

SPOTTED

Spotted: Suramin surprise; film under fire

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Suramin surprise

An antimicrobial drug called suramin **improves behavior in a mouse model of fragile X syndrome**, according to a study published last week in *Molecular Autism*. The drug, which has long been used to treat African sleeping sickness, blocks proteins on the cell surface that are thought to activate a ‘danger response.’ “When the cells activate their cell danger response, they can no longer devote all of their resources to normal cellular functions that might be required for neurodevelopment,” lead researcher **Robert Naviaux**, professor of medicine, pediatrics and pathology at the University of California, San Diego, told us last year after finding **similar results in another mouse model**. Suramin’s specific mechanism remains unclear, and its serious side effects warrant a healthy dose of caution about its promise in people.

Grading pain

A story in *The Atlantic* takes a somber look at **the smiley-face pain scale** — the hospital mainstay that asks people to pick a grimace that best illustrates their agony. The scale is problematic for

people with autism, **many of whom are nonverbal** and have difficulty interpreting facial expressions. **Julia Finkel**, chief of pain medicine at Children's National Hospital in Washington, D.C., highlights the "desperate need" for effective alternatives. "We keep developing these things because nothing we do helps," she says.

Turbo test

Researchers from Virginia Tech Carilion Research Institute claim to have developed a two-minute test that can **distinguish children with autism from controls**. The test uses magnetic resonance imaging to measure activity in a brain region called the middle cingulate cortex as children look at images of themselves or a different child of the same age and gender. Children with autism show decreased activity in response to images of themselves relative to controls, according to a study published last week in *Clinical Psychological Science*. The finding **made waves through the press**, but even the researchers acknowledge that the test — **like countless others** — is far from ready for prime time.

Teacher training

For school-based autism interventions to be effective, teachers need to be 100 percent on board. A new study in *Psychology in the Schools* **examines factors underlying this so-called 'fidelity,'** focusing on teachers tasked with delivering three different autism therapies in an urban school

setting. Lead researcher David Mandell **spoke to us last week about strategies to support these teachers**. We need to focus on “creating an environment in which teachers believe the use of that intervention is expected, supported and rewarded,” he says. “It’s counterproductive to go in and just say, ‘You should do this.’”

Character flaw

The Golden Globe-nominated film “The Imitation Game” is under fire for painting code-breaker Alan Turing as a genius with **Asperger syndrome**. Toby Young, associate editor of *The Spectator*, **calls the portrayal “Hollywood hokum”** and a disservice to the autism community. Young says his brother with Asperger syndrome depends on services “that will be put at risk if people think he could just as easily be earning a living breaking codes as he could weaving baskets.” Benedict Cumberbatch, who plays Turing in the film, **defends his depiction**, telling *Metro* he doesn’t think his character was on the spectrum but that people are often too free with labels. “I think a lot of people are very lazy with that,” he says.

Common thread

A new study in *Nature Neuroscience* adds to mounting evidence that autism and a host of other psychiatric conditions **involve similar sets of genes** — specifically those involved in gene expression and immune responses. Researchers looked at genetic sequences from more than

60,000 individuals to find a common molecular thread linking schizophrenia, bipolar disorder, major depression, attention deficit hyperactivity disorder and — to a lesser extent — autism. The study builds on work that we covered back in 2013 when there were only **32,000 study participants**. It's a powerful reminder of what researchers **can do with huge datasets**.
