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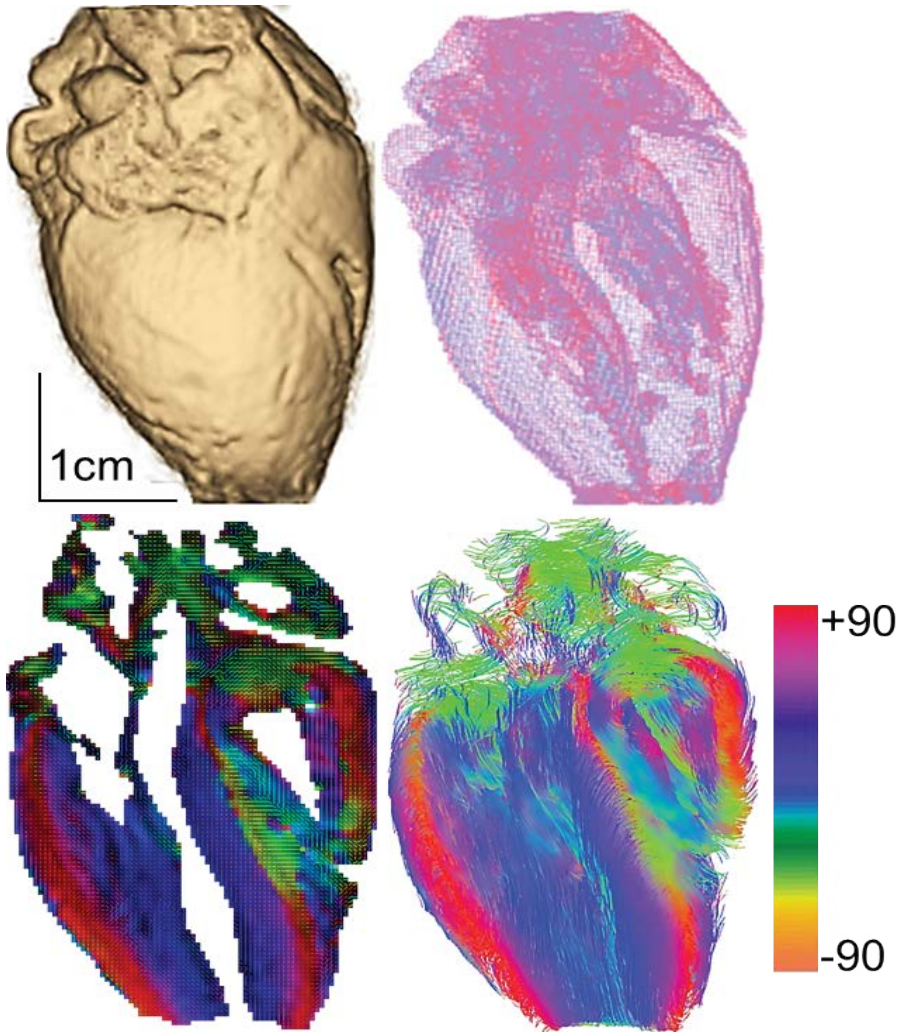
Image 2:024

Magnetic Resonance Images of the Structure and Tissue Organization of a Fetal Heart



A 20 week gestational age human fetal heart was imaged at a 100 μm cubic voxel resolution, using a standard diffusion tensor magnetic resonance imaging (DTMRI) protocol in a 9.4 tesla Bruker NMR. The three-dimensional cardiac data set is visualized by its surface and a transparent wireframe (top panel). Bottom panel presents a long axis slice through the heart, where the local average myocyte orientation is visualized by a two-dimensional color map of the fibre helix angle, illustrating the smooth transmural change in fibre orientation, and by a cut through the 3D projection of the streamlines of the orientation vector field. Images were produced using open-source packages Para View (http://www.paraview.org/) and DSI Studio (http://dsi-studio.labsolver.org/).

Information

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