



## **Nanomechanics for the life sciences**

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Physical and, among them, mechanical properties of biological entities as cells, bacteria, viruses and biomolecules are valuable cues to pursue a better understanding of human diseases. Still, this has remained an underexplored route for the development of novel biosensing and diagnostic strategies. Nanomechanical devices, and particularly, nanoresonators, are excellent suited tools to address this challenge, as vibrations of these sensors upon interaction with biological entities, when carefully interpreted, serve to catch several physical parameters. Mass, volume, density and stiffness of biological adsorbates can be measured in a very direct manner with these devices. I will discuss in this talk what nanomechanics can offer to answer basic questions in the field of biology and biomedicine.