Cystic Fibrosis Research News

Article citation:

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What was your research question? (50 words maximum)

CF-related diabetes (CFRD) is common in people with Cystic Fibrosis (CF), but whether a person with CF gets CFRD at a younger age, older age, or not at all can vary widely. We have previously studied CFRD development in twins and siblings with CF. We found that the reason for the wide variation in the risk of developing CFRD is controlled not only by the CFTR gene (whether one has a severe mutation or not), but also by other genes in the genome. The goal of this study is to identify new genes that are involved in CFRD to help understand how CFRD works.

Why is this important? (100 words maximum)

CFRD causes earlier death in people with CF. Understanding why people get CFRD will help us to better predict and treat this important complication of CF.

What did you do? (100 words maximum)

We searched through the entire genome of more than 3000 people with CF. The study compared the variations in people with and without CFRD to identify variations that may be tied to having CFRD. We also tested a panel of genes associated with type 2 diabetes to see whether genes related to that form of diabetes might be tied to CFRD.

What did you find? (100 words maximum)

We identified a new gene, SLC26A9, as a risk gene for CFRD. We think this gene may be involved somehow in CFRD development. We also identified 4 other risk genes for type 2 diabetes which are associated with CFRD.

What does this mean and reasons for caution? (100 words maximum)

This means that although type 2 diabetes and CFRD are different diseases, some types of genetic malfunction can help cause both kinds of diabetes.

What's next? (50 words maximum)

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We need to do follow-up studies to help confirm these new CFRD risk genes and to identify more new risk genes. We need to figure out how genetic misspellings in the genes we now know about translate into a person's increased risk of CFRD.