

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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