BRAINDANCER™

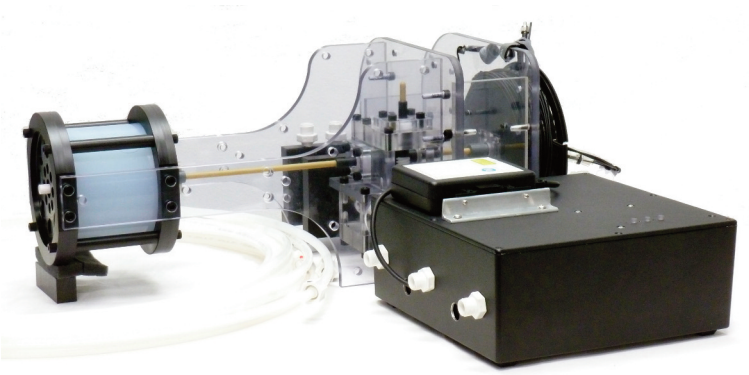
fMRI Dynamic Phantom for Resting-State Brain Networks

BRAINDANCER™

- Pneumatically controlled movement
- Rotating inner cylinder to produce T2* changes within voxels
- Imitates BOLD amplitudes of human brains
- Motion is synchronized with MR scanner
- Externally triggered programmable sequences
- NoiseNet™ software for temporal noise estimation included

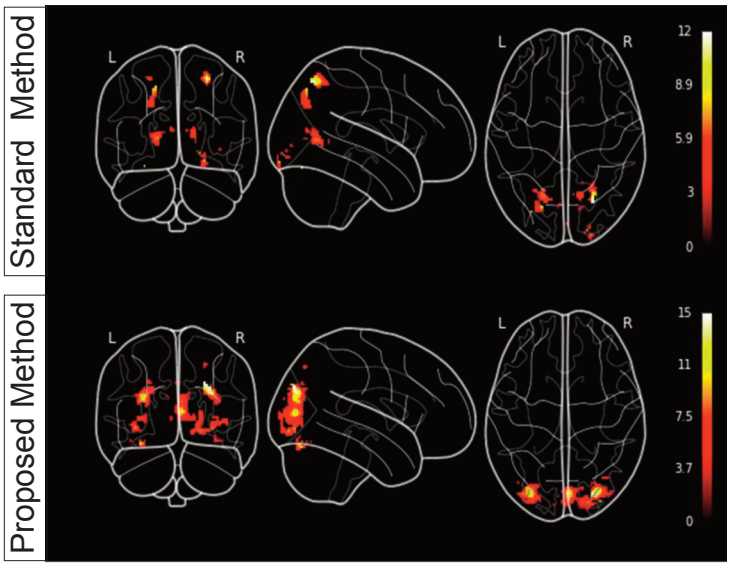
The ability to minimize and correct for scanner-induced distortion is a fundamental unmet need in modern task-free ("resting-state") fMRI. For task-based fMRI, subtracting noise from signal is straightforward, since a task activates the brain reliably more under one condition (signal) than another (noise). However, for task-free analyses, the 'baseline' fluctuations themselves also include the 'signal'.

The BrainDancer™ is a commercial-grade dynamic phantom, designed to identify and correct systematic scanner-induced noise using our deep learning algorithm, NoiseNet™. The BrainDancer™ dynamic phantom not only improves the signal-to-noise ratio, but can also be used for standardization of protocols and normalization between scanners.



Available from ALA Q4 2019

International patent pending



See R. Kumar et al. poster at OHBM 2019

Agarose Gel Cartridges

See poster Th554
Abstract ID# 4750

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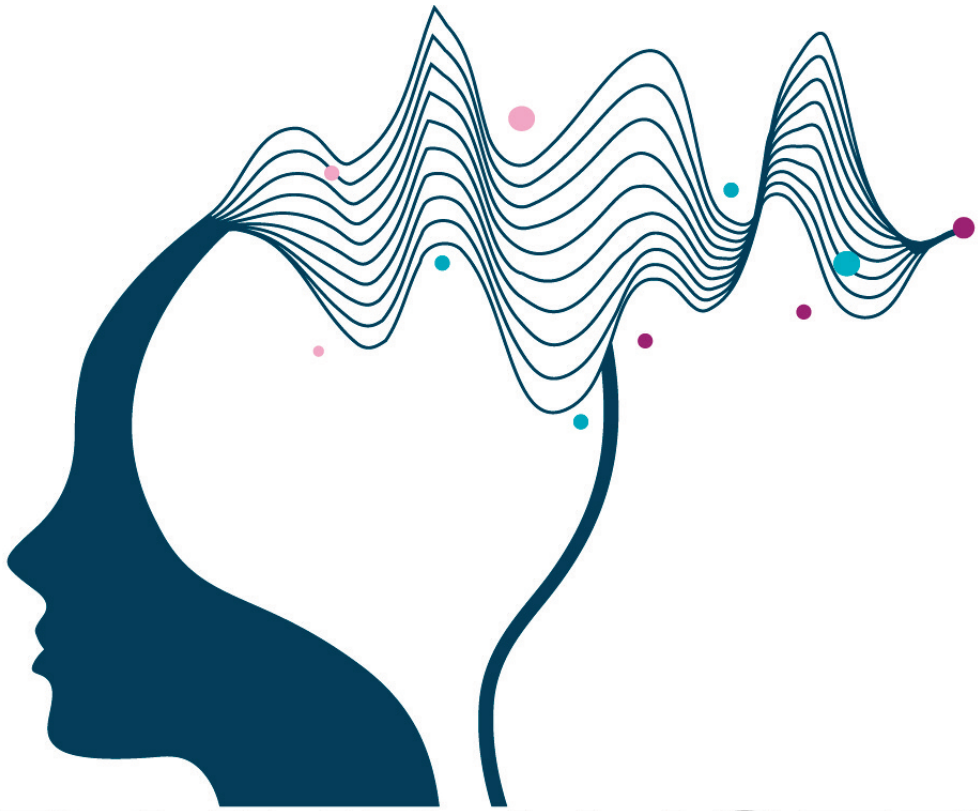
Scientific Instruments

Your signal is dynamic. Why isn't your phantom?



BRAINDANCER™

- *Cleaner* signal
- *Stronger* results
- *Better integration* of fMRI data across scanners and sites

BRAINDANCER™
as seen at OHBM booth 34

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