Crowdsourcing science

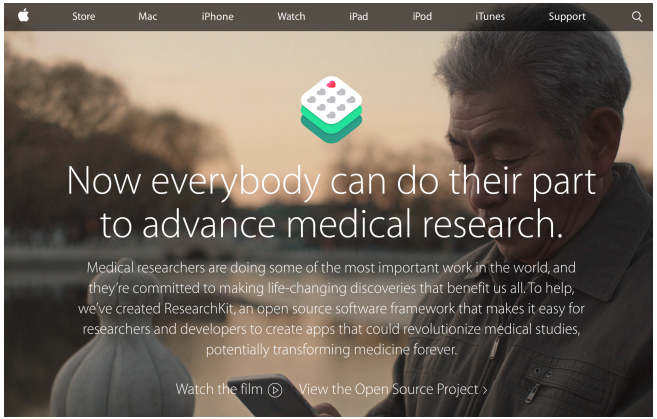
mPower

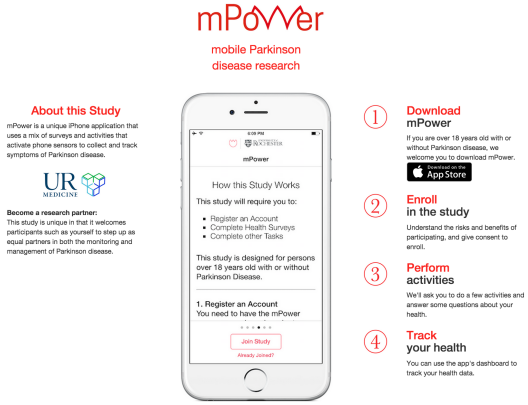
&

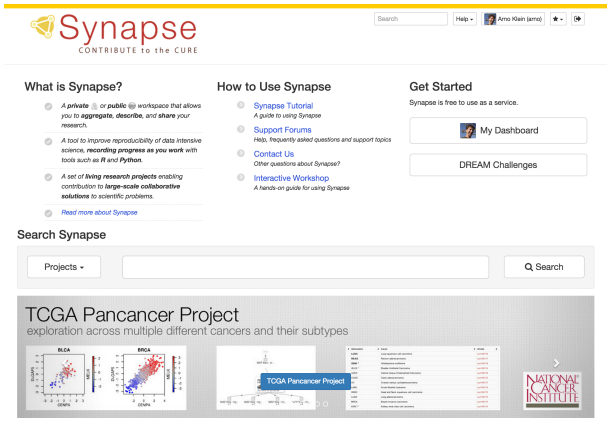
the BigBrain game!

Arno Klein . **Hacker ioHouse** . arno@binarybottle.com . Sage Bionetworks

mPower!


Store
Mac
iPhone
Watch
iPad
iPod
iTunes
Support
Now everybody can do their part to advance medical research.
Medical researchers are doing some of the most important work in the world, and they're committed to making life-changing discoveries that benefit us all. To help, we've created ResearchKit, an open source software framework that makes it easy for researchers and developers to create apps that could revolutionize medical studies, potentially transforming medicine forever.
Watch the film
View the Open Source Project ›


mPower
mobile Parkinson disease research
About this Study
mPower is a unique iPhone application that uses a mix of surveys and activities that activate phone sensors to collect and track symptoms of Parkinson disease.
UR MEDICINE
Become a research partner:
This study is unique in that it welcomes participants such as yourself to step up as equal partners in both the monitoring and management of Parkinson disease.
How this Study Works
This study will require you to:
Register an Account
Complete Health Surveys
Complete other Tasks
This study is designed for persons over 18 years old with or without Parkinson Disease.
1. Register an Account
You need to have the mPower
Join Study
Already Joined?
1 Download mPower
If you are over 18 years old with or without Parkinson disease, we welcome you to download mPower.
Download on the App Store
2 Enroll in the study
Understand the risks and benefits of participating, and give consent to enroll.
3 Perform activities
We'll ask you to do a few activities and answer some questions about your health.
4 Track your health
You can use the app's dashboard to track your health data.


Synapse
CONTRIBUTE to the CURE
What is Synapse?
A private or public workspace that allows you to aggregate, describe, and share your research.
A tool to improve reproducibility of data intensive science, recording progress as you work with tools such as R and Python.
A set of living research projects enabling contribution to large-scale collaborative solutions to scientific problems.
Read more about Synapse
How to Use Synapse
Synapse Tutorial
A guide to using Synapse
Support Forums
Help, frequently asked questions and support topics
Contact Us
Other questions about Synapse?
Interactive Workshop
A hands-on guide for using Synapse
Get Started
Synapse is free to use as a service.
My Dashboard
DREAM Challenges
Search Synapse
Projects
Search
TCGA Pancancer Project
exploration across multiple different cancers and their subtypes
BLCA
BRCA
TCGA Pancancer Project
NATIONAL CANCER INSTITUTE

	Survey Questions	Activities	Passive Measures
Baseline			
Motor			
Gait			
Balance			
Hypophonia			
Memory			
Exercise			
Sleep			
Medications			

6:25 PM

Step 1 of 6 Cancel

Sustained Phonation Test

This test evaluates your speech by recording you as you speak into the microphone at the bottom of your phone.

Get Started

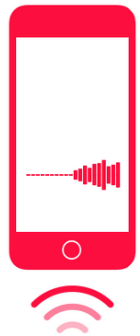
6:25 PM

Step 3 of 6 Cancel

Sustained Phonation Test

Say “Aaaaah” into the microphone for as long as you can. Keep a steady vocal volume so the audio bars remain blue.

Tap Get Started to begin the test.

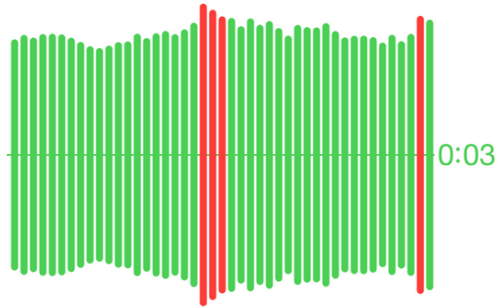


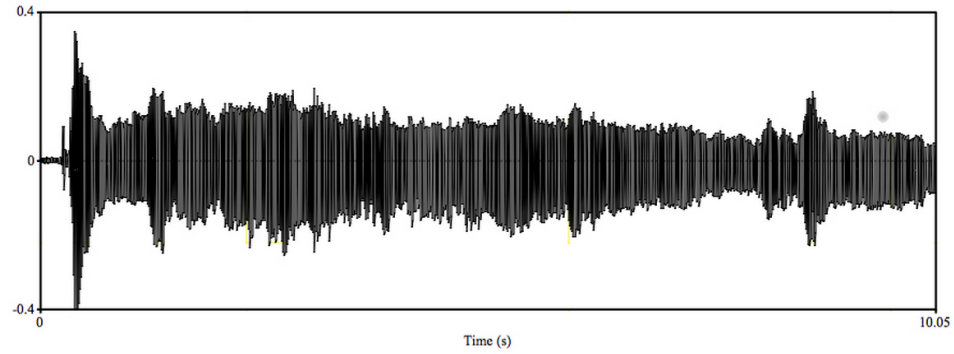
Next

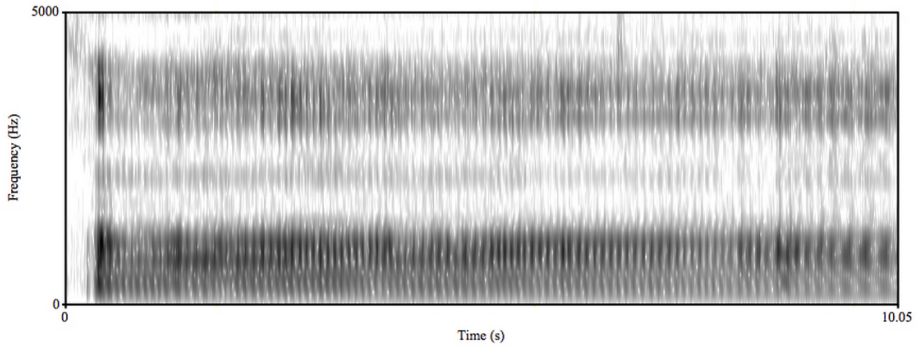
6:25 PM

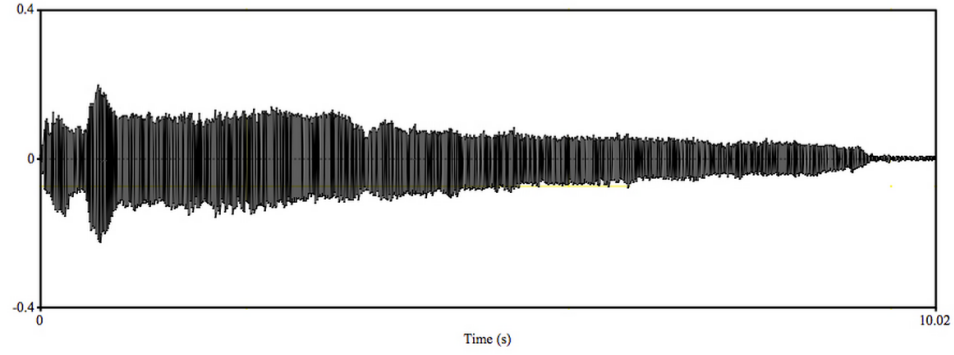
Step 5 of 6 Cancel

Say “Aaaaah” into the microphone for as long as you can.




0.4
0
-0.4
0
10.05
Time (s)


5000
Frequency (Hz)
0
0
10.05
Time (s)


0.4
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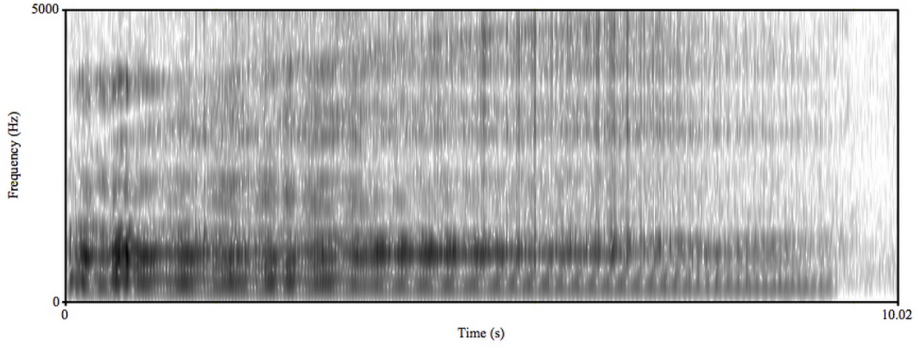
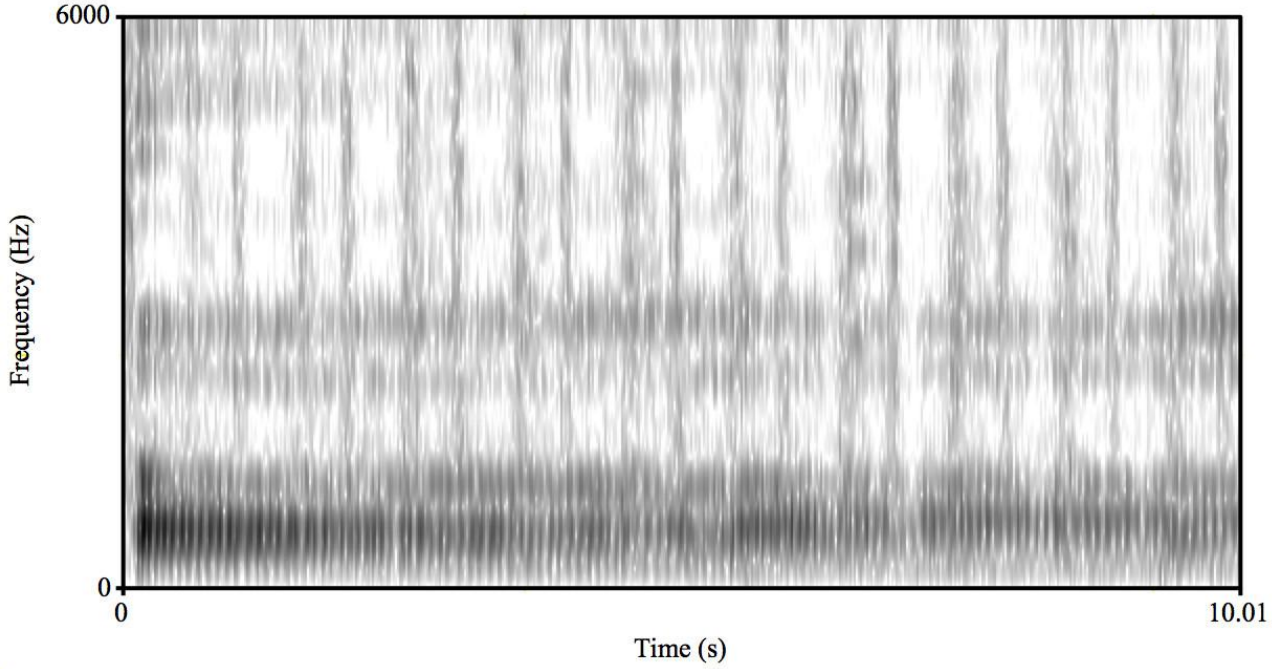
-0.4
0
10.02
Time (s)


5000
Frequency (Hz)
0
0
10.02
Time (s)


6000
0
Frequency (Hz)
0
10.01
Time (s)

Mechanical Turk is a marketplace for work.

We give businesses and developers access to an on-demand, scalable workforce.
Workers select from thousands of tasks and work whenever it's convenient.

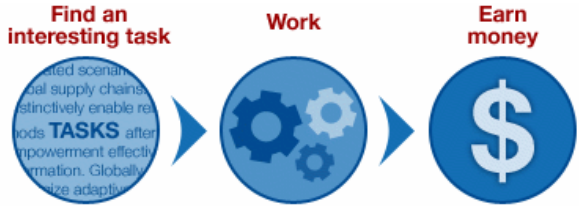
265,902 HITs available. View them now.

Make Money
by working on HITs

HITs - *Human Intelligence Tasks* - are individual tasks that you work on. Find HITs now.

As a Mechanical Turk Worker you:

- Can work from home
- Choose your own work hours
- Get paid for doing good work



Find HITs Now

or learn more about being a **Worker**

Get Results
from Mechanical Turk Workers

Ask workers to complete HITs - *Human Intelligence Tasks* - and get results using Mechanical Turk. Get Started.

As a Mechanical Turk Requester you:

- Have access to a global, on-demand, 24 x 7 workforce
- Get thousands of HITs completed in minutes
- Pay only when you're satisfied with the results

Get Started

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An amazon.com company

Working on HITs

Step 1: Find work

Search or browse through the Human Intelligence Tasks (HITs) and click on the one that interests you.

Step 2: Work on your HIT

Accept the HIT and follow the instructions. When you're done, submit your work.

Step 3: Get paid for your work

After the requester approves your work, money is deposited into your Amazon Payments account.

Examples

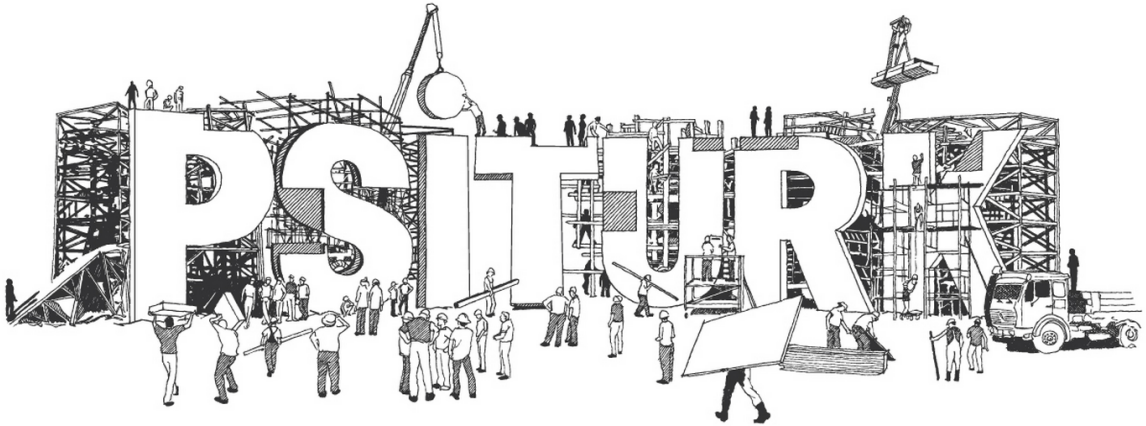
Find HITs Now

Here are just a few examples of HITs that workers have completed on Mechanical Turk.

- Select the correct spelling for these search terms
- Is this website suitable for a general audience?
- Find the item number for the product in this image
- Rate the search results for these keywords
- Are these two products the same?
- Choose the appropriate category for products
- Categorize the tone of this article
- Translate a paragraph from English to French

Currently 308,880 HITs available.

Find HITs Now



An open platform for science on Amazon Mechanical Turk.

Why?

GET DATA, FAST

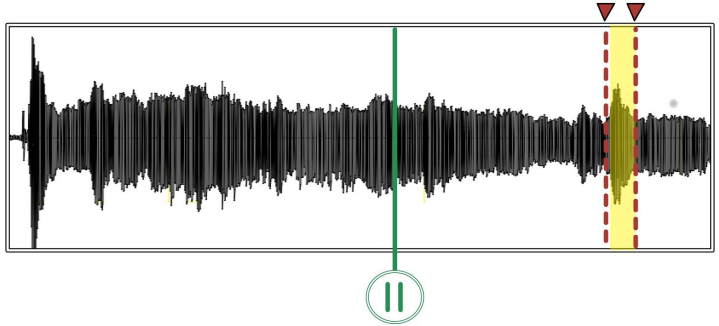
psiTurk takes the hassle out of collecting behavioral data online. Test your code, post HITs, serve secure ads, pay participants. **psiTurk** lets you focus on your research rather than software development.

GET A HEAD START

psiTurk's experiment exchange is like an "app store" for experiment designs. Share your code, help others replicate, or check out someone else's experiment as a starting place for coding your own.

FRICTION-FREE REPLICATION

The experiment exchange also allows researchers to quickly download **psiTurk**-compatible experiments and re-run them online. Same population, same task code, direct replication, better science.



Choose one or more problems with this recording:

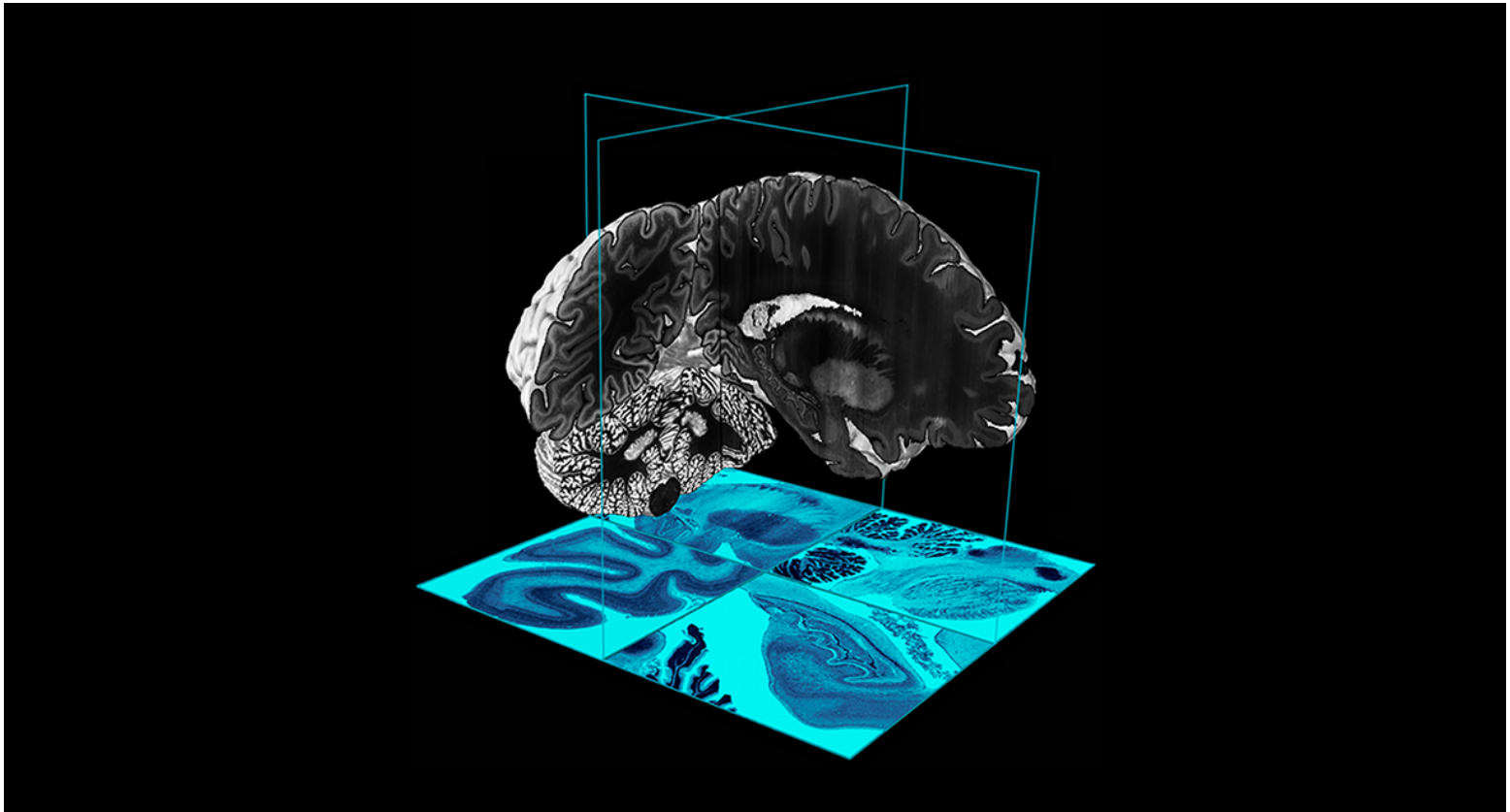
- [x] Background noise
- [ ] Gap / interruption
- [ ] Coughing, sneezing,...
- [ ] Rasping voice
- [ ] Wrong sound
- [ ] Quiet / trailing voice
- [ ] Other: _____

- [ ] Other voices / TV
- [ ] Music
- [x] Wind
- [ ] Nature (birds, etc.)
- [ ] Traffic
- [ ] Banging / shuffling
- [ ] Humming
- [ ] Other: _____

How would you rate this portion of the recording?:

- [ ] Good
- [x] Okay, but there are problems with the recording
- [ ] Bad: hard to hear

BigBrain!



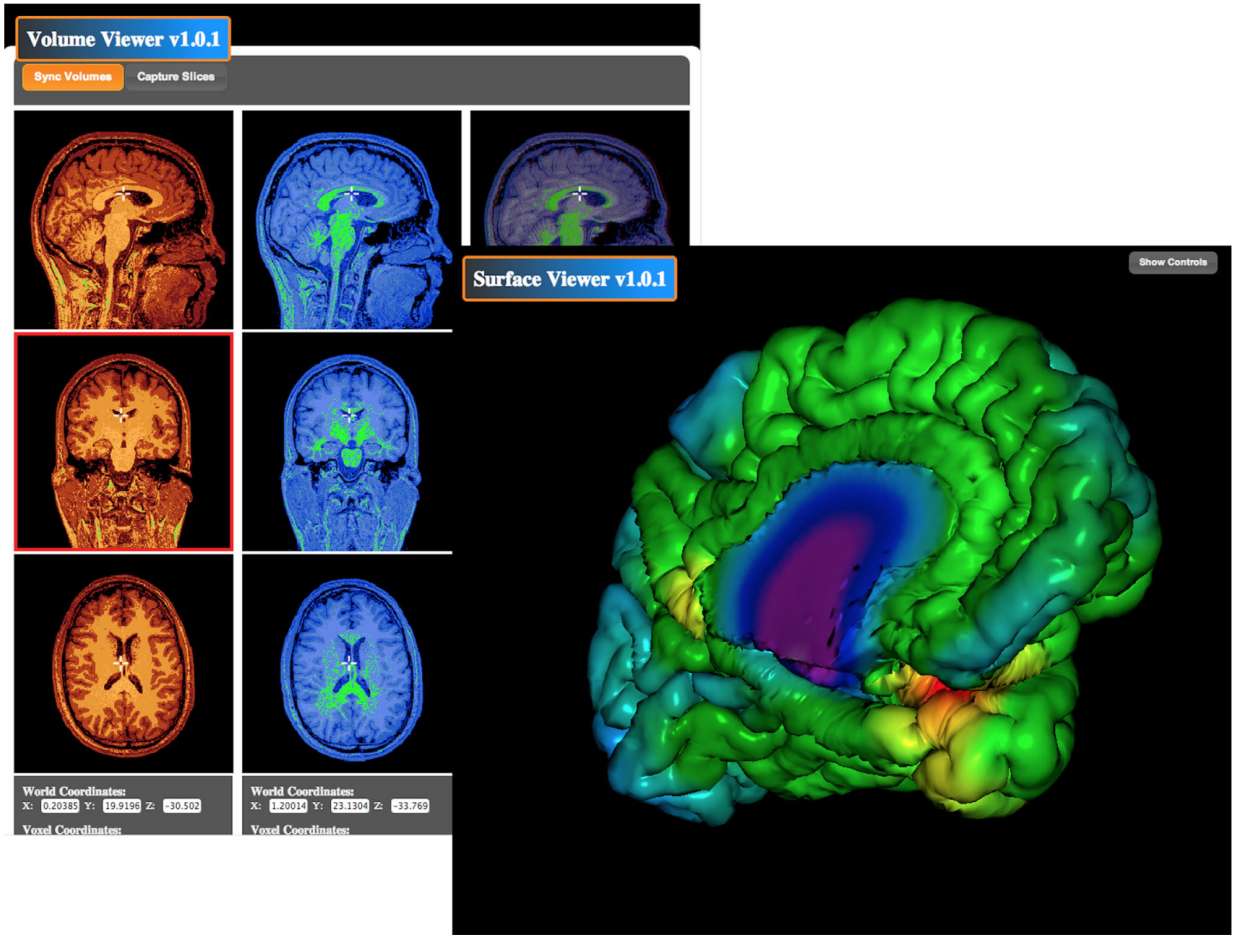


FIGURE 7 | BrainBrowser Surface and Volume Viewers. BrainBrowser allows CBRAIN users to examine any MINC file volume or 3D object (such as surfaces from CIVET, Freesurfer, or Wavefront objects) directly within their web browser. This step enables to conveniently perform quality control, which is often critical before proceeding to further analysis or large data transfers, especially if format conversion steps have been applied.

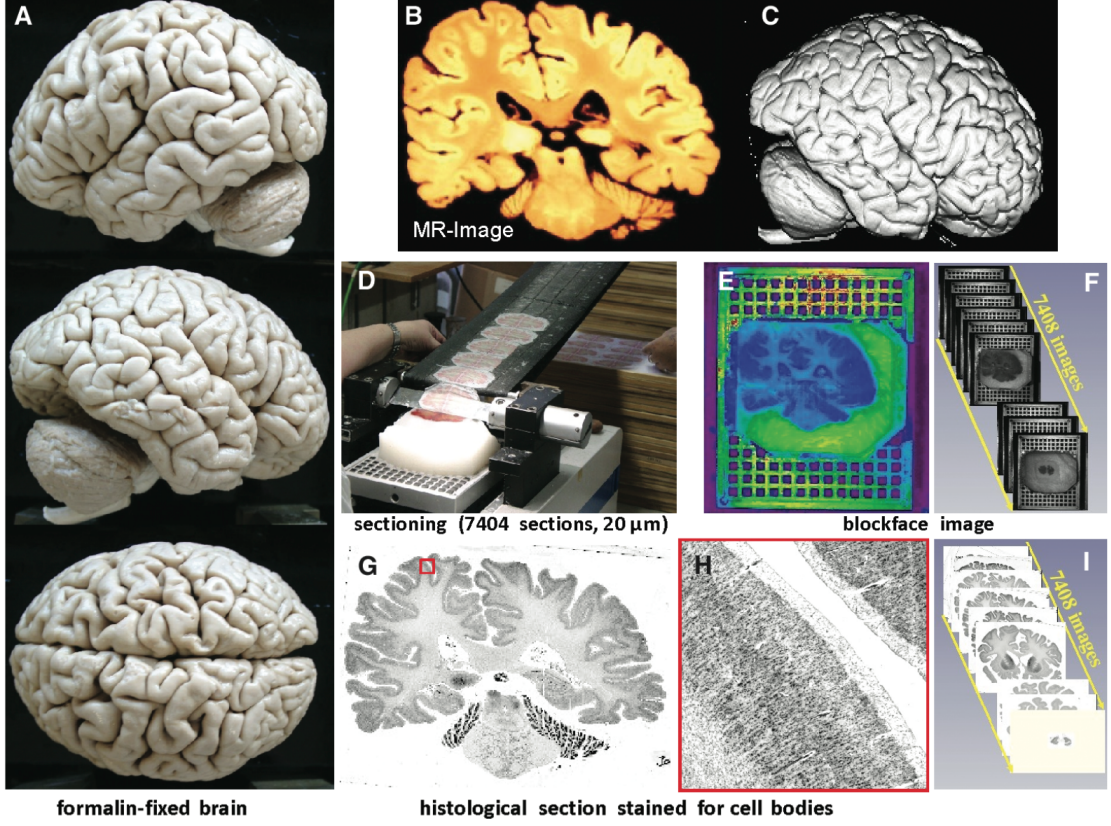


Fig. 1. Illustration of tissue and image processing. (**A**) Photographs of the fixed brain. Lateral left (top), lateral right (middle), and dorsal (bottom) views. (**B**) Magnetic resonance image (coronal view) and (**C**) 3D-reconstructed MRI volume of the fixed brain. (**D**) Histological sectioning. (**E**) Blockface image of a section (pseudocolored) resting on the mounting grid that served for alignment of the blockface images. (**F**) Series of blockface images. (**G**) Cell body–stained histological sections with the region of interest denoted by a red box. This area is shown with higher magnification in (**H**). (**I**) Series of histological images, which were 3D-reconstructed using the blockface images (F) and the MRI (C).

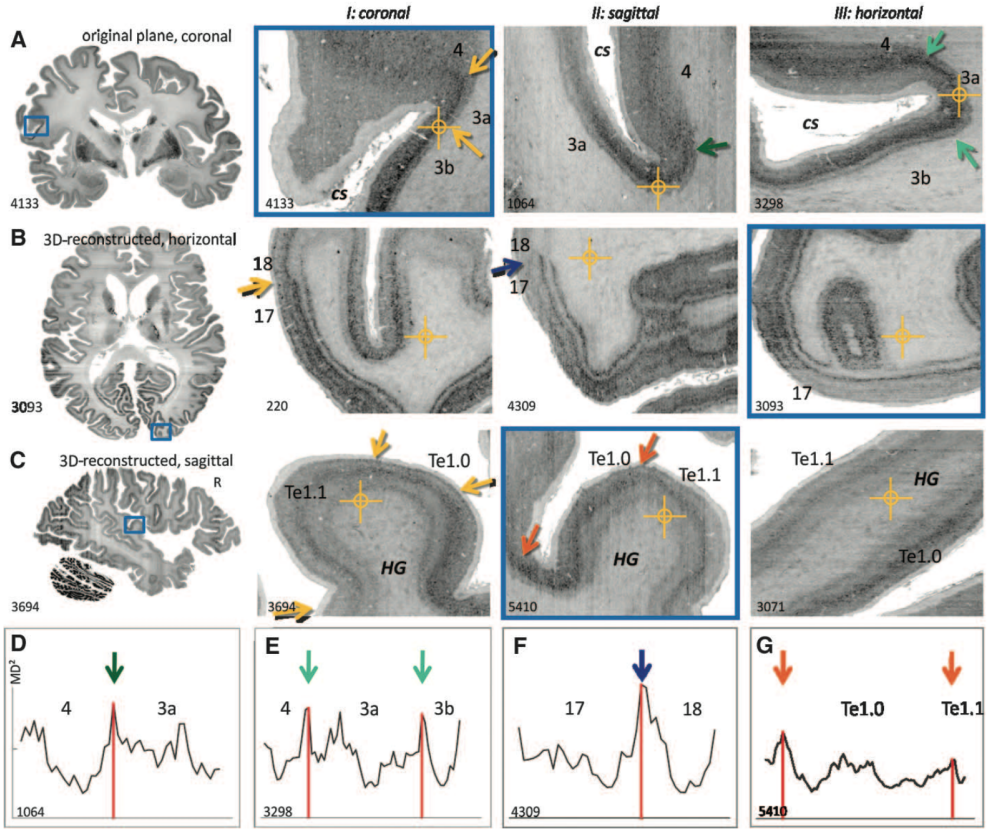
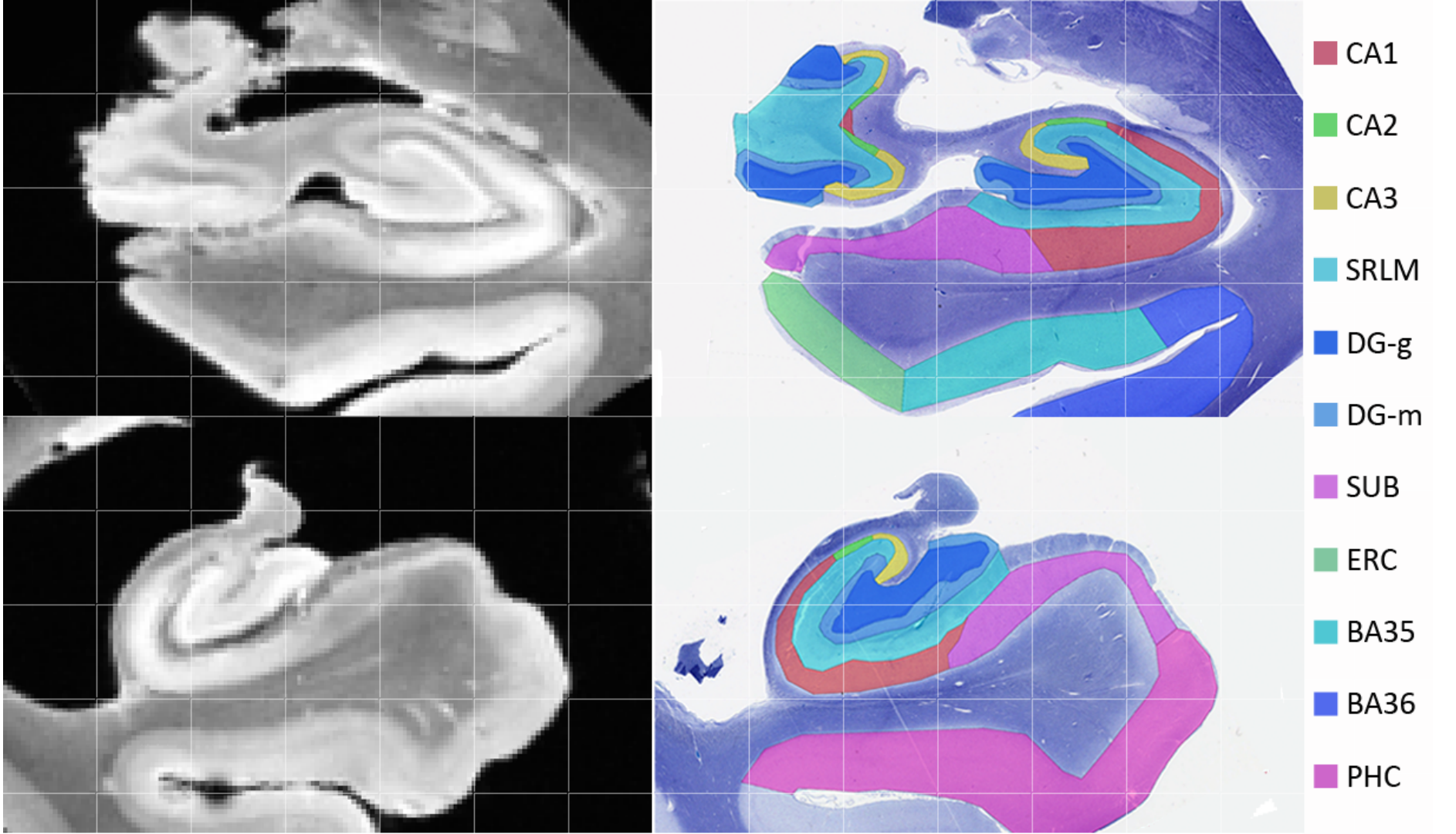


Fig. 2. Primary cortical regions in the three planes of section. (**A**) Sensorimotor (BA4, 3a and 3b), (**B**) visual [BA17 (V1) and BA18 (V2)], and (**C**) auditory cortex (areas Te1.0, Te1.1 as part of BA41) (left column). Overviews of the whole-brain sections in the original plane (A) and the 3D-reconstructed horizontal (B) and sagittal (C) planes. Crosshairs denote identical positions within a row. Columns I to III show coronal, sagittal, and horizontal planes, respectively. cs, central sulcus; HG, Heschl's gyrus. Section numbers are shown in the lower-left corner of each panel. (**D** to **G**) Definition of borders for regions of interest from (A) to (C), based on the Mahalanobis distance (*15*). Corresponding borders are labeled by identically colored arrows (see also supplementary materials and Fig. 3).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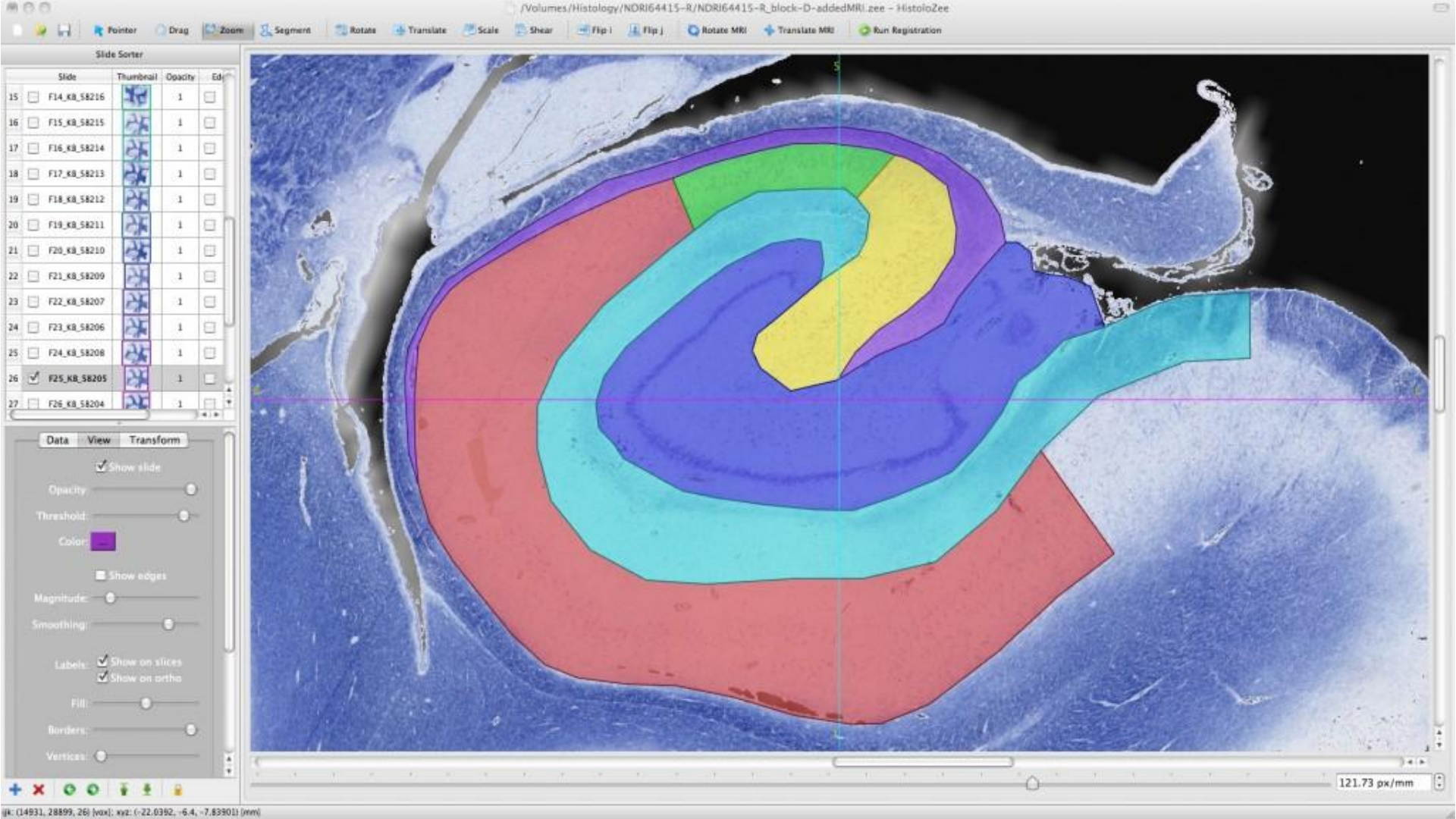
CA2
CA3
SRLM
DG-g
DG-m
SUB
ERC
BA35
BA36
PHC


/Volumes/Histology/NORI64415-R/NORI64415-R_block-D-addedMRI.zee – HistoloZee
Pointer
Drag
Zoom
Segment
Rotate
Translate
Scale
Shear
Flip i
Flip j
Rotate MRI
Translate MRI
Run Registration
Slide Sorter
Slide
Thumbnail
Opacity
15 F14_K8_S8216 1
16 F15_K8_S8215 1
17 F16_K8_S8214 1
18 F17_K8_S8213 1
19 F18_K8_S8212 1
20 F19_K8_S8211 1
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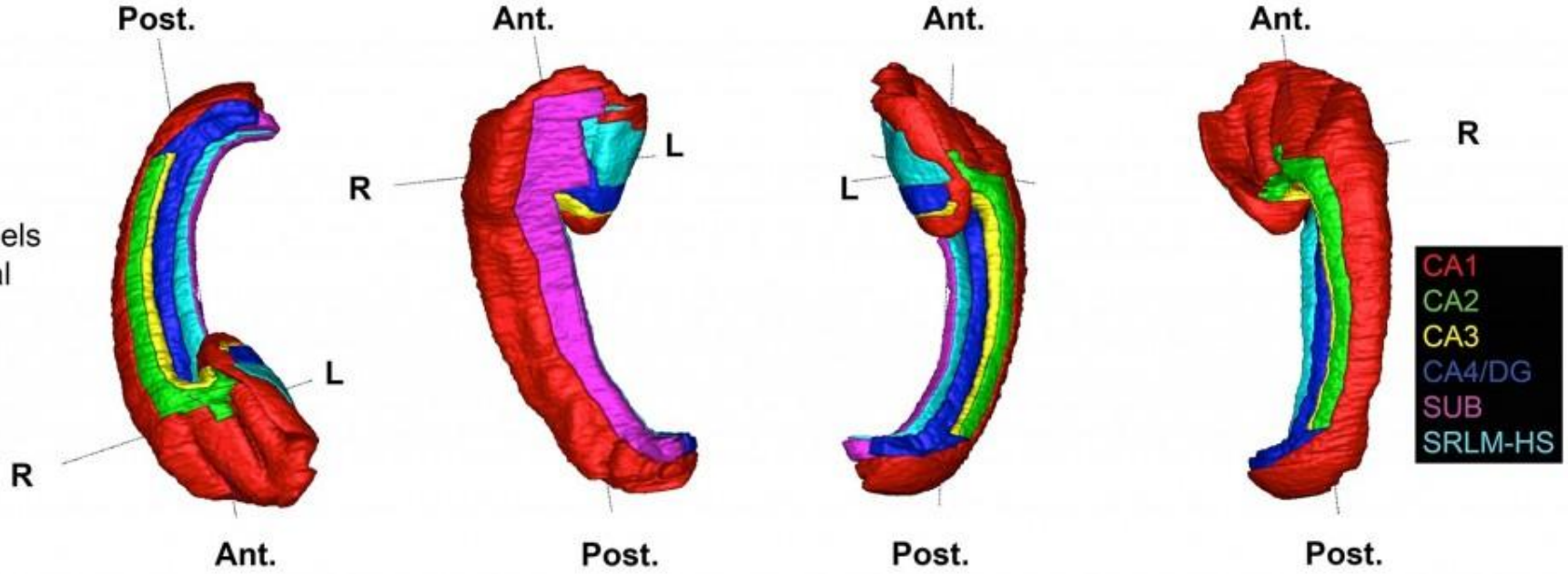
27 F26_K8_S8204 1
Data
View
Transform
Show slide
Opacity:
Threshold:
Color:
Show edges
Magnitude:
Smoothing:
Labels:
Show on slices
Show on ortho
Fill:
Borders:
Vertices:
121.73 px/mm

Subfield labels *after* manual correction



(switch to browser)

NANOCRAFTER Try our new scientific discovery game!
Be creative and build extraordinary tiny machines!

What's New

1087 Repost Forthcoming

Due to a number of issues, we have deactivated puzzle 1087. It will be posted later with the ability to load in solutions, so you wont miss out on any points, they will just be delayed. We apologize for any inconvenience, but hang on to those solutions!

Update (5/20): No current ETA at this time.

(Tue, 05/19/2015 - 20:38 | **0 comments**)

New Release!

GET STARTED: DOWNLOAD

Win Beta (Windows (XP/Vista/7/8)) | Mac Beta (OSX (10.7 or later)) | Linux Beta (Linux (64-bit))

Are you new to Foldit? Click here.

Are you an educator? Click here.

SEARCH

Google Search | Only search fold.it

RECOMMEND FOLDIT

Send

USER LOGIN

Username: *

Password: *

Log in

- Create new account
- Request new password

SOLOISTS | EVOLVERS | GROUPS | TOPICS

PLAYER	PUZZLE	SCORE
martin.szew 62 84	1094: De-novo F...und	8,932

Pull Mode
Score:
0
of 8000
1-3: Shake!
You've earned the SHAKE tool!
You can use shake to fix clashes for you!
That's all!
Shake
Reset Puzzle
Actions
Undo
Menu
amutantdog: yo
genissette: but is really good
amutantdog: i agree
genissette: to understand the pretens
genissette: and all their structures
Send
Chat - Global
auto show

Nanocrafter is...

a scientific discovery game about synthetic biology. Use pieces of DNA to build everything from computer circuits to nanoscale machines, and help advance scientific research with your inventions!

Play now

Watch the video

Latest News

We found them!

Posted on May 26, 2015 by inkycatz

Our challenges are back from their uncommonly long weekend - and we hope you are too! We have four fresh challenges, with the first one expiring in just under two weeks. …

Looking for challenges?

Posted on May 22, 2015 by inkycatz

Current Challenges

Challenge Name	Ends	Inventions	Top User
Draw a Cake!	10d	0	–
Fork	13d	0	–
Machine- Screw	17d	0	–
Start Your Engines	20d	1	goravine

Latest Inventions

Level 2-6: Caution

RULES

WORLDS
1 Matching
2 Strand Displacement
3 Concentrations
4 Toeholds and Logic

CHALLENGES
MY SAVES
Sandbox
Save/Share

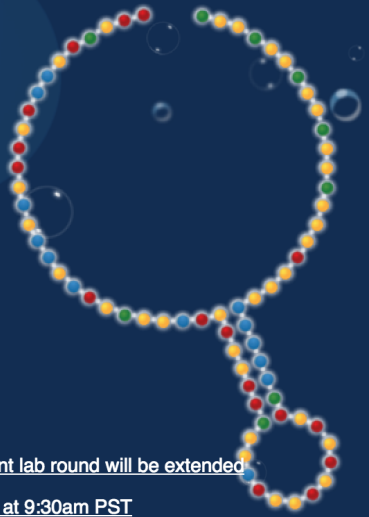
SETTINGS
RELOAD
SUBMIT

eterna

Make Molecules Advance Science

Welcome to Eterna!

You play by designing RNAs,
tiny molecules at the heart of every cell.



NOVA Multimedia tutorial

Play Now! ▶

Latest news

Lab results for R95 are posted; the deadline for the current lab round will be extended
19 May 2015

Monthly Eterna meeting with Das Lab on Friday, May 1st at 9:30am PST
30 Apr 2015

Flash applet update preview
20 Apr 2015

Login

username | Register

password | Forgot password?

You have 500 points. Register now to claim!

Eterna in press see all

New York Times RNA game lets players..

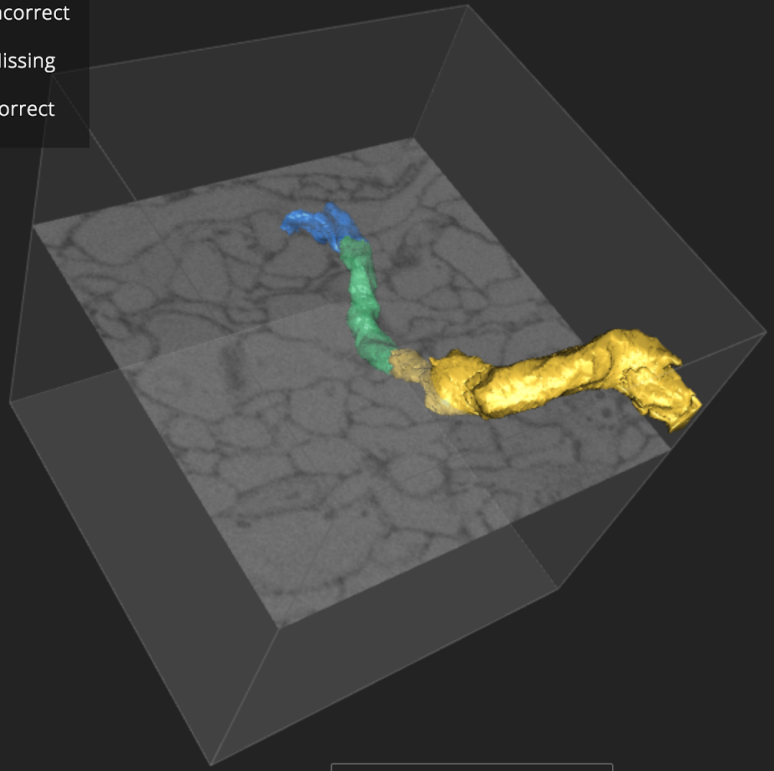
Wired New videogame lets amateurs..

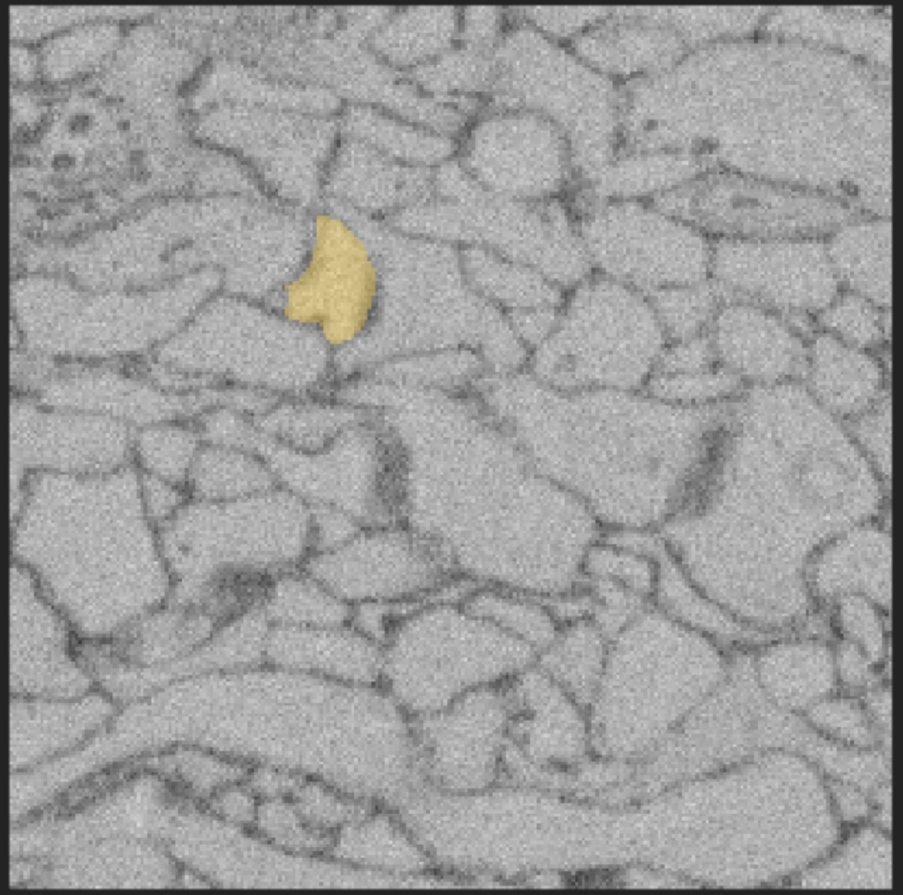
Puzzle
1
12
10
5
A
U
G
C

Eyewire
A GAME TO MAP THE BRAIN
Players like you have mapped over one hundred real neurons!
SIGN UP
Username
SIGN UP
SIGN UP
LOGIN
IN PARTNERSHIP WITH
kt

← Overview | Tutorial 2 of 5

Incorrect
Missing
Correct





Exploring ctrl+m to commit ctrl+d to discard

>

0 0 0

Move on!

The BigBrain
0:00 / 3:11

DSA MultiSlide Viewer

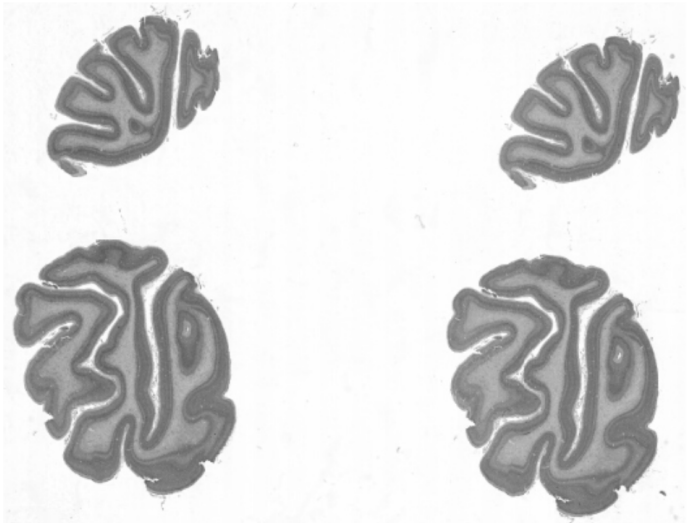
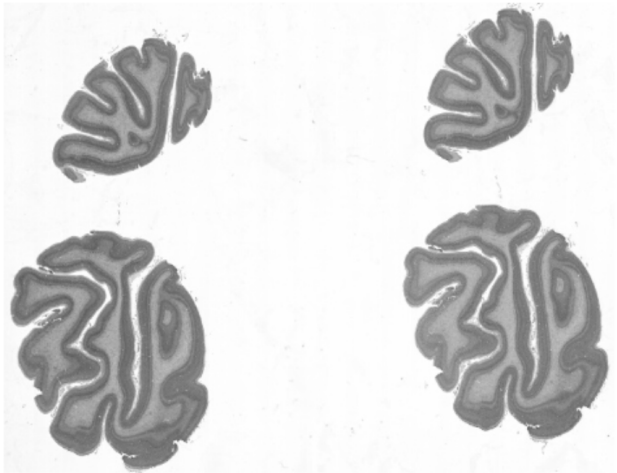
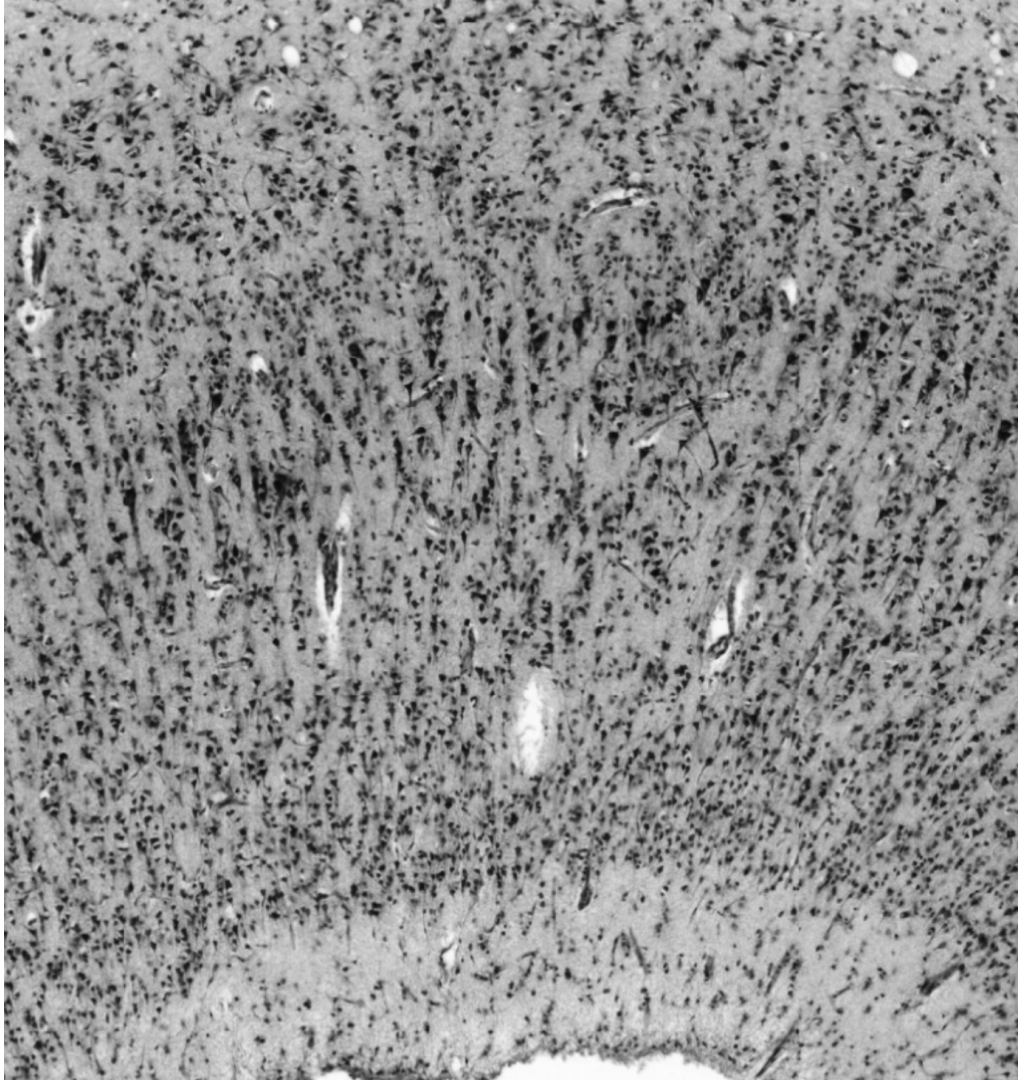
This will attempt to load two slides using OpenSeaDragon

Move Viewer 2 | Sync Zooms | Set V1 Ref Pt | Set V2 Ref Pt | NOT Awesome Mode | Invert WhiteBlack

Set an OFFSET and/or Fiducial point.. X F1 Y F1

Viewer 2 stuff here X F2 Y F2

Panel 1 B01_300_301_00_Pyramid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