

# METHOD AND ALGORITHMS APPLIED IN A SOFTWARE FOR GLUCOMETERS, A1C-METERS, DRUG ADMINISTRATION DEVICES (INSULIN PUMPS, ETC.) FOR PERSONALIZED ANTI-DIABETIC THERAPY AND IMPROVEMENT OF DIABETES MANAGEMENT

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# Technology description

#### INNOVATION

Inventors at the University of Missouri have developed methods and algorithms to be used in software for glucometers, A1c meters, and insulin pumps for improved and personalized diabetes management in patients. These methods and algorithms provide a more accurate measure of hemoglobin glycation that accounts for various factors that can affect the accuracy of standard methods of A1c determination.

## BACKGROUND

The United States is among the top 5 countries with the highest diabetic population, Diabetes is also among the top ten causes of mortality in the US. The rise in cases is due primarily to an aging population and increasing rates of obesity. Regular monitoring of blood glucose levels in diabetic patients is vital for proper diabetes diagnosis, treatment and prevention of complications. Research has found glycated hemoglobin to be an objective measure of glycemic control and predictor of complications like cardiovascular events in diabetic patients. The current invention integrates individual patient data with a precise and personalized A1c-glucose relationship to achieve optimal management of diabetes.

## Advantages

Type 1 and Type 2 Diabetes ADVANTAGES Integration of individual patient variability and treatment history for precise calculation of HbA1c from mean blood glucose levels.

## Institution

## University of Missouri, Columbia

#### Inventors

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