# Bio Conscious Tech released the results of Diabits accuracy testing using the FDA-approved Padova Simulator

**Bio Conscious Technologies Inc. published the results of the latest in-silico testing of their AI algorithm's reliability using the FDA approved Padova simulator.**

**Boston, Apr 6, 2020 (Issuewire.com)** - Bio Conscious Technologies Inc. published the results of their in-silico testing of their AI algorithm's reliability using the FDA approved Padova simulator.

Bio Conscious Technologies (BCT) is the developer of Diabits, an app for patients with diabetes who use continuous glucose monitors (CGMs) to manage their daily blood sugar fluctuations. Diabits is powered by a proprietary machine-learning algorithm designed by BCT to learn and can calculate the user's future blood sugar values 60 minutes into the future relying primarily on CGM data.

In the past* BCT has shown that users of Diabits can increase their time-in-range and maintain healthy blood sugar levels for longer compared to patients who are only using their CGMs without Diabits. Using Diabits, patients improve their time in range, HbA1c levels, and decrease blood sugar variability.

Predicting future blood sugar values is a significant challenge. A lot can happen between the time a prediction is made, and 60 minutes later when it can be validated. For example, a patient may have a meal, exercise, take insulin or attend a stressful event. Using the Padova T1D simulator, one can generate patient data with alternate outcomes for various events such as of food, insulin, and exercise to see their effect on daily blood sugar fluctuations.

3,110,400 total data points were evaluated during this study. Each blood sugar value was compared to the corresponding predicted point and assessed for accuracy. Even with CGM measurement errors added to the simulation, 97.72% of all predictions were clinically acceptable for a model based on CGM data only. For a model that also took into account carb, insulin, and exercise data, the share of clinically acceptable predictions improved to 99.52%.

"Achieving this kind of accuracy with T1D data is not achieved overnight," said Amir Hayeri, CEO of BCT. " We've been working on Diabits since 2015, we've recently conducted multiple tests using the Padova Simulator, 2 of which used simulated patient data simulator to produce larger data sets for the purposes of testing different Machine Learning approaches. This is the smaller one, we will be announcing the results of a larger study at 80th American Diabetes Scientific Session in June."

Amir Hayeri

CEO

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**79th American Diabetes Scientific Sessions*

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