Dartmouth Brain Imaging Center

Siemens 3T MRI Research **NEW** Protocol Approval Request

Please submit the following documents, along with your completed DBIC protocol form, to [courtney.rogers@dartmouth.edu](mailto:courtney.rogers@dartmouth.edu)

* CPHS approved protocol
* CPHS approved consent form
* Supplemental description of experimental design (see page 2)

**New protocol information**

Study Title:

Experiment Title:

**PI information**

Lab Director (PBS faculty member)

Campus Address:

Phone Number:

Lead investigator (if non-PBS or non-Dartmouth PI):

Address:

Phone Number:

**Research personnel (please list anyone who will be present while conducting scans – e.g. study coordinator, lab manager, graduate students, post-docs, RAs)**

**CPHS information**

CPHS approval number:

CPHS Expiration Date:

* Has Courtney Rogers been made a study team member and proxy?
* Have all researchers completed IRB education?
* Have all researchers been added to the IRB protocol being used for this study?

**Protocol details**

Resources requested:

Number of sessions per subject:

Number of subjects:

Scans per session (Type and number of scans):

Expected duration of each imaging session:

Total Scanning Hours Requested:

Time of day (Monday-Friday 8am-5pm or after-hours):

Who is trained and certified to do the after-hours imaging?

**Supplemental description of experiment design:**

**Protocol funding (please check all that apply):**

***IMPORTANT: Scanning charges must be billed first to extramural grants, if available. DOF subsidies will be billed only after grant funds designated for scanning have been spent.***

[] This study is funded by an extramural grant administered by Dartmouth College

Funding Agency:

PI and grant number:

Annual direct funds:

Account to bill:

I authorize Dartmouth Brain Imaging Center to bill directly the above account using electronic accounting.

[ ] This study is funded by another institution

Name and Address of contact to bill studies:

[] This study is supported by startup or other commitments from the Dean of Arts & Sciences

Name for startup account:

[ ] This study is for doctoral dissertation research (please submit form signed by dissertation committee) (separate DBIC protocol is required for each dissertation study)

Name of student:

Name of adviser:

[] This study is for an undergraduate honors thesis (please submit form signed by undergraduate research chair)

Name of student:

Name of adviser:

[ ] This study is for undergraduate instruction:

Name of course:

[ ] I am requesting Dartmouth College to subsidize this research as a pilot project ***(10 hours)***

***If subsidized by Dartmouth, describe plans for obtaining future extramural funding:***

Supplemental Description of Experiment Design:

In the first fMRI session, participants will first complete 10 runs of a passive viewing paradigm that require them to fixate at a fixation point while paying attention to the Gabor pattern in the periphery that is moving along the path orientations they have adjusted in a behavioral task before scanning. Participants will be presented with 11 second stimulus blocks followed by a 15s fixation block. There will be 15 stimulus blocks and 15 fixation blocks in total with a 4s fixation block added before the first stimulus block. Each run will be 394s long and all ten runs will last 65 min. To make sure participants are attending to the stimulus, the color of the presented Gabor stimulus will change randomly in each run for 100ms and participants will be asked to press a response button each time they see the color changes. The time of this color change, the internal motion of the Gabor, and the location of Gabor pattern are randomized in each run. They will then complete 2 localizer runs of a passive viewing paradigm using rectangular checkerboard pattern flickering at 8 Hz in the periphery. To make sure participants are maintaining fixation, they will be asked to press a response button each time they see the color of the fixation point changes. Each run will be 334s long and all two runs will last 11 min.

In the second fMRI session, participants will complete standard retinotopic mapping procedure (Engel et al. 1994; Sereno et al. 1995) by using clockwise or counterclockwise rotating checkerboard wedges (flickering at 4Hz, ten 192s runs) to map polar angle and using expanding or contracting checkerboard rings (flickering at 4Hz, four 192s runs) to map eccentricity. They will them complete functional MT+ localizer runs (three 292s runs) following the procedure from Huk et al. (2002). The fixation point for all scans in this session will be moved 3 dva horizontal to the left of screen center to match that of our main experiment. To make sure they will be fixating, participants will be asked to press a response button each time they see the color fixation point changed.

For DBIC use only:

Scan Cost:

Number of Scan Hours approved:

Approval date:

Review Date:

Renewal Date: