

SPOTTED

Testosterone test; enhancement stance; retirement pan

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WEEK OF AUGUST 1ST

Testing testosterone

A new study casts doubt on the '**extreme male brain**' theory, which posits that high levels of testosterone in the womb raise the risk of autism.

Researchers studied 81 children with congenital adrenal hyperplasia (CAH), a condition marked by a prenatal overproduction of testosterone in girls. According to the extreme male brain theory, girls with CAH should have more autism traits than those without CAH. But **this isn't the case**. The 43 girls with CAH in the study achieved similar scores on a test for autism traits as those without CAH.

The researchers also looked at amniotic testosterone in 92 children without CAH or autism. Testosterone levels do not track with autism traits in these children either.

The study, published last week in the *Journal of Child Psychology and Psychiatry*, is small. But it supports the notion that something other than testosterone underlies the **overwhelming preponderance of autism among boys** relative to girls.

SOURCES:

Journal of Child Psychology and Psychiatry / 27 Jul 2016

No relationship between prenatal androgen exposure and autistic traits: Convergent evidence from studies of children with congenital adrenal hyperplasia and of amniotic testosterone concentrations in typically developing children

<http://onlinelibrary.wiley.com/doi/10.1111/jcpp.12602/abstract?campaign=wolearlyview>

23 and everyone

By pooling genetic data from more than 450,000 people, researchers have uncovered **15 regions of the genome tied to depression**. The data came from the popular gene-testing company 23andMe.

The crowdsourcing feat, published Monday in *Nature Genetics*, shows the power of numbers when probing complex conditions. Previous efforts to unearth the genetic roots of depression, including a 2013 study of 9,000 people, came up short.

“The big story is that 23andMe got us over the inflection point for depression,” **Douglas Levinson**, professor of psychiatry and behavioral sciences at Stanford University, **told MIT Technology Review**. “That is exciting. It makes us optimistic that we are finally there.”

A similar approach could help researchers close in on genetic variants tied to autism. A genome-wide association study of about 17,000 people with autism — the largest analysis to date — turned up **five segments of DNA tied to the condition**.

SOURCES:

Nature / 01 Aug 2016

Identification of 15 genetic loci associated with risk of major depression in individuals of European descent

<http://www.nature.com/ng/journal/vaop/ncurrent/full/ng.3623.html>

MIT Technology Review / 01 Aug 2016

23andMe pulls off massive crowdsourced depression study

<https://www.technologyreview.com/s/602052/23andme-pulls-off-massive-crowdsourced-depression-study/>

Fair share

More and more researchers are **sharing their raw data** so that other labs can try to replicate their results. But such openness is still far from the norm, according to a trio of papers published yesterday in *The New England Journal of Medicine*.

In one of the papers, U.S. Senator **Elizabeth Warren** urges regulatory agencies and medical journals to **make data-sharing a mandatory part** of the clinical trial approval and publication process. Obstacles include fears about being scooped, protecting private medical information and finding a secure place for the data to live.

“I appreciate that there are many policy, privacy, and practical issues that need to be addressed in order to make data sharing practical and useful for the research community,” she writes in the

report. “But the stakes are too high to step back in the face of that challenge.”

In the past, researchers have held their data close until they’re ready to publish. But almost half of all pediatric clinical trials go **unfinished or unreported** in the scientific literature, according to a study that appeared yesterday in *Pediatrics*. As a result, researchers may spend time and money repeating work. Worse, the considerable time and effort families put into these studies may go to waste.

“Thousands of children have participated in these trials, representing considerable inefficiencies and waste of financial and human resources,” the authors write.

SOURCES:

The New England Journal of Medicine / 04 Aug 2016

Strengthening research through data sharing

<http://www.nejm.org/doi/pdf/10.1056/NEJMp1607282>**Pediatrics** / 02 Aug 2016

Discontinuation and nonpublication of randomized clinical trials conducted in children

<http://pediatrics.aappublications.org/content/early/2016/08/02/peds.2016-0223>

Enhancement stance

How do you feel about the prospect of preventing childhood conditions through gene editing, or easing Alzheimer’s with a brain implant? If you feel good about these fixes, you’re in the minority.

More Americans are wary of these possibilities than are excited about them, according to a **Pew Research Center survey** of nearly 5,000 people. Some see the high-tech treatments as “meddling with nature,” and many fear they could be put in play before they are fully vetted. There’s also concern that only the wealthy would be able to afford them.

The survey is a gut check of sorts in the age of **CRISPR** — a gene-editing tool that researchers are already moving to test in **people with cancer**.

SOURCES:

Pew Research Center / 26 Jul 2016

U.S. public wary of biomedical technologies to ‘enhance’ human abilities

<http://www.pewinternet.org/2016/07/26/u-s-public-wary-of-biomedical-technologies-to-enhance-human-abilities/>

Retirement pan

The president of the prestigious Pasteur Institute in Paris must relinquish his post next year not because of his performance, but **because of his age**, *Science* reports.

Virologist **Christian Bréchet** became president of the institute in 2013, starting a four-year term that ends in October 2017. He would like to stay on for a second term. But a long-standing statute of the Pasteur Foundation says that “at the time of his or her nomination or of the renewal of his or her mandate, the president must not have reached the age of 65.”

Bréchet turns 65 next July.

Some researchers say the statute is likely to kill the momentum for plans that Bréchet put into motion his first term. Others say it's time for him to go, regardless of his age, because they don't like his leadership. Is 65 too old to be a scientific leader? Tell us what you think in the comments section.

SOURCES:

Science / 01 Aug 2016

Dispute over president's age tears Pasteur Institute apart

<http://www.sciencemag.org/news/2016/08/dispute-over-presidents-age-tears-pasteur-institute-apart>

Job moves

Making a career change? Send your news to jobmoves@spectrumnews.org.
