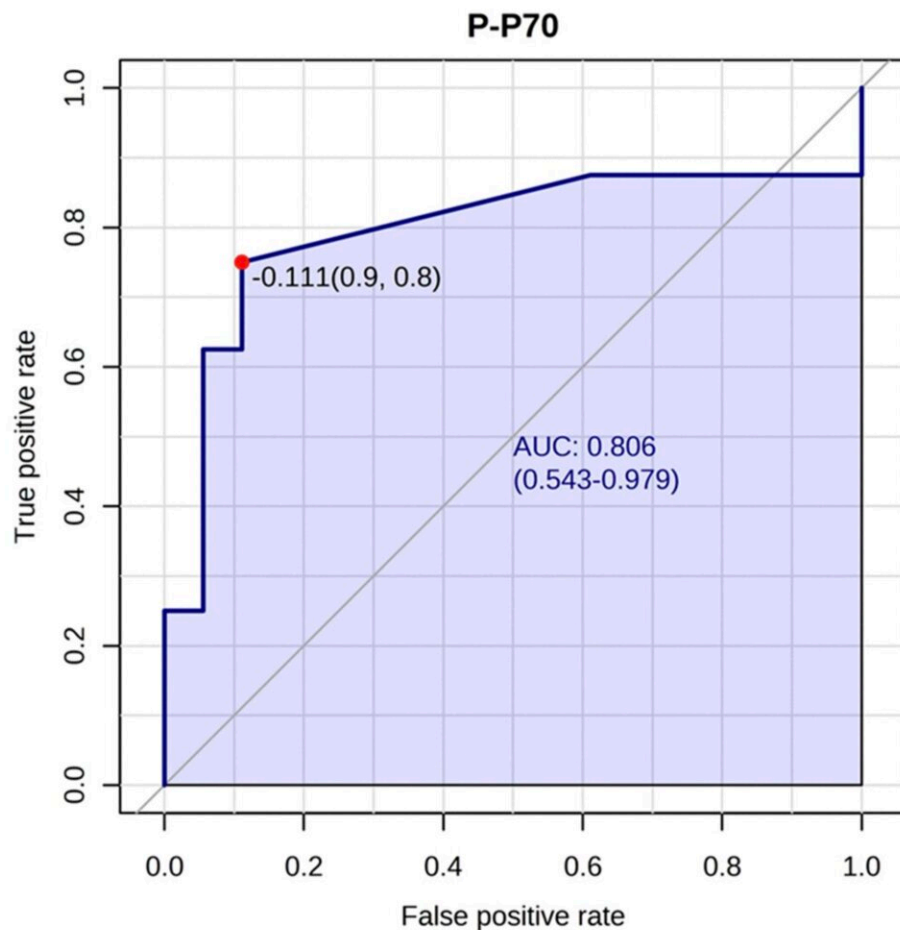


mTORC1 in classical monocytes: Links to human size variation and neuropsychiatric disease

August 7 2024



Phosphorylated p70S6K best predicted ketamine response. The phosphorylated p70S6K marker had an AUC of 0.80 (confidence interval: 0.54-0.97) for

predicting ketamine response. An optimal cutoff is shown (indicated by the red dot) based on true positive and false positive rate. Credit: *Aging* (2024). DOI: [10.18632/aging.206033](https://doi.org/10.18632/aging.206033)

A new research paper titled 'mTORC1 activation in presumed classical monocytes: observed correlation with human size variation and neuropsychiatric disease' has been [published](#) in *Aging*.

In this new study, researchers Karl Berner, Naci Oz, Alaattin Kaya, Animesh Acharjee, and Jon Berner from Woodinville Psychiatric Associates, Virginia Commonwealth University, University of Birmingham, University Hospitals Birmingham, and MRC Health Data Research UK, aimed to measure phosphorylated p70S6K, a marker for mTORC1 activity, in individuals with psychiatric disease to determine whether phosphorylated p70S6K could predict medication response.

Their results showed that mTORC1 activity correlated highly with classical biometrics (height, macrocephaly, pupil distance) and specific neuropsychiatric disease profiles (anxiety and autism).

"Our [data](#) suggest that human variability of mTORC1 gain of function observed during the differentiation of stem-like monocytes into vascular tissue-resident macrophages correlates with physical size, subsets of [neuropsychiatric disease](#), and clinical ketamine or rapamycin response," the researchers state.

More information: Karl Berner et al, mTORC1 activation in presumed classical monocytes: observed correlation with human size variation and neuropsychiatric disease, *Aging* (2024). [DOI: 10.18632/aging.206033](#)

Provided by Impact Journals LLC

Citation: mTORC1 in classical monocytes: Links to human size variation and neuropsychiatric disease (2024, August 7) retrieved 8 August 2024 from <https://medicalxpress.com/news/2024-08-mtorc1-classical-monocytes-links-human.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.