

# Discovery of pancreatitis treatment target offers new hope

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Dr Mohamed Saad. Credit: Hudson Institute of Medical Research

It's a disease in search of a remedy, but Hudson Institute researchers have identified a new pancreatitis treatment target, giving hope to sufferers worldwide.

Pancreatitis is a serious inflammatory gastrointestinal disorder which can lead to [severe conditions](#), with as many as 20% of patients going on to experience multiple organ failure.

But despite its prevalence and impact, there are no specific and effective therapies to treat or prevent pancreatitis.

## **Pancreatitis treatment target identified**

Now researchers have identified a key enzyme called ADAM17, which acts as a central molecular switch that leads to pancreatic inflammation—giving them a starting point for the development of new drugs to potentially treat pancreatitis.

Hudson Institute researcher, Dr. Mohamed Saad, explains that ADAM17 acts as a "scissor" to cut off particular inflammatory proteins on the cell membranes.

"These released proteins then activate inflammatory processes that lead to the development of pancreatitis," he said.

## **Drugs to treat pancreatitis**

"This discovery paves the way for developing inhibitor drugs that target ADAM17 activity to potentially treat pancreatitis.

"Pancreatitis is a multifactorial inflammatory disorder and a leading cause for gastrointestinal [disease](#)-related hospitalization, which is associated with substantial morbidity, mortality, and [economic burden](#)," Dr. Saad said.

"Our research is the first to implicate ADAM17 in the pathogenesis of pancreatitis, and to demonstrate the anti-inflammatory activities of an ADAM17 inhibitor; that gives us hope that we have found the key to new, effective treatments for this condition."

This research was published in the journal *Proceedings of the National Academy of Sciences (PNAS)*.

**More information:** Mohamed I. Saad et al, Blockade of the protease ADAM17 ameliorates experimental pancreatitis, *Proceedings of the National Academy of Sciences* (2022). [DOI: 10.1073/pnas.2213744119](https://doi.org/10.1073/pnas.2213744119)

Provided by Hudson Institute of Medical Research

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