

SPOTTED

Spotted around the web: Brain imaging replicability; CRISPR-edited neurons; sex-based variability in mice

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Research roundup

- Studies that correlate trait differences with changes in brain activity or structure do not require large sample sizes if the effect is large enough, researchers argue in response to a **study** *Spectrum* covered last year. The original study's authors **reply** that associations based on small samples still require confirmation in better-powered studies. **Nature**
- Pathological demand avoidance (PDA) is not a diagnosis or an autism subtype, a review of the research concludes. *Spectrum* has previously **covered PDA** and autism. **Zeitschrift für Kinder- und Jugendpsychiatrie und Psychotherapie**
- Having a child with autism has been linked to the particulate matter levels in and around the home during pregnancy, in a cohort of more than 40,000 births in Sweden. **Scientific Reports**

Mapping pollution: The likelihood of having an autistic child is linked to particulate matter levels across southern Sweden.

- Applied behavior analysis improves intellectual functioning and adaptive behavior in autistic children but does not affect language skills, trait severity or parental stress, according to a review of studies. **BMC Psychiatry**
- Autistic adults and adults with autism traits have an increased likelihood of experiencing gastrointestinal issues and co-occurring psychological problems. **Autism**

- CRISPR gene-edited neurons can model the co-expression of genes often found in postmortem brains of autistic people and point to synaptic function as a convergence point. **Cell Genomics**
- Girls tend to have better social cognition and understanding of social causality than boys do, a difference that holds true in autistic girls and boys. **Molecular Autism**
- People with disabilities, including autism, are less likely to undergo cervical cancer screening than those without disabilities, though it's not clear which disabilities contribute to that disparity. *Spectrum* covered **the gap** in 2018. **Journal of Cancer Education**
- Most women diagnosed with autism or attention-deficit/hyperactivity disorder as children still meet diagnostic criteria for one condition, although 34 percent switched from ADHD to autism. **Journal of Attention Disorders**
- When autistic people watch non-autistic people work on a creative building task — and vice versa — they copy each other less than when they are paired with someone of the same neurotype. **Autism**

Science and society

- Male mice exhibit more variable behavior than females, contrary to long-standing assumptions that females' fluctuating hormones affect their behavior and experimental results, according to a new study. **The New York Times**
 - Autism researchers continue to debate terms such as “**profound autism**” and “disorder.” **Autism Research**
 - Raphael Mechoulam, a medicinal chemist at the Hebrew University of Jerusalem in Israel who was known as the “father of cannabis research,” has died at age 92. **American Friends of the Hebrew University**
 - Researchers who work with laboratory animals may experience guilt, anxiety and depression, sometimes called compassion fatigue. **Science**
 - An analysis of the lay summaries that appear in the journal *Autism Research* finds that they are more readable than traditional abstracts but still not accessible to most lay readers. **Autism Research**
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