DNA embryo screening: Huge gap between science behind polygenic scoring and parental desires to pick the ‘perfect kid’

One challenge with leading killers like cancer and heart disease is that they’re usually polygenic: linked to many different genes with complex interactions. Patients can now take tests that assess thousands of DNA data points to decode these complexities and compute the disease risks.

Genomic Prediction… generates polygenic risk scores, predicting in percentage terms each embryo’s chances of contracting each disease in the panel, plus a composite score for overall health. Parents with multiple embryos can then weigh the scores when deciding which one to implant.

Massive global DNA repositories allow researchers to draw connections between certain genes and all manner of life outcomes. Some studies correlate genes with height; others, with how far a person is likely to go in school.

Genomic Prediction doesn’t offer scores on attributes unrelated to health, nor does rival Orchid, which is backed by 23andMe Inc. CEO Anne Wojcicki. But there are ways for motivated parents to get those kinds of predictions.

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There’s some real daylight between the solid science behind polygenic scoring for disease risks and parental desires to pick the “perfect kid.”

So as the science makes its way into leading peer-reviewed journals, it’s yielding much more spirited debates than you usually see in publications with names like Fertility and Sterility. In general, the true believers say polygenic risk scoring should be available and clearly offered to everyone. Critics say it’s a slippery slope to designer babies.

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