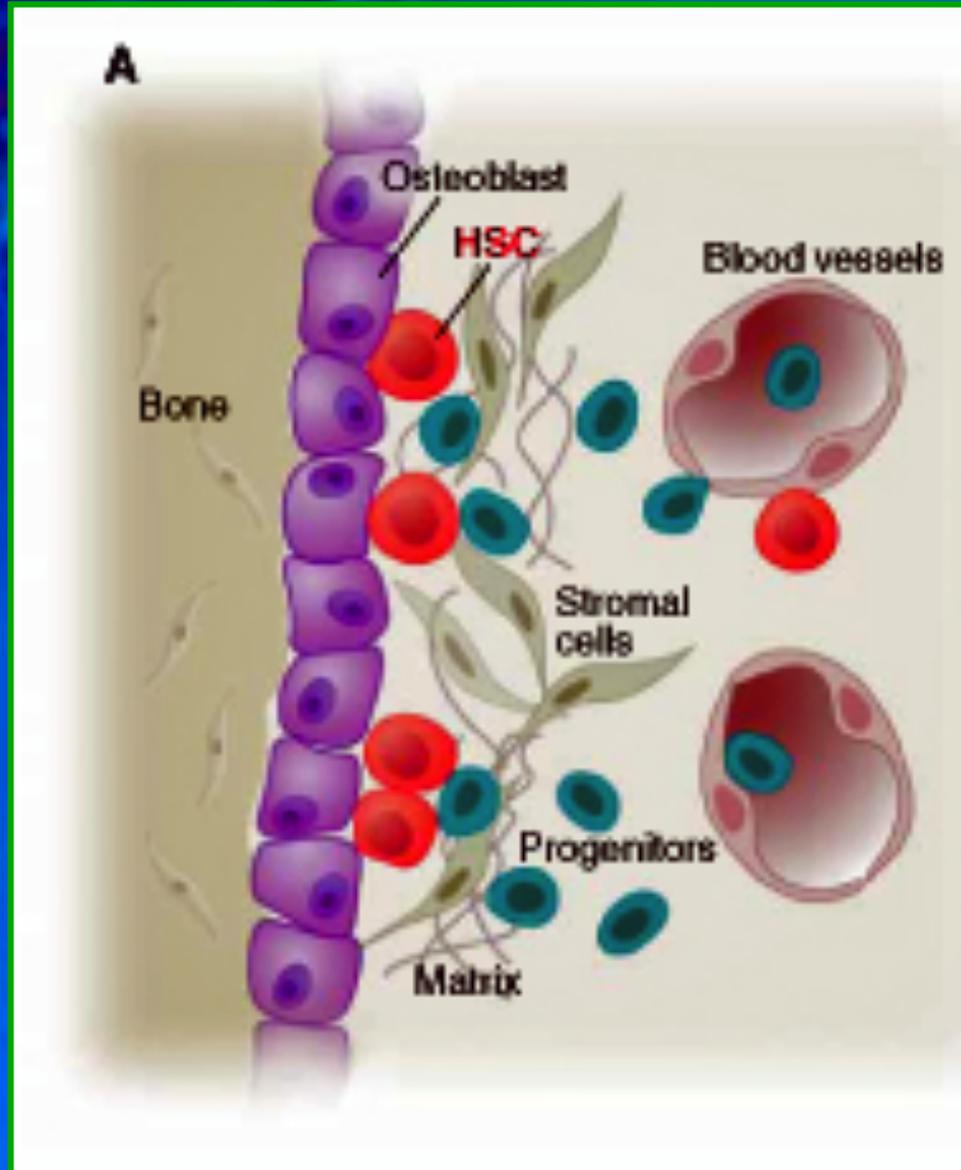


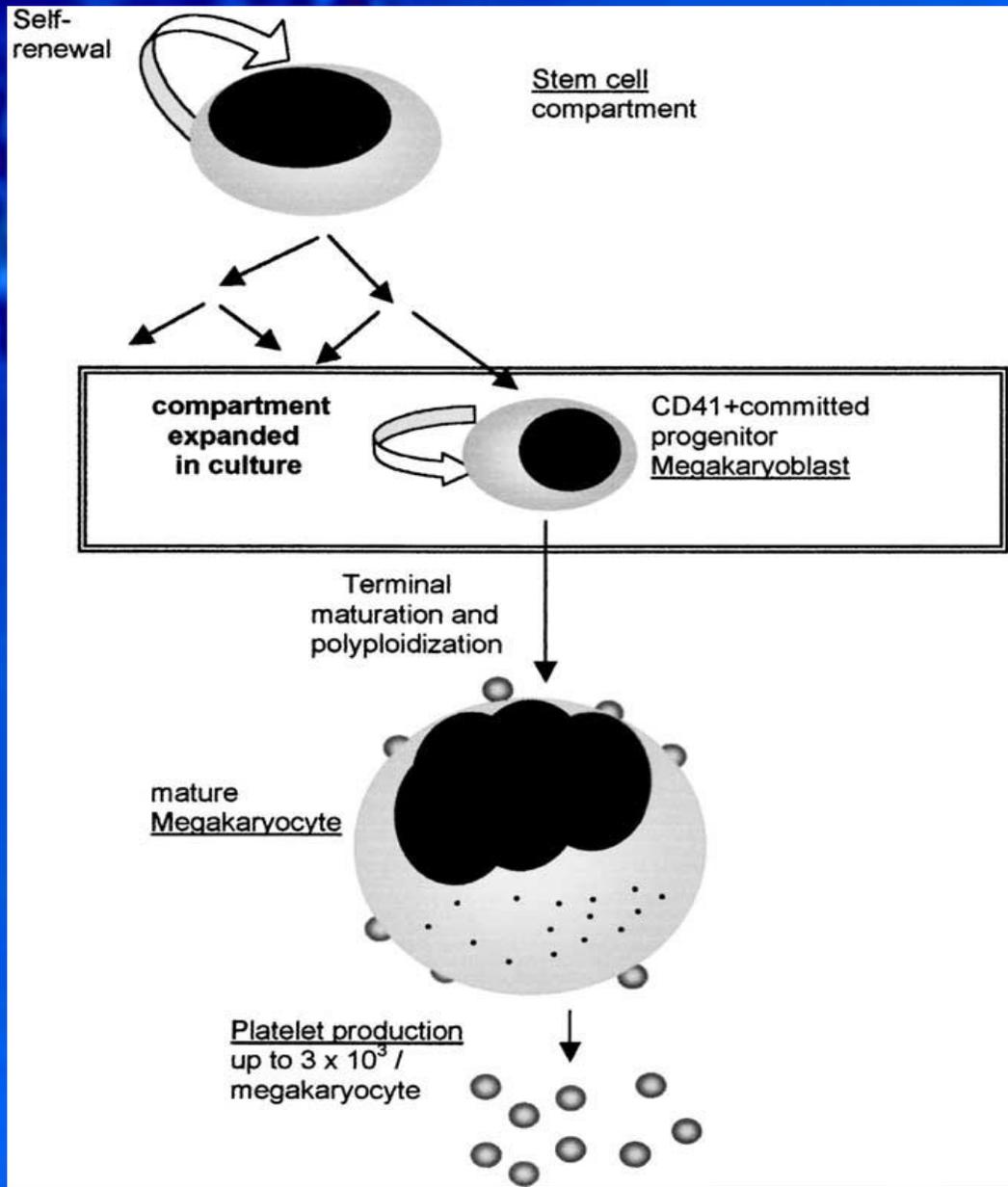
Funzione e struttura del midollo osseo nel rilascio delle piastrine



Alessandra Balduini
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Tufts University, Boston, USA

Nicchie





Stem cell



Committed progenitor

IL-3

KL

SAC_hE⁺ cell



Immature megakaryocyte

IL6, IL11, LIF

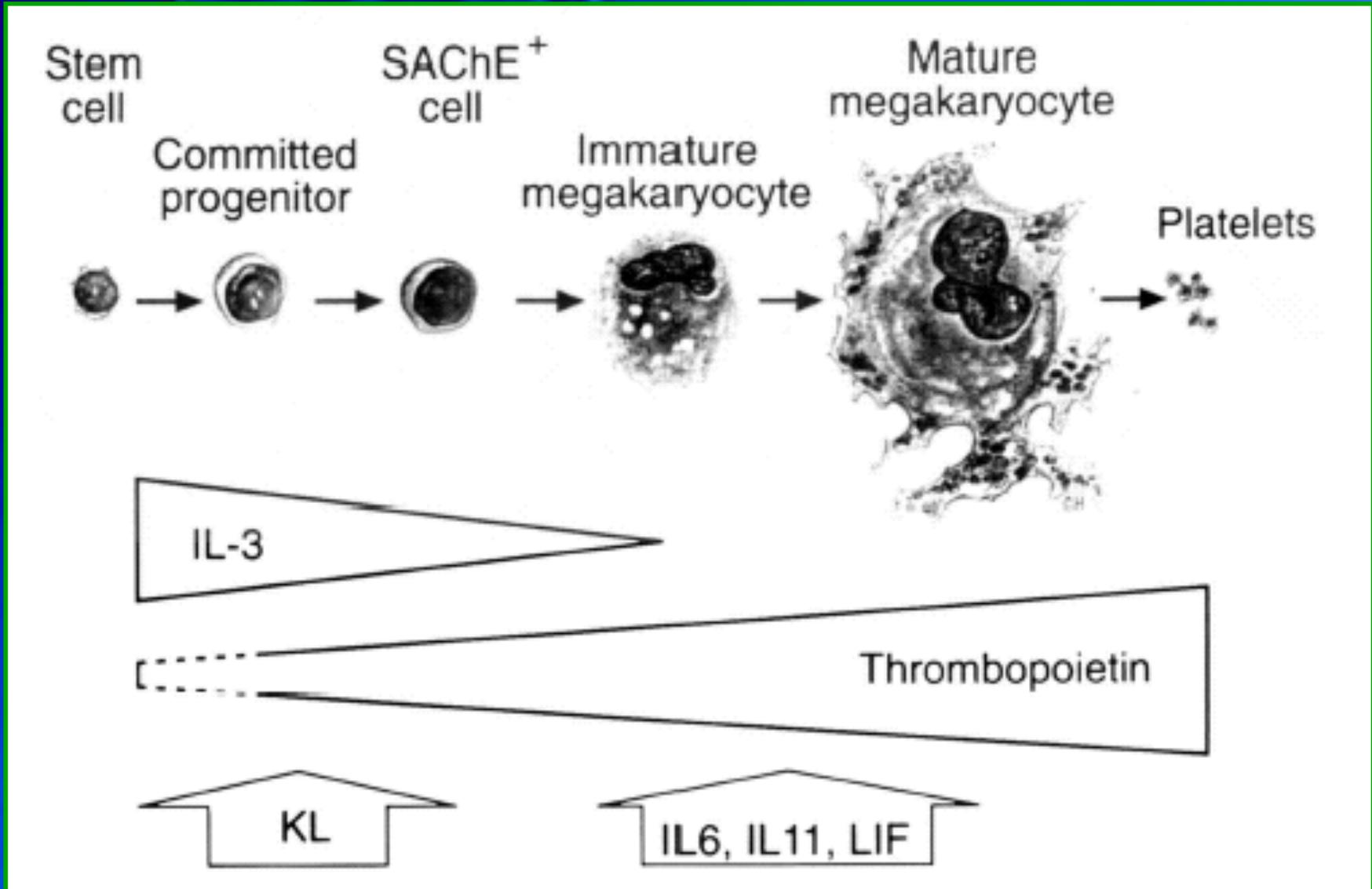
Mature megakaryocyte

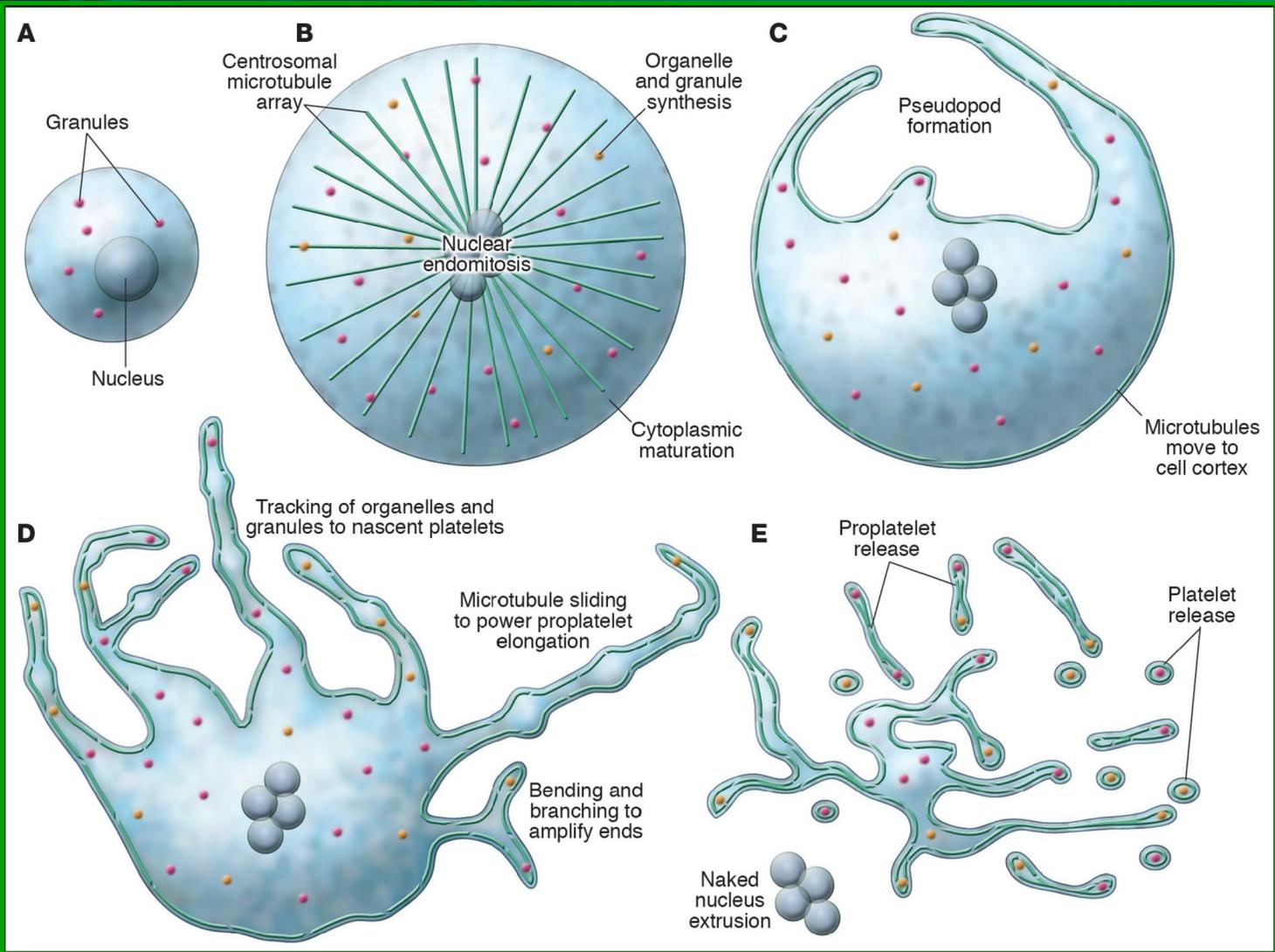


Platelets

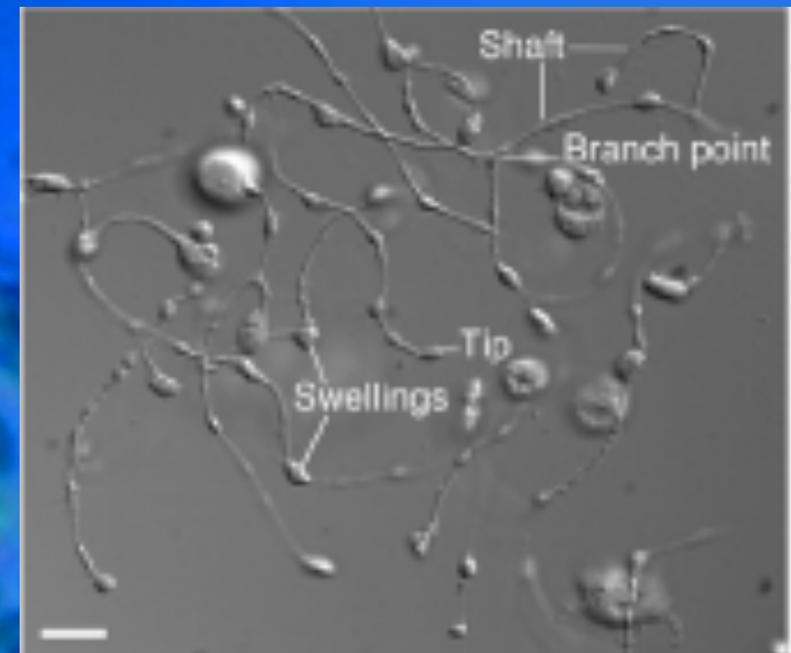
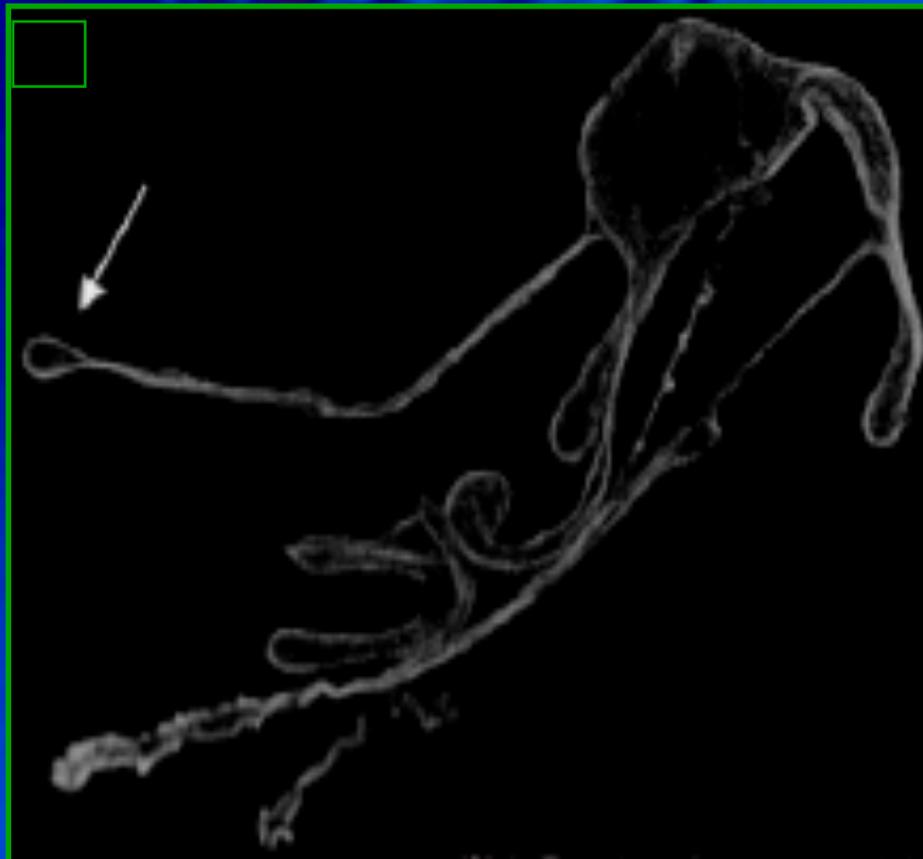


Thrombopoietin

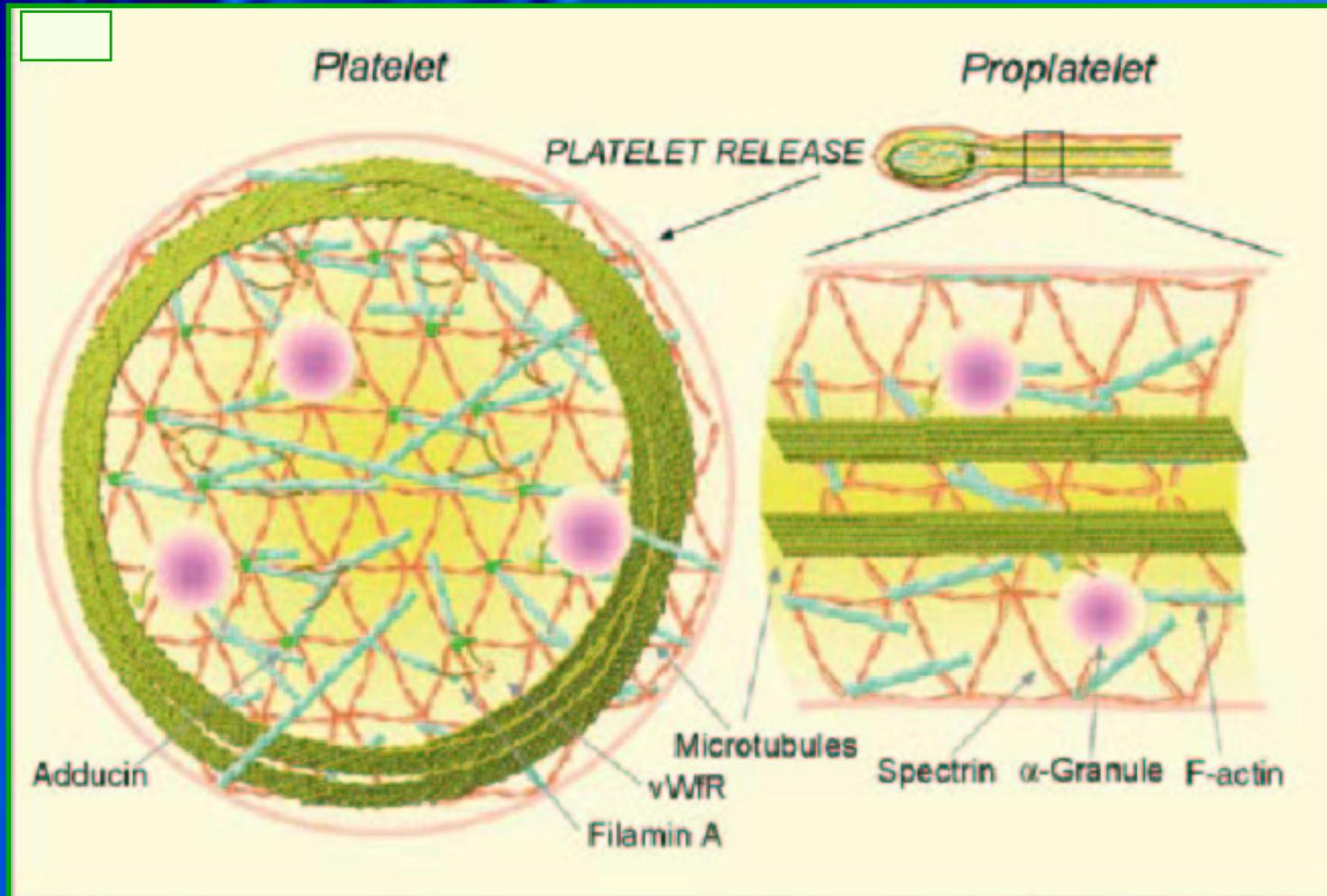




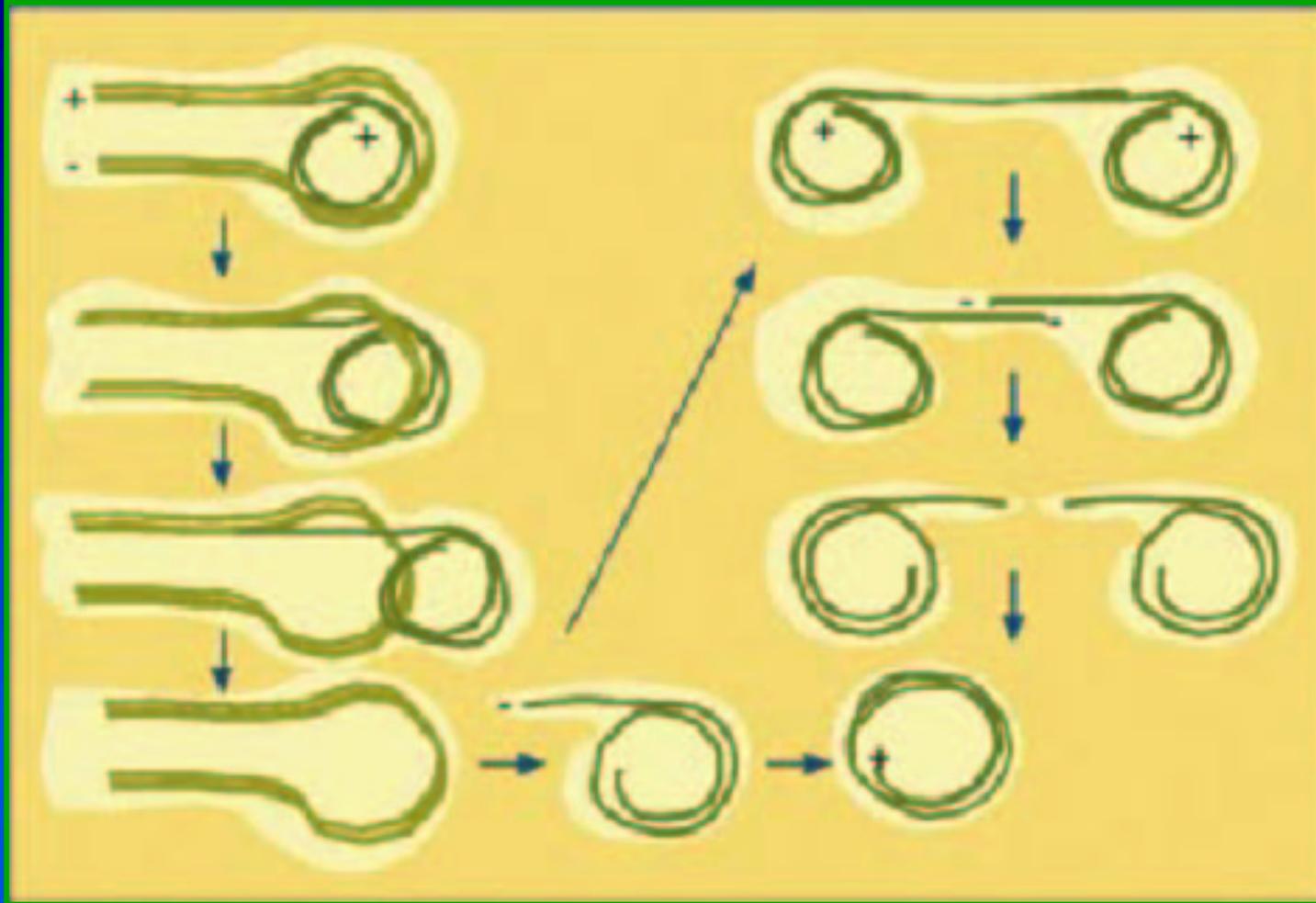
Proplatelets



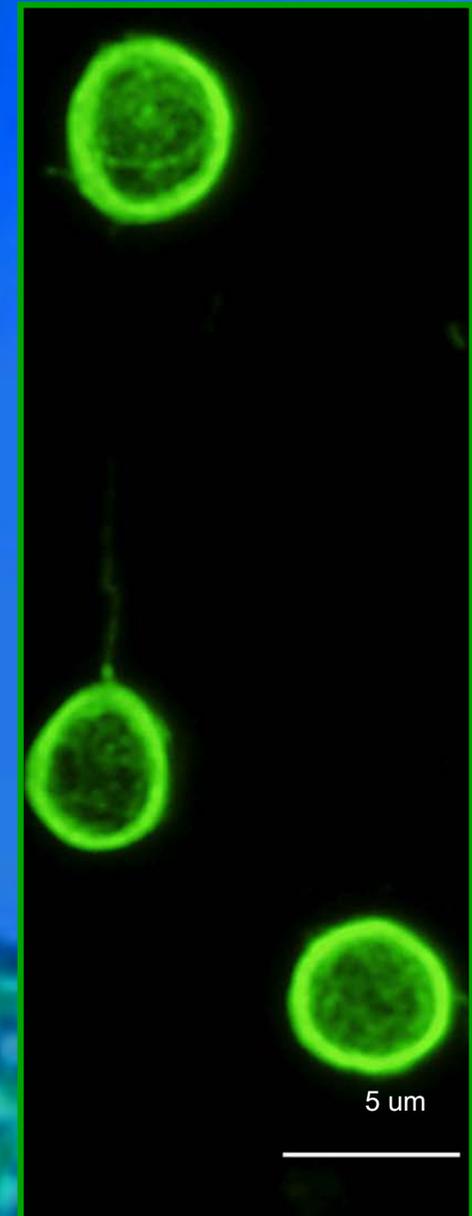
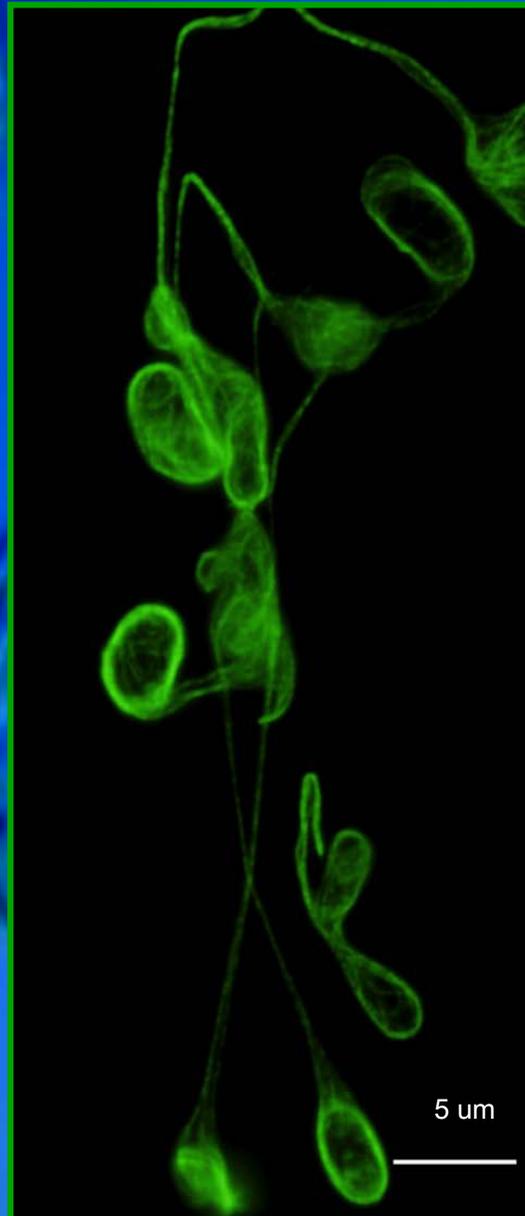
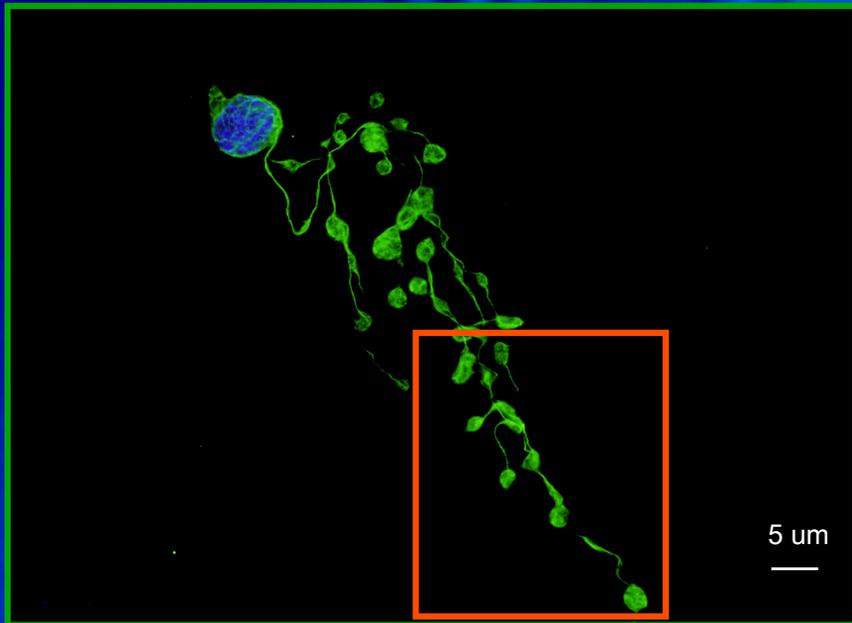
Proplatelet cytoskeleton



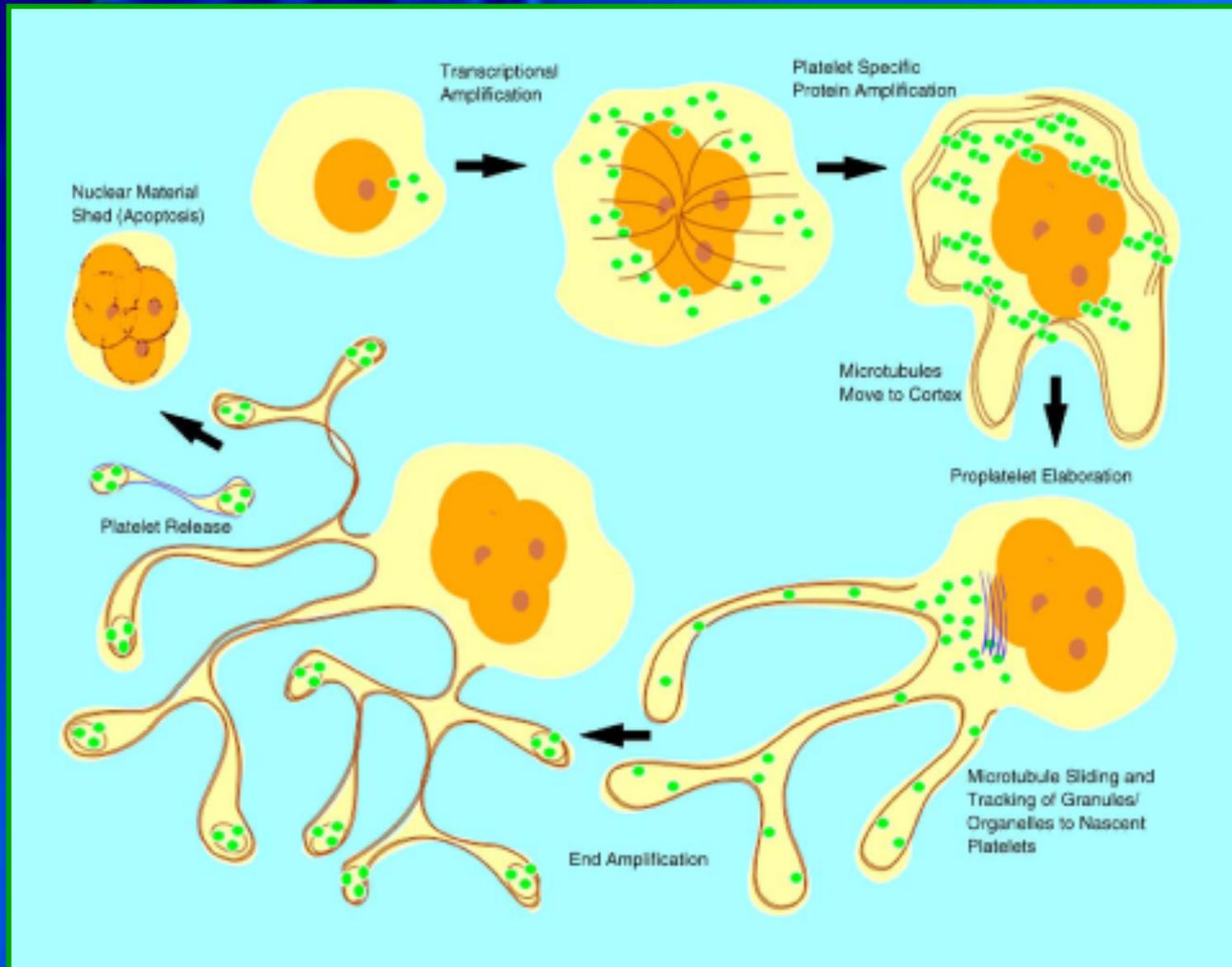
Platelet release



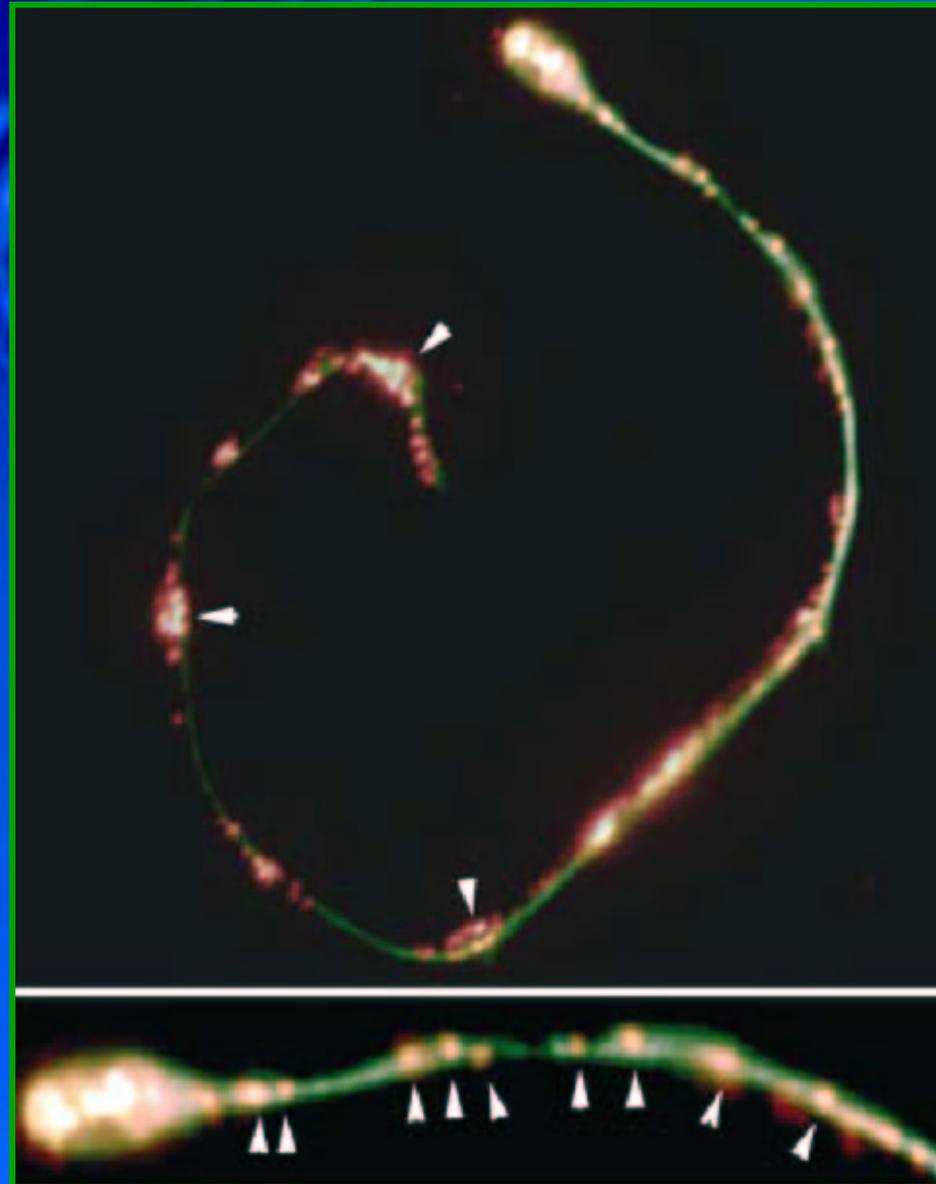
Tubulin staining



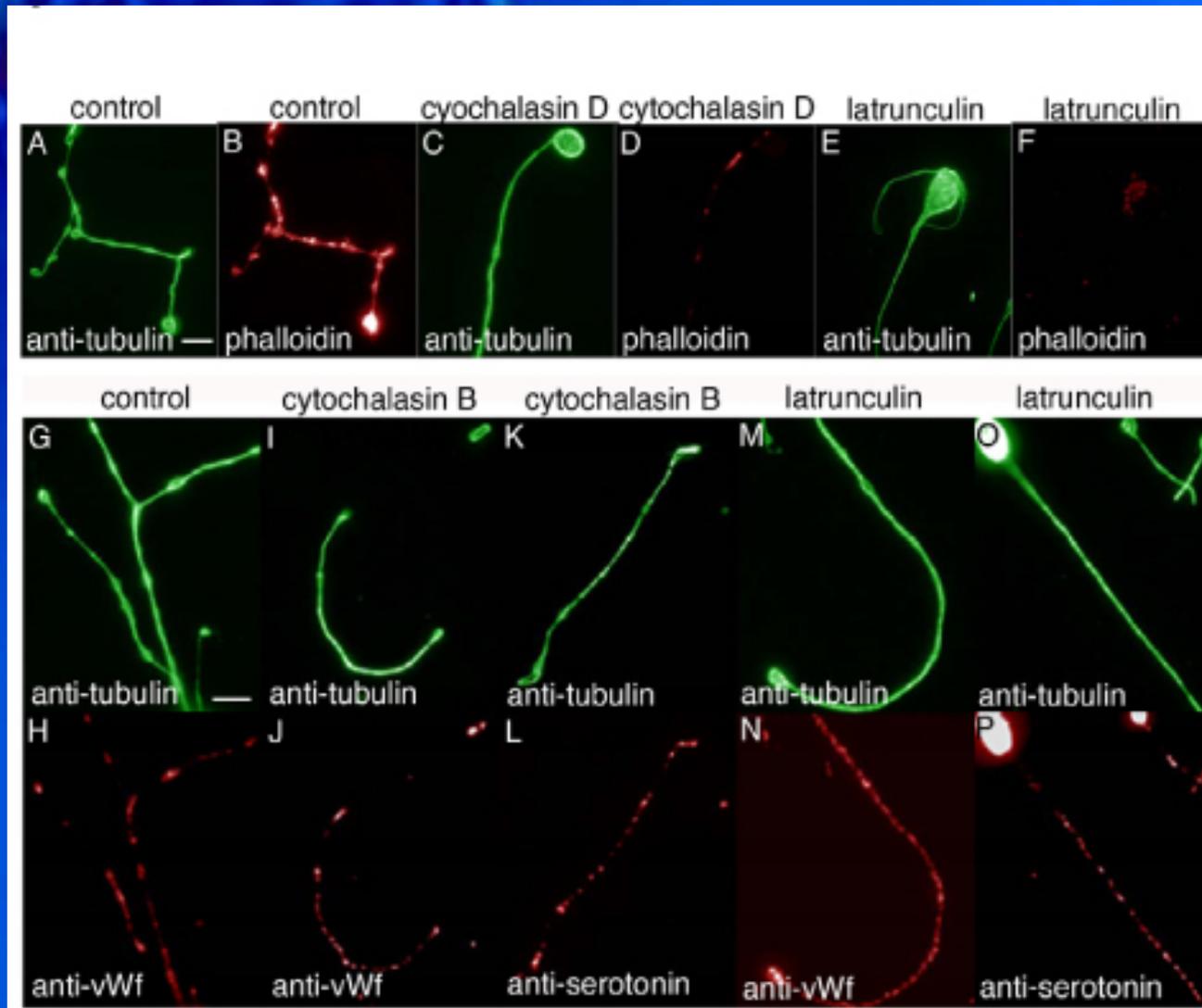
Platelet production



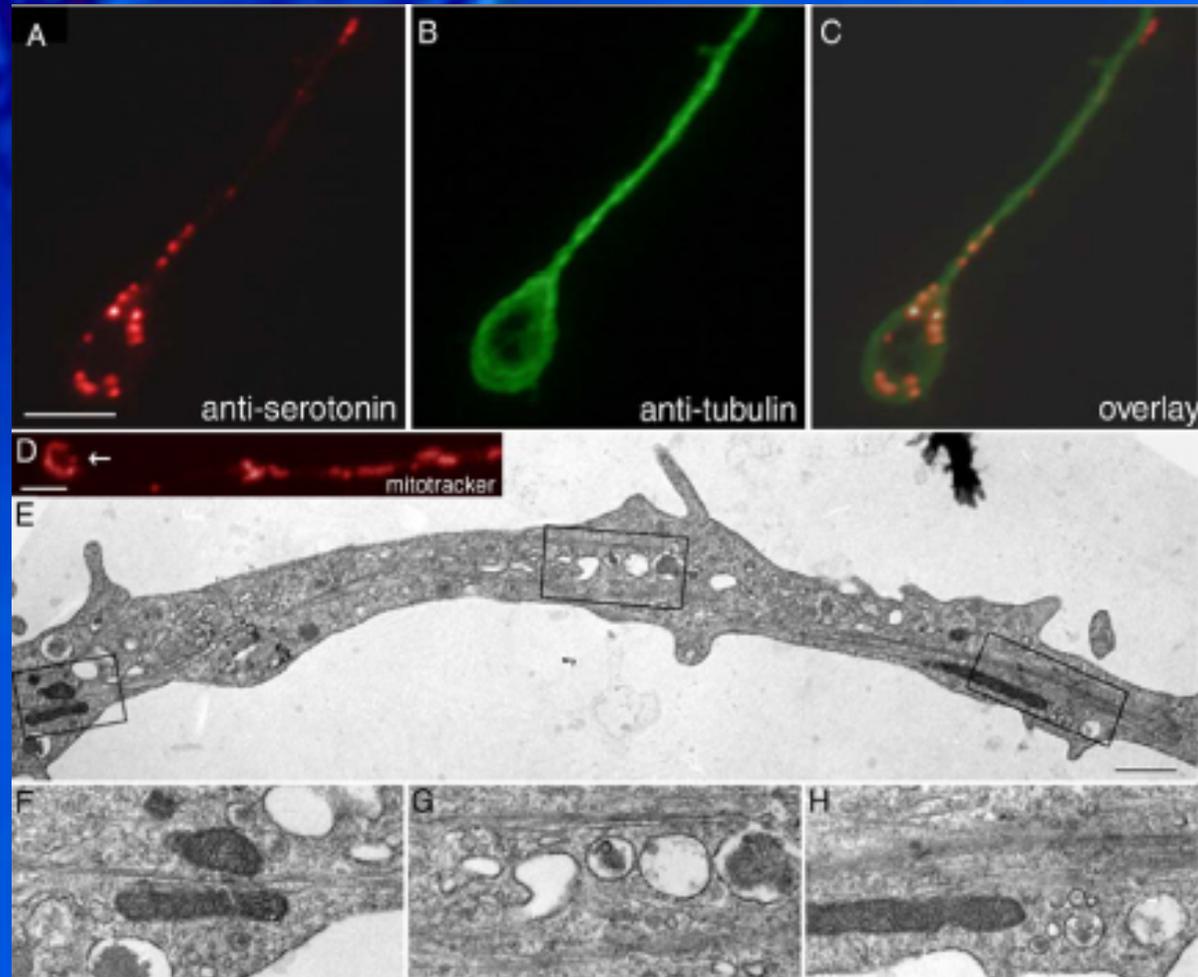
α -granule release



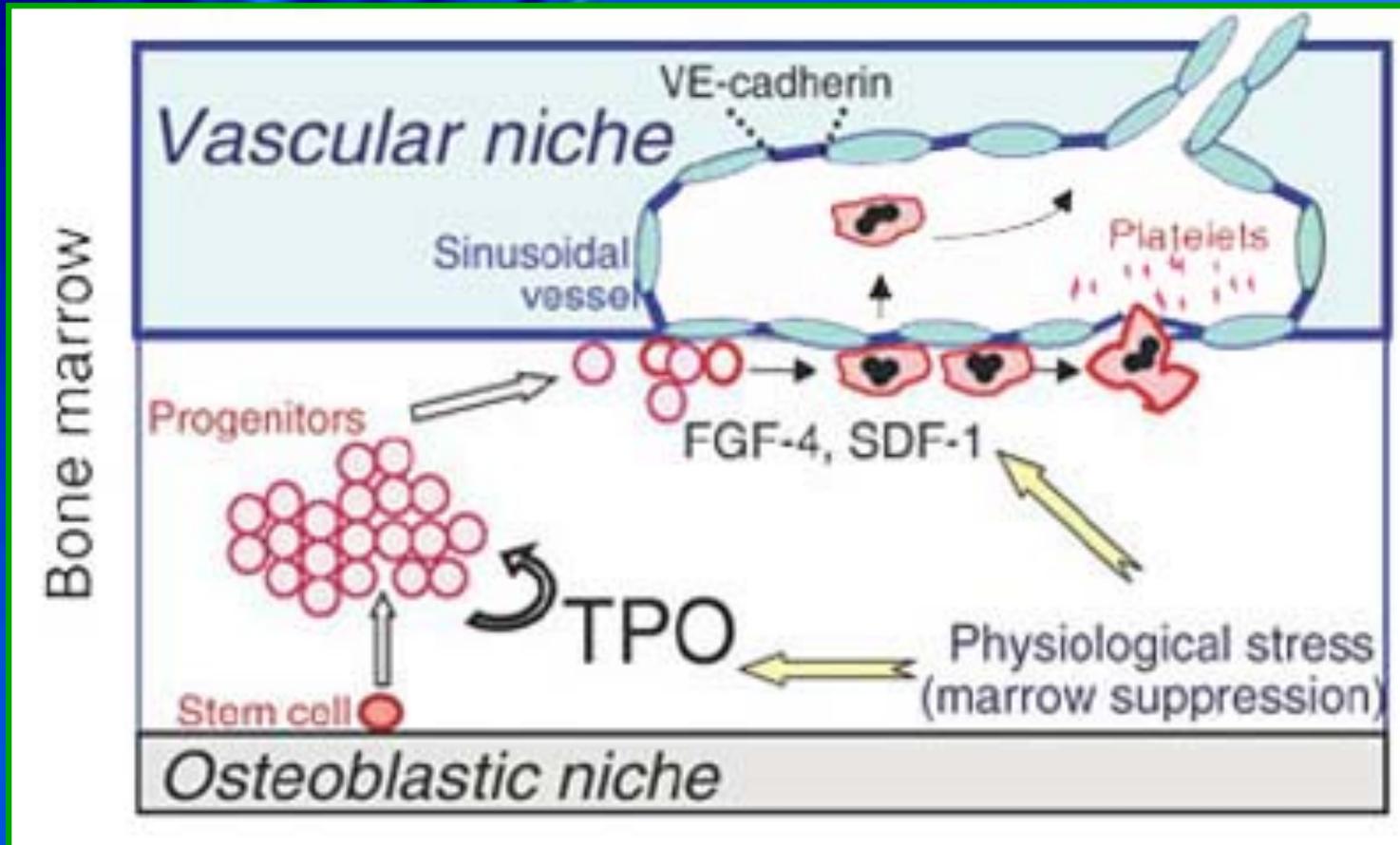
Granules continue to translocate in the presence of actin toxins



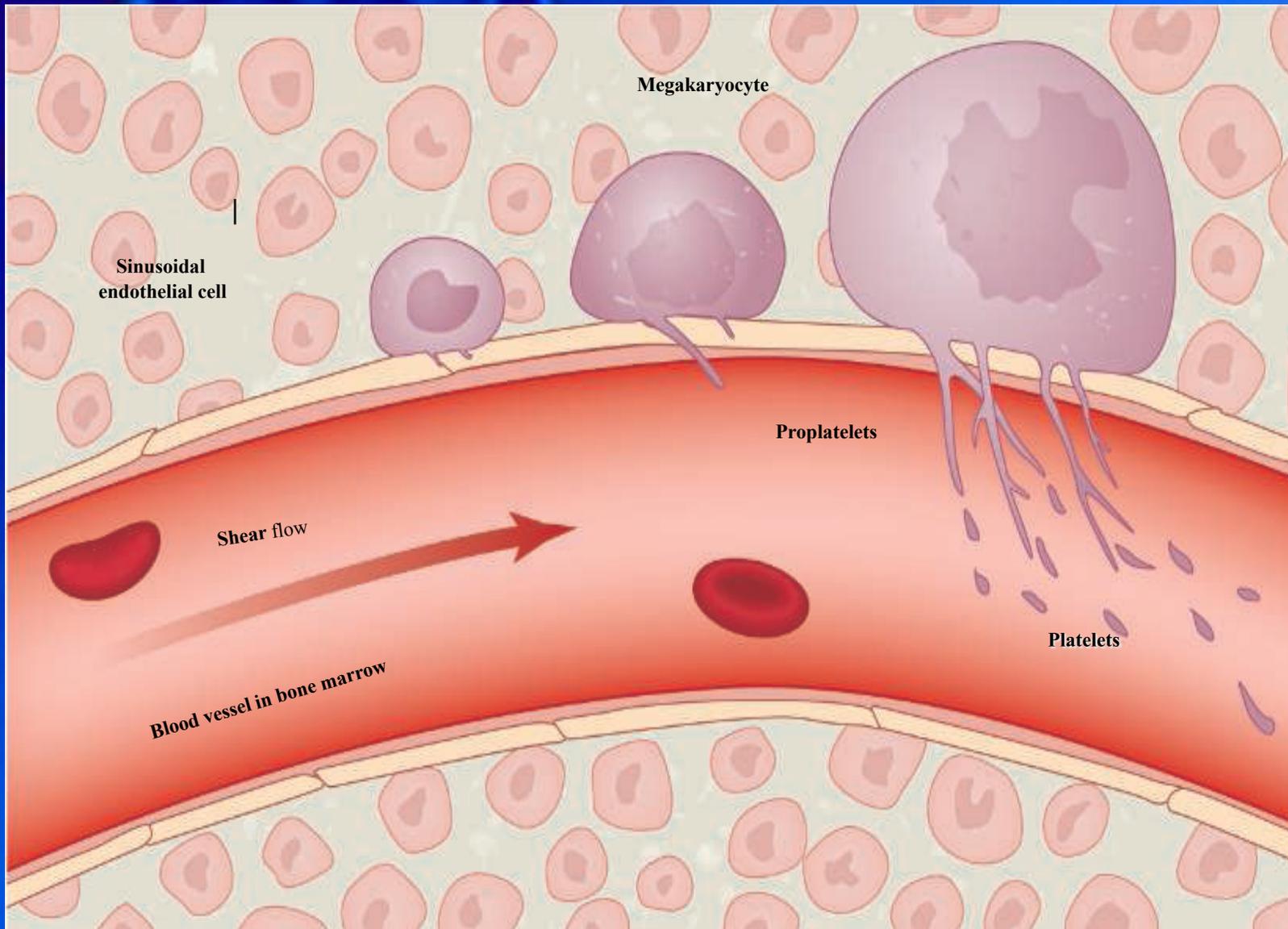
Granules associate with microtubules



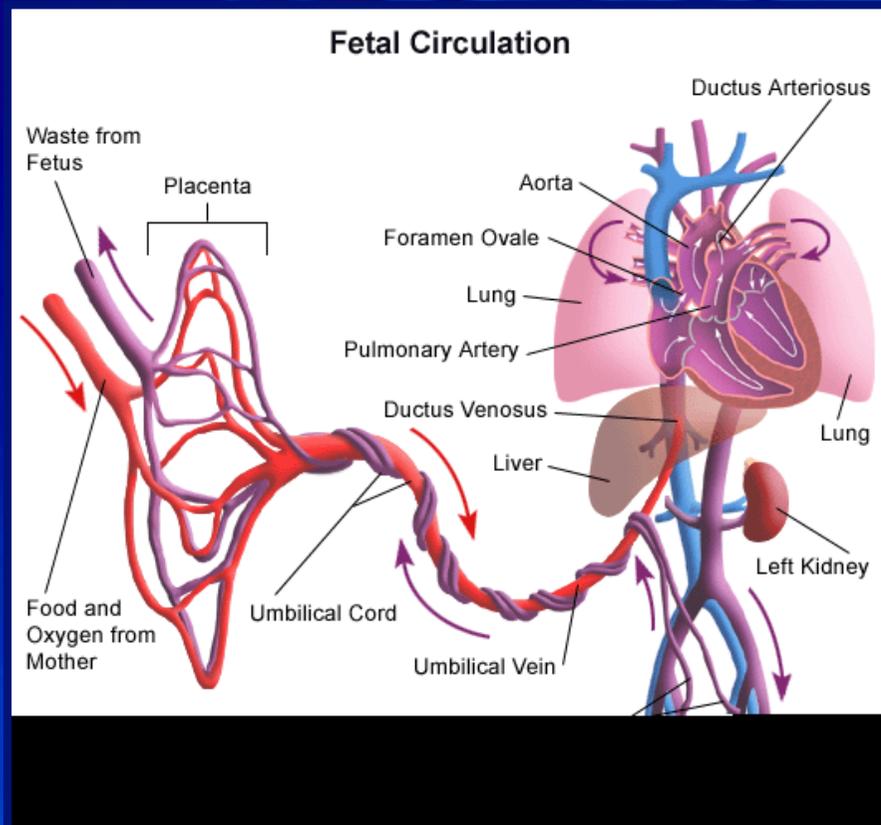
Experimental model of thrombopoiesis



Platelet release



Struttura e funzione:



- Fascio di vasi sanguigni attraverso il quale si svolgono gli scambi nutritivi tra il feto e la placenta
- Lunghezza media 50 cm
- Costituito da due arterie ombelicali e dalla vena ombelicale, ricoperta da una sostanza gelatinosa detta: gelatina di Wharton

Cenni storici

- 1974: Knudtson scopre la presenza di cellule progenitrici ematopoietiche relativamente mature
- 1984: Ogawa scopre le cellule progenitrici ematopoietiche primitive

1989: Broxmeyer dimostra che il Sangue del Cordone Ombelicale è una ricca risorsa di cellule staminali ematopoietiche

1989: Gluckman effettua il primo trapianto di cellule ematopoietiche tratte dal cordone ombelicale, invece che dal midollo osseo.

