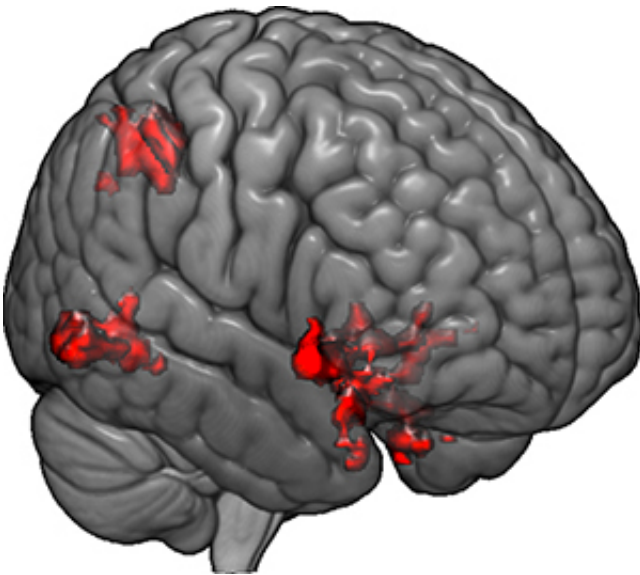


Researchers find key to predicting outcomes of autism treatment

November 16 2016, by Bill Hathaway



Patterns of brain activity in children with autism spectrum disorders can predict response to some treatments. Credit: Yale University

Treatments for autism spectrum disorders are varied and costly, and selecting the right one is crucial to long-term outcome. Yale University researchers report they can predict whether a preschool age child will respond to at least one form of treatment by looking at patterns of the child's brain activity.

The ability to predict [treatment](#) outcomes during a child's preschool years is crucial, say the researchers, because early intervention with

effective treatments can dramatically improve outcomes.

"I have been working with [autistic kids](#) for 20 years and find it impossible to predict who will respond to evidence-based treatments we use," said Pamela Ventola, assistant professor in the Yale Child Study Center and senior author of the paper published Nov. 15 in the journal *Translational Psychiatry*. "But these neuroimaging biomarkers may help us quickly identify individuals for whom the costly treatments will not work so we can start a more appropriate therapy."

The Yale team analyzed fMRI data from children with autism before and after they underwent therapy with an evidence-based program called Pivotal Response Treatment. By studying patterns of activity in an area of the orbitofrontal cortex involved in social processing, the researchers were able to predict which children would respond to therapy.

The lifetime cost of supporting those with [autism spectrum disorders](#) can range from \$1.4 million to \$2.4 million per child, so eliminating ineffective treatment can have huge cost savings, Ventola said.

Provided by Yale University

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