### Mission:



# Navigating the path to AI-assisted healthcare

### We are facing a UK and global challenge in healthcare

£282 billion =		5	Increased burden on healthcare systems
UK healthcare cost 160,000	10% increase	734	Increasing complexity of tests and treatments
NHS vacancies	in diagnostic tests p.a.	$\searrow$	Declining workforce 20% reduction in histopathologists

### Opportunity: Healthcare is going digital

Digitisation of imaging, the genomic medicine service and the 2024 roll-out of digital pathology present unique opportunities for multimodal AI-driven precision medicine:

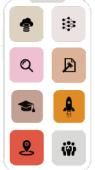
#### Early detection Disease diagnosis Treatment precision Discovery science

### Problem: UK is slow in adopting AI-assisted healthcare

- High quality multimodal datasets to train AI models do not exist.
- Current R&D models do not support efficient deployment of AI solutions into the NHS or healthcare providers.
- Lack of clarity around clinical evaluation and regulatory approval pathways.

### Solution: PharosAI

A new operational model to provide highly curated and refined multi-modal datasets combined with digital solutions for swift development, robust clinical evaluation and efficient deployment of AI into the NHS.



- A "data refinery" creating clinically valuable and structured multimodal datasets primed for AI.
- **O** A rich data repository with >50,000 patient samples from two London biobanks at its core.
- A "plug and play" app store for developing, evaluating, and deploying AI solutions in healthcare.
- Lend-me-an-expert programmes to upskill the workforce for future sustainability.
- Novel navigator function to support researchers, inventors and innovators.

### The PharosAI Team

- PharosAI founded by King's College London, Guy's and St Thomas' NHS Foundation Trust, Barts Cancer Institute and Barts Health NHS Trust.
- Centred around the King's Health Partners Cancer Biobank and Breast Cancer Now Tissue Bank our unique consortium consists of academia, healthcare providers and industry.
- In discussions with partners such as NHS England, UK Biobank, Royal College of Pathologists, Genomics England, GSK, Paige and Google.



Professor of Molecular & Digital Pathology and Head of Comprehensive Cancer Centre at King's College London Breast Cancer Now Unit London, Exec-commitee member CRUK City of London Cancer Centre



### Majid Kazmi

Consultant Haematologist, Deputy Medical Director at Guy's and St Thomas', Director of Innovation Cancer & Surgery at Guy's and St Thomas', Clinical Advisor at Advent Life Science

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Lead Pathologist at North Thames Genomic Laboratory Hub, Pathology Advisor Genomics England, PI Breast Cancer Now Tissue Bank Queen Mary University London



CITY OF LONDON CENTRE

Gregory Verghese Early Career Researcher at King's College London, Machine Learning Scientist Breast Cancer Now Unit London





NHS

### King's College London Barts

Danny Ruta

Queen Mary University of London



### **Total Addressable Market**

CANCER

RESEARCH

£805 million

ING'S .College

### £5 billion

£190 billion

## The current funding seeks to raise £20 million

£10 million

£10 million

£5.5 million

secured

Business model assumes net positive cash flow within 2 years.

# Estimated $\pounds$ 125 million value of biobank assets



#### For more information please contact:

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based on anticipated value of refined multimodal data for 1000 patients with Triple Negative Breast Cancer