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Health Monitoring Using Big Data - Diabetes

Researchers at Stanford have developed a test that can be used to predict diabetes risk and insulin resistance. Dr. Michael Snyder and colleagues conducted a study involving longitudinal multi-omics profiling with detailed clinical assessment on patients at risk for type 2 diabetes mellitus. Diabetes mellitus is a complex disease with a variety of physiological changes that can affect diagnostic tests. Furthermore, current tests to determine insulin resistance are not optimal as they are expensive, labor intensive and time consuming. To overcome these limitations the inventors took advantage of their study. It provided many insights and lead to the development of this multi-analyte test that can be used to predict diabetes risk and insulin resistance. In addition, it may be useful for sub-classifying diabetes to allow more personalized treatment. This technology will provide a more reliable, cheaper, and easier way to determine insulin resistance and diabetes risk.

Stage of research
Additional development is ongoing.

Applications

- Diabetes diagnostic- predict diabetes risk and insulin resistance

Advantages

- Inexpensive
- Rapid
- Easier to use than existing methods
- Potential to allow early detection and prevention of diabetes
- Potential to enable personalized diabetes treatment and management

Publications

- [A longitudinal big data approach for precision health](#)

Innovators

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