

SPOTTED

Maternal multivitamins; vaccine retraction; simultaneous schizophrenia and more

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Maternal multivitamins

An analysis of data from a Swedish medical registry reveals a reduced risk for autism with intellectual disability in children born to women who took **prenatal multivitamins**. The addition of iron or folic acid does not consistently affect the association, according to the study, published 4 October in the *British Medical Journal*.

SOURCES:

British Journal of Medicine / 04 Oct 2017

Antenatal nutritional supplementation and autism spectrum disorders in the Stockholm youth cohort: population based cohort study
<http://www.bmj.com/content/359/bmj.j4273>

Socioeconomic effect

Autism diagnosis rates are lower among children from low-income neighborhoods where relatively few adults have college degrees. And this pattern has **persisted through years** of increasing autism **prevalence**, according to findings published 11 October in the *American Journal of Public Health*.

From 2002 to 2010, the prevalence of autism in the United States more than doubled from 6.6 to 14.7 cases for every 1,000 children, the researchers reported. In that time, diagnoses among children from high-income families consistently outpaced those among children from low-income families. Socioeconomic status was not a factor in the prevalence of autism with intellectual disability.

SOURCES:

American Journal of Public Health / 11 Oct 2017

Autism spectrum disorder among US children (2002-2010): Socioeconomic, racial, and ethnic disparities

<http://ajph.aphapublications.org/doi/full/10.2105/AJPH.2017.304032>

Vaccine retraction

A paper reporting a link between aluminum-containing additives in vaccines and “**autism in mice**” is being retracted. A number of commenters on the post-peer-review site PubPeer pointed out **several issues with the paper**, which was published 5 September in the *Journal of Inorganic Biochemistry*. The comments included accusations of image duplication and results manipulation, *Retraction Watch* reported 9 October.

Journal editor **John Dawson** told *Retraction Watch* that the researchers agreed with the decision to retract the paper. It’s the second retraction for two of the authors.

SOURCES:

Retraction Watch / 09 Oct 2017

Journal to retract paper called “anti-vaccine pseudoscience”

<http://retractionwatch.com/2017/10/09/journal-retract-paper-called-anti-vaccine-pseudoscience/>

Measurement flux

Young children with autism and an intelligence quotient (IQ) between 70 and 84 may show **changes in IQ** during elementary school. Among 30 children who were tested at about age 5 and again at about age 10, IQ scores shifted to below 70 in six children and above 84 in seven others. The results were published 4 October in *Neuropsychiatric Disease and Treatment*.

SOURCES:

Neuropsychiatric Disease and Treatment / 04 Oct 2017

Children with borderline intellectual functioning and autism spectrum disorder: developmental trajectories from 4 to 11 years of age

<https://www.dovepress.com/children-with-borderline-intellectual-functioning-and-autism-spectrum--peer-reviewed-article-NDT>

Social salve

The cannabis-derived compound cannabidiol **diminishes social-interaction difficulties** and calms neural signaling in a mouse model of a rare seizure disorder known as Dravet syndrome, according to findings published 26 September in the *Proceedings of the National Academy of Sciences*. About 25 percent of children with Dravet syndrome have autism. In clinical trials, cannabidiol eased the **intense, frequent seizures** that characterize the syndrome.

SOURCES:

Proceedings of the National Academy of Sciences / 26 Sep 2017

Cannabidiol attenuates seizures and social deficits in a mouse model of Dravet syndrome
<http://www.pnas.org/content/early/2017/09/26/1711351114.abstract>

Simultaneous schizophrenia

Clinicians and researchers tend to treat autism and schizophrenia as mutually exclusive diagnoses, but the **two conditions can co-occur**. About 6 percent of people with autism will also meet diagnostic criteria for schizophrenia, according to the results of a meta-analysis published 4 October in the *Journal of Autism and Developmental Disorders*.

SOURCES:

Journal of Autism and Developmental Disorders / 04 Oct 2017

Prevalence of schizophrenia spectrum disorders in average-IQ adults with autism spectrum disorders: A meta-analysis
<https://link.springer.com/article/10.1007%2Fs10803-017-3328-5>

Venture funding

Three big organizations fund all but 1 percent of autism-related biomedical research, according to **John Rodakis**, founder of the **N of One: Autism Research Foundation**. Diversifying funding sources is critical for a broader perspective on potential therapies, Rodakis argues in a 28 September *Wall Street Journal* op-ed. One solution he suggests is the “**venture-capital model**” of seeding higher-risk, **unconventional endeavors** in the hope of big payoffs.

For example, Rodakis writes that his nonprofit helped fund an ‘outside-the-box’ study of the **effects of suramin** — an old-school drug used for African sleeping sickness — on autism features. The small study of 10 boys with autism showed modest improvements with drug treatment, but its results are preliminary.

SOURCES:

The Wall Street Journal / 28 Sep 2017

Autism research should be financed like venture capital

<https://www.wsj.com/articles/autism-research-should-be-financed-like-venture-capital-1506638131>

Autism immersion

Working with **Sumita Majumdar**, a writer on the spectrum, *The Guardian* has produced a **virtual-reality film** that offers a first-person experience of having autism. “The Party,” released 7 October, takes viewers into the perspective of a teenage girl on the spectrum as she navigates a surprise party. Viewers can watch regular video on YouTube or use *The Guardian*’s virtual-reality app for an immersion experience.

SOURCES:

The Guardian / 07 Oct 2017

The Party: a virtual experience of autism – 360 video

<https://www.theguardian.com/technology/2017/oct/07/the-party-a-virtual-experience-of-autism-360-video>

Neurodiversity advantage

Employment difficulties for people with autism **may be easing**, in part because of **heightened awareness** of their strengths, *The Guardian* reported 9 October. Businesses are increasingly alert to autism-related productivity benefits, such as attention to detail, in part because of high-profile books and television series that focus on the condition. But social hurdles at work still loom for those on the spectrum, the newspaper reported.

SOURCES:

The Guardian / 09 Oct 2017

How do you solve the trickiest problems in the workplace? Employ more autistic people

<https://www.theguardian.com/society/2017/oct/09/autism-working-spectrum-capable-employees->

talent

Sequencing celebration

Happy 40th anniversary, DNA sequencing! On 11 October, *Nature* published a look back at **four decades** of technological advancement and mind-boggling biomedical breakthroughs that trace to decoding our code. The progress of 40 years of science began with **Frederick Sanger** and his co-authors, who described the **first sequencing** of viral DNA in 1977.

SOURCES:

Nature / 11 Oct 2017

DNA sequencing at 40: past, present and future

<http://www.nature.com/nature/journal/vaop/ncurrent/full/nature24286.html>

Job moves

Gordon Fishell, formerly director of the Smilow Neuroscience Program at New York University, has stepped into a joint appointment in the neurobiology department at Harvard University and the Stanley Center at the Broad Institute in Cambridge, Massachusetts.

News tips

Do you have a new paper coming out? Are you making a career move? Did you see a study or news story that you want to share? Send your news tips to news@spectrumnews.org.
