Docket #: S18-198

Continuous glucose monitoring classification algorithm to identify glucotypes at diabetes risk

Stanford researchers have developed a method of assigning a “glucotype” to patients based on their temporal glycemic patterns. This algorithm classifies people with glycemic dysregulation through constant monitoring. This comprehensive metric of variability should encompass the magnitude of fluctuation, but also the rate of change, frequency of fluctuations and relative glucose concentration. This is a two-step approach; a training step and then a prediction/classification step used to categorize patients. This can be used as a pre-diagnostic for diabetes-prone patients with glycemic fluctuations and furthermore is expected to provide a more comprehensive, dynamic and granular understanding of diabetes etiology and aid in tailoring a diet for the most optimal glucose response.

Applications

- Prevention of diabetes through early observation of glucose fluctuation
- User-friendly web interface is easily used by clinicians to provide appropriate interventions

Advantages

- Comprehensive metric of glycemic variability that:
    - Fluctuation magnitude
    - Rate of change
    - Frequency of fluctuation
    - Relative glucose concentration
- Simultaneous comparision of all aspects of variability

- More comprehensive understanding of diabetes etiology
- Early diagnosis
- Diet tailoring

Patents

- Published Application: 20190369108
- Issued: 11,385,237 (USA)

Innovators

- Alessandra Breschi
- Michael Snyder
- Dalia Perelman
- Heather Hall

Licensing Contact

Hyunjin Kim

Licensing Manager, Life Sciences

Email