Scientists grow insulin in tobacco plants

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U.S. researchers have discovered insulin grown in plants can resolve diabetes in mice -- a finding holding promise for humans afflicted with the disease.

University of Central Florida biomedical scientists led by Professor Henry Daniell found insulin might someday be grown in genetically modified plants and then be used to prevent diabetes before symptoms appear or to treat the disease in its later stages

Daniell's research team genetically engineered tobacco plants with the insulin gene and then administered freeze-dried plant cells to five-week-old diabetic mice as a powder for eight weeks. By the end of the study, the scientists found the diabetic mice had normal blood and urine sugar levels, and their cells were producing normal levels of insulin.

Daniell has since proposed using lettuce instead of tobacco since lettuce can be produced cheaply and avoids the stigma associated with tobacco.

The National Institutes of Health provided $2 million to fund the UCF study, which is reported in the July issue of the Plant Biotechnology Journal.

https://phys.org/news/2007-07-scientists-insulin-tobacco.html