

## Brain Imaging Tools

Functional magnetic resonance imaging, (fMRI) is a harmless and non-invasive way to see what areas of the brain are active during different tasks. During an fMRI experiment, the participant lies down on a table, views images projected onto a screen, and presses buttons depending on what images are seen. Scanning is done at the Duke-UNC Brain Imaging and Analysis Center.



## Research Investigators

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They have been approved by The University of North Carolina Institutional Review Board and the Duke University Institutional Review Board.

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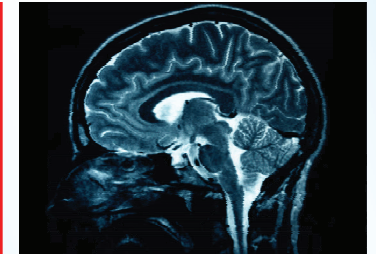
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# Brain Imaging Research Studies



Gabriel S. Dichter, Ph.D.  
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THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL



Dr. Gabriel Dichter and his colleagues are conducting brain imaging research studies at UNC for individuals with autism spectrum disorders.

These studies use functional magnetic resonance imaging (fMRI) to see how different parts of the brain are working. fMRI is a safe, non-invasive imaging technology.

There are currently two different studies enrolling participants. You may elect to participate in one or both of the imaging studies.

#### ***Who can participate?***

These studies are recruiting high functioning individuals with autism spectrum disorders who are between 10 and 55 years of age. Volunteers must be able to follow verbal instructions.

#### ***Is travel required?***

Travel to UNC and Duke are required for both imaging studies. We can help coordinate and defray the costs of travel.

#### ***If I'm traveling from far away, can I stay overnight at a hotel?***

Yes, we are able to help coordinate and defray the costs of a hotel stay.

## **The Brain Imaging Study**

### ***Why is this study being conducted?***

The Brain Imaging Study is designed to help us learn how the brain functions in areas of difficulty for people with autism such as social understanding, paying attention, and repetitive behaviors.

### ***What is involved?***

Participants complete a brief diagnostic assessment that includes rating scales and learning tasks. This takes place at the UNC Center for Development and Learning (CDL) in Chapel Hill, NC and lasts about an hour.

Participants complete simple tasks while they are in an fMRI scanner. This takes place at Duke University Medical Center and last about two hours.

## **The Treatment Imaging Study**

### ***Why is this study being conducted?***

The Treatment Imaging Study is designed to help us understand how medication treatments affect brain functioning.

### ***What is involved?***

Participants in this study take Abilify®, a safe medication routinely used to treat autism, for 8 weeks. A doctor at UNC Medical Center who specializes in autism provides the medical care during the study (every other week, 4 visits total). Before treatment, a brief diagnostic assessment and an fMRI scan are conducted. Another scan is completed after treatment to evaluate any changes in brain functioning. The

scans take place at Duke University Medical Center and last about 2 hours each time.

### ***What are the benefits of the studies?***

If you require a formal autism diagnostic assessment, this will be conducted at no cost to you. You will also receive a written summary of the assessment by a licensed clinical psychologist.

You will receive \$35-\$50 for each fMRI, and \$10 per hour for all other research activities.

### ***What if I have questions ?***

Please contact the study coordinator for more information.

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Visit our website

<http://can.unc.edu/content/site/fmri/>

