



Immediate Release

Contact: Bill Schmitt 302-327-3318

wschmitt@christianacare.org

The Gene Editing Institute of Christiana Care's Helen F. Graham Cancer Center & Research Institute signs agreement with ABS to modify cell lines to accelerate cancer therapies

Wilmington, DE, Sept. 12, 2017 – To accelerate the development of next-generation cancer therapies, the <u>Gene Editing Institute</u> of the <u>Helen F. Graham Cancer Center & Research Institute at Christiana Care Health System</u> has agreed to provide genetically modified cell lines to <u>Analytical Biological Services</u>, <u>Inc.</u> (ABS) of Wilmington, Delaware.

Under a three-year agreement, the Gene Editing Institute will act as sole provider of gene editing services and genetically modified cell lines to ABS for replication, marketing and distribution to leading pharmaceutical and biomedical research companies worldwide.

"This agreement with ABS will speed the progress in the discovery of effective cancer therapies and accelerate the path to prevention, diagnosis and treatment of many forms of cancer," said Nicholas J. Petrelli, M.D., the Bank of America endowed medical director of the Helen F. Graham Cancer Center & Research Institute at Christiana Care Health System.

"This partnership greatly enhances our capability to provide the highest quality genetically engineered cells for drug discovery," said ABS President and CEO Charles Saller, Ph.D. "Our partners at the Gene Editing Institute are advancing molecular medicine, and their expertise adds a new dimension to our efforts to speed up drug discovery."

"One goal of The Gene Editing Institute is to develop community partnerships that can advance translational cancer research," said Eric Kmiec, Ph.D., founder and director of the Gene Editing Institute is driving innovation in gene engineering, and ABS has the know-how to grow and expand the cells in sufficient

quantities, as well as to market them to pharmaceutical and biotechnology clients for drug screening and research."

The Gene Editing Institute is a worldwide leader in the design of the tools that scientists need to manipulate and alter human genetic material easier and more efficiently than ever before. Scientists at the Gene Editing Institute have designed and customized an expanding tool-kit for gene editing, including the renowned CRISPR-Cas9 system, to permanently disrupt or knock out genes, add or knock in DNA fragments and create point mutations in genomic DNA. Last year, scientists at the Gene Editing Institute described in the journal *Scientific Reports* how they combined CRISPR and short strands of synthetic DNA to greatly enhance the precision and reliability of the CRISPR gene editing technique. Called Excision and Corrective Therapy, or EXACT, this new tool acts as both a Band-Aid and a template during gene mutation repairs.

Genetically modified cells can help advance cancer research. By inactivating a single gene, scientists can test if it affects tumor formation or somehow alters the response to cancer therapies. Similarly, inserting a gene into a cell can produce a gene product that is a target for potential new drugs.

"Gene editing and the CRISPR technology is having a major impact on anticancer drug development because it allows us to validate the target of the candidate drug," said Dr. Kmiec. "Pharmaceutical companies want to use gene editing tools to identify new targets for anti-cancer drugs and to validate the targets they already have identified."

The Delaware BioScience Association helped connect the Gene Editing Institute with ABS. "The collaborative agreement between the Gene Editing Institute and ABS exemplifies the power of building a strong biotech community, flourishing further innovation, and keeping businesses engaged and thriving in the state of Delaware," said Helen Stimson, president and CEO of The Delaware BioScience Association. "The Delaware BioScience Association is committed to fostering meaningful relationships, such as this one, among its members, and establishing strategic partnerships that bolster the state's innovation economy," she said.

"This is one of those times when the forces of nature align to bring two perfectly matched skill sets together," said Dr. Kmiec. "There is no question that our collaboration with ABS will accelerate the pace of drug discovery around the world."

About The Gene Editing Institute

The Gene Editing Institute of Christiana Care Health System's Helen F. Graham Cancer Center & Research Institute is unlocking the genetic mechanisms that drive cancer that can lead to new therapies and pharmaceuticals to revolutionize cancer treatment. Gene editing in lung cancer research has already begun setting the stage for clinical trials.

The Gene Editing Institute is integrated into the Molecular Screening Facility at The Wistar Institute in Philadelphia, PA, where its innovative gene-editing technologies are

available to research projects at Wistar and to external users. Working with Wistar scientists, the Gene Editing Institute has begun research to conduct a clinical trial in melanoma. With funding from the National Institutes of Health, the Gene Editing Institute is partnering with A.I. duPont/Nemours to develop a gene editing strategy for the treatment of sickle cell anemia and leukemia. Under a grant from the U.S.–Israel Binational Industrial Research & Development Foundation, the Gene Editing Institute is working with Jerusalem-based NovellusDx to improve the efficiency and speed of cancer diagnostic screening tools. This work could lead to earlier identification of genetic mechanisms responsible for both the onset and progression of many types of cancers and the development of individualized therapeutics.

Gene Editing Institute scientists also provide instruction in the design and implementation of genetic tools. Partnerships with Bio-Rad Inc. and the Delaware Technical and Community College are producing gene editing curricula and teacher training workshops for both community colleges and secondary schools.

About ABS

Founded in 1990, Analytical Biological Services, Inc. (ABS) provides, processes and analyzes cells and tissues for biomedical research to pharmaceutical and biotechnology companies throughout the world. ABS products include animal and human cells, human tissues and extracts from cells and tissues, such as: cellular membranes, proteins, RNA and DNA. ABS services include cell culture, biobanking, human tissue and clinical data acquisitions, histology and immunohistochemistry and other biological research services. ABS also provides trained laboratory staff to work at its clients' laboratories under ABS supervision.

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