

# Toward a long-sought saliva test for autism

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Researchers in Italy are reporting discovery of abnormal proteins in the saliva of autism patients that could eventually provide a clue for the molecular basis of this severe developmental disorder and could be used as a biomarker for a subgroup of patients with autism spectrum disorders (ASD). Their study is in the January 2 issue of ACS' *Journal of Proteome Research*.

Autism involves social withdrawal, impaired emotional responses and communication skills, and other symptoms. With no laboratory test available, scientists are searching for biomarkers such as abnormal proteins that appear in the body fluids of individuals with autism that may provide a way to accurately diagnose autism and track its response to potential treatments.

Massimo Castagnola, Irene Messana, Maria Giulia Torrioli and Fiorella Gurrieri, compared proteins in the saliva of 27 children with ASD to those in a control group without ASD. They discovered that at least one of four proteins in 19 children in the ASD group had significantly lower levels of phosphorylation. That key body process activates proteins so that they can work normally. The results suggest that these abnormal proteins might be the clue for anomalies in the phosphorylation of proteins involved in development of central nervous system in early infancy that are involved in ASD.

Article: "Hypo-Phosphorylation of Salivary Peptidome as a Clue to the Molecular Pathogenesis of Autism Spectrum Disorders", [pubs.acs.org/stoken/presspac/p ... /10.1021/pr8004088](https://pubs.acs.org/stoken/presspac/p.../10.1021/pr8004088)

Source: ACS

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