Development of nanoscale acoustic tweezers for mechanobiology applications

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This project explores ultrasound mechano-biology and mechano-genomics [1] utilizing the acoustic radiation pressure [2,3] by developing nanoscale acoustic tweezers (ATZs). Developed devices will be applied to study the impact of mechanical deformation of intra-cellular organelles in-situ; for example, deformation of the nucleus by monitoring the accumulation and import of nuclear localization signal [4].

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