

SPOTTED

Fake autism claim; knocking out anesthesia; haunting milestone and more

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Fake autism claim

The television show “**Peppa Pig**” has nothing to do with autism, despite claims making the rounds on social media. Researchers have **sought in vain** for the “Harvard study” purported to have found that the British children’s program “causes autism,” *The Washington Post* reported 19 February.

Researchers found only one thing that even hinted at an association between autism and television viewing: an old study that reported a “vague link” among autism, watching cable television and precipitation rates in the 1970s and 1980s. It was not performed at Harvard, the *Post* reported.

SOURCES:

The Washington Post / 19 Feb 2018

Study cited for blaming autism on TV cartoon does not exist

https://www.washingtonpost.com/politics/study-cited-for-blaming-autism-on-tv-cartoon-does-not-exist/2018/02/19/b5a67ada-159f-11e8-930c-45838ad0d77a_story.html

Knocking out anesthesia

Investigators evaluating associations of early general anesthesia exposure and neurodevelopmental disorders report **no link to autism**. Publishing 21 February in *The Journal of Child Psychology and Psychiatry*, the researchers report finding only a “slight” association of anesthesia and attention deficit-hyperactivity disorder in their comparison of twins who had and had not undergone anesthesia.

SOURCES:

The Journal of Child Psychology and Psychiatry / 21 Feb 2018

The role of general anesthesia on traits of neurodevelopmental disorders in a Swedish cohort of twins

<http://onlinelibrary.wiley.com/doi/10.1111/jcpp.12885/abstract>

Haunting milestone

Sarah Kurchak, an adult with autism, writes 19 February in *Vox* about meeting a haunting milestone: turning 36 years old. That is the average age of death among adults on the spectrum, according to one study. She says that reaching this point has made her acutely aware of how tired she is of trying to **control her authentic self** around neurotypical people.

Kurchak writes that the coping mechanisms she has used her whole life to avoid being bullied or perceived as annoying “are not great for managing a remotely healthy life.” As she gets older, she writes, “the effort it takes to fit in is increasingly exhausting.”

SOURCES:

Vox / 19 Feb 2018

I’m autistic. I just turned 36 — the average age when people like me die.

<https://www.vox.com/first-person/2018/2/19/17017976/autism-average-age-death-36-stress>

Brain-cell model

The **Purkinje cells** of the cerebellum, the brain’s hub for motor coordination, could be important to understanding autism, tuberous sclerosis and their shared features. Researchers publishing 15 February in *Molecular Psychiatry* have coaxed stem cells from people with tuberous sclerosis into becoming Purkinje cells. Using these cells, the investigators pinpointed **several Purkinje cell pathways** relevant to autism, including one associated with **fragile X syndrome**, another autism-linked condition.

SOURCES:

Molecular Psychiatry / 15 Feb 2018

Purkinje cells derived from TSC patients display hypoexcitability and synaptic deficits associated with reduced FMRP levels and reversed by rapamycin

<https://www.nature.com/articles/s41380-018-0018-4>

Sedation safety

Children on the spectrum who are under **propofol sedation for magnetic resonance imaging** fare pretty well, according to findings published 14 February in the *Journal of Child Neurology*. They experience no increase in adverse events compared with typical children, but about 10 percent need a team of four or more people to complete the sedation.

SOURCES:

Journal of Child Neurology / 14 Feb 2018

Outpatient procedural sedation of patients with autism spectrum disorders for magnetic resonance imaging of the brain using propofol

<http://journals.sagepub.com/doi/abs/10.1177/0883073817753908>

Protein diagnostics

Researchers using plasma and urine samples from children say that **levels of damaged proteins** in the fluids can distinguish children with and without autism — but many experts are unconvinced. Their results applying these biomarkers in a diagnostic algorithm appeared 19 February in *Molecular Autism*. They report that their approach yields “improved diagnostic performance” compared with current tools.

Although many news outlets hailed the reported findings as some kind of breakthrough, critics call for caution. The UK’s National Health Service **summarized these critiques** in a 19 February post on its website, saying that there is no way to know “from this single, small study” whether or not the proposed method is “accurate enough or that it could improve upon existing methods” for autism diagnosis.

SOURCES:

Molecular Autism / 19 Feb 2018

Advanced glycation endproducts, dityrosine and arginine transporter dysfunction in autism - a source of biomarkers for clinical diagnosis

<https://molecularautism.biomedcentral.com/articles/10.1186/s13229-017-0183-3>

Wee People font

A font developed by and for journalists looks like a good option for scientists needing to distill data into eye-catching visuals. *ProPublica* released the free **Wee People font**, a collection of tiny human silhouettes that can be used in place of boring old dots in data visualizations. The font's creators discussed their work 2 February on *Source*.

SOURCES:

Source / 20 Feb 2018

Our font is made of people

<https://source.opennews.org/articles/our-font-made-people/>

Services loss

A reorganization of Tricare, the healthcare benefits provider for U.S. military service members and their families, has left some **autism therapies unsupported**. Because of delays in provider payments related to the reorganization, clinics around the United States have put families on notice that their autism therapy programs are on hold, the *Stars and Stripes* reported 16 February.

SOURCES:

Stars and Stripes / 16 Feb 2018

Troubled transition: Tricare changes endanger autism therapy services for military families

<https://www.stripes.com/troubled-transition-tricare-changes-endanger-autism-therapy-services-for-military-families-1.512181>

Drug test

Prenatal valproate exposure is among the **handful of environmental factors** showing a consistent association with autism. Researchers have now reported **impaired school performance** among children exposed to this **epilepsy** drug in utero, providing further evidence of the drug's neurodevelopmental effects. The findings were published 19 February in *JAMA Neurology*.

SOURCES:

JAMA Neurology / 19 Feb 2018

Association between prenatal valproate exposure and performance on standardized language and mathematics tests in school-aged children

<https://jamanetwork.com/journals/jamaneurology/fullarticle/2672965>

Deciphering datasets

In the world of **artificial intelligence**, deep-learning algorithms may be the most difficult concept to grasp. Machines take huge datasets, such as genomic data, and search for **predictive patterns**. But their results are only as good as **the datasets** and their annotations, *Nature* reported 20 February.

The attraction of deep-learning algorithms lies in part in their versatility in managing chaotic biological information. Imaging and genomic data are a “natural fit” for these methods, *Nature* reported. The algorithms also have potential for drug discovery: They might tease out the best subgroups of people with a condition to better target treatments.

SOURCES:

Nature / 20 Feb 2018

Deep learning for biology

<https://www.nature.com/articles/d41586-018-02174-z>

Job moves

Autism researcher **Vanessa Hus Bal** has **been appointed** the Karmazin and Lillard Chair in Adult Autism at Rutgers in New Jersey, the university said 18 February in a statement. She comes to Rutgers’ Graduate School of Applied and Professional Psychology from the Weill Institute for Neurosciences at the University of California, San Francisco.

SOURCES:

Rutgers University / 18 Feb 2018

Dr. Vanessa Hus Bal appointed Karmazin and Lillard Chair in Adult Autism

<https://gsapp.rutgers.edu/news/dr-vanessa-hus-bal-appointed-karmazin-and-lillard-chair-adult-autism>

News tips

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