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Ultra-high field, multi-echo MRI acquisition for resting-state functional connectivity

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Protocol status: Working
We use this protocol and it's working

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Keywords: Functional Magnetic Resonance Imaging (f..., resting state functional connectivity (r..., Parkinson's Disease, motor circuits, basal ganglia, ASAPCRN, ultra-high field, multi-echo, minute mri protocol, minute mri protocol at the university, mri acquisition sequence, state imaging, head coil, functional connectivity, planar imaging, parkinson, state functional connectivity, imaging, epi sequence for resting, closed loop motor circuits in healthy control, cmrr spin, image acquisition

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Abstract

This is an MRI acquisition sequence used to examine resting-state functional connectivity of open and closed loop motor circuits in healthy controls and those with Parkinson's Disease. Scans include a Localizer, anatomical T1 MPRAGE, CMRR spin-echo AP and PA echo-planar imaging (EPI) images for field map generation, and a modified CMRR multi-echo EPI sequence for resting-state imaging. All participants complete a 30-minute MRI protocol at the University of Southern California's Center for Image Acquisition, where they are scanned with a Siemens 7T Terra scanner and a research-only 8-channel transmit 32-channel receive Nova 8Tx/32Rx head coil (Nova Medical Inc.)

Attachments

PDF

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73KB

Materials

Equipment

- Siemens 7T MAGNETOM Terra
- Nova Medical 8-channel pTx system and 8Tx/32Rx head coil

Protocol references

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