

# New research casts doubt on role of fungus in driving pancreatic cancer

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Axial CT image with i.v. contrast. Macrocystic adenocarcinoma of the pancreatic head. Credit: public domain

Four years ago, a report that a common species of fungus might fuel pancreatic cancer offered a promising new view of the deadly disease.

But in working to validate the finding, Duke Health researchers have found no such association. In a study appearing in the journal *Nature*, the researchers conducted a multi-pronged analysis of data from the earlier study and found no link between the pancreatic microbiome and the development of [pancreatic cancer](#).

"We were intrigued by the original finding, as were many research teams," said senior author Peter Allen, M.D., professor in the Department of Surgery and chief of the Division of Surgical Oncology at Duke University School of Medicine.

"There is a growing body of literature connecting the human microbiome to disease, and this was particularly compelling for pancreatic cancer," Allen said. "But our findings did not support an association between fungi and the development of pancreatic cancer in humans."

Allen and colleagues worked to recreate the [2019 findings](#) published in *Nature* by a different research team. The original study raised hopes that there might be a possible method of preventing pancreatic cancer with the use of antifungals or some other approach to protect from infection.

Focusing on the research team's original raw sequencing data, the Duke researchers were unable to reproduce the findings. Additional studies, using pancreatic [cancer](#) tissue in Duke repositories, also failed to produce the original results.

"We believe our findings highlight the challenges of using low biomass samples for microbiome sequencing studies," Allen said. "The inclusion of appropriate negative controls and efforts to identify and remove sequencing contaminants is critical to the interpretation of [microbiome](#) data."

In addition to Allen, study authors include Ashley A. Fletcher, Matthew

S. Kelly, and Austin M. Eckhoff.

**More information:** Ashley A. Fletcher et al, Revisiting the intrinsic mycobiome in pancreatic cancer, *Nature* (2023). [DOI: 10.1038/s41586-023-06292-1](https://doi.org/10.1038/s41586-023-06292-1)

Provided by Duke University Medical Center

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