Fujifilm Snaps Up Cellular Dynamics To Grow Stem Cell Business

##### [Jeff Engel](http://www.xconomy.com/author/jrengel/)[**3/30/15**](http://www.xconomy.com/archives/?xyear=2015&month=3&xday=30)

Cellular Dynamics International, an up-and-coming player in the stem cell field and one of Wisconsin’s more promising biotech companies, is [**being acquired**](http://www.fujifilmholdings.com/en/news/2015/0330_01_01.html) by Fujifilm for $307 million in cash.

At first glance, the Tokyo-based international conglomerate—which [**dates back to 1934**](http://www.fujifilmholdings.com/en/about/history/index.html) and is best known for selling camera film—might seem like an odd suitor for Madison-based Cellular Dynamics (NASDAQ: [**ICEL**](http://finance.yahoo.com/q?s=ICEL)). But Fujifilm has been [**growing its healthcare business**](http://www.fujifilmholdings.com/en/business/field/index.html) over the past two decades, expanding into products like X-ray imaging machines and nutritional supplements. It [**got into pharmaceuticals**](http://www.fujifilmholdings.com/en/news/2015/pack/pdf/0330_01_01.pdf) via a 2008 acquisition of Toyama Chemical, whose drug Avigan was approved last year in Japan to treat the flu and has also shown early promise in battling Ebola in patients with less severe levels of the virus, the Wall Street Journal [**reported**](http://www.wsj.com/articles/fujifilm-drug-draws-interest-in-fight-against-ebola-1425275959).

Fujifilm [**said in November**](http://www.fujifilmholdings.com/en/news/2014/1111_01_01.html) it had a war chest of more than 400 billion yen ($3.3 billion) that it would use to snap up companies over the next three years. The Cellular Dynamics deal bolsters Fujifilm’s regenerative medicine play, following the purchase of a majority stake in Japan Tissue Engineering in December.

Cellular Dynamics, aka CDI, was founded in 2004 by James Thomson, a University of Wisconsin-Madison professor and stem cell pioneer. While the field has struggled to make good on the promise of stem cells as treatments to heal organs or regrow limbs, [**CDI has built a steady (if unsexy) business manufacturing living human cells in massive quantities**](http://www.xconomy.com/wisconsin/2014/02/27/cellular-dynamics-seizing-the-present-turns-stem-cells-into-cash/?single_page=true). The technology is based on induced pluripotent stem cells (iPSCs): taking tissue from donors, CDI’s scientists coax the cells back to an embryonic-like state, then direct them to turn into desired cell types such as neurons and heart, liver, and retinal cells.

CDI’s customers include major pharmaceutical companies and other researchers that use its cells to test the toxicity of drugs and other compounds. CDI has also won grants to manufacture stem cells that are derived from donor tissue samples and then amassed in biobanks for researchers worldwide to use.

Last year, [**CDI took its first step into regenerative medicine**](http://www.xconomy.com/wisconsin/2014/11/13/from-tools-to-therapies-stem-cell-maker-cdi-takes-one-small-step/) through a $1.2 million contract from the National Eye Institute to make stem cells and retinal pigment epithelial cells. A team of federal researchers will use those cells to develop early-stage treatments for dry age-related macular degeneration (AMD), a common cause of blindness. CDI is also [**building a bank of “superdonor” cell lines**](http://www.xconomy.com/wisconsin/2015/02/11/wisconsin-roundup-cdi-exact-centrose-conjugon-consortiex-more/) whose human leukocyte antigens, or HLA, make their cells compatible with more people, thereby lessening the potential for rejection by the recipient’s immune system after a transplant.

The company and outside financial analysts consider CDI, which went public in 2013, the market leader for human cell manufacturing. It generated $16.7 million in revenue [**last year**](http://investors.cellulardynamics.com/releasedetail.cfm?ReleaseID=900311), up nearly 42 percent from the previous year, by selling cells and services to 200 customers. CDI was still $30.6 million in the red, however.

The Fujifilm deal was a good one for CDI shareholders: The purchase price equates to $16.50 per share, more than double CDI’s closing stock price on Friday of $7.94 per share. Both companies’ boards unanimously approved the deal.

But given CDI’s sales growth and rising reputation in biotech circles, did CDI perhaps sell too soon?

CEO Bob Palay couldn’t be immediately reached today, but here’s what he said in the [**press release**](http://www.fujifilmholdings.com/en/news/2015/0330_01_01.html) announcing the acquisition: “CDI and Fujifilm share a common strategic vision for achieving leadership in the field of regenerative medicine. The combination of CDI’s technology with Fujifilm’s technologies, know-how, and resources brings us ever closer to realizing the promise of discovering better, safer medicines and developing new cell therapies based on” induced pluripotent stem cells.

Fujifilm said the deal allows it to branch into stem cell-based drug discovery support services. Fujifilm has also developed biocompatible recombinant peptides, which are synthetic proteins that can be shaped in different ways and used as a “cellular scaffold”—the surrounding structure needed for regenerative cells to grow. Fujifilm will combine its technology with the products and expertise of both CDI and Japan Tissue Engineering to “seek synergies and efficiencies to be more competitive in the field of drug discovery and regenerative medicine,” Fujifilm CEO Shigetaka Komori said in the press release.

It will be worth watching the residual effects of CDI’s sale on Madison’s life sciences cluster. The company has generated a fair amount of buzz, given the hype around stem cells and the breakthroughs Thomson has made in the field. It’s likely some advocates of the local life sciences scene were rooting for CDI to independently grow into the kind of massive anchor company that would draw more attention to Madison and perhaps spur a host of other successful stem cell-related companies.

Fujifilm said CDI will continue to operate as a subsidiary and will maintain its facilities in Madison—home of its main office and primary manufacturing and research and development operations—and Novato, CA. But Komori’s “synergies and efficiencies” phrase might still make local advocates leery about what will happen to CDI’s 155 employees.

Acquisitions like these frequently involve job cuts and sometimes shuttered facilities as the merged companies consolidate operations, and Madison is no stranger to that scenario. [**Examples of post-deal downsizing**](http://www.xconomy.com/wisconsin/2014/05/08/outside-san-diego-illumina-looks-to-wisconsin-for-key-rd/?single_page=true) include Hologic’s acquisition of Third Wave Technologies and Roche’s purchase of NimbleGen. Some Madison biotechs have continued growing here even after being scooped up by a bigger company, like Illumina-owned Epicentre.