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Science Advances

Dear Editor

Please find enclosed the revised manuscript entitled "**Reduced False Positives in Autism Screening Via Digital Bio-markers Inferred from Deep Co-morbidity Patterns**" for your consideration for publication in Science Advances as an original article. We have addressed the 3 minor points raised by the reviewers, and highlighted changes in the main text in red: 1) noted that trust in potentially non-transparent decision algorithms could be an important hurdle to adoption, 2) association between precursor patterns and autism could be arising due to collider bias which needs future investigation, and 3) softened critique of standard machine learning algorithms in the text, noting only that we have fewer free parameters which might contribute to the observed boost in performance with our approach.

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We are led by a multi-disciplinary team of machine learning experts (Chattopadhyay PH. 8145315312) and clinical practitioners with substantial scholarly work in pediatric developmental psychology and autism: 1) Peter J. Smith, Professor of Pediatrics and **Executive Committee Chair, American Academy of Pediatrics' Section on Developmental & Behavioral Pediatrics**, and 2) Prof. Michael Msall, **Section Chief of Developmental & Behavioral Pediatrics, UChicago, and Fellow of Joseph P. Kennedy Research Center on Intellectual & Neurodevelopmental Disabilities, UChicago.**

We look forward to, and humbly hope for, your positive response.

Sincerely,

Ishanu Chattopadhyay
Chicago, IL

Wednesday 26th May, 2021