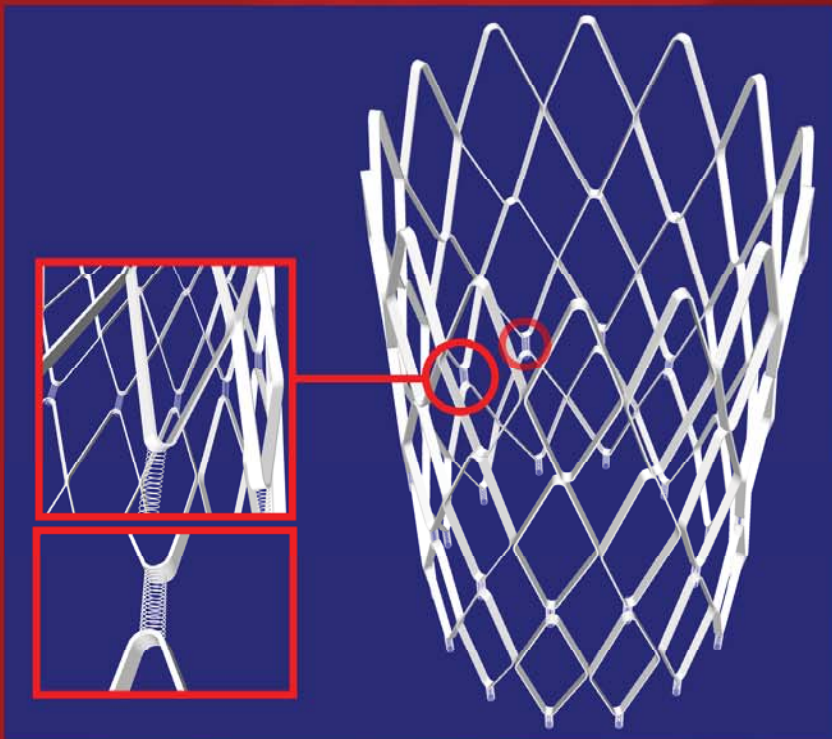


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Rupture

Due to the continuous stretching, shortening and twisting of the vessel, it is very difficult to avoid stent rupture.

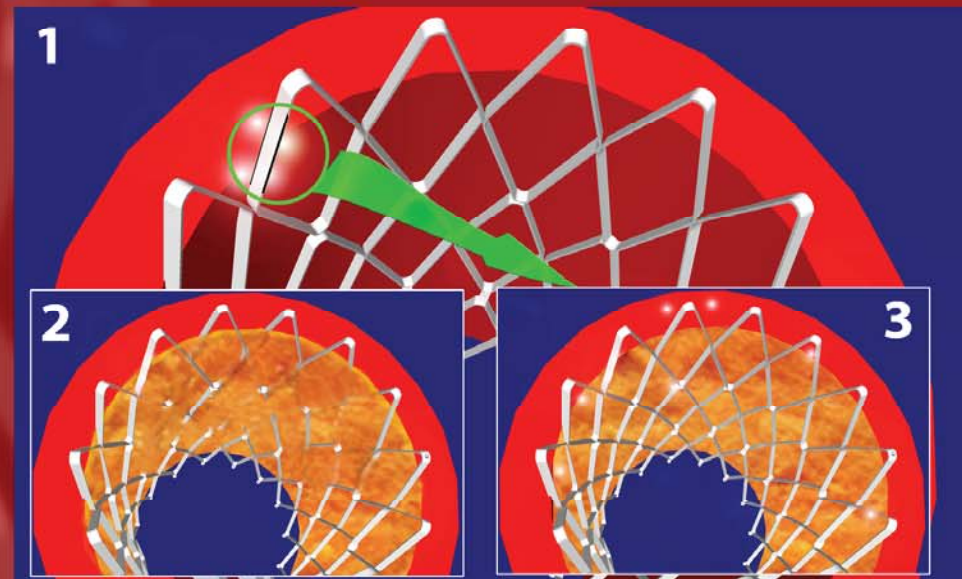
A solution could be to create **micro springs** between the different stent parts.



Hyperplasia

The proliferation of cells produces a gross enlargement that can lead to stenosis and even occlusion of the stent lumen (2).

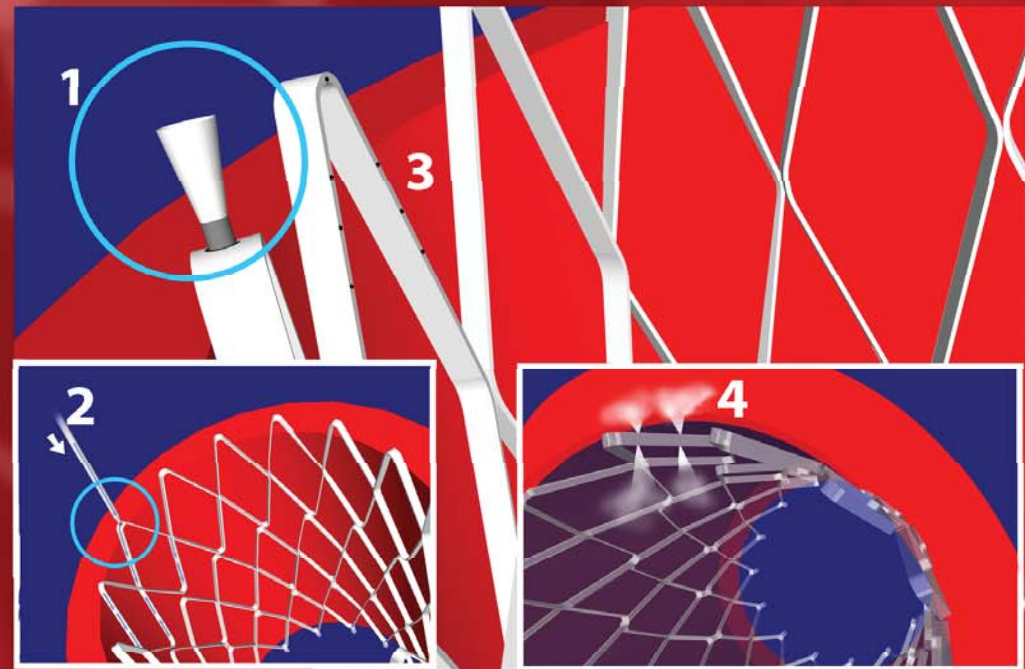
A solution could be to create an **outside electrolytic control** of the metal (1) to avoid the development of hyperplasia (3).



Medication and load

Currently the medication component of the stent has a limited life.

A solution could be to be able to **reload the stent** with drugs or even combine or change it through an entry reservoir (1,2) and later to diffuse it as a spray (3,4), mainly from the inner metal surface to the arterial wall.



Retrieval

Once the stent has achieved its life time function, the target could be its retrieval.

A solution could be to create a **magnet technique** that permits the contraction (2) of the stent to remove it.

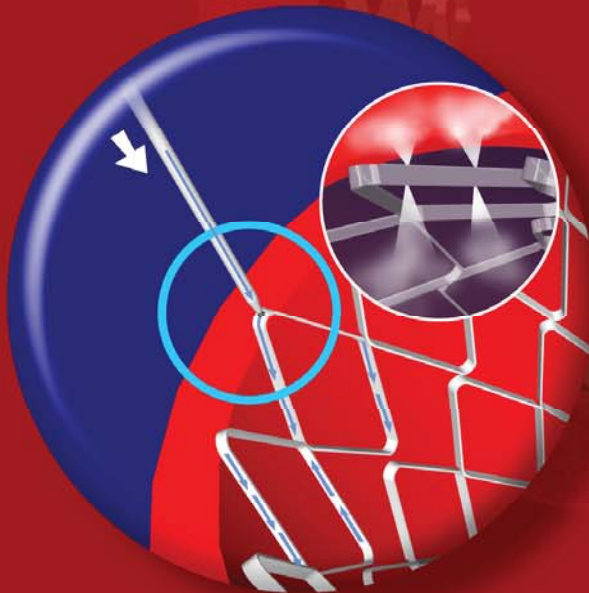
Rupture



Hyperplasia



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Medication and load



Retrieval