

Starving pancreatic cancer cells: Scientists identify potential pancreatic cancer target

October 17 2016

Researchers have found that a protein called SLC6A14 is overexpressed by several fold in pancreatic tumors taken from patients and in cancerous pancreatic cells lines compared with normal pancreatic tissue or normal pancreatic cells. SLC6A14 transports amino acids into cells to help with cellular metabolism.

A blocker of SLC6A14, called α -methyltryptophan, induced amino acid starvation in [pancreatic cancer](#) cells and reduced the growth and proliferation of these cells, both in laboratory dishes and in mice.

"Finally, a novel strategy to treat pancreatic cancer: starve it to death!" said Dr. Yangzom Bhutia, senior author of the *British Journal of Pharmacology* study. "Pancreatic cancer recruits the transporter SLC6A14 to satisfy its increasing demands for amino acids; our studies show that if we block this transporter with a drug, we can effectively starve this cancer to death." November is Pancreatic Cancer Awareness Month, and World Pancreatic Cancer Day is November 17th.

More information: V Coothankandaswamy et al, Amino acid transporter SLC6A14 is a novel and effective drug target for pancreatic cancer, *British Journal of Pharmacology* (2016). [DOI: 10.1111/bph.13616](#)

Provided by Wiley

Citation: Starving pancreatic cancer cells: Scientists identify potential pancreatic cancer target (2016, October 17) retrieved 15 July 2023 from <https://medicalxpress.com/news/2016-10-starving-pancreatic-cancer-cells-scientists.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.