

**SPOTTED**

# Breaking ground; racial divide; brain candy

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## WEEK OF FEBRUARY 6<sup>TH</sup>

### Breaking ground

The Massachusetts Institute of Technology's **McGovern Institute for Brain Research** is opening a new center for autism research.

Scientists at the **Hock E. Tan and K. Lisa Yang Center for Autism Research** plan to study the "origins of autism in our genes, in the womb and in the first years of life," according to a statement.

"We will exploit revolutionary new tools, such as CRISPR and optogenetics, that are transforming research in neuroscience," McGovern Institute director **Robert Desimone** said in the statement. "We hope to not only identify new targets for medicines, but also develop novel treatments that are not based on standard pharmacological approaches."

Work on the center is set to start in April.

#### SOURCES:

**MIT News** / 09 Feb 2017

New center for autism research established at MIT's McGovern Institute

<http://news.mit.edu/2017/center-for-autism-research-established-mit-mcgvorn-institute-0209>

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### Racial divide

A piece on this week's PBS NewsHour highlights the **challenges African-American families face** in getting an autism diagnosis and accessing services.

The piece centers on Jason Harlan, a 29-year-old man with autism who is minimally verbal. When Harlan was a child, his mother struggled to find support in her community of Maywood, Illinois, which is just north of Chicago. In 2007 she launched her own support group, called **The Answer, Inc.**, to help families like hers.

African-American children are less likely than white children to receive an autism diagnosis, and more likely to receive a wrong or late diagnosis. *Spectrum* explored this **racial disparity** in a long story last year.

African-American families are also less likely than white ones to participate in autism research. But some scientists are trying to change that: Geneticist **Daniel Geschwind** of the University of California, Los Angeles and his colleagues are stepping out of their labs and into the community to **recruit African-Americans with autism for genetic research**.

**SOURCES:**

**PBS Newshour** / 07 Feb 2017

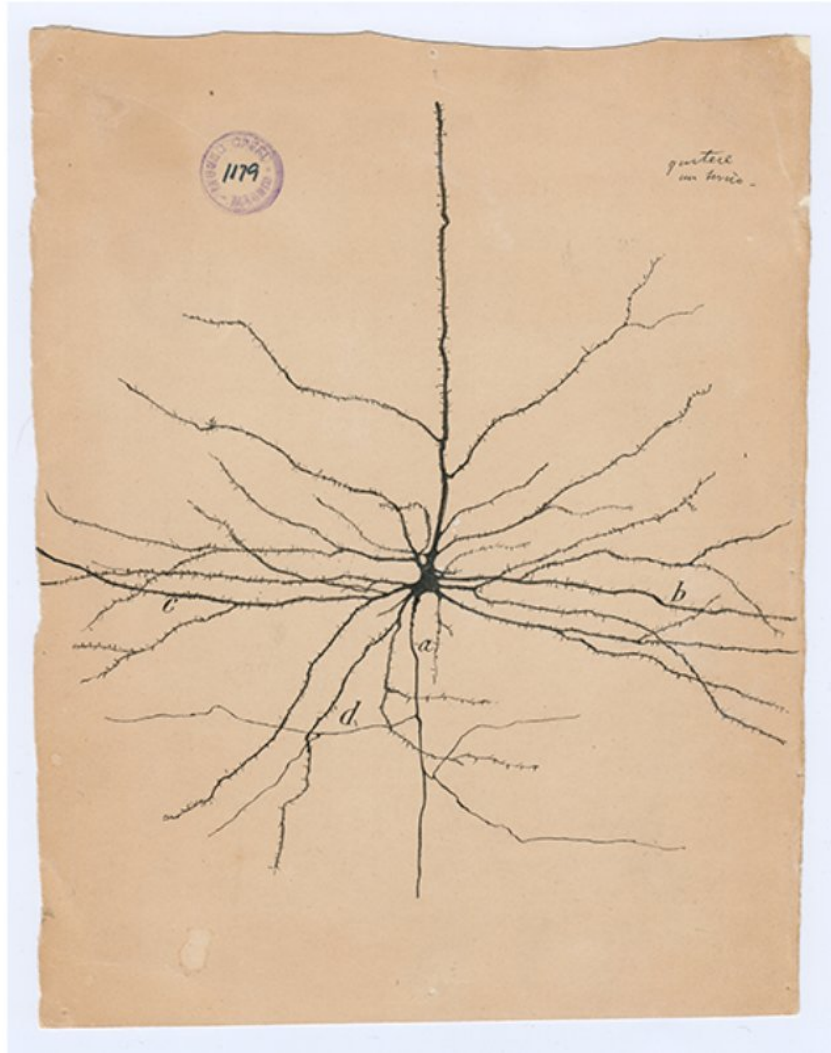
Children of color with autism face disparities of care and isolation

<http://www.pbs.org/newshour/bb/children-color-autism-face-disparities-care-isolation/>

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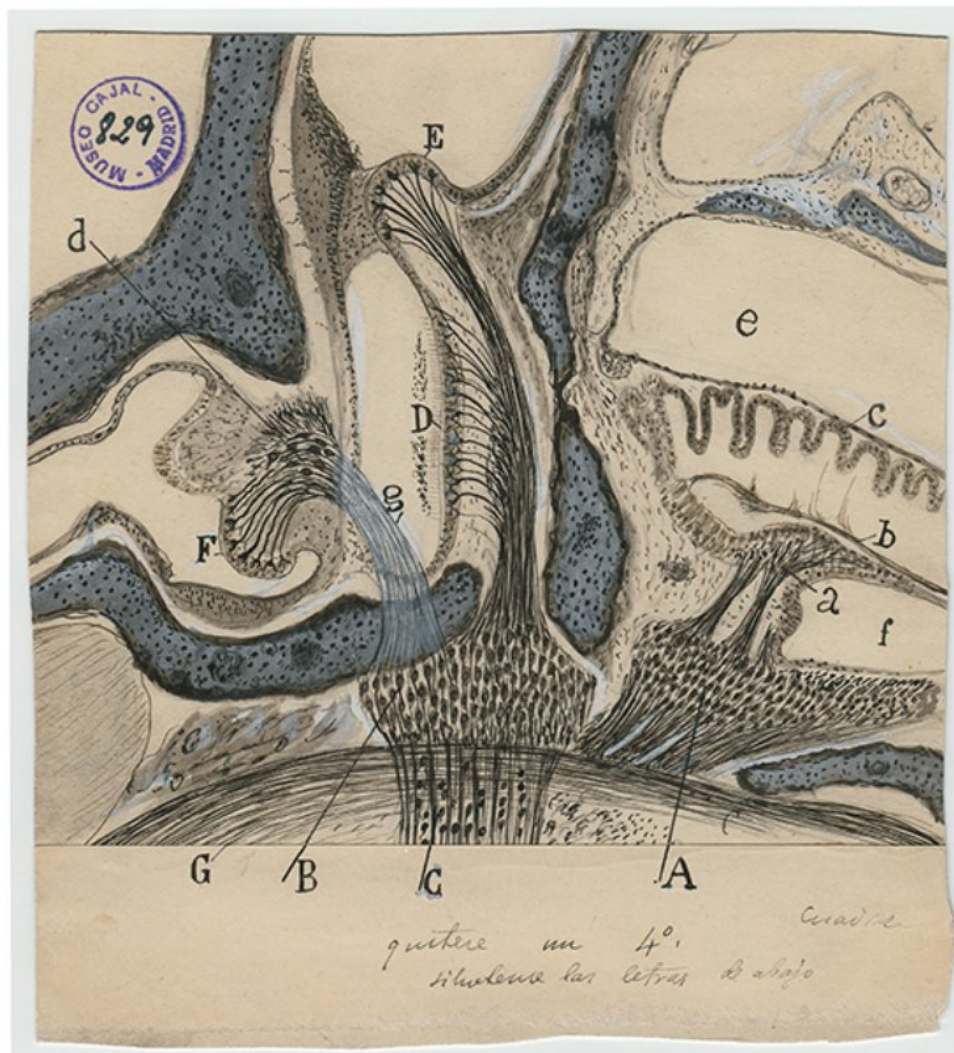
## Dendrite doodles

A new book and traveling museum exhibit highlight the work of Santiago Ramón y Cajal, the Spanish neuroanatomist whose drawings changed the way researchers study the brain.



Santiago Ramón y Cajal / Smithsonian Magazine

Cajal (1852-1934) drew more than 2,900 pictures of neurons, detailing their delicate branches and tiny signal-receiving spines. He shared the 1906 Nobel Prize in Physiology or Medicine with Italian pathologist Camillo Golgi, whose tissue-staining technique allowed Cajal to see individual neurons.



Santiago Ramón y Cajal / Smithsonian Magazine

The book is titled “**The Beautiful Brain**: The drawings of Santiago Ramón y Cajal.” The museum exhibit opened 28 January at the Weisman Art Museum in Minneapolis, Minnesota.

**SOURCES:**

**Smithsonian Magazine** / 23 Jan 2017

Revel in these wondrous drawings by the father of neuroscience

<http://www.smithsonianmag.com/arts-culture/revel-these-wondrous-drawings-father-neuroscience-180961881/>

## See a scientist

Scientists are taking to Twitter to spread the word about their work.

They're using the hashtag **#Actuallivingscientist** to share pictures and short descriptions of their work. In doing so, they hope to put a face on science and combat some of the anti-evidence views circulating these days.

"We have a president who has questioned the overwhelming evidence of vaccine safety. A president whose policy keeps brilliant minds out of the country for fear of the corrupt ones. And he is supported by people who far too easily dismiss what we do in favor of 'alternative facts,'" Sara Whitlock, a graduate student at the University of Pittsburgh, wrote in an **op-ed for STAT** on Tuesday.

The Twitter campaign is picking up steam, with more than hundreds of tweets from scientists since 3 February.

I am an **#ActualLivingScientist** using brain recordings to improve the diagnosis and treatment of **#autism** [pic.twitter.com/7BIEvKjEOv](https://pic.twitter.com/7BIEvKjEOv)

— James C. McPartland (@J\_McPartland) **February 8, 2017**

### SOURCES:

**STAT** / 07 Feb 2017

A lot of Americans don't know a single scientist. We need to fix that  
<https://www.statnews.com/2017/02/07/scientist-march-trump/>

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## Brain candy

This dazzling video **depicts the nerve fibers** that connect different regions of the brain.

The video is based on a brain-imaging technique called **tractography**, which uses magnetic resonance imaging to measure the diffusion of water along nerve fiber tracts. Researchers then use algorithms to transform the diffusion data into beautiful pictures.

In this case, tracts that connect the brain's two hemispheres are red, those that run front to back are green and those that run top to bottom are blue. The mix of colored wisps looks a bit like cotton candy.

Francis Collins, director of the U.S. National Institutes of Health, **posted the video on his blog** this week. It's the work of **Tyler Ard**, a neuroscientist at the University of Southern California in Los Angeles.

**SOURCES:**

**The National Institutes of Health** / 07 Feb 2017

Cool videos: Starring the wiring diagram of the human brain

<https://directorsblog.nih.gov/2017/02/07/cool-videos-starring-the-wiring-diagram-of-the-human-brain/>

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## Job news

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