

SPOTTED

# Spotted around the web: Brain organoids; early IQ changes; anti-racist policies

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## Research roundup

- Sex and gender influence neurodevelopmental conditions, and better understanding their roles could improve diagnosis and treatment. [Nature Reviews Neurology](#)
- The protein NLGN4 is highly expressed in oxytocin- and vasopressin-producing neurons in the hypothalamus, according to a study in postmortem brains. [Molecular Brain](#)
- Improved methods have helped researchers overcome problems with variability and slow growth in culturing human brain organoids, making them even more useful models for studying the genetics of neurodevelopmental conditions. [Biological Psychiatry](#)
- Transgender and nonbinary adults in England are almost six times as likely as their cisgender peers to be autistic. This figure tracks with previous research *Spectrum* has covered on the relationship between [gender identity](#) and autism. [BMJ Open](#)
- Researchers have developed a robust tool to characterize gender identity across multidimensional binary and nonbinary gender traits. [American Psychologist](#)
- A new method called HAT (for Hare And Tortoise) can reliably call out de novo mutations from the DNA sequences of child and parent triads, according to a preprint. [bioRxiv](#)

**Selective staining:** Antibodies against NLGN4 (red) show the protein in the cell membrane of human brain specimens and do not cross-react with other neuroligins (green).

- Autistic children can be separated into three groups based on their IQ scores between age 3 and 11: those whose scores remain low, remain high or increase. [JCPP Advances](#)
- Researchers have characterized mouse facial expressions based on response to pleasant

and aversive stimuli. [eNeuro](#)

- Diagnoses of psychiatric conditions in autistic people may vary based on race or ethnicity, according to a review of inpatient hospitalization in the United States. [Journal of Autism and Developmental Disorders](#)

## Science and society

- Autistic storyteller Jessica Horner profiles herself and four other autistic people, who share their feelings of not fitting in before being diagnosed in adulthood. [ABC News](#)
- Autism researchers disagree on terminology to describe the condition — symptoms versus traits; disorder versus difference — and the implications of those terms. *Spectrum* reported on [the rift](#) last month. [Science](#)
- U.S. schools often conduct “informal removals” of students with challenging behaviors, which saps educational time and is in violation of civil rights laws. [The New York Times](#)
- An anonymous donor has given \$25 million to the Children’s Hospital of Philadelphia to establish a new center for research on epilepsy and neurodevelopmental conditions. [Penn Medicine](#)
- The journal *Nature* is accepting nominations for its two Inspiring Women in STEM awards until 8 May 2023. [Nature](#)
- The Autistic Self Advocacy Network objects to the Biden administration’s decision to declare an end to the COVID-19 public health emergency. [Autistic Self Advocacy Network](#)
- The U.S. National Academies of Sciences, Engineering, and Medicine calls for institutions of higher education and scientific research to pursue anti-racist policies that move beyond counting the number of underrepresented scholars to creating an inclusive culture. [STAT](#)
- Theoretical neuroscientist Ann Kennedy has won a 2023 Sloan Research Fellowship, which comes with \$75,000 for early-career researchers. *Spectrum* [profiled her](#) last year. [Alfred P. Sloan Foundation](#)

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