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## **Merck to Acquire SmartCells, Inc.**

WHITEHOUSE STATION, N.J. & BEVERLY, Mass.--([BUSINESS WIRE](#))--Merck & Co., Inc., (NYSE:MRK) and SmartCells, Inc., today announced that they have entered into a definitive agreement under which Merck will acquire SmartCells, a private company developing a glucose responsive insulin formulation for the treatment of diabetes mellitus.

**“This acquisition positions our novel technology for success in the hands of a leading pharmaceutical company with proven expertise and exceptional resources to deliver breakthrough diabetes products to patients.”**

"Maintaining control of blood glucose levels represents a daily challenge for people living with diabetes," said Nancy Thornberry, senior vice president and head, diabetes and obesity franchise, Merck Research Laboratories. "Through the acquisition of SmartCells we have obtained innovative technology that may enable us to develop glucose-responsive insulins. If this investigational technology is ultimately approved for use with patients, it could provide an important new therapy for the treatment of diabetes. This holds the potential to significantly impact the treatment of this disease."

Under the terms of the agreement, Merck will acquire all outstanding stock of SmartCells, Inc. In return SmartCells shareholders will receive an upfront cash payment and be eligible to receive clinical development and regulatory milestones for products resulting from the transaction for potential aggregate payments in excess of \$500 million. Sales-based payments for products resulting from the transaction will also be payable. SmartCells' board of directors has unanimously approved the transaction.

"At SmartCells, we have made important progress in rapidly advancing from early concept towards clinical development," said Todd C. Zion, Ph.D., president, co-founder and chief executive officer. "This acquisition positions our novel technology for success in the hands of a leading pharmaceutical company with proven expertise and exceptional resources to deliver breakthrough diabetes products to patients."

SmartCells has developed a technology platform that makes it possible to auto-regulate the release of a therapeutic based on the plasma concentration of a designated molecular indicator. In the case of insulin, the technology employs an approach whereby an insulin therapeutic is available only in the presence of a specific glucose concentration range. If this approach is successful in the clinic, it has the potential to produce insulin analogs that may result in a lower risk of hypoglycemia (low blood

sugar) compared with standard insulin analogs and improve control over both fasting and post meal glucose levels.

## About SmartCells

SmartCells, Inc. is focused on developing glucose-regulated SmartInsulin products for the treatment of diabetes. The company's core technology was originally developed at The Massachusetts Institute of Technology by its president, co-founder and chief executive officer Dr. Todd Zion. **SmartCells has since developed the platform into several clinical candidates with the support of grant awards from the National Institutes of Health and equity investments from members of Boston Harbor Angels**, Angel Healthcare Investors, Beacon Angels and Cherrystone Angel Group. For more information, visit [www.smartinsulin.com](http://www.smartinsulin.com).

## About Merck

Today's Merck is a global healthcare leader working to help the world be well. Merck is known as MSD outside the United States and Canada. Through our prescription medicines, vaccines, biologic therapies, and consumer care and animal health products, we work with customers and operate in more than 140 countries to deliver innovative health solutions. We also demonstrate our commitment to increasing access to healthcare through far-reaching policies, programs and partnerships. For more information, visit [www.merck.com](http://www.merck.com)

# Merck Makes A Smart Buy

Posted: Dec 03, 2010 03:00 AM by [Stephen Simpson](#)

Large pharmaceuticals buy small private [companies](#) all the time, often paying so little that they are not even obligated to report the transactions to shareholders. With Merck's (NYSE: [MRK](#)) deal to buy SmartCells, though, things are a little different on two levels. Not only is the purchase price large enough to get some attention, but the technology could be a real game-changer down the road.

### The Deal

Rumors had been creeping around for a little while on this deal, but Merck made it official Thursday morning that it was acquiring SmartCells in an all-cash deal. Although the companies did not discuss the upfront payment, it is a comprehensive deal that includes potential milestones and follow-on payments that could all total in excess of \$500 million. Given the size of the transaction and the timing of the payments, I am not sure that Merck will have to [file](#) an [8-K](#) for this, so [investors](#) may be hard-pressed to find more details on the transaction. (For more, see [The Wacky World Of Mergers And Acquisitions](#).)

### High Risk, Incredible Reward

For those of us who are proud to be life science nerds, SmartCells really rings the bell on the "neat" scale. SmartCells is developing SmartInsulin - a glucose-responsive insulin formulation.

What that means is that SmartInsulin releases insulin into the bloodstream in response to the current glucose levels of the diabetic.

How SmartInsulin works is a little technical, but here is the short form: The product is a layered biocompatible polymer that is bound to a specially engineered molecule that, in turn, binds to glucose. As the amount of glucose in the patient's blood changes, the polymer can release more (or less) insulin.

All in all, then, SmartInsulin promises to be a once-per-day injectable insulin that can serve a diabetic's basal and mealtime needs all in one. That could be something of a Holy Grail for many patients, as the hassle and difficulty of monitoring blood glucose levels throughout the day and administering insulin as needed is a major source of non-compliance (and both short-term and long-term side effects) in diabetes. (For more, see [Measuring The Medicine Makers.](#))

### **A Potential Game-Changer**

It is important to note that SmartInsulin is a very long way from the market and has not even entered human testing yet (according to the [company's](#) website). So not only will Merck have many years of clinical testing to look forward to (probably six years at the low end), but the nature of this therapy and the risks of failure are such that the [FDA](#) will likely be extremely rigorous and cautious.

Still, if the product works, it could really shake up the field. **Sanofi-Aventis** (NYSE: [SNY](#)), **Novo Nordisk** (NYSE: [NVO](#)) and **Eli Lilly** (NYSE: [LLY](#)) all make significant profits from their various insulin formulations, but none of them has an all-in-one, once-per-day formulation. Moreover, if SmartInsulin really does work, it could very well be a threat to the insulin pump [businesses](#) of companies like **Medtronic** (NYSE: [MDT](#)), **Roche** (OTCBB: RHHBY) and **Insulet** (Nasdaq: [PODD](#)). After all, if a Type 1 diabetic can choose a once-per-day shot, the tubing, operational hassles and expense of pump therapy may no longer seem so compelling.

### **The Bottom Line**

It will be interesting to see what, if any, impact this deal has on the trading in other insulin biotechs like **Biodel** (Nasdaq: [BIOD](#)), **MannKind** (Nasdaq: [MNKD](#)) and **Halozyme** (Nasdaq: [HALO](#)). All of these companies are closer to approval than SmartCells (assuming Biodel can rebound from an FDA rejection), but this deal presumably takes one Big Pharma buyer off the board for those companies in terms of partnerships or buyout.

For Merck, this seems like a potential winner (especially as the technology has [applications](#) in many other indications beyond diabetes), but it will take a long time to know. Plenty of "future blockbusters" have never panned out across the sector, and only time will tell if this deal vaults Merck into a potential leadership position in insulin therapy, or whether it becomes an expensive yet fruitless shot on goal. (For more, see [Stocks On Drugs: What It Takes To Get High.](#))