

New research featuring in the journal *Science Translational Medicine* shows that fatty acids fuel prostate tumor growth. As blocking fatty acids seems to slow disease progression, fatty acid uptake may be a promising new therapeutic target for prostate cancer.

*It may soon be possible to stop prostate cancer from becoming aggressive by blocking fatty acids.*

Renea Taylor, the deputy director of the Cancer Program at the Monash Biomedicine Discovery Institute in Clayton, Australia, and Prof. Matthew Watt, the head of the Physiology Department at the University of Melbourne, also in Australia, led the [new research](#).

As Taylor, Prof. Watt, and their colleagues mention in their paper, even though [prostate cancer](#) grows slowly, preventing it from reaching an aggressive stage remains difficult.

The researchers wondered what it is that causes prostate tumors to become so aggressive. They wanted to determine what fuels the tumors and how prostate cancer metabolism differs from that of other [cancers](#).

Taylor explains what pointed the researchers in the direction of fatty acids. "There is a strong link between [obesity](#), diet, and poor outcomes in men who develop prostate cancer," she says.

"In particular, those men who consume more saturated fatty acids seem to have more aggressive cancer."

So, the scientists set out to examine more closely the role of fatty acids in prostate [tumor](#) growth.

## **Blocking fatty acid transport slows cancer**

To do so, they took human tissue samples from people with prostate cancer and grafted them onto mice. They found that the uptake of fatty acids was higher in human prostate cancer and that these fatty acids fueled the tumor's biomass.

The researchers also noted that a fatty acid transporter called CD36 mediated these metabolic changes. Moreover, CD36 correlated with aggressive forms of prostate cancer.