

# Supporting Information for “Multi-shot acquisitions for stimulus-evoked spinal cord BOLD fMRI”

Robert L. Barry<sup>1,2,3,\*</sup>, Benjamin N. Conrad<sup>4,5</sup>, Satoshi Maki<sup>4</sup>, Jennifer M. Watchmaker<sup>4,6</sup>, Lydia J. McKeithan<sup>4</sup>, Bailey A. Box<sup>4</sup>, Quinn R. Weinberg<sup>4</sup>, Seth A. Smith<sup>4,6,7,†</sup>, and John C. Gore<sup>4,6,7,†</sup>

<sup>1</sup>Athinoula A. Martinos Center for Biomedical Imaging, Department of Radiology, Massachusetts General Hospital, Charlestown, Massachusetts, USA

<sup>2</sup>Department of Radiology, Harvard Medical School, Boston, Massachusetts, USA

<sup>3</sup>Harvard–Massachusetts Institute of Technology Health Sciences & Technology, Cambridge, Massachusetts, USA

<sup>4</sup>Vanderbilt University Institute of Imaging Science, Vanderbilt University Medical Center, Nashville, Tennessee, USA

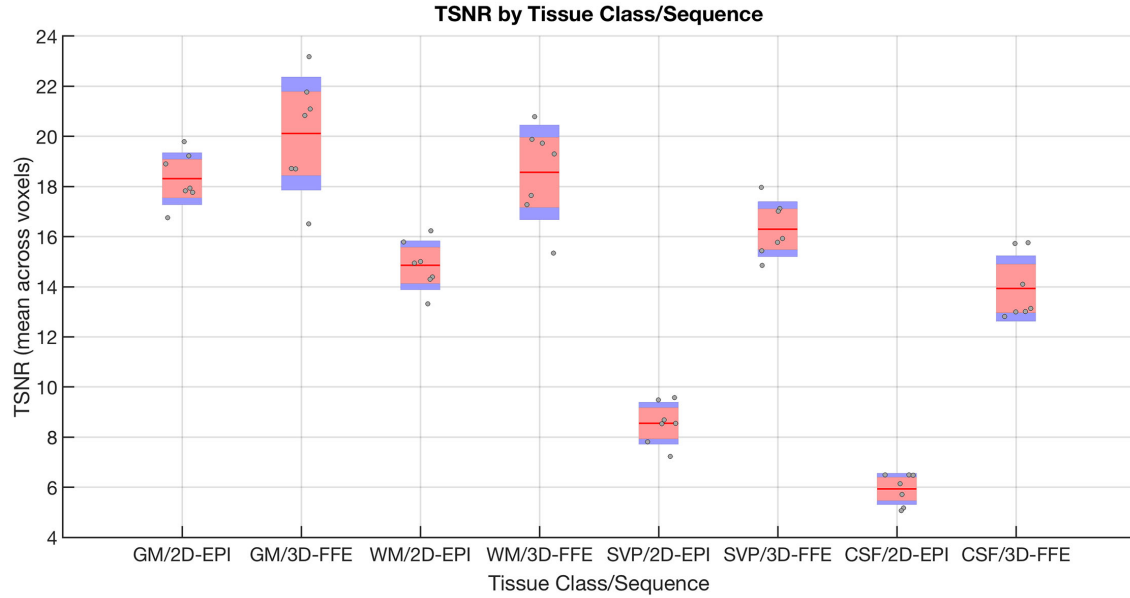
<sup>5</sup>Neuroscience Graduate Program, Vanderbilt University Medical Center, Nashville, Tennessee, USA

<sup>6</sup>Department of Radiology and Radiological Sciences, Vanderbilt University Medical Center, Nashville, Tennessee, USA

<sup>7</sup>Department of Biomedical Engineering, Vanderbilt University, Nashville, Tennessee, USA

†These authors share senior authorship.

\*Corresponding author (Robert.Barry@mgh.harvard.edu)



**Figure S1:** Mean temporal signal-to-noise ratio (TSNR) across all four tissue types and both acquisition sequences for each subject in the hypercapnia gas challenge study. (GM = gray matter, WM = white matter, SVP = spinal cord venous plexus, CSF = cerebrospinal fluid; 2D-EPI = single-shot 2D echo-planar imaging, 3D-FFE = multi-shot 3D gradient-echo ‘fast field echo’ imaging.)