

Heidi Ledford

Director of US mental-health institute leaves for Google

Thomas Insel turned the institution's focus towards biological roots of psychiatric disorders.

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Thomas Insel, a pioneer in the charge to reform psychiatric diagnoses, will step down as director of the US National Institute of Mental Health (NIMH), he announced on 15 September.

Insel will take up a job with the Google Life Sciences group at Alphabet, the computer giant's new parent company in Mountain View, California. There, Insel will expand the group's medical technology efforts — which currently include development of a contact lens that monitors glucose in people with diabetes — to encompass mental health.

Insel arrived at the NIMH in 2002 as a bench scientist who had not focused on clinical research or practice in about 20 years. He had planned to leave after a decade, but two developments enticed him to stay on: in December 2011 the National Institutes of Health (NIH) created a new institute — the National Center for Advancing Translational Sciences — and in 2013 the Obama administration launched the BRAIN Initiative, an ambitious endeavour to study the human brain.

“I chose this moment because I wanted to leave at a high point,” he wrote in a statement. “I want to step away at the best of times with all signs pointing to a bright future.”

It is an optimistic message from an institute chief during an era of declining NIH funding. But it wasn't money that kept Insel up at night, he says. “I have never lost sleep over the budget,” he says. “I've lost sleep over whether we're having the impact we need to have. What keeps me up at night is the fact that the suicide rate has not come down.”

His response to that frustration was to launch a number of dramatic — and sometimes controversial — projects. Under his direction, the NIMH sponsored several large clinical trials whose results challenged assumptions about widely used antipsychotics and other medications. “At the time there was the thought that we have the medicines we need, we just need to make sure people get them,” he says. “These studies told us we need something better.”

Looking for the source

To aid the search for something better, he declared in 2013 that the NIMH would move away from pigeonholing research into the categories laid out by psychiatry’s clinical bible, the *Diagnostic and Statistical Manual of Mental Disorders (DSM)*. The manual categorizes disorders largely by symptoms, and although it is designed for use in the clinic, grant reviewers often demanded that researchers structure their studies accordingly. Instead, Insel told investigators to embrace studies that crossed or subdivided classical diagnostic categories, in hopes of learning more about the biology underlying the disorders.

The move, announced shortly before a highly publicized release of an updated edition of the *DSM*, was the most controversial of his tenure, Insel says. “It took a lot of courage,” says Steven Hyman, director of the Stanley Center for Psychiatric Research at the Broad Institute of MIT and Harvard in Cambridge, Massachusetts, and a former NIMH director. “And it was important — it frees investigators from the tyranny of the demonstrably false categories of the *DSM*.”

Insel continued his push to drill down into the causes of mental-health disorders in 2014, when he announced that the institute would no longer fund psychiatric trials that merely addressed symptoms without investigating the mechanisms underlying disease. “Patients really need something better,” he says. “They need something that really allows earlier diagnosis and a better outcome.”

Technology companies such as Alphabet could take an important step towards those goals, says Hyman, who has also been in discussions with Google Life Sciences about its plans in mental health. Symptoms of depression, for example, wax and wane daily, making it difficult to assess whether a drug is effective on the basis of a 30-

minute observation every two weeks. Continuous monitoring of online activity or sleep habits could improve the treatment of depression.

Will Google improve patient outcomes? “I don’t know,” says Insel. “I’m going in the hope that they will.”