

## SPOTTED

# Spotted around the web: Sex differences in microglia, Google searches, Kavli Prize

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## Research roundup

- A huge number of studies show that applied behavior analysis, a mainstay of autism therapy, improves outcomes, and yet most lack comparison interventions or follow-up measures. [Perspectives on Behavior Science](#)
- Phosphorylation of a particular region of the protein PTEN is necessary for cortical development and sensory processing, and may explain how PTEN mutations contribute to autism traits. [Brain](#)
- Of 41 drugs and 17 dietary supplements tested in children in clinical trials, only 4 drugs appear to improve a core autism trait, according to a review; dietary supplements were largely ineffective. [Molecular Autism](#)
- Sex differences in microglia, the brain's immune cells, may explain sex biases in brain conditions such as autism and depression. *Spectrum* covered microglia's role in [autism's sex bias](#) in 2018. [Knowable](#)
- Google searches for autism increase in April, Autism Acceptance Month. [Journal of Autism and Developmental Disorders](#)

**Information inquiry:** The term 'autism' becomes search-worthy every April.

- Collecting 3D body-position data of moving lab animals makes it possible to correct for movement-influenced neuronal activity computationally. [Neuron](#)
- White-matter alterations in autism, such as the density of fibers connecting brain hemispheres, are greater in autistic people with intellectual disability than in those without. [Molecular Autism](#)

- A review of studies reports a strong link between autism and gender diversity. *Spectrum* explored the link between **gender identity and autism** in 2020. *Journal of Autism and Developmental Disorders*
- One trigger for microencephaly and cognitive impairment is the dysfunction of an intracellular enzyme that cleaves tyrosine from microtubules. *Science*

### Science and society

- A day program center in Mariupol, Ukraine, has become a refuge for people with autism or Down syndrome. *Spectrum* covered the many challenges that **autistic people in Ukraine** face as daily routines are upended by war. *The Wall Street Journal*
- Neurodiverse representation in government is important for implementing policies and legislation that may affect autistic people's lives in society, writes an autistic woman in Australia. *The Guardian*
- The 2022 Kavli Prize in Neuroscience has been awarded to Jean-Louis Mandel, Harry Orr, Christopher Walsh and Huda Zoghbi for their work elucidating the genetic underpinnings of neurodevelopmental conditions such as fragile X and Rett syndromes. *Spectrum* **profiled Zoghbi** this past year and **Walsh in 2008**. [KavliPrize.org](https://www.kavliprize.org)
- The coronavirus pandemic has exacerbated workloads and institutional problems and has led many mid-career academic scientists to leave their positions. *Nature*

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