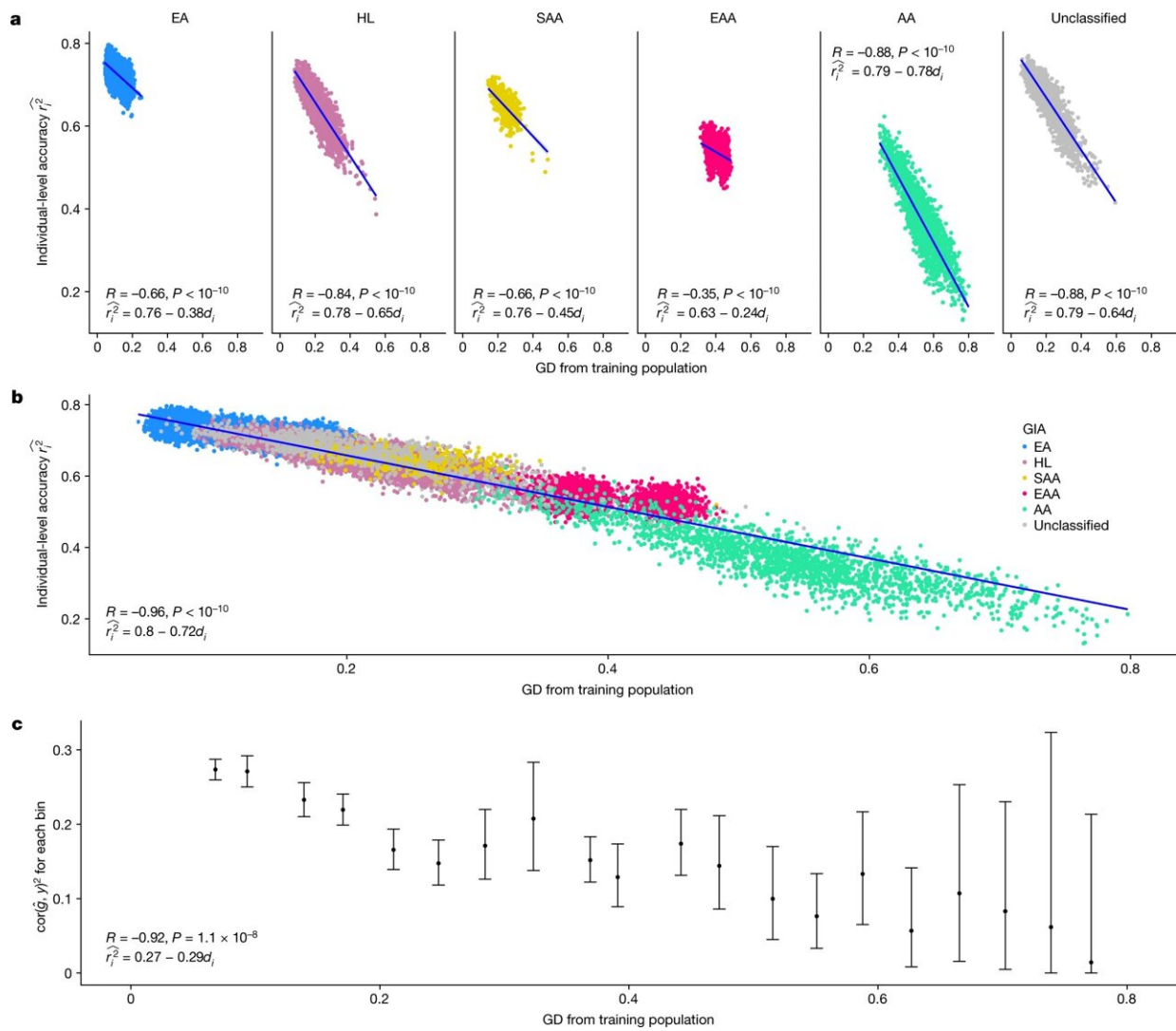


Study shows accuracy of genetically based disease predictions varies from individual to individual

May 19 2023



The individual-level accuracy for height PGS decreases across the genetic

ancestry continuum in ATLAS. **a**, Individual PGS accuracy decreases within both homogeneous and admixed genetic GIA clusters. Each dot represents a testing individual from ATLAS. For each dot, the x -axis represents its distance from the training population on the genetic continuum; the y -axis represents its PGS accuracy. The color represents the GIA cluster. **b**, Individual PGS accuracy decreases across the entire ATLAS. **c**, Population-level PGS accuracy decreases with the average GD in each GD bin. All ATLAS individuals are divided into 20 equal-interval GD bins. The x axis is the average GD within the bin, and the y axis is the squared correlation between PGS and phenotype for individuals in the bin; the dot and error bar show the mean and 95% confidence interval from 1,000 bootstrap samples. R and P refer to the correlation between GD and PGS accuracy and its significance, respectively, from two-sided Pearson correlation tests without adjustment for multiple hypothesis testing. Any P value below 10^{-10} is shown as P

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