

LUCINDA:

Early Lung Cancer Diagnosis Using Artificial Intelligence and Big Data

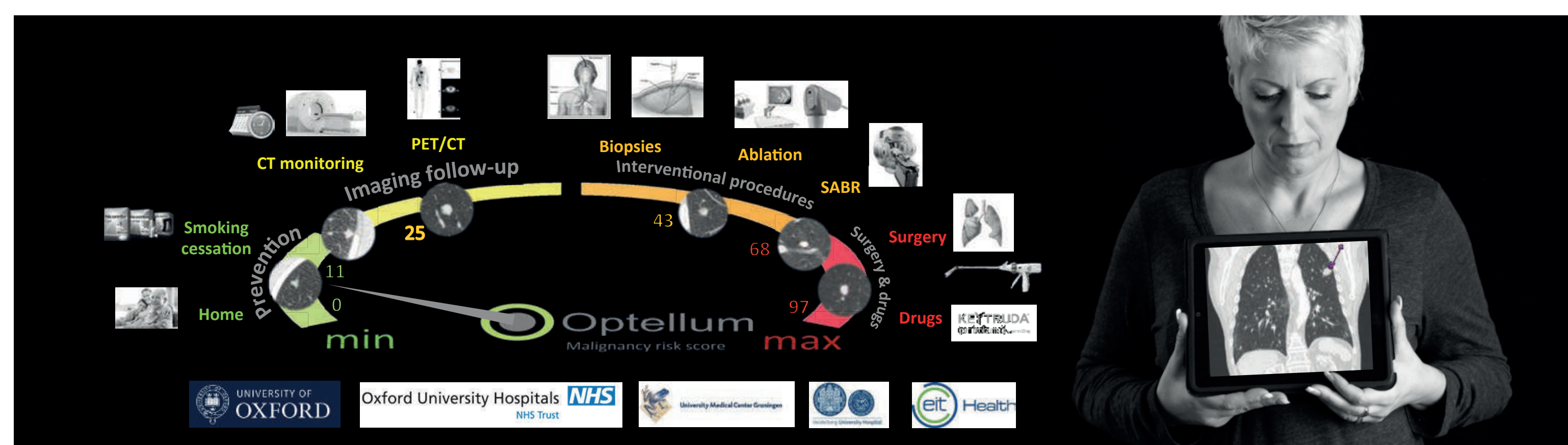
Early intervention / prevention / altering disease course trajectories

Project Type: Innovation by Ideas

Societal challenges: Improve healthcare

The project in a nutshell

Lung cancer is the most lethal cancer. Early detection by Computed Tomography (CT) significantly improves survival. Unfortunately, radiologists often struggle to determine if a lung nodule is malignant, leading to delayed diagnosis costing thousands of lives per year and millions of unnecessary, stressful and risky CT follow-ups, biopsies and surgeries. Lung Virtual Biopsy enables earlier, more confident and cost-efficient lung cancer diagnosis, using the existing CT scanner available in almost every modern hospital, Machine Learning and vast database of CT scans.



Who benefits?

- Patients: reduced stress and time to diagnosis; reduced risk from radiation, biopsies, surgeries.
- Clinicians: objective & reproducible diagnosis & reporting, in every hospital.
- Payers: Reduced volume and cost of follow up CTs, biopsies & surgeries better outcomes.

Where are you today and what is next?

Basic Lung Virtual Biopsy prototype developed and validated on Oxford and National Lung Screening Trial (NLST) data.



- 1) EIT Health Headstart: Develop advanced Lung Virtual Biopsy prototype
- 2) EIT Health Innovation by Ideas:
 - a) Extend prototype to deal with heterogeneous data (patient pathways, scanners, imaging protocols)
 - b) Train radiologists about the potential and limitations of AI and Big Data, CE-marking and product launch.

Project Leader

Oxford University Hospitals NHS Trust

Other Partners:



We are looking for new Partners / Expertise

- Hospitals with complementary patient data
- Investors
- Industrial partners with complimentary expertise (e.g. Cloud computing, EMR)
- Distribution partners



If you wish to collaborate with this project, scan the QR code and connect with it