

# Sharing Resources, Advancing Neuroscience

NITRC is the world's primary source for neuroimaging tools and resources. Through NITRC, organizations big and small have access to complex primary research assets — leveling the playing field for all researchers.

## The Dark Ages of Neuroscience

**\$4.2 billion** NIH annual neuroscience budget



Tools, datasets, assets created by research projects were often lost once the project ended.

Before 2006

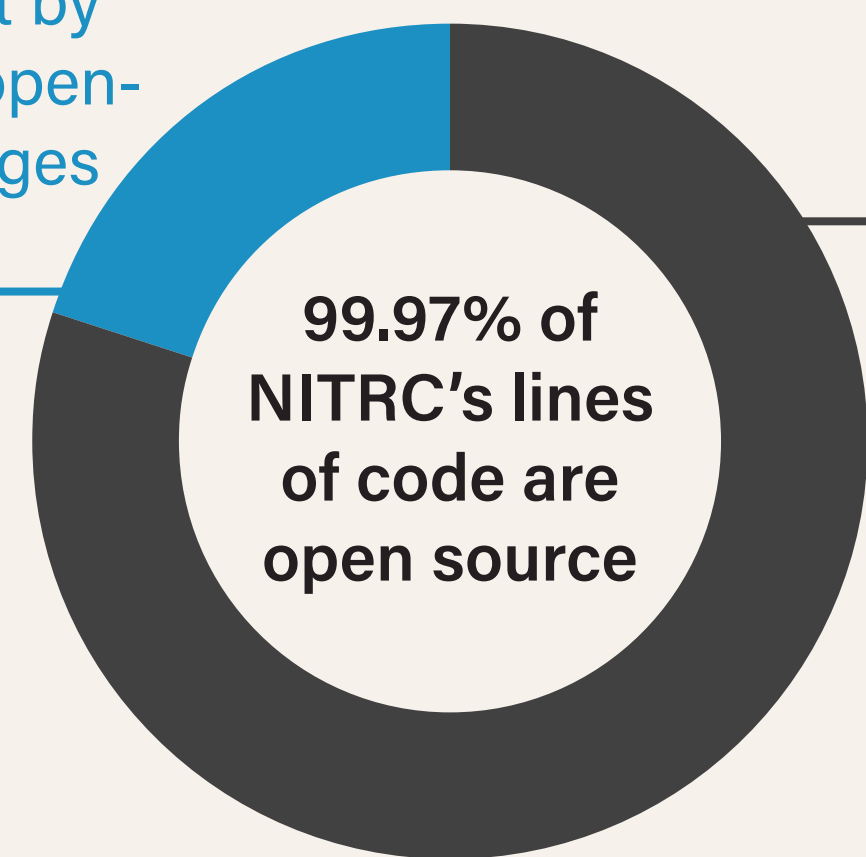
## Creating NITRC

NIH created NITRC as a repository of neuroscience tools and information for public use.

With TCG's assistance, NITRC is developed as a shared service for researchers and web developers.

2006

20% was built by reconfiguring open-source packages



80% of the open-source solution met contract requirements out of the box

"NITRC is the first place I look if I want to know what neuroimaging analysis packages are available..."  
Dir. of Research Computing, Montana State University



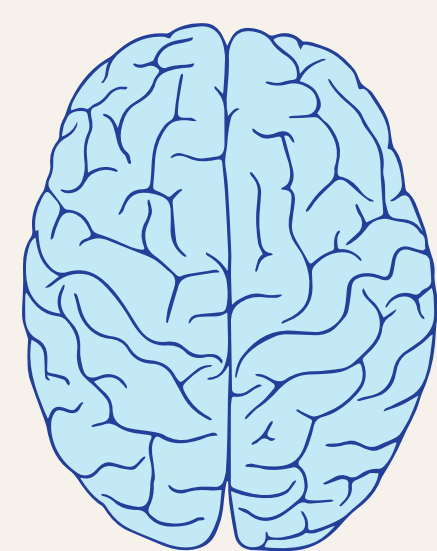
Open Tools & Resources Registry created



TCG goes on the road promoting NITRC in the neuroscience community — unheard of in federally funded research.

2007

TCG convenes an expert board made up of neuroinformatics researchers, clinicians, and tool developers to guide the development of NITRC.



2008

NITRC wins the Excellence.gov Best Overall award as the **best example of IT-enabled collaboration** in government.



2009



170 scientific papers cite NITRC.

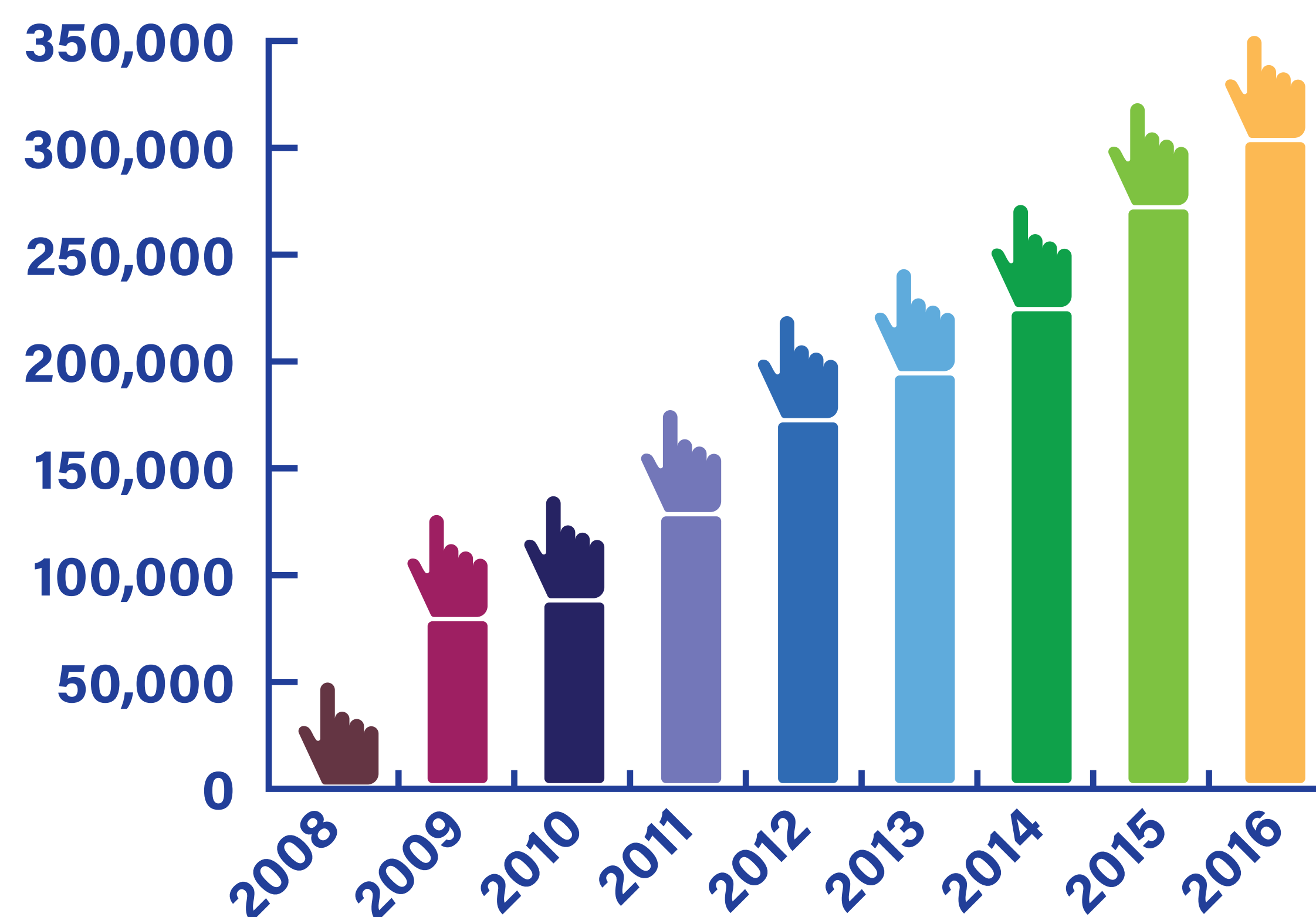


130 neuroimaging grant applications include NITRC in their data sharing plans.

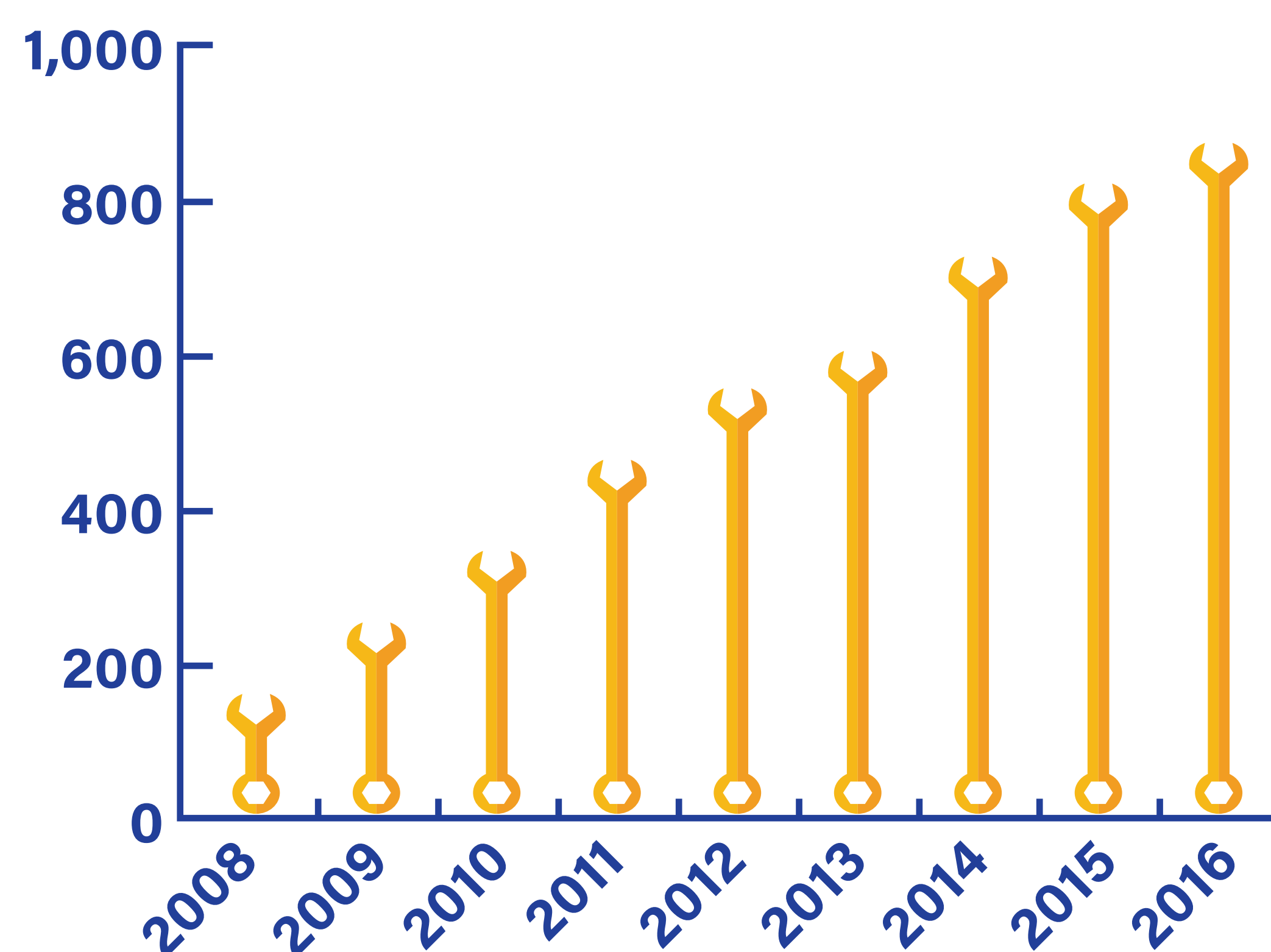
2010

2011

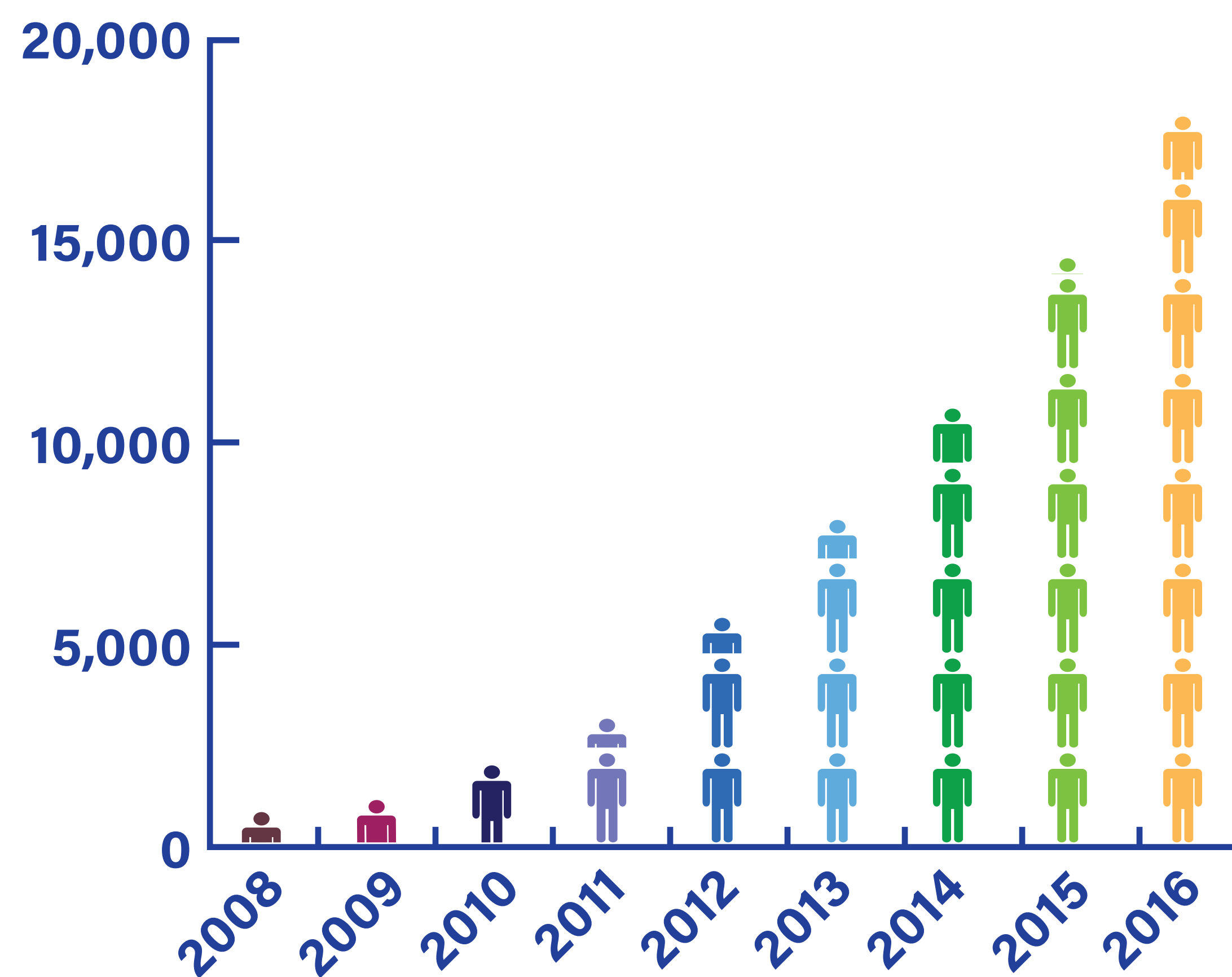
## Annual Sessions



## Tools and Resources

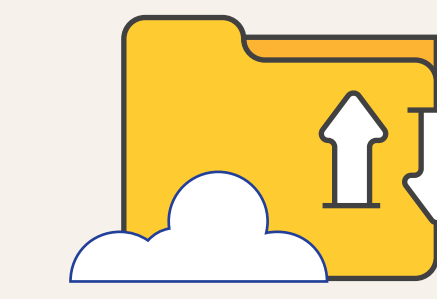


## Registered Users



2016

As of December 2016, Google Scholar has more than 3,800 citations to nitrc.org and 2,110 citations to the NITRC Image Repository.



**9.33 million** total downloads from NITRC

8,285 imaging sessions
\$600 each
<b>A \$4.97 million value</b>

2015



NIH reported a cost avoidance of at least **\$35.3 million** due to data services alone.

2014



NITRC receives the HHS Innovates award, providing government **"Biggest Bang for the Buck"**

2013



Sharing research and tools is more widely accepted.



Students at MIT use NITRC to learn how to conduct neuroscience research in the cloud.

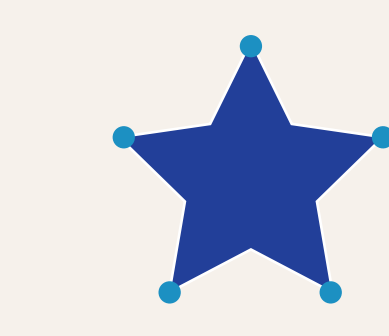


NITRC is used by government, industry, academia, and in institutions overseas for data sharing, research, and data processing.

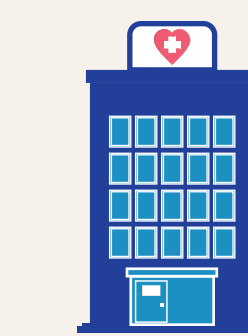
## Neuroscience Today

2012

NITRC gets 17 letters of support from academia including:



UT Health Science Center



Johns Hopkins University



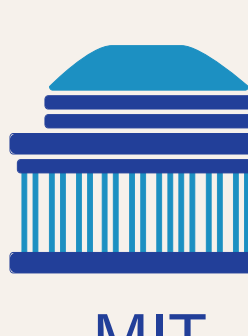
NYU Langone Medical Center



Bay Crest Institute, University of Toronto



UCLA



MIT



The commercial cloud and virtual computing environment is launched.



"[I] found the NITRC Computational Environment (NITRC-CE) on AWS Marketplace, reducing time required to process neuroimaging data by 85%... allow[ing] me to complete a critical stage of my research in two days, instead of two weeks."

- Erik Ziegler, Marie Crie ESR, University of Liège

NITRC-IR is launched



"I was looking for data to create a brain atlas based on resting state data and could immediately have access to several projects data in one central place. I believe this saved us several weeks, and helped us select the best tools and conduct research of better quality. In short, NITRC has become a standard tool in neuroimaging research, its usefulness does not need to be demonstrated anymore."

- Jean-Baptiste Poline, Helen Wills Neuroscience Institute & Henry H. Wheeler Jr. Brain Imaging Center, UC Berkeley



Public Neuroimaging Data Repository Distributed