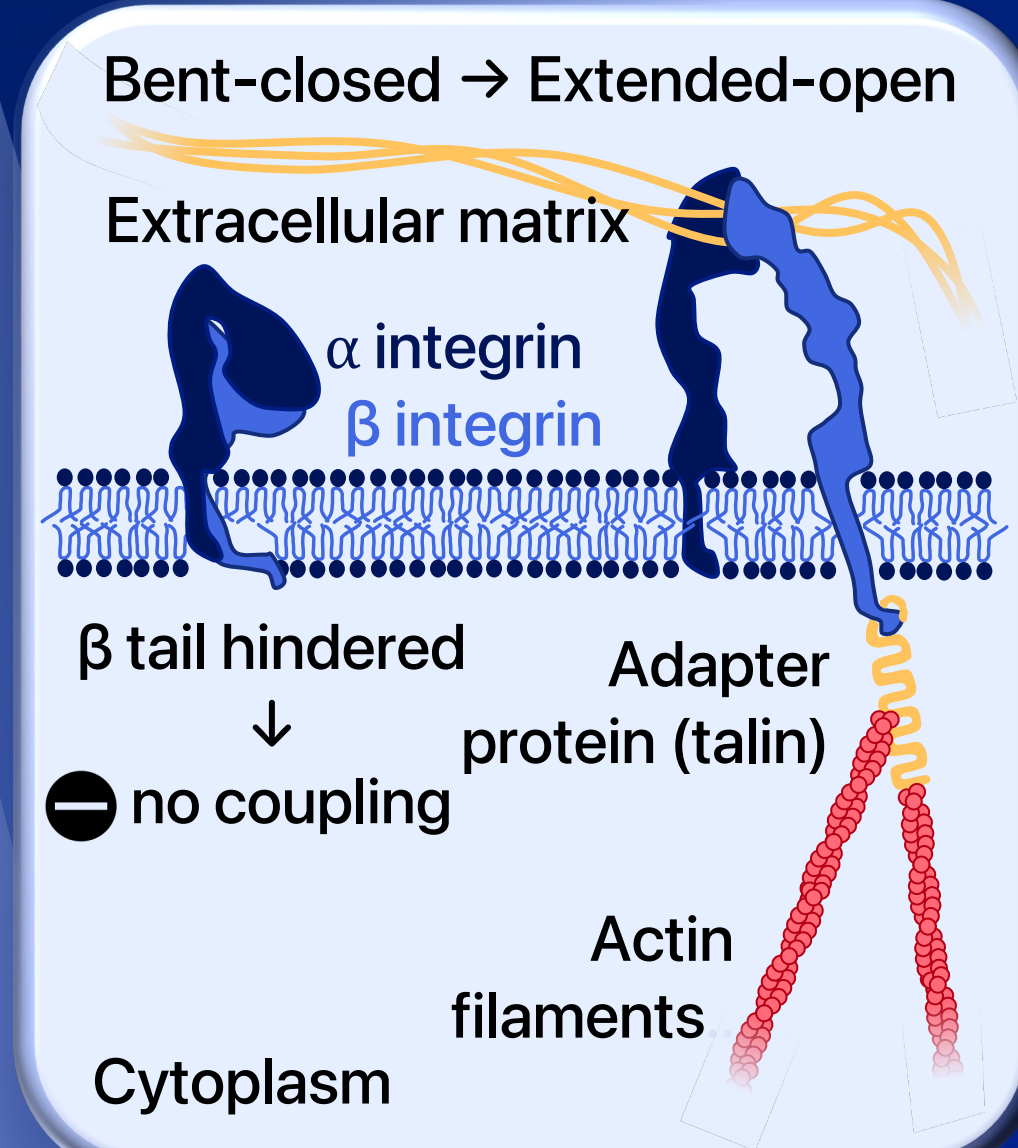


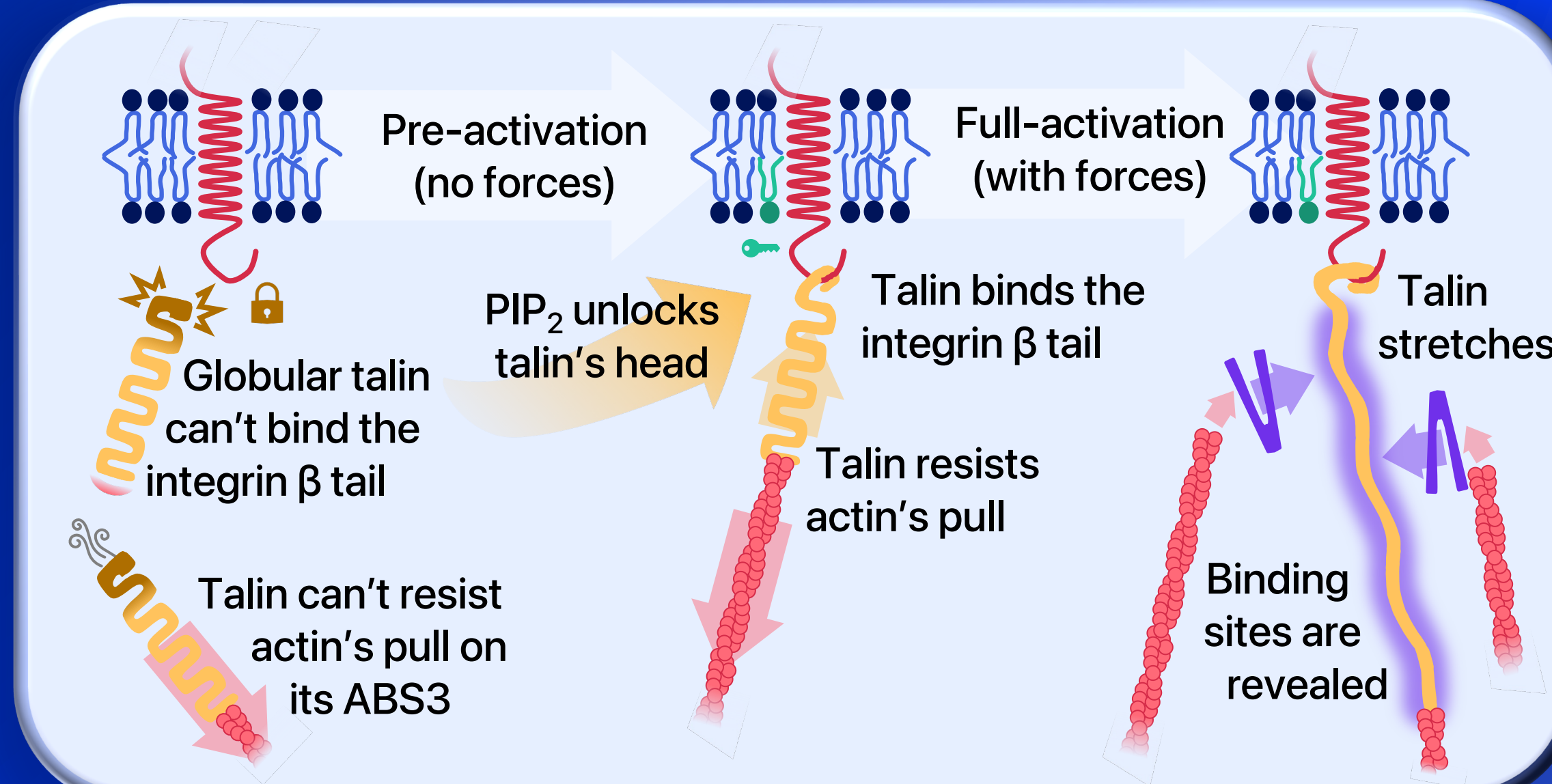
## Cells hooked on the matrix: the role of membrane proteins

**Integrins are membrane receptors that bind to the extracellular matrix**

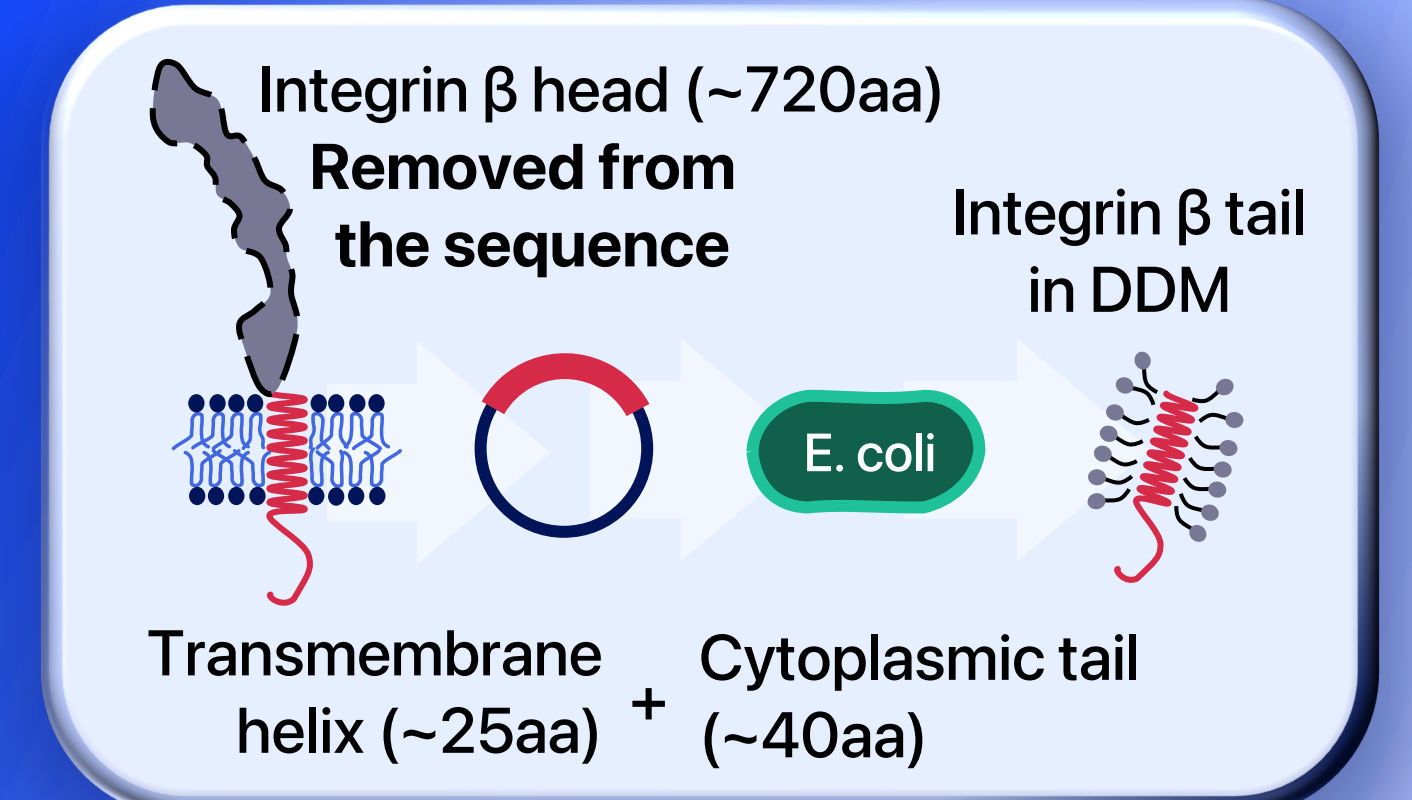


Integrins form an uninterrupted mechanical link between the outside and inside of the cell. They open or close for their ligand and engage or disengage from the cytoskeleton.

**Talin is a stretchable protein that connects the integrin β tail to the cytoskeleton**



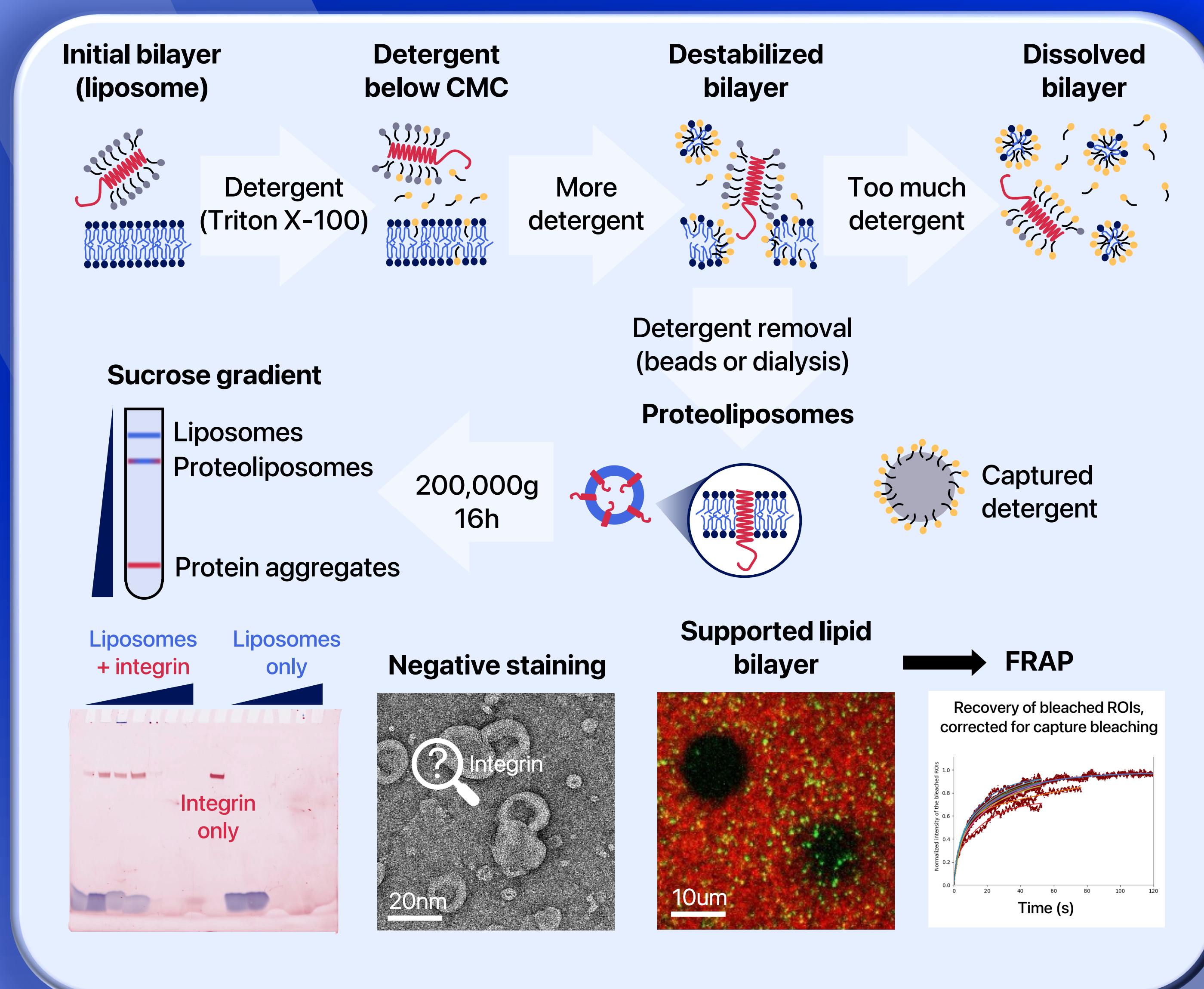
**Full-length integrins can't be expressed in *E. coli***



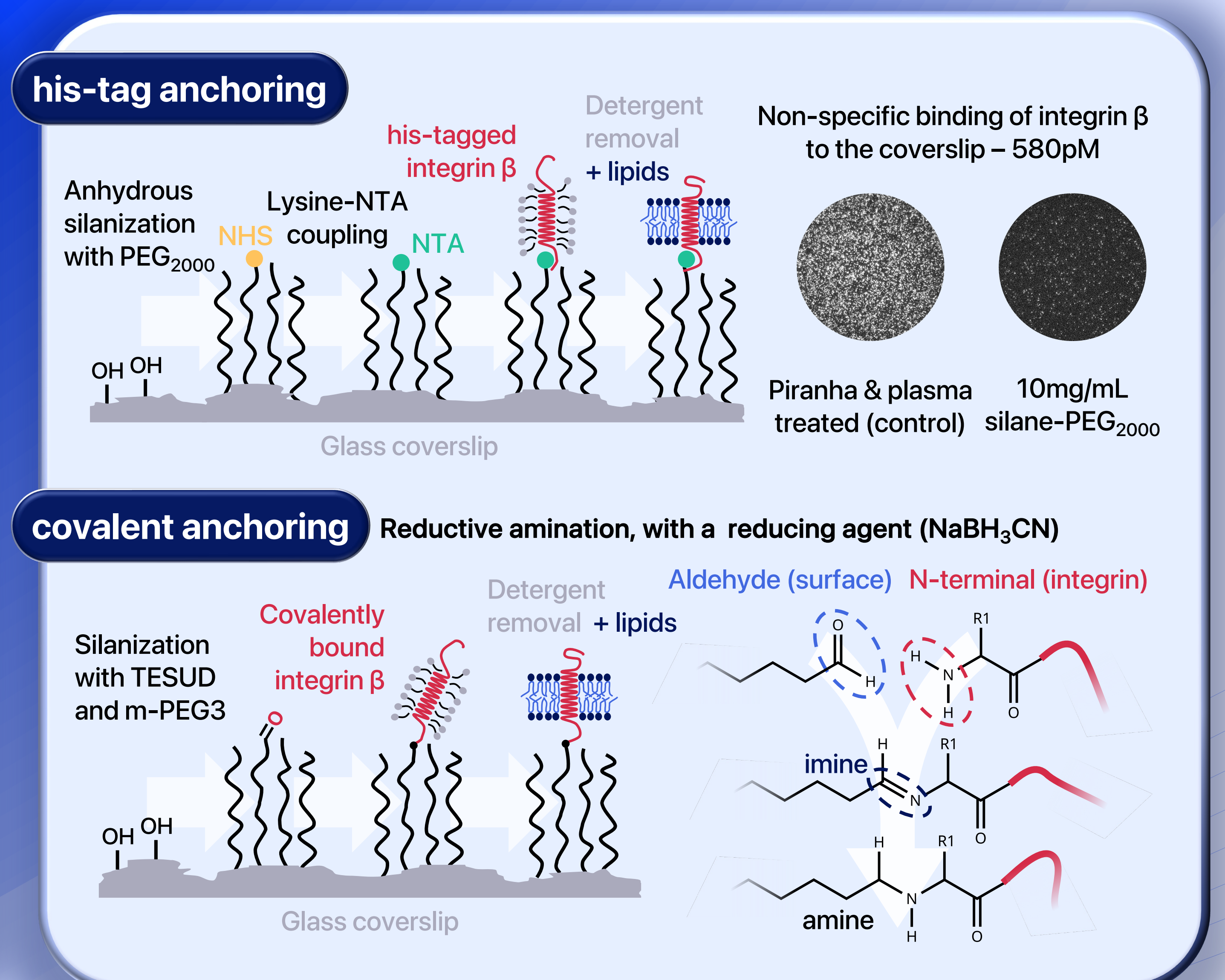
Integrins require truncation for *E. coli* expression.

## How to insert a transmembrane protein in a lipid bilayer?

**The one-pot detergent removal: a timeless classic to make proteoliposomes, but with some limitations**

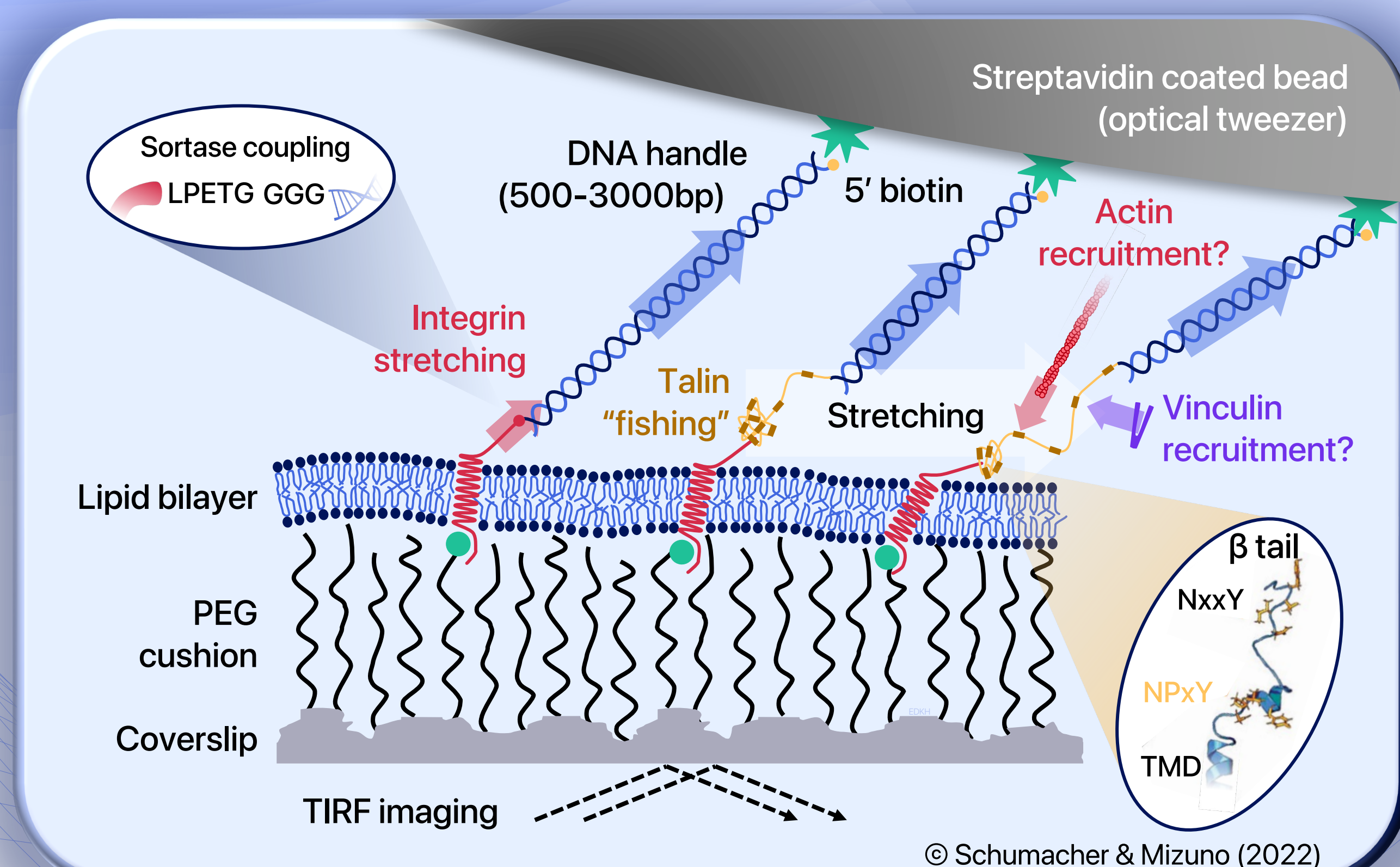


**Protein-tethered supported lipid bilayers: control of orientation and suitable for force assays**



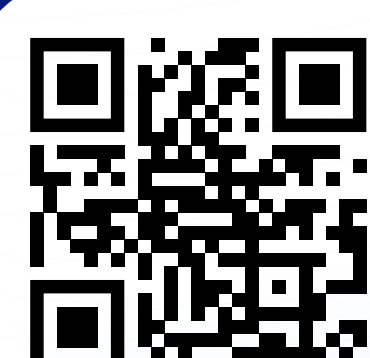
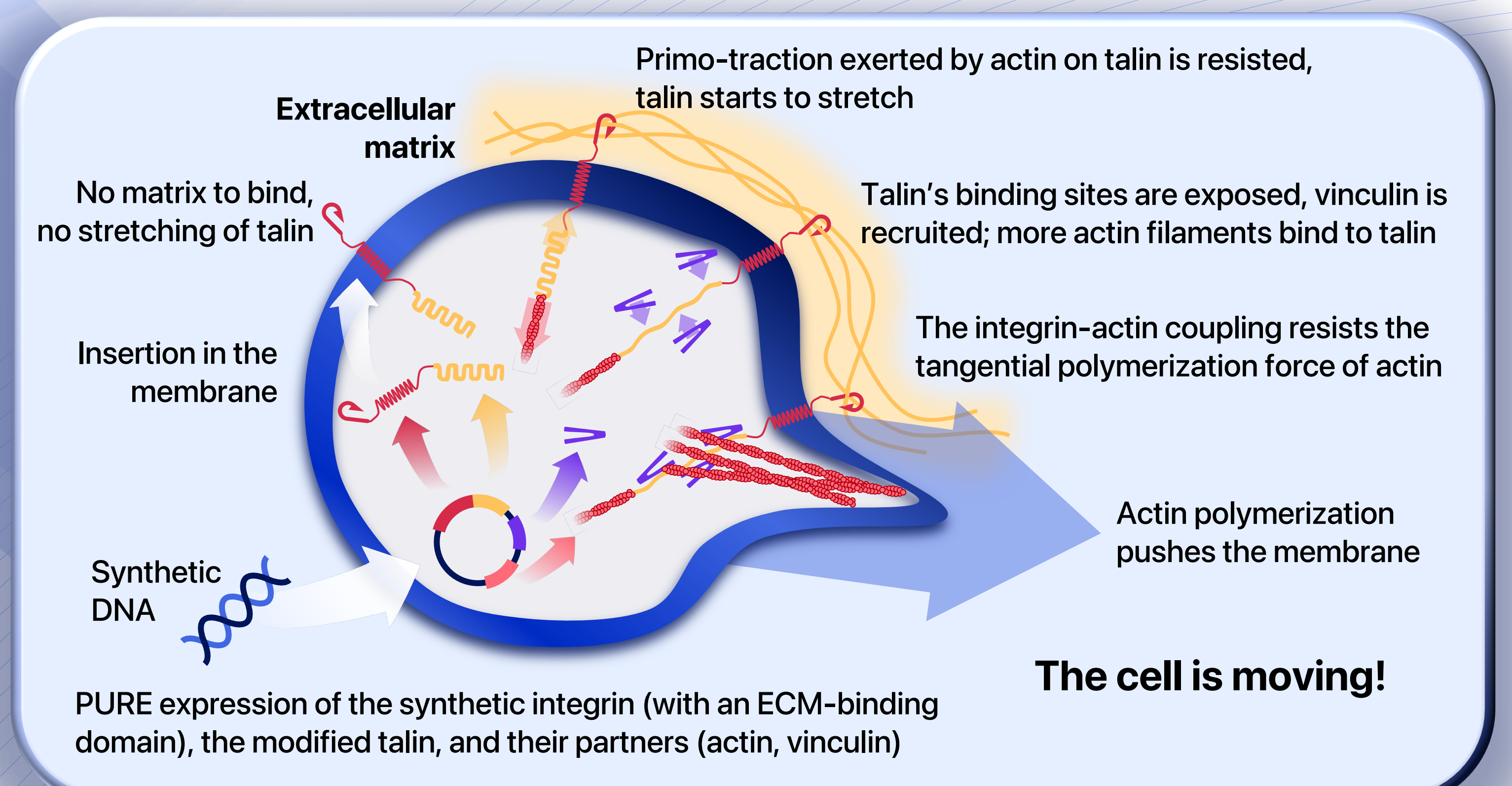
## Stretch talin under TIRF

**A planar model of cytoskeletal coupling**



## The Crawling Cell

**A blueprint of a minimal molecular clutch for a synthetic cell**



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