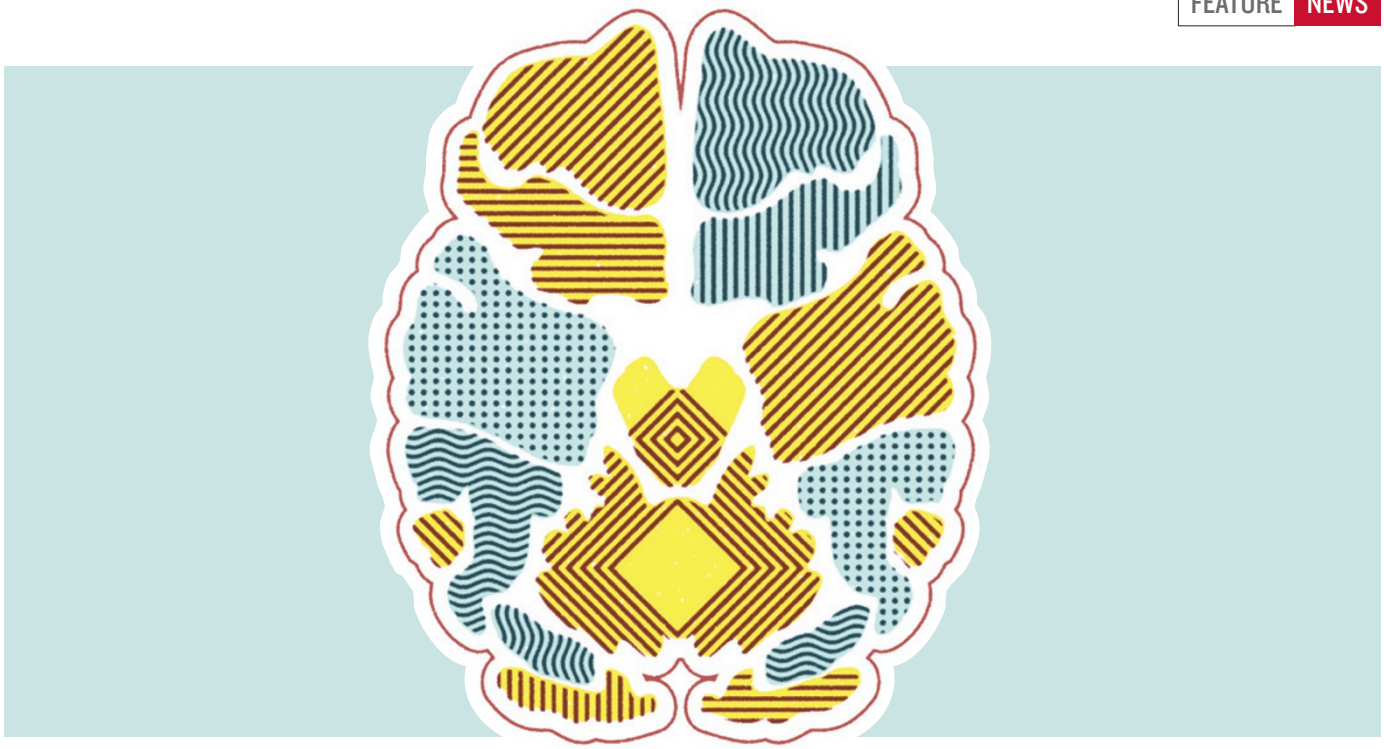

DAREN NEWMAN

The autism enigma

Diagnoses and research funding are rising, but much about autism remains a puzzle. *Nature* seeks some truths.

Everything about autism spectrum disorder conspires to make it hard to understand. It takes diverse forms, from profound communication and behavioural problems to social difficulties coupled with normal language and even precocious talents. (Here, *Nature* will refer to them all as autism.) The prevalence of autism is rising — by some counts, steeply — but the reasons for that are unclear. Causes of the condition include a complicated mixture of genetic and environmental factors, most unknown (see page 5). Its roots lie in the development of the human brain, a process that, despite huge leaps in neuroscience, remains mysterious. So as awareness rises and parents clamour for answers, scientists can offer few certainties. Hearsay and unsubstantiated theories sometimes fill the void.

This week, *Nature* searches for some truths about autism. Some researchers have evidence to combat the notion that the rise in prevalence can all be explained by changes in how the condition is diagnosed (see page 22). Others are debating the idea that some scientists and engineers are themselves 'on the spectrum', and are at high risk of having a child with autism (see page 25). At the same time, researchers are learning that although autism is clearly a disability, certain characteristics of it could be an advantage in science (see page 33). A debunked link between vaccines and autism still clouds the public discussion, but some advocates have taken a firm stand in favour of rigorous science, and the answers it will eventually provide (see page 28). Much more content can be found at nature.com/autism.

THE AUTISM ENIGMA
Sorting fact from fiction
nature.com/autism

Even before fundamental problems are solved, research is revealing better ways to support people with autism. If the condition is diagnosed early, a growing repertoire of evidence-based therapies can be applied to give children the best possible chance of living full lives. Meanwhile, the spotlight on autism is helping to reduce stigma.

The complexities that make autism hard to understand are a magnet for researchers — and this should lead to a future with less fiction and more much-needed fact. ■