

Measuring collective cell movement and extracellular matrix interactions using magnetic resonance imaging

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Movie Legends

Movie S1. MDCK cell clusters migrated in a thin 3D collagen gel.

Movie S2. MRI timelapse images of a ring-shaped collagen gel embedded with MDCK cells.

Movie S3. Segmented timelapse images of MDCK cell clusters deforming the 3D ECM.

Movie S4. Stress field of MDCK cell-embedded collagen gel evaluated by its deformation.

Movie S5. Force generation by a single cluster of MDCK cells caused displacement of embedded fiduciary beads in a 3D collagen gel.

Movie S6. MRI timelapsed images of arbitrarily shaped collagen gel embedded with MEF cells.

Movie S7. Stress field of MEFs-embedded collagen gel evaluated by its deformation.

Movie S8: Force generation by a single cluster (indicated by yellow arrow) of NBT-2 cells caused displacement of embedded fiduciary beads in a 3D collagen gel.

Movie S9: Stress field generated by a single cluster (indicated by yellow arrow) of NBT-2 cells.