



**ADESIS**  
A Universal Display Company



# Adesis: Building its Chemistry with Delaware

BY ADAM THOMAS

ALTHOUGH THE AVERAGE DELAWAREAN may not know the name of Adesis, if they own a television or a mobile device that employs organic light emitting diode (OLED) technology, they are already familiar with the company's work. Adesis, recently named one of the 50 fastest growing companies in the state by Delaware Business Times, is a Contract Research Organization (CRO) that was founded in Delaware in 2005.

What is it they do? Adesis synthesizes the compounds that are used in OLED technology, which their parent company, Universal Display Corporation (UDC), tests to determine if application within a functioning OLED device is possible.

Upon acquisition in 2016, Adesis stayed true to its traditional CRO business model, however, they also dedicate 50 percent of their resources towards OLED research, method development and manufacturing.

For the other 50 percent of Adesis' contracted work, the company covers

everything from pharmaceuticals and biopharmaceuticals to assisting printing technologies with novel dyes to cosmetics and fragrances, among others, in early stage chemical research.

Tracy Brennan, a project manager with Adesis, explained that one of the CRO services Adesis provides is developing novel methods in synthesizing compounds that meet their client's needs, expectation and overall satisfaction.

"If a customer were to come to us requesting for custom synthesis work, method development or manufacturing, I'd say 'We can do all of that here at Adesis,'" said Brennan.

Synthesis is one of the big services that Adesis provides, being able to build compounds from scratch.

Brennan likened the synthesis of a compound to going to a restaurant and ordering an unconventional entrée not on the menu and having the chef make that entrée.





“Sometimes we have to figure out how to synthesize a compound without a ‘recipe,’” said Brennan. “There are traditional transformations throughout a synthetic process but a trained chemist can manipulate any of these transformations to build a compound of interest.”

Clients will come to Adesis with requests for chemistry research from early-stage research, through scale and development, and custom synthesis from milligram to multi-kilogram scale, and Adesis will put together a plan of action for them that will meet and exceed their expectations.

It’s like building a home. Adesis will present a client with a blue print of the structure that they want to build, will show how they would uniquely construct the interior and execute the process.

“If you build a house, you have to build it with four walls and a roof,” said Brennan. “There’s always a basis to everything, but the way you modify the house is where the creativity comes in.”

When a project is initiated at Adesis, it’s transferred to the chemistry department where chemists will use their knowledge, expertise and creativity to execute and complete the project in a timely manner.

A team of project managers, who work closely with both the chemists and clients, ensures that the service requested is adequately executed and that all aspects of a project is communicated with full transparency between the inter-departments at Adesis and with the client.

“Adesis is a results-oriented company and open communication leads to rapid results for our clients,” said Andrew Cottone, President and co-founder of Adesis. “Our culture of quality and integrity results in high quality science and that means our clients stay with us for the long haul.”

## A brief history

The predecessor to Adesis was a company called CB Research & Development. Adesis was co-founded in 2005 by Drs. Andrew Cottone, Charles Beard and Ving Lee. **Dr. Andrew Cottone** (right) has served as President of the company since 2016 when the company became a wholly-owned subsidiary of UDC.



In addition to the OLED and CRO services, Adesis is also home to a catalog of novel compounds to which they own the intellectual property. Chuck Beard, co-founder of CB Research & Development—the predecessor of Adesis—started synthesizing, producing and selling these novel compounds as building blocks for drug design synthesis in the late 1990’s. Beard envisioned a company that played a vital role in drug design by providing a library of novel building blocks to support the research and

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development for pharmaceutical companies. These catalog compounds are still available for purchase today.

## Adesis Family

At the core of the growth and success of Adesis is its familial corporate culture.

“At the heart of Adesis’ success is our people, so we strive to create an environment focused on continuous improvement,” said Cottone. “The Adesis culture is facilitated by open communication with an open-door policy. We want our team to be proud of the company we are building together and our culture fosters that pride.”



## OLED vs LCD

Organic Light Emitting Diode, OLED, technology is similar to Liquid Crystal Display, or LCD, technology. But OLED offers a few more perks.

The screen's that utilize OLED boast a clear and crisp display, while using less energy than LCD. In addition, while LCD technology relies on an LED display screen to filter light through an array of panels and sheets to create pictures and colors, OLED technology is able to produce its own light and colors meaning their panels do not require any backlighting, which makes them much thinner and lighter than the traditional LCD screen.

The company has 115 employees, which is up from 39 in 2016, and they've expanded their office and research space to two locations.

Their original office is located on McCullough Drive in New Castle. They recently purchased the entire building to double their lab space from 25,000 square feet to just shy of 50,000 square feet.

Their other location opened in January of 2018 at the Delaware Innovation Space at the Experimental Station in Wilmington.

Even with the growth and the new location, Adesis continues to keep that small company feel, often hosting multiple social events such as family picnics, golf outings, and playing in a company softball league between the two locations to keep that culture alive.

“We want to keep what's true to Adesis and that's the fact that the people who work here are important because what they do is important,” said Brennan.

That attitude has allowed Adesis to bring on and retain some of the best and brightest scientists in Delaware—of the 115 employees, about 90 percent are chemists that work in the lab and 80 percent of those chemists hold PhDs.

Because of this, Adesis can offer clients another perk: the ability to solve their problems and provide excellent chemistry results.

## Focused on Delaware

Adesis has plans to continue growing the company in Delaware. They have also begun venturing into outreach and philanthropic efforts.

They offer summer internships to students over the age of 18 to give them exposure to what lab life is like outside of academia.

One of those interns was Nayantara Kosaraju, a student at the University of Delaware studying chemical engineering, who interned at Adesis in the summer of 2017. Now a full-time employee, Kosaraju said she chose to work at Adesis because of that internship opportunity.

“During my internship, Andrew welcomed me into his office and asked about my progress and feedback of the company,” said Kosaraju. “This made a huge difference to me as it made me feel valued and that my contributions carried significance and purpose. I knew leadership like that is hard to come by and that he and his team were growing a great company that I wanted to a part of.”

In addition, Adesis has opened its doors to fifth graders from Wilmington Friends Middle School to expose them to Adesis and to chemistry in general by offering the students a site tour and a chemistry magic show in their New Castle building's auditorium.

“We want to give back to the community, open our doors and expose people to several things: what we do and how we do it, introduce K-12 students to Science, Technology, Engineering and Math (STEM) as well as supporting and empowering women in STEM,” said Brennan. “It's great to have a company that supports you to fulfill these types of desires and be able to give back to the community.”

For more information on Adesis, visit their website at <https://adesisinc.com> or call (302) 323-4880. ■

## Helping Female Scientists Forward

Adesis has tripled in growth since 2016, from this growth they have increased their women employees by 50%.