

## Medtronic Launches MiniMed 640G System, Breakthrough in Artificial Pancreas Technology, Outside the U.S.

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*New SmartGuard(TM) Technology Helps People with Diabetes Manage the Challenges of Hypoglycemia*

**MINNEAPOLIS - January 21, 2015** - Medtronic, Inc. (NYSE:MDT) today announced the start of the global launch of the MiniMed(TM) 640G System, the next breakthrough toward an artificial pancreas. With the introduction of Medtronic's exclusive SmartGuard(TM) technology, MiniMed 640G is designed to help people with diabetes achieve better glucose control through advanced protection from hypoglycemia. The system is the first in the world to both automatically suspend insulin delivery when sensor glucose levels are predicted to approach a low limit and resume insulin delivery once sensor glucose levels recover. The system includes the Enhanced Enlite(TM) sensor, which continuously monitors glucose levels with accuracy and comfort<sup>1,2</sup>. It also incorporates a new insulin pump design to provide convenient diabetes management with a simple user interface, full-color screen, waterproofing<sup>3</sup> and remote bolus.

"Managing hypoglycemia and rebound hyperglycemia after treatment is one of the biggest challenges of managing diabetes," said Prof. Tim Jones, clinical professor at the University of Western Australia, and head of the diabetes department at Princess Margaret Hospital in Perth, Australia. "By suspending insulin delivery *before* the sensor glucose reaches a low limit, the MiniMed 640G System<sup>4</sup> can help prevent severe hypoglycemia<sup>5</sup>. In addition, with this new feature, hyperglycemic rebound may be avoided by resuming insulin delivery once those glucose levels recover<sup>6</sup>, making this a very valuable tool for achieving better glucose control."

SmartGuard (or predictive low glucose management) technology, the first of its kind in the world, is designed to optimise the MiniMed 640G System's ability to better protect people with diabetes against lows throughout the day and night with multiple low-limit settings that can be tailored to individual needs. Convenient new features include a simpler menu, full-color, light-adjusting screen, customizable alerts and alarms, and waterproofing in up to 12 feet of water for 24 hours at a time.

In addition, the MiniMed 640G System exclusively uses the Bayer CONTOUR® NEXT LINK 2.4 blood glucose meter to provide highly accurate blood glucose testing<sup>7</sup>, automatically transmit blood glucose results into the Bolus Wizard(TM) calculator to help ensure that patients do not have a manual entry error, and to calibrate the Enhanced Enlite sensor. It also allows patients to discreetly give a bolus of insulin remotely from the meter. The meter provides added convenience to help patients manage their diabetes effectively.

"We developed this system based on substantial amounts of research and feedback from the global diabetes community, who are looking for simpler, more convenient diabetes technology that helps them achieve better glucose control and enjoy greater freedom. With the MiniMed 640G, we're thrilled to deliver a new system that meets these needs and marks the third significant milestone to creating and commercializing the world's first artificial pancreas," said Alejandro Galindo, vice president and general manager of the Intensive Insulin Management business at Medtronic.

Medtronic's critical milestones toward developing an artificial pancreas system include introducing the world's first integrated insulin pump and continuous glucose monitor in 2006 and the introduction of Low Glucose Suspend technology in 2009.

MiniMed 640G is now available in Australia. Launches in additional markets are expected over the next several months, pending local approvals.

For more product and important safety information please visit [www.medtronic-diabetes.com.au](http://www.medtronic-diabetes.com.au)

## Multimedia Release

A multimedia version of this release, with links to graphics can be found at: <http://bit.ly/1yGPwIu>

### About the Diabetes Group at Medtronic ([www.medtronicdiabetes.com](http://www.medtronicdiabetes.com))

Medtronic is working together with the global community to change the way people manage diabetes. The company aims to transform diabetes care by expanding access, integrating care and improving outcomes, so people living with diabetes can enjoy greater freedom and better health.

### About Medtronic

Medtronic, Inc. ([www.medtronic.com](http://www.medtronic.com)), headquartered in Minneapolis, is the global leader in medical technology - alleviating pain, restoring health and extending life for millions of people around the world.

**Any forward-looking statements are subject to risks and uncertainties such as those described in Medtronic's periodic reports on file with the Securities and Exchange Commission. Actual results may differ materially from anticipated results.**

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<sup>1</sup> U.S. Enlite Clinical Study Customer Satisfaction Survey. Data on file, Medtronic MiniMed, Inc., Northridge, CA.

<sup>2</sup> MiniMed 640G with Enlite has a MARD of 13.6% [MiniMed 640G User Guide] when calibrated 3-4 times daily.

<sup>3</sup> MiniMed 640G is waterproof in up to 12 feet of water for up to 24 hours. See IFU for care instructions to help maintain waterproof.

<sup>4</sup> Algorithm optimization was based on the unique characteristics of how the Medtronic devices function as an integrated system. The full efficacy of the algorithm in preventing hypoglycemia and hyperglycemia has not yet been validated through direct clinical evidence.

<sup>5</sup> The dynamic suspend feature is based on certain criteria: sensor glucose must be within 70 mg/dL (3.9 mmol/L) of the low limit and predicted to be 20 mg/dL (1.1 mmol/L) above the low limit within 30 minutes AND the pump must not be in the refractory period.

<sup>6</sup> The auto resume feature is based on certain preset criteria: sensor glucose must be 20 mg/dL (or 1.1 mmol/l) above the preset low limit and predicted to be 40 mg/dL (or 2.2 mmol/l) above within 30 minutes AND insulin must have been suspended for at least 30 minutes.

<sup>7</sup> Bailey TJ et al. Accuracy, Precision, and User Performance Evaluation of the CONTOUR® NEXT LINK 2.4 Blood Glucose Monitoring System. Data presented at the 7th International Conference on Advanced Technologies & Treatments for Diabetes 2014

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