

La matrice extracellulaire

protéine de structure : le collagène

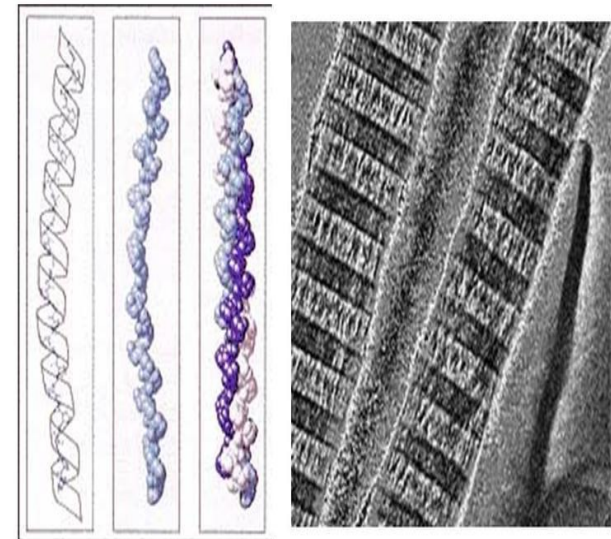
synthèse des fibrilles de collagène

The diagram shows a cell with various organelles. A callout points to the site of collagen fibril synthesis. Below this, three stages of collagen synthesis are shown:

- Stage 1:** 'synthèse des chaînes de procollagène qui s'alignent grâce à des ponts disulfures'. It shows three polypeptide chains labeled α_1 , α_2 , and α_2 with 'extremités à éliminer' (ends to be removed) marked.
- Stage 2:** 'formation de la triple hélice de procollagène'. A 3D model shows the three chains intertwined in a triple helix. Reference: PDB:1bkv.
- Stage 3:** 'l'excision des extrémités de la triple hélice de procollagène induit l'assemblage spontané des fibrilles. Les liaisons par des groupes hydroxylysine renforcent les fibrilles. Plusieurs fibrilles forment des fibres de collagène (non montrée)'. A 3D model shows the triple helix with yellow cross-links (hydroxylysine groups) between chains.

fibrille de collagène

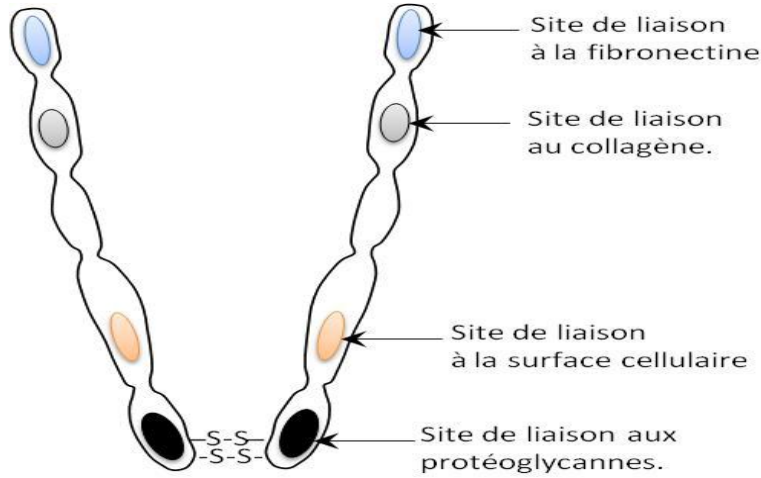
The electron micrograph shows a single collagen fibril with a characteristic periodic banding pattern.



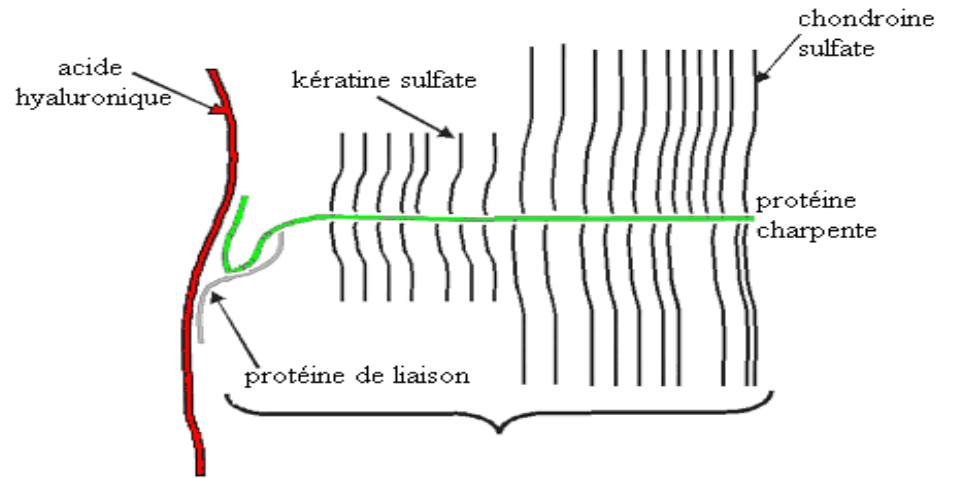
Le collagène

collagène I

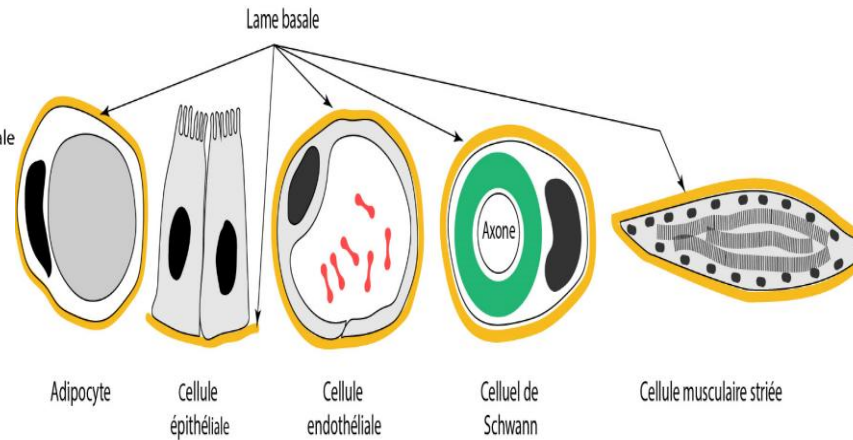
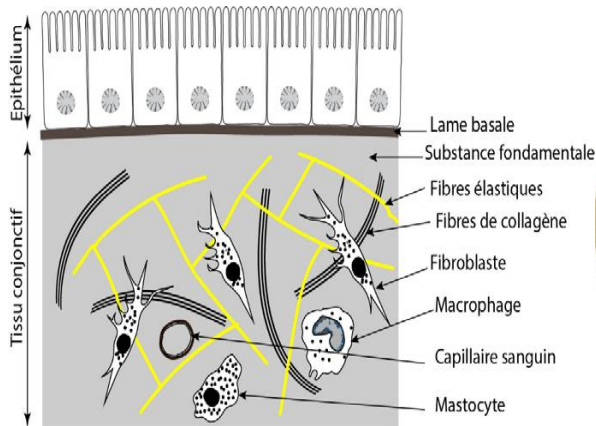
Matrice extracellulaire



La structure d'un dimère de fibronectine

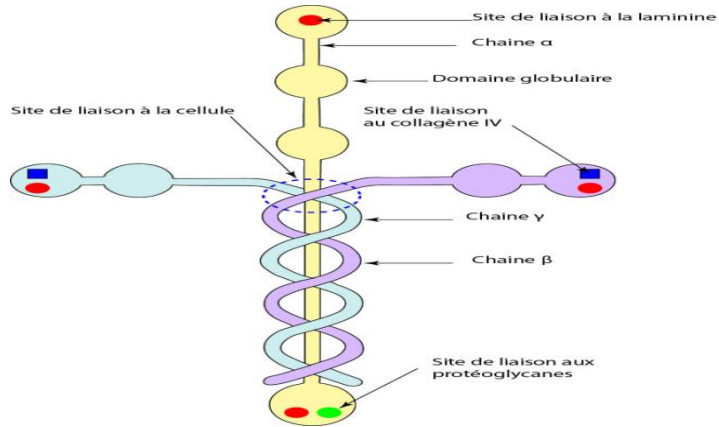


Le protéoglycane

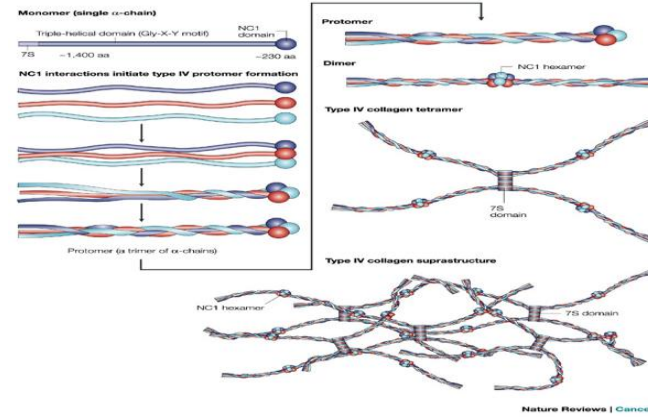


La positions de la lame basale

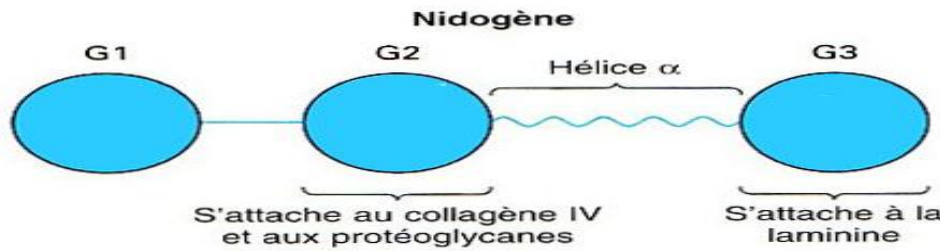
Matrice extracellulaire



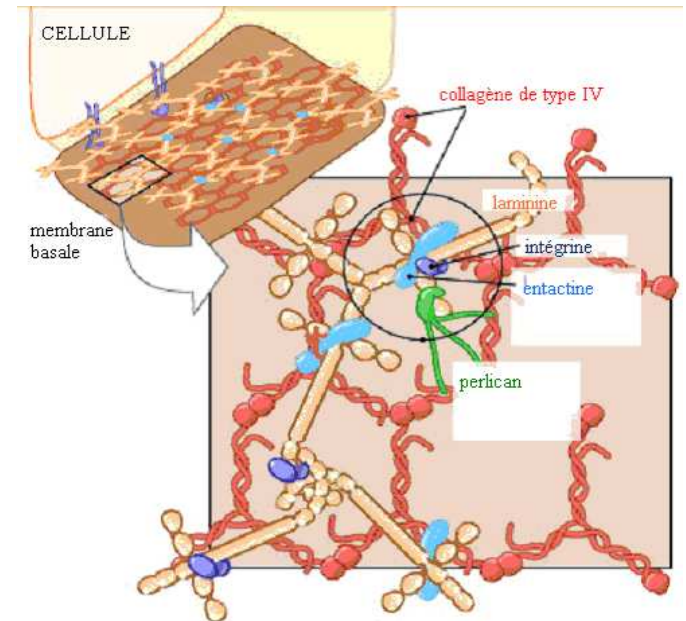
La laminine



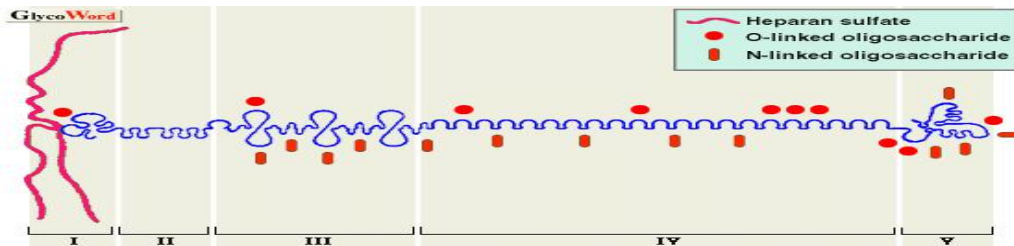
Le collagène de type IV



Le nidogène



La lame basale



Le perlécane