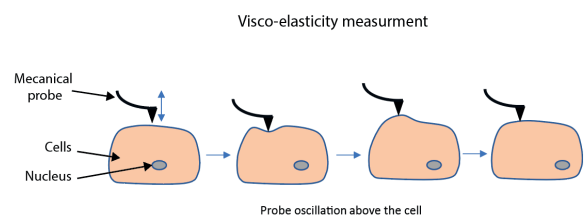
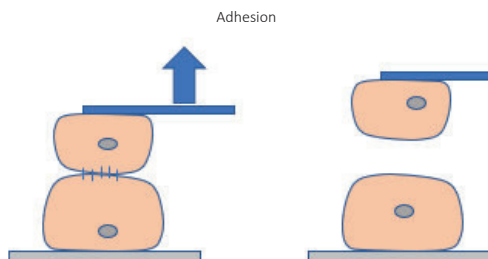


Biomechanics and mechanobiology

Biomechanics uses mechanical and physics principles to understand biological systems as structure of human cells, tissues or organs. Its main objective is to characterize motion of the mechanical features of biological systems and their differential variations (constraints, deformation...).

Biomechanics is a powerful application of engineering mechanics to study biological systems.

Biomechanics can predict mechanical behaviour of cells, tissues, organs under external factors, by studying applied forces from other organs for example.



Mechanobiology studies the way how physical forces in cell or tissue can contribute to develop changes or even diseases. Cellular **mechanobiology** studies cellular processes in a specific biological way and the influences of mechanical,

chemical or biological environment on these processes. All these changes are related to the mechano-transduction, a very challenging field to better understand biological systems that can lead to the development of diseases.

