

Protein deficiency a tantalizing key to type 2 diabetes

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The protein Mitofusin 2 in mice could be key to treating type 2 diabetes, scientists at the Institute for Research in Biomedicine in Barcelona have discovered.

Previously, the scientists note, they determined that obese patients and those with type 2 diabetes also had low levels of muscle Mitofusin 2. It's an important protein, which manages insulin signaling through both the liver and muscles.

Their new finding puts in place a vital piece of the puzzle, determining that Mitofusin 2 deficiencies in mice led to insulin resistance and intolerance to glucose, two causes of diabetes.

Now that shortages of Mitofusin 2 have been identified as possible diabetes culprits, the protein could serve as a significant target for new diabetes drugs and help treat a disease "that affects millions of people worldwide," lead researcher and University of Barcelona professor Antonio Zorzano said in a statement. If the same results can be repeated in people, then the next logical step will be to start developing drugs to enhance drugs to counter low levels of Mitofusin 2. Those drugs may be some years away from reality, but the cases of type 2 diabetes and obesity are only increasing globally, and those patients will need every possible shot they can get to treat their conditions.

Further details of the study are published in the *Proceedings of the National Academy of Sciences*.

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