

## For Immediate Release

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## The Gene Editing Institute of Christiana Care Health System Receives First-Ever Life Sciences and Bio Innovation Award from Philadelphia-Israeli Chamber of Commerce

Wilmington, Delaware, May 23, 2018 – For ground-breaking scientific research in gene editing and an innovative partnership with Jerusalem-based <a href="NovellusDx">NovellusDx</a> to advance personalized cancer treatment, the <a href="Gene Editing Institute">Gene Editing Institute</a> of the <a href="Helen F. Graham Cancer Center & Research Institute">Helen F. Graham Cancer Center & Research Institute</a> at <a href="Christiana Care">Christiana Care</a> received the inaugural Life Sciences and Bio Innovation Award from the Philadelphia-Israeli Chamber of Commerce on May 22.

The new award was created to recognize a company, researcher or individual in the tri-state area that has the potential to make a significant impact on health care, according to the Philadelphia-Israeli Chamber of Commerce.

"We are building the tools of tomorrow as we provide leading-edge care for our patients today," said Janice E. Nevin, M.D., MPH, Christiana Care president and chief executive officer. "The Gene Editing Institute is undertaking transformative research in the human genome with direct applications to cancer care. By forming partnerships with leading biomedical firms around the world, the Gene Editing Institute is laying the groundwork for a vibrant, job-producing innovation corridor in Delaware and the region."

"The Gene Editing Institute is highly deserving of this award for its work with NovellusDx on gene editing technologies as part of its on-going cancer research collaboration," said Vered Nohi, executive director of the Philadelphia-Israel Chamber of Commerce. "In addition, the Gene Editing Institute's partnership with NovellusDx has elevated the general interest in U.S.-Israel Binational Industrial R&D Foundation (BIRD Foundation) in the region."

"As the only gene editing research institute embedded in a community cancer program, we understand the need for personalized cancer treatment, because we see cancer patients and partner with the doctors who care for them every day," said Eric Kmiec, Ph.D., director of the Gene Editing Institute of the Helen F. Graham Cancer Center & Research Institute at Christiana Care. "Thanks to a generous grant from the BIRD Foundation, our partnership with NovellusDx is already bearing fruit as our new gene editing technology is enhancing the capacity of NovellusDx to lead the way in personalized cancer therapies."

In late 2016, the Gene Editing Institute and NovellusDx received a \$900,000 grant from the BIRD Foundation to develop a new series of state-of-the-art gene editing technologies that help identify the genetic mechanism responsible for both the onset and progression of many types of cancer.

The BIRD Foundation promotes collaboration between U.S. and Israeli companies in a wide range of technology fields for the purpose of joint product development. Projects submitted to the BIRD Foundation undergo evaluation by the U.S. National Institute of Standards and Technology of the U.S. Department of Commerce and by the Israel Innovation Authority.

"We congratulate our partners at the Gene Editing Institute for their research and this much deserved award," said Haim Gil-Ad, CEO of NovellusDx. "We are extremely grateful for the BIRD Foundation grant that advanced our work with the Gene Editing Institute and helps us progress from next generation sequencing data to functional data, allowing us to deliver lower cost, personalized cancer treatments quickly and efficiently to better the clinical utility."

NovellusDx's mission is to provide functional information about mutations and their responses to drugs so that oncologists can treat patients with precision therapies and bio-pharmaceutical companies can develop drugs more effectively. The NovellusDx approach is to monitor the functional effects of mutations and observe the effects of drugs, drug combinations and drug candidates on the activity level caused by the mutations.

The Gene Editing Institute and NovellusDx have recently made landmark discoveries in the use of the CRISPR gene editing tool that can impact the delivery of cancer treatments. In April 2018, the Gene Editing Institute announced a major new development in the *CRISPR Journal* of the first CRISPR protocol to enable CRISPR-directed DNA modifications outside the human cell. The new "cell free" technology uses a protein, called Cas12a, that allows researchers to make multiple edits to DNA quicker and more precisely than ever before *in vitro*, that is in a test tube, petri dish or on a chip. In addition, in 2016 scientists at the Gene Editing Institute described in the journal *Scientific Reports* how they combined CRISPR with 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 template and a bandage for repairing a malfunctioning gene.

The Philadelphia-Israel Chamber of Commerce, established in 1987, is an independent non-profit connecting Israeli and Philadelphia, southern New Jersey and Delaware-based innovators, companies, governmental agencies and economic development organizations. It supports business collaborations, as well as encourages and assists Israeli companies opening U.S. offices in our region, and represents the US-Israel Binational Industrial R&D (BIRD) Foundation in PA and DE.

## **About Christiana Care's Gene Editing Institute**

The Gene Editing Institute is the only research institute of its kind in the nation based within a community health care system. Led by gene editing pioneer, Eric Kmiec, Ph.D., and based in Christiana Care Health System's Helen F. Graham Cancer Center & Research Institute, the Gene Editing Institute is a worldwide leader in gene editing biomedical research in cancer and other

inherited diseases, and the only one working in the same space with oncologists, genetic counselors and patients, bringing translational research from basic science to patient treatment to a new level. You can find the Gene Editing Institute on <a href="Twitter">Twitter</a> and <a href="Facebook">Facebook</a>.

Photos of Eric Kmiec, Ph.D., director of the Gene Editing Institute:

https://christianacare.imagerelay.com/sb/a746e768-c442-425f-a690-380b9cbf6267/eric-kmiec-ph-d-director-of-gene-editing-institute-at-christiana-care-health-system

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