DNAe, Imperial College London and the University of Leicester collaborate on early detection of recurrent breast cancer

London, UK and Carlsbad, CA, USA – 27 October 2021 – Together with Imperial College London ('Imperial'), DNAe has been awarded a UK Knowledge Transfer Partnership (KTP) by Innovate UK to support development of its next generation sequencing (NGS)-based diagnostic platform for use in cancer monitoring.

The KTP program connects innovative businesses with academic experts who can help them deliver their ideas. This award formalizes a collaboration between DNAe and Professor Charles Coombes, Professor of Medical Oncology at Imperial. The work of the KTP will build on the existing research partnership between Professor Coombes and Professor Jacqui Shaw, Head of the Department of Genetics and Genome Biology and Professor of Translational Cancer Genetics at the University of Leicester.

The aim of the program is to develop a 'liquid biopsy' test based on DNAe's proprietary "sample to answer" NGS technology, to directly detect and identify biomarkers and mutation hotspots that have been identified in Professors Coombes' and Shaw's research. This will enable these markers to be used to monitor treatment and detect early recurrence of breast cancer. Under the terms of the partnership, a post graduate researcher (the KTP Associate) will be based at DNAe to integrate expertise from the academic partners into the development of the test.

Samuel Reed, CEO of DNAe, said: *"Recognizing that October is Breast Cancer Awareness Month, we're delighted to formally announce our collaboration with world experts Professors Coombes and Shaw who bring their extensive knowledge of using circulating tumor DNA to manage the treatment of breast cancers. Through this KTP award, we will be able to harness that deep expertise and combine it with our proven diagnostic technology."*

DNAe's integrated, sequencing-based technology will bring genomic analysis to the point-of-need, enabling testing to move out of specialist laboratories and closer to the patient. By detecting and sequencing tumor DNA directly from raw blood samples in a matter of hours, DNAe's platform has the potential to expose unresponsive or recurrent cancer earlier.

Professor Charles Coombes, Professor of Medical Oncology, Imperial, and Honorary Consultant Medical Oncologist, Imperial College Healthcare Trust, said: *"Cancer monitoring is a vital component of successful treatment. Firstly, we need to ensure a patient's tumor is responding to the therapy, and secondly, patients in remission must be monitored for signs of recurrence. The current monitoring options are slow, and any delays to appropriate cancer care can lower the chance of survival and increase treatment-associated problems and costs. Although we are at the early stages, I believe that DNAe's integrated, sequencing-based platform could ultimately provide rapid, actionable information that saves patients' lives."*

Professor Jacqui Shaw, Head of the Department of Genetics and Genome Biology, University of Leicester, added: "*This is an exciting collaboration with DNAe and Imperial, where we will combine*

our expertise to develop a rapid integrated liquid biopsy platform for management of patients with breast cancer."

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About DNAe – www.dnae.com

DNAe is commercializing its pioneering semiconductor sequencing technology for healthcare applications where rapid point-of-need diagnostics are of critical need, including infectious disease and cancer testing and monitoring. It is developing LiDia-SEQ™, a user-friendly, direct-from-specimen platform that performs genomic analysis on a microchip, to provide actionable information to clinicians.

DNAe's initial focus is on infectious disease diagnostics, where speed and DNA-specific information can make the difference between life and death. This includes a range of tests, starting with a groundbreaking test for bloodstream infections (BSI) and antimicrobial resistance (AMR), which uses whole blood specimens to detect and identify infections that lead to sepsis. This will provide clinicians with actionable information to help select the appropriate antibiotics to treat the disease. A pipeline of follow-on tests is in development for viruses and cancer testing and monitoring.

The Biomedical Advanced Research and Development Authority (BARDA), a division of the Assistant Secretary for Preparedness and Response (ASPR) in the U.S. Department of Health and Human Services (HHS), awarded DNAe a contract worth up to $51.9 million, if all options are awarded, to develop its diagnostic platform, initially for antimicrobial-resistant infections.

A private company, with facilities in London, UK and Carlsbad, CA, USA, DNAe's major shareholder is Genting Berhad, a Malaysian-based global investor with a growing portfolio of investments in cutting-edge life sciences companies.

About Imperial College London

Imperial College London is one of the world's leading universities. The College's 20,000 students and 8,000 staff are working to solve the biggest challenges in science, medicine, engineering and business.

Imperial is the world's fifth most international university, according to Times Higher Education, with academic ties to more than 150 countries. Reuters named the College as the UK's most innovative university because of its exceptional entrepreneurial culture and ties to industry.

Imperial staff, students and alumni are working round-the-clock to combat COVID-19. Imperial has nearly two thousand key workers, and is at the forefront of coronavirus epidemiology, virology, vaccine development and diagnostics. More than one thousand Imperial staff and students are volunteering to support the NHS. http://www.imperial.ac.uk/

About University of Leicester
The University of Leicester is led by discovery and innovation – an international centre for excellence renowned for research, teaching and broadening access to higher education. It is among the top 25 universities in the Times Higher Education REF Research Power rankings with 75% of research adjudged to be internationally excellent with wide-ranging impacts on society, health, culture, and the environment. The University is home to just over 20,000 students and approximately 3,000 staff.

Find out more: https://le.ac.uk/about