

IN BRIEF

Science and Engineering Notes from Around Connecticut



Biomedical Research

CBIF AWARDS ALMOST \$1M. On March 31, the **Connecticut Bioscience Innovation Fund** (CBIF) awarded nearly \$955,000 to university-based biotechnology research projects. **Dianqing Wu**, a professor of pharmacology at the **Yale School of Medicine**, received \$500,000 for a project to develop a targeted antibody approach for colorectal cancer treatment, and **Robert Clark** of the **UConn Health Center**, received almost \$455,000 to work with **Frank Nichols** to further develop a multiple sclerosis blood-based biomarker diagnostic test to distinguish healthy individuals from those with the disease.

NEW IMMUNOARRAY OFFERS LOW-COST CANCER BIOMARKER DETECTION. Recently, researchers in the lab of **UConn** professor and CASE member **James Rusling** successfully developed an automated, microprocessor-controlled, microfluidic array to detect small protein panels, potentially providing a simple, automated, low-cost method to detect cancer biomarker proteins in patients. The **UConn** team achieved ultra-low detection limits and high accuracy for prostate cancer patient samples.

UB FACULTY RESEARCH DAY DRAWS RECORD PARTICIPANTS. The 5th Annual Faculty Research Day at the **University of Bridgeport** (UB) on March 27 saw its most submissions yet, with 129 posters accepted from faculty and students. The annual event provides a platform to showcase research conducted by faculty and assisted by students. Over 300 individuals turned out to view the posters and talk with faculty researchers like **Xingguo Xiong**, associate professor of electrical and computer engineering, whose development of a smart drug delivery system earned a faculty research prize. Projects ranged from biomedical innovations to solutions for big data, poverty alleviation policy analysis and much more. More than 300 Submissions represented 11 of UB's 13 schools and colleges, constituting 29 departments.

YALE TO LEAD CLINICAL TRIAL FOR METASTATIC MELANOMA. **Yale University** this spring launched a multicenter clinical trial, sponsored by Stand Up to Cancer and the Melanoma Research Alliance, using personalized medicine technology to treat metastatic melanoma. Yale is the lead site for the trial, which will enroll patients lacking a particular genetic mutation for whom immune therapy did not work or was not an option. Almost half of all patients with metastatic melanoma have an altered BRAF gene, a target for certain immune therapy drugs. However, for patients whose tumors lack the BRAF alteration, and for whom immunotherapy fails, other options are required. This trial uses molecular sequencing techniques to match targeted drugs to the unique genetic alterations present in tumors missing the BRAF mutation. Patients will be enrolled through the **Smilow Cancer Hospital at Yale-New Haven Hospital**.

STEMCONN 2015 HELD IN HARTFORD. The **StemConn 2015** conference was held April 27 in Hartford, creating a forum to share research and hold discussions among scientists, policy makers, and bioscience industry partners. One discussion focused on the role of adult stem cells that, according to scientists at **Multiclinal Therapeutics**, a startup hosted in **UConn's Technology Incubation Program**, may be instrumental in regenerating body tissues. Unlike

embryonic stem cells that haven't yet developed into specific cell or tissue types, adult stem cells are committed to the particular organ or tissue from which they were taken. When adult stem cells are cloned, they can reconstruct tissue almost indistinguishable from the tissue from which they came. **Multiclinal Therapeutics** is working with adult stem cells to repair lung tissue damaged by chronic obstructive pulmonary disease.



Business & Industry

NEWTOWN FIRM TO MARKET 'GREEN' TECHNOLOGIES. Newtown-based **McKenney Mechanical**, a heating, ventilation and air conditioning (HVAC) specialist, recently signed a national distribution contract to market and sell **Go Green Global Technologies'** **Sonical™** products, which use patented technology for both non-chemical water treatment and fuel combustion applications, to commercial, industrial and municipal customers. **Sonical™** is a cost-efficient and easily installed device that makes existing fuel and water systems run cleaner and more efficiently. **McKenney's** customers include hospitals, sports complexes, universities, K12 schools, large office complexes, and plant facilities.

P&W UNVEILS UPDATED MIDDLETOWN FACILITY. In February, **Pratt & Whitney (P&W)** opened its updated, state-of-the-art production facility in Middletown, which will be used to support manufacturing of the **PurePower® PW1100G-JM** engine for the **Airbus A320neo** and the **F135** engine for the **F-35 Lightning II Joint Strike Fighter**. The upgrades, which include the world's largest linear friction welding machine—a 400,000 pound behemoth standing 20 feet tall from **Manufacturing Technology, Inc.**, of South Bend, Indiana—are the result of significant capital investments. "We're investing more than \$1 billion worldwide to prepare for production increase of the **F135** engine and **PurePower** engine family, including significant investments in our **East Hartford** and **Middletown** facilities..." said **Joe Sylvestro**, vice president of manufacturing operations for **P&W**.

LORD JOINS SIKORSKY-BOEING TEAM. North Carolina-based **LORD Corporation** announced April 1 that it joined the **Sikorsky-Boeing** team to develop and build the **SB>1 DEFiant™** technology demonstrator for the **US Army's Joint Multi-Role (JMR) Technology Demonstrator** program. **LORD** is responsible for active vibration control systems and tension-torsion rotor head components. The **Sikorsky-Boeing SB>1 DEFiant™** technology demonstrator is based on **Sikorsky's X2 Technology™** rotorcraft design. Last year, the Army selected the **Sikorsky-Boeing** team as one of two industry teams to develop the demonstration aircraft.



Communication

NEW ONLINE TOOL FOR CONSUMERS. In March the **Connecticut Department of Consumer Protection** launched an online tool providing consumers with information to quickly and safely get medicine, supplies, or treatment during a natural disaster, storm or other type of emergency. "Business Finder" (<http://businessstatus.ct.gov>) allows pharmacies, dialysis centers, and oxygen suppliers to update business information in real time before and during an emergency.

Items that appear in the In Brief section are compiled from previously published sources including newspaper accounts and press releases. For more information about any In Brief item, please call the Academy at (860) 571-7143, or contact us at acad@ctcase.org.