

SPOTTED

Spotted around the web: Coronavirus disruptions to healthcare, mice on LSD, controversy over cell interiors

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29 JANUARY 2021

WEEK OF JANUARY 25TH

Research roundup

- Nonfunctional variants of CHD8, a top autism gene, cause subtle anatomical changes in the developing mouse brain. ***BMC Research Notes***
- Scientists who publish in open-access journals that carry publication fees tend to be well-funded men who hold senior positions at prestigious institutions. ***Quantitative Science Studies***
- Brain pathways in the hippocampus may mature differently in people with 22q11 deletion syndrome, who have an elevated risk of developing psychosis. ***Biological Psychiatry***
- Most people with autism, particularly those under age 5, have experienced disruptions in healthcare during the coronavirus pandemic; *Spectrum* covered this study's **preliminary data** last year. ***Journal of Autism and Developmental Disorders***
- Autistic women of reproductive age appear to have more health conditions than non-autistic women. ***Autism***
- People with autism and those with schizophrenia seem to share similar structural dimensions in 41 brain areas; *Spectrum* **reported on a related study** in October. ***Molecular Psychiatry***
- The brain's capacity to produce dopamine appears to be similar in autistic and non-autistic people. ***Translational Psychiatry***
- Rapid decay of mRNA in cells may be a driving molecular pathway that links FMRP-protein loss with fragile X syndrome. ***Nature Cell Biology***
- Toddlers aged 1 to 2 years respond similarly to parent gestures whether they have a family history of autism or not; those whose parents gestured the most have the largest vocabulary at age 3. ***Journal of Autism and Developmental Disorders***

- Mice dosed with LSD become more social — an effect mediated by excitatory neuronal pathways. *Proceedings of the National Academy of Sciences*
- Among preschool-age children, autistic boys tend to show more repetitive and restricted behaviors than autistic girls do. *Journal of Autism and Developmental Disorders*

Science and society

- Reporting an association between a laboring woman's epidural and the likelihood that her child will have autism can impart more harm than good, an anesthesiologist says, **echoing critiques** reported in a Spectrum article. *Anesthesiology News*
 - The White House has issued a statement committing to making its website accessible to people with disabilities. *Whitehouse.gov*
 - A scientific controversy over how cell interiors are organized may affect how research is interpreted, as illustrated by this *Spectrum* story on the **expression of genes** in Rett syndrome. *Science*
 - The nonprofit group 500 Women Scientists objects to Eric Lander's nomination as presidential science adviser, calling it a failure to promote qualified women or Black, Indigenous and people of color. *Scientific American*
 - The likelihood of having a mental health diagnosis is much higher in autistic than non-autistic children — nearly 78 percent versus 14 percent. *Disability Scoop*
 - Using a smartwatch to deliver reminders is touted as a support for autistic students, but it focuses on 'normative' behaviors as defined by non-autistic makers. *The Neurodiverse Universe*
 - In Pennsylvania, judges and healthcare experts are teaming up to improve courtroom experiences for people on the spectrum. *KYW Newsradio*
 - The anticonvulsant drug carbamazepine may mitigate the memory difficulties and hyperactivity that occur in a mouse model of fragile X syndrome. *Fragile X News Today*
 - A group of women biomedical engineers at U.S. universities is calling on the National Institutes of Health to take action for equity in grant-funding to Black academics in the field. *Cell*
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