

## La matrice extracellulaire

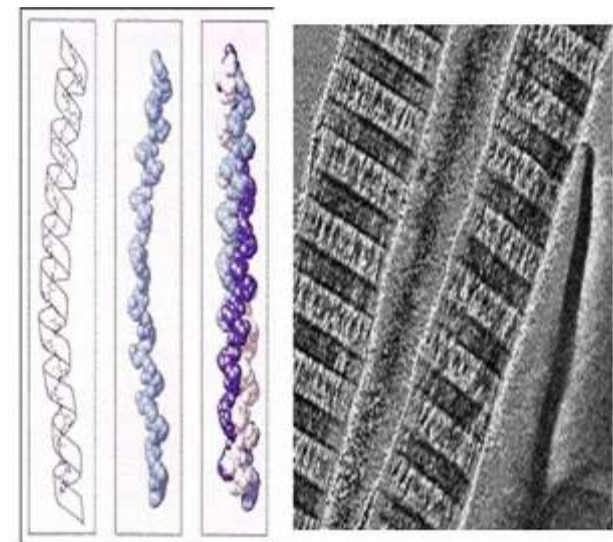
**synthèse des fibrilles de collagène**

The diagram shows a cell with various organelles. A callout box highlights the process of collagen fibril synthesis. Below this, three panels detail the molecular steps:

- Panel 1:** Shows three polypeptide chains labeled  $\alpha_1$ ,  $\alpha_2$ , and  $\alpha_2$ . The ends of these chains are marked as "extremités à éliminer" (ends to be removed).
- Panel 2:** Shows the "formation de la triple hélice de procollagène" (formation of the procollagen triple helix). The PDB ID is 1bkv.
- Panel 3:** Shows "l'excision des extrémités de la triple hélice de procollagène" (excision of the ends of the procollagen triple helix). This process leads to the "assemblage spontané des fibrilles" (spontaneous assembly of fibrils), which are reinforced by hydroxylysine groups. Multiple fibrils then form collagen fibers.

**fibrille de collagène**

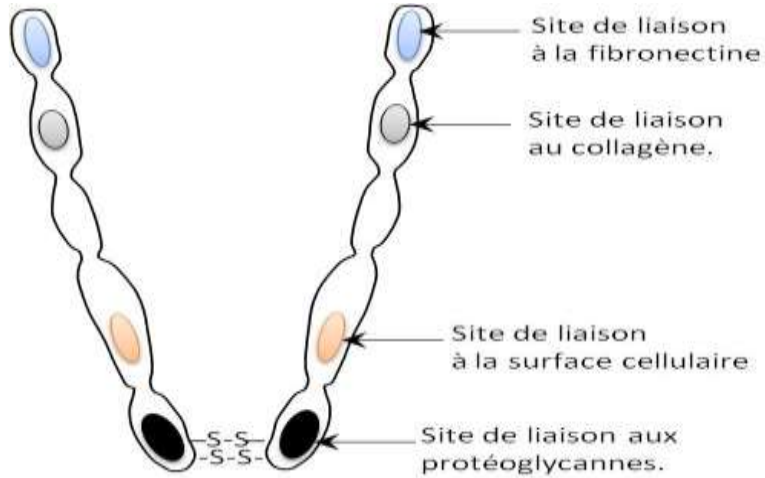
## protéine de structure : le collagène



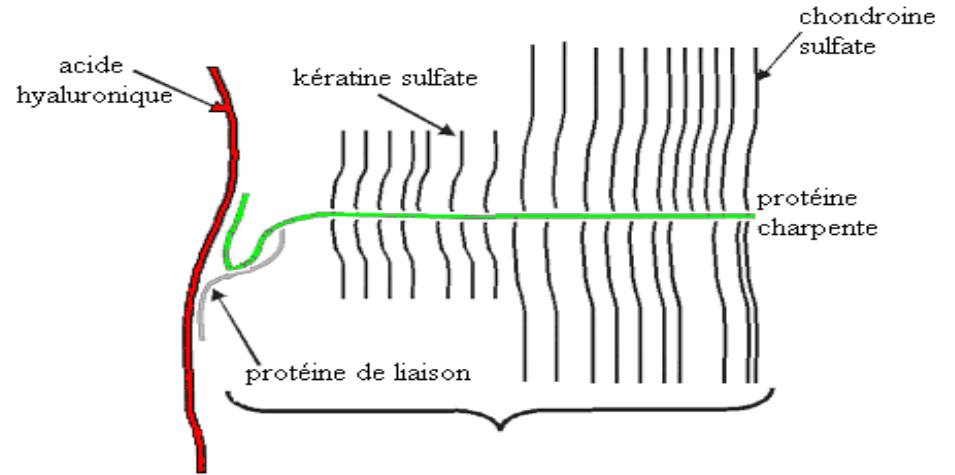
## Le collagène

collagène I

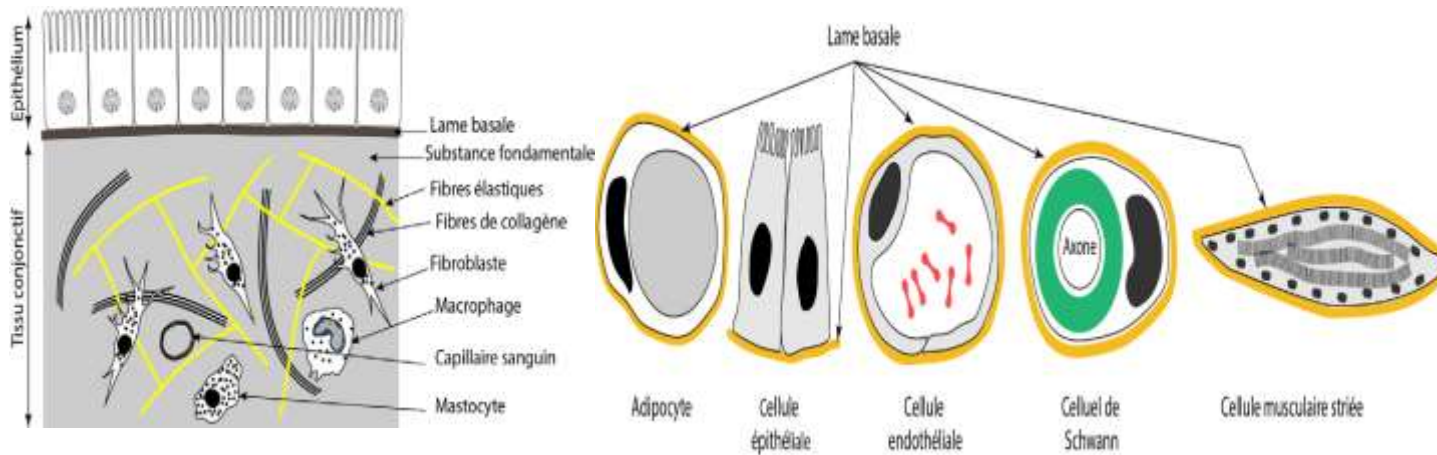
# Matrice extracellulaire



**Structure d'un dimère de fibronectine**

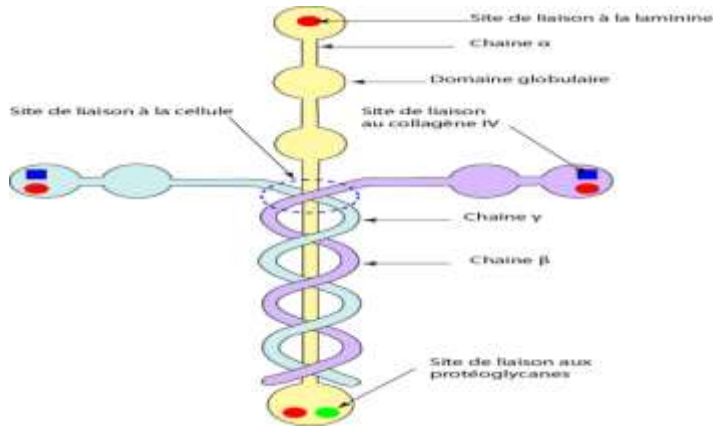


**Protéoglycane**

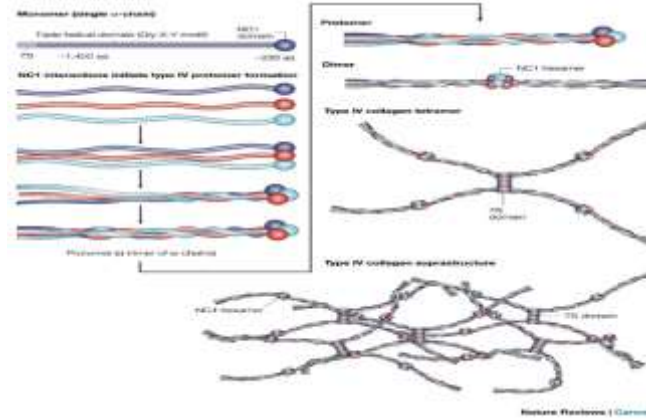


**Positions de la lame basale**

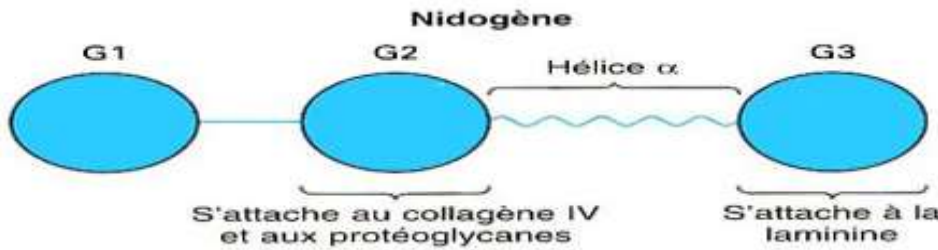
# Matrice extracellulaire



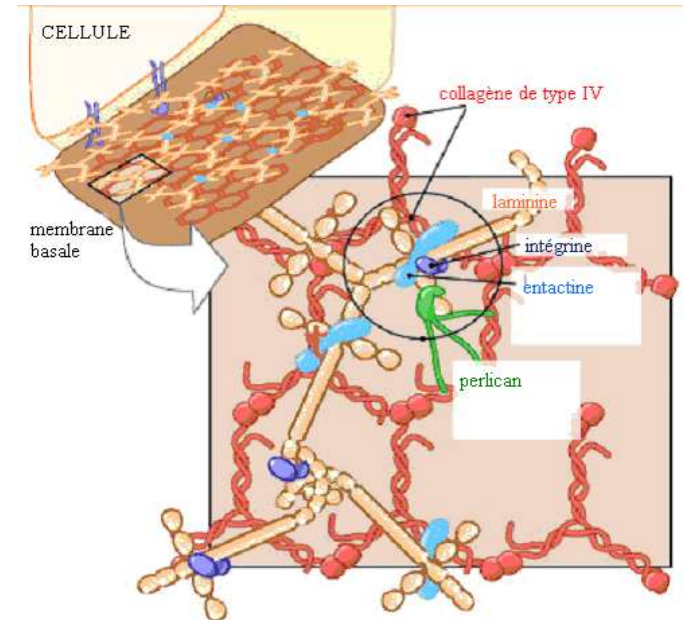
**La laminine**



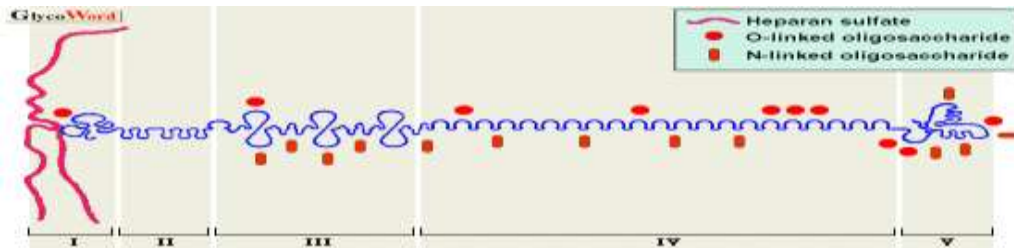
**Collagène de type IV**



**Le nidogène**



**La lame basale**



**Le perlecan**