

## **Research and development partnership to benefit Delaware education, economy**

*University of Delaware, Fraunhofer USA Center for Molecular Biotechnology and State of Delaware announce new partnership*

**12:00 p.m., July 14, 2011** — Delaware Governor Jack Markell, Fraunhofer USA President Georg Rosenfeld and University of Delaware President Patrick Harker, signed an agreement today combining the strengths of Fraunhofer's Center for Molecular Biotechnology (CMB) in applied translational research and the University of Delaware's (UD) in basic research into a partnership that will lead to the development of innovative, interdisciplinary programs and create educational and economic benefits for the state of Delaware.

Development of any biological product, from discovery to market, takes more than a decade and hundreds of millions of dollars. In addition, in spite of significant increases in new discoveries, the pipeline of biological products actually reaching the market has decreased. One of the reasons for this is the weakness of translational research that moves discoveries from university portfolios into an industry product pipeline. This partnership, among other things, provides opportunity to close the gap between scientific innovation and the commercial market.

“By translating basic discoveries into clinical and commercial applications, the combined strengths of the two institutions could lead to significant economic benefit for Delaware and the region. The discoveries that have been and will be made at these facilities can have an impact worldwide,” said Delaware Governor Jack Markell. “Our State has a well-earned reputation as a center for excellence and innovation, which this partnership furthers.”

The University of Delaware has established a strong complement of life-sciences core instrumentation centers. Many of these centers are located at the Delaware Biotechnology Institute, directly adjacent to CMB. These instrumentation centers include state-of-the-art facilities for bioimaging, sequencing and genotyping, proteomics, bioinformatics and others.

CMB is a unique institution conducting research and development in the area of plant biotechnology, utilizing newly developed and cutting-edge technologies to advance products for infectious disease and autoimmune disorders in humans. The Center houses nearly 90 researchers with expertise in plant virology, molecular biology, protein engineering, protein biochemistry, immunology, vaccine development, Quality Assurance, Quality Control and regulatory expertise to guide clinical product development. CMB has also established advanced research facilities, including a GMP pilot plant for production of clinical grade materials, and has successfully conducted two Phase 1 clinical trials.

This six-year agreement will provide increased investment from Fraunhofer CMB's parent organization, German-based Fraunhofer Gesellschaft. Rosenfeld believes that the new partnership will be beneficial to

all the parties. “The partnership will provide each with access to the other’s technical know-how, expertise and facilities as well as increased opportunities to collaborate on advanced applied research projects and improved possibilities to commercialize results. This type of partnership is the model upon which the Fraunhofer organization was established and has developed throughout its history.”

Alan Levin, director of Delaware’s Economic Development Office, says the state has seen great success with its investment to date in Fraunhofer. “Through the past ten years, CMB has moved its alternative vaccine production technology from concept through pre-clinical studies to clinical development, while adding nearly 100 high-paying, high-impact, scientific jobs to the Delaware economy. We look forward to the Center’s continued growth and believe that this new, expanded partnership enhances Delaware’s competitive position for biotechnology companies.”

“This new agreement provides a solid foundation for our continuing growth,” said Dr. Vidadi Yusibov, executive director of Fraunhofer CMB. “By combining research strengths and accessing each other’s unique resources, we will be able to expand investment in interdisciplinary programs that will generate new opportunities. We expect to expand our employment by cultivating existing and recruiting new, scientific talent.”

“Together, we are formalizing a partnership that has been growing steadily for more than a decade, stated Harker. “UD and Fraunhofer will join our respective and complementary technological capabilities and scientific expertise to further our joint goals—providing a safer, healthier nation and world as well as jobs for the local economy and establishing Delaware as a leader in life sciences.”

## **About Fraunhofer**

Fraunhofer-Gesellschaft is the leading organization for applied research in Europe with 60 research institutes and 18,000 employees. Fraunhofer USA is a wholly owned subsidiary headquartered in Plymouth, Michigan with research centers that collaborate with major universities throughout the U.S.

***Fraunhofer Center for Molecular Biotechnology*** develops safe, rapid and economical alternatives for vaccine production. The Center, with a fully functioning GMP pilot scale production capacity, has now established the full suite of capabilities necessary to achieve its goal of being a full-continuum service provider from target expression through Phase 1 and 2 clinical product development. CMB’s end-to-end capabilities and recent completion of two Phase 1 clinical trials make it well positioned to meet the needs of expanding markets while focusing on the core mission.

## **About the University of Delaware**

The University of Delaware, the flagship institution of the state of Delaware, is one of the oldest Land Grant institutions in the nation and also has Sea Grant and Space Grant status. The University is classified by the Carnegie Foundation for the Advancement of Teaching as a research university with very high research activity—a designation afforded to fewer than 3 percent of U.S. colleges and universities.

## About the Delaware Economic Development Office

The Delaware Economic Development Office is an executive state agency responsible for attracting new investors and businesses to the state, promoting the expansion of existing industry, assisting small and minority-owned businesses, promoting and developing tourism and creating new and improved employment opportunities for all citizens of the State. Visit [dedo.delaware.gov](http://dedo.delaware.gov). Follow DEDO on Facebook or Twitter @DEDOfgov.

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