



## GE Healthcare Announces Three New Alliances to Help Improve Cancer Care

November 30, 2021

*Collaborations with SOPHiA GENETICS, The University of Cambridge and Optellum are intended expand access to the latest and most advanced technologies for cancer care*

Chicago, Nov 30 2021 — GE Healthcare announced collaborations with SOPHiA GENETICS, The University of Cambridge and Optellum as part of its vision to advance care, make precision health more accessible, and ultimately improve outcomes for cancer patients.

These alliances are intended to help GE Healthcare support integrated health systems at the local level by providing the technology to deploy software across imaging networks and helping to make the newest innovations accessible across the broader population. It is hoped this will enable local oncologists and medical experts to deliver earlier diagnoses and more accurate treatments — a crucial component in achieving positive health outcomes with cancer patients.

“Cross-functional partnerships between organizations are key to the creation of new approaches and intelligent tools that enable cancer to be detected as early as possible and with the greatest degree of accuracy,” said Dr. Ben Newton, Global Head of Oncology Solutions at GE Healthcare. “By partnering with SOPHiA GENETICS, Optellum, and the University of Cambridge, we’re looking to create a more powerful oncology care pathway that promotes high-quality, personalized, and effective medical care.”

GE Healthcare’s comprehensive diagnostic imaging and monitoring portfolio can be deployed throughout the patient’s cancer journey, from initial screening and diagnosis, through therapy guidance facilitating minimally invasive treatment, to monitoring patient progress.

As cases of cancer continue to rise and are predicted to reach 29.5 million new cases per year by 2040<sup>[1]</sup> there is a growing demand for data-driven medicine, both for clinical practice and clinical trials. GE Healthcare is utilizing its Edison platform to integrate data from diverse sources, such as electronic health records (EHR) and radiology information systems (RIS), imaging and other medical device data. This integrated data can be used to develop and deploy AI enabled solutions to help simplify oncology patient workflows, better understand increasingly complicated clinical patient data, and compare data from patient to patient.

SOPHiA GENETICS and GE Healthcare will be collaborating on opportunities in the healthcare market, including various initiatives and projects in the fields of digital oncology and radiogenomic analysis. The companies will initially work together on the creation of infrastructure to integrate data between GE’s Edison platform and the SOPHiA DDM™ platform, as well as co-marketing and pilot site recruitment across oncology and radiogenomics.

The companies will be deploying GE Healthcare’s extensive medical imaging and monitoring capabilities and Edison platform-enabled data aggregation with the SOPHiA DDM™ cloud-based software-as-a-service analytics genomic insights platform and related solutions, which are available in more than 750 hospitals, laboratories and biopharma companies.

The University of Cambridge, Cambridge University Hospitals and GE Healthcare have agreed to collaborate on developing an application aiming to improve cancer care, with Cambridge providing clinical expertise and data to support GE Healthcare’s development and evaluation of an AI-enhanced application that integrates cancer patient data from multiple sources into a single interface.

Building on research supported by The Mark Foundation for Cancer Research and Cancer Research UK, the collaboration aims to address the problems of fragmented or siloed data and disconnected patient information, which is challenging for clinicians to manage effectively and can prevent cancer patients receiving optimal treatment.

UK-based company Optellum is a leader in AI- decision support for the early diagnosis and optimal treatment of lung cancer. Together, the companies are seeking to address one of the largest challenges in the diagnosis of lung cancer, helping providers to determine the malignancy of a lung nodule: a suspicious lesion that may be benign or cancerous. The majority of incidentally detected pulmonary nodules present an indeterminate cancer risk, which are incredibly challenging for clinicians to diagnose and manage, leading to delayed treatment for cancer patients and invasive procedures on healthy people.

Optellum’s Virtual Nodule Clinic identifies and scores the probability of malignancy in a lung nodule, which is key to determining whether biopsy is necessary, and accelerating diagnosis. It is the only FDA-cleared AI-assisted diagnosis software for early-stage lung cancer<sup>[2]</sup>, and has been shown to improve the sensitivity and specificity of malignancy assessments of indeterminate nodules <sup>[3]</sup> — enabling pulmonologists and radiologists to make optimal clinical decisions<sup>[4]</sup>.

### **About GE Healthcare:**

GE Healthcare is the \$17 billion\* healthcare business of GE (NYSE: GE). As a leading global medical technology, pharmaceutical diagnostics and digital solutions innovator, GE Healthcare enables clinicians to make faster, more informed decisions through intelligent devices, data analytics, applications and services, supported by its Edison intelligence platform. With over 100 years of healthcare industry experience and around 47,000 employees globally, the company operates at the center of an ecosystem working toward precision health, digitizing healthcare, helping drive productivity and improve outcomes for patients, providers, health systems and researchers around the world.

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\*Excluding BioPharma

### **About SOPHiA GENETICS:**

SOPHiA GENETICS is a healthcare technology company dedicated to establishing the practice of data-driven medicine as the standard of care and for life sciences research. It is the creator of the SOPHiA DDM™ Platform, a cloud-based SaaS platform capable of analyzing data and generating insights from complex multimodal data sets and different diagnostic modalities. The SOPHiA DDM™ Platform and related solutions, products and services are currently used by more than 780 hospital, laboratory, and biopharma institutions globally. More info: [SOPHiAGENETICS.COM](https://SOPHiAGENETICS.COM); follow @SOPHiAGENETICS on Twitter.

### **About Optellum:**

Optellum is a commercial-stage lung health company providing Artificial Intelligence decision support software that assists physicians in early diagnosis and optimal treatment for their patients. The company was founded so that every lung disease patient is diagnosed and treated at the earliest possible stage, when chances of cure are the highest. Optellum has headquarters at the Oxford Centre for Innovation in Oxford, United Kingdom and a U.S. office at the Texas Medical Center in Houston, TX. For more information, visit [optellum.com](https://optellum.com).

### **About The University of Cambridge:**

The University of Cambridge is one of the world's top ten leading universities, with a rich history of radical thinking dating back to 1209. Its mission is to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence.

The University comprises 31 autonomous Colleges and 150 departments, faculties and institutions. Its 24,450 student body includes more than 9,000 international students from 147 countries. In 2020, 70.6% of its new undergraduate students were from state schools and 21.6% from economically disadvantaged areas.

Cambridge research spans almost every discipline, from science, technology, engineering and medicine through to the arts, humanities and social sciences, with multi-disciplinary teams working to address major global challenges. Its researchers provide academic leadership, develop strategic partnerships and collaborate with colleagues worldwide.

The University sits at the heart of the 'Cambridge cluster', in which more than 5,300 knowledge-intensive firms employ more than 67,000 people and generate £18 billion in turnover. Cambridge has the highest number of patent applications per 100,000 residents in the UK.

[www.cam.ac.uk](https://www.cam.ac.uk)

### **About Cambridge University Hospitals:**

Cambridge University Hospitals NHS Foundation Trust (CUH) is one of the largest and best known trusts in the country, delivering high-quality patient care through Addenbrooke's and the Rosie Hospitals. CUH is a leading national centre for specialist treatment for rare or complex conditions and a university teaching hospital with a worldwide reputation.

CUH is a key partner in Cambridge University Health Partners (CUHP), one of only six academic health science centres in the UK, and is at the heart of the development of the Cambridge Biomedical Campus (CBC), which brings together on one site world-class biomedical research, patient care and education. As part of the Campus development, Papworth Hospital has created a bespoke, purpose-built hospital, and AstraZeneca is building a new global R&D centre and corporate headquarters. The Campus is one of the Government's National Institute for Health Research (NIHR) comprehensive biomedical research centres.

### **About The Mark Foundation Institute for Integrated Cancer Medicine:**

The Mark Foundation Institute for Integrated Cancer Medicine (MFICM) at the University of Cambridge aims to revolutionise cancer care by using cutting edge analytics to maximise the use of diverse, high-volume data sets. The virtual institute exploits recent advances in machine learning and big data technology to capture, integrate, and derive insight into clinical, genomic and imaging data collated from hundreds of cancer patients in real time. Laboratory and clinic-based researchers and data experts are working together to develop sophisticated computational integration of these diverse data types into a single platform which can inform and predict the best treatment decisions for each individual patient.

MFICM is jointly funded by The Mark Foundation for Cancer Research and Cancer Research UK Cambridge Centre. The Mark Foundation for Cancer Research is dedicated to accelerating cures for cancer by integrating discoveries in biology with innovative technology. The Foundation pursues its mission by funding a global portfolio of ground-breaking research carried out by individual investigators, multi-investigator teams, and inter-institutional collaborations.

Visit our websites to find out more: [www.integratedcancermedicine.org](https://www.integratedcancermedicine.org) and [www.crukcambridgecentre.org.uk](https://www.crukcambridgecentre.org.uk)

### **About Cancer Research UK:**

- Cancer Research UK is the world's leading cancer charity dedicated to saving lives through research.
- Cancer Research UK's pioneering work into the prevention, diagnosis and treatment of cancer has helped save millions of lives.
- Cancer Research UK has been at the heart of the progress that has already seen survival in the UK double in the last 40 years.
- Today, 2 in 4 people survive their cancer for at least 10 years. Cancer Research UK's ambition is to accelerate progress so that by 2034, 3 in 4 people will survive their cancer for at least 10 years.
- Cancer Research UK supports research into all aspects of cancer through the work of over 4,000 scientists, doctors and nurses.
- Together with its partners and supporters, Cancer Research UK's vision is to bring forward the day when all cancers are cured.

For further information about Cancer Research UK's work or to find out how to support the charity, please call 0300 123 1022 or visit [www.cancerresearchuk.org](http://www.cancerresearchuk.org). Follow us on [Twitter](#) and [Facebook](#).

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[1] <https://www.cancer.gov/about-cancer/understanding/statistics>

[2] EIT Health <https://eithealth.eu/news-article/eit-health-supported-optellum-marks-ai-world-first/>

[3] Massion PP, Antic S, Ather S, et al. Assessing the Accuracy of a Deep Learning Method to Risk Stratify Indeterminate Pulmonary Nodules. Am J Respir Crit Care Med. 2020 Jul 15;202(2):241-249. <https://www.atsjournals.org/doi/full/10.1164/rccm.201903-0505OC>

[4] Vachani A, Massion P, Munden R, Gleeson F, Bellinger C, Dotson T, Freitag L, Imaging AI/"Radiomics" decision support improves physicians' stratification of indeterminate pulmonary nodules: A Multiple-Reader Multiple-Case study presented to The ACS National Lung Cancer Roundtable (NLCRT) 2020.