So Much Tech News!!! VERY EXCITING!

Seems like every day, there is something new in the news or in the diabetes blogs about a new technology, new products, new research. Some of the most up-to-date blogs are: DiabetesMine, TuDiabetes, DiaTribe and dLife.

This post will just be a short update on what’s been flying by in the past several weeks, in no particular order:

**Abbott received their CE Mark (Conformite Europeenne) for its FreeStyle® Libre Flash Glucose Monitoring System** (reported in the PR Newswire, September 3, 2014, <http://tinyurl.com/oo7wsup>

This revolutionary new glucose sensing technology which eliminates the need for routine finger pricks1, reading glucose levels through a sensor that can be worn on the back of the upper arm for up to 14 days. In addition, no finger prick calibration is needed—a key differentiator from current continuous glucose monitoring systems. The system will be available in seven countries across Europe in the coming weeks.

Abbott′s FreeStyle Libre System consists of a small, round sensor—approximately the size of a two Euro coin—worn on the back of the upper arm, which measures glucose every minute in interstitial fluid through a small (5mm long, 0.4mm wide) filament that is inserted just under the skin and held in place with a small adhesive pad. A reader is scanned over the sensor to get a glucose result painlessly in less than one second. Scanning can take place while the sensor is under clothing2, making testing more discreet and convenient. Each scan displays a real-time glucose result, a historical trend and the direction the glucose is heading. The reader holds up to 90 days of data, providing a historical snapshot of glucose levels over time. The FreeStyle Libre System software enables the data to be presented in a user-friendly, visual chart for both healthcare professionals and patients, driving a more productive discussion around treatment and any necessary modification.

**Beta-O2 Announces Implantable Device to Automatically Manage Blood Sugars** (Diabetes Daily by Ginger Vieira, September 10, 2014, <http://tinyurl.com/msjjz2u>)

Today, the JDRF announced a $500,000 grant to [Beta-O2′](http://beta-o2.com/)s “ßAir bio-artificial pancreas” to help make an implantable device full of insulin and glucagon-producing cells which automatically sense sugar in your blood, and produce and release exactly the amount of insulin and other hormones that you need.

Beta-02 claims to have solved two key problems with implantable stem cells. First, the body’s immune system tends to attack anything that’s implanted under the skin, requiring immunosuppressive drugs with potentially lethal side effects. Second, the cells that produce insulin and glucagon are among the most *oxygen-hungry* in the body. Without access to large amounts of oxygen, the implanted cells tend to die.

Beta-02′s solution is a a special delivery system that does not trigger the body’s immune system. The device also uses daily injections of oxygen to feed the oxygen-hungry cells inside.

**CGM in the Cloud** (from GLU, by Bill Woods, September 9, 2014, <http://tinyurl.com/l2rmf8b>

A Facebook page dedicated to information about the open source solution to sending your data from the Dexcom G4 to the Cloud so that it can be accessed anywhere! Yup, on a smart watch (The Pebble or next year on the iWatch) or a dedicated smart phone. This technology is absolutely available today, albeit in a somewhat clunky version. You can buy it now for about $300-500, or just wait … it’s just around the corner! You can poke around at: <https://www.facebook.com/groups/cgminthecloud/>. For more information, you can read about NightScout at <http://www.nightscout.info/>.

**ViaCyte was approved by the FDA for the first human studies of stem cell encapsulation.** (PRNewswire, August 19, 2014, <http://tinyurl.com/n73dd3c>)

The early phase 1/2 clinical trial of VC-01 will enroll about 40 type 1 participants over a two-year period. ViaCyte, Inc., a leader in the emerging field of regenerative medicine, is headquartered in San Diego, California. ViaCyte's innovative product is based on the differentiation of stem cells into pancreatic beta cell precursors (PEC-01™), with subcutaneous implantation in a retrievable and immune-protective encapsulation medical device (Encaptra® drug delivery system). Once implanted, the precursor cells mature into endocrine cells that secrete insulin and other hormones in a regulated manner to control blood glucose levels. ViaCyte's goal is a product that can free patients with type 1 and type 2 diabetes from long-term insulin dependence.

**The World’s Smallest Glucose Meter is only $16.95! (**DiabetesDaily by Ginger Vieira, June 17, 2014, <http://tinyurl.com/ntcuwln>).

From iHealthLabs, the iHealth Align actually plugs directly into your smartphone’s headphone jack and displays your BG results on your smartphone’s screen … and it is barely larger than a quarter! Read more at <http://tinyurl.com/lfvwjg4>.

**A Cure for MS and Type 1 Diabetes on its Way**? (Diabetes-Cure.me, by Jo Willey, September 3, 2014, <http://tinyurl.com/qf3vmx9>)

A team at the University of Bristol have discovered how cells convert from being aggressive, allowing the body's immune system to destroy its own tissue by mistake, to actually protecting against disease.  
  
It is hoped the discovery will lead to the widespread use of a very targeted immunotherapy treatment for many autoimmune disorders, including multiple sclerosis (MS), type 1 diabetes, Graves' disease and systemic lupus erythematosus (SLE).