



# NHS Fellowship in Clinical AI Supervisor Onboarding Webinar: Cohort 3

NHS Fellowship in Clinical Artificial Intelligence Faculty

# Agenda

Introduction

Fellowship structure

Supervisors: Roles & Responsibilities

Fellows: Roles & Responsibilities

Troubleshooting & Communication



# Introduction to the Fellowship

# National Workforce Strategy

The Topol Review

Preparing the healthcare workforce  
to deliver the digital future

**The Digital Medicine and AI &  
Robotics Panels recommend:**

- The NHS should create or increase the numbers of clinician, scientist, technologist and knowledge specialist posts with dedicated, accredited time, with the opportunity of working in partnership with academia and/or the health tech industry to design, implement and use digital, AI and robotics technologies. (DM4/AIR5)

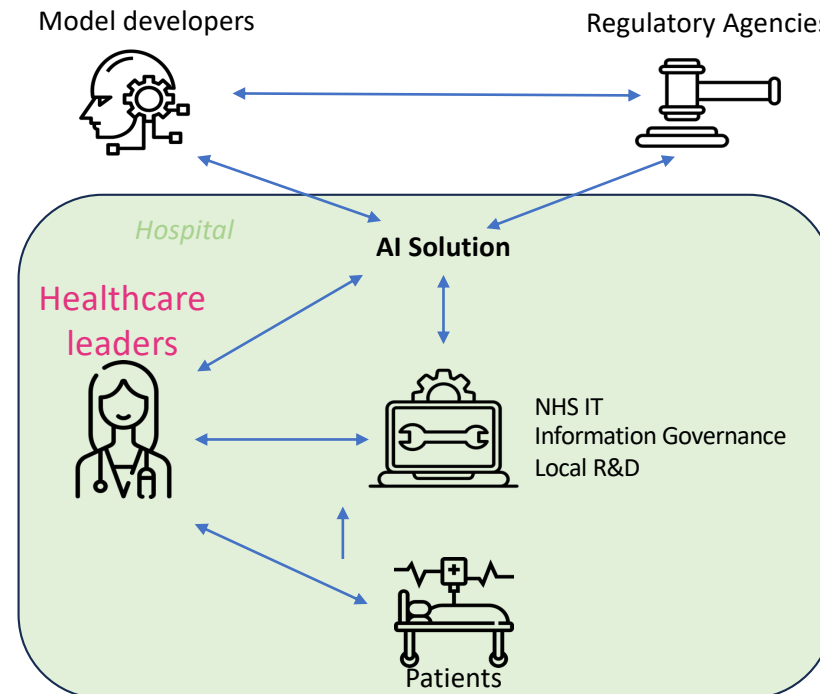
  
England

## NHS Long Term Workforce Plan

June 2023

- Ongoing investment in the Fellows in Clinical Artificial Intelligence programme, which has initially focused on diagnostics and is now supporting more clinical AI programmes aligned to solutions for radiotherapy, disease surveillance and patient transfers.<sup>188</sup>

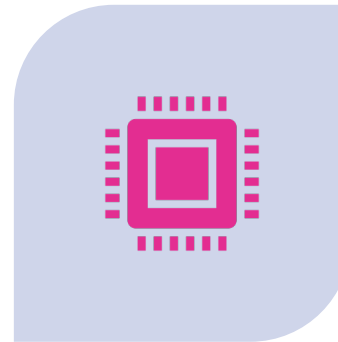
# The challenge: Equip healthcare leaders to adopt AI technology



# Our solution: The NHS Fellowship in Clinical AI



Fellows are embedded in a clinical  
AI team at an NHS Trust

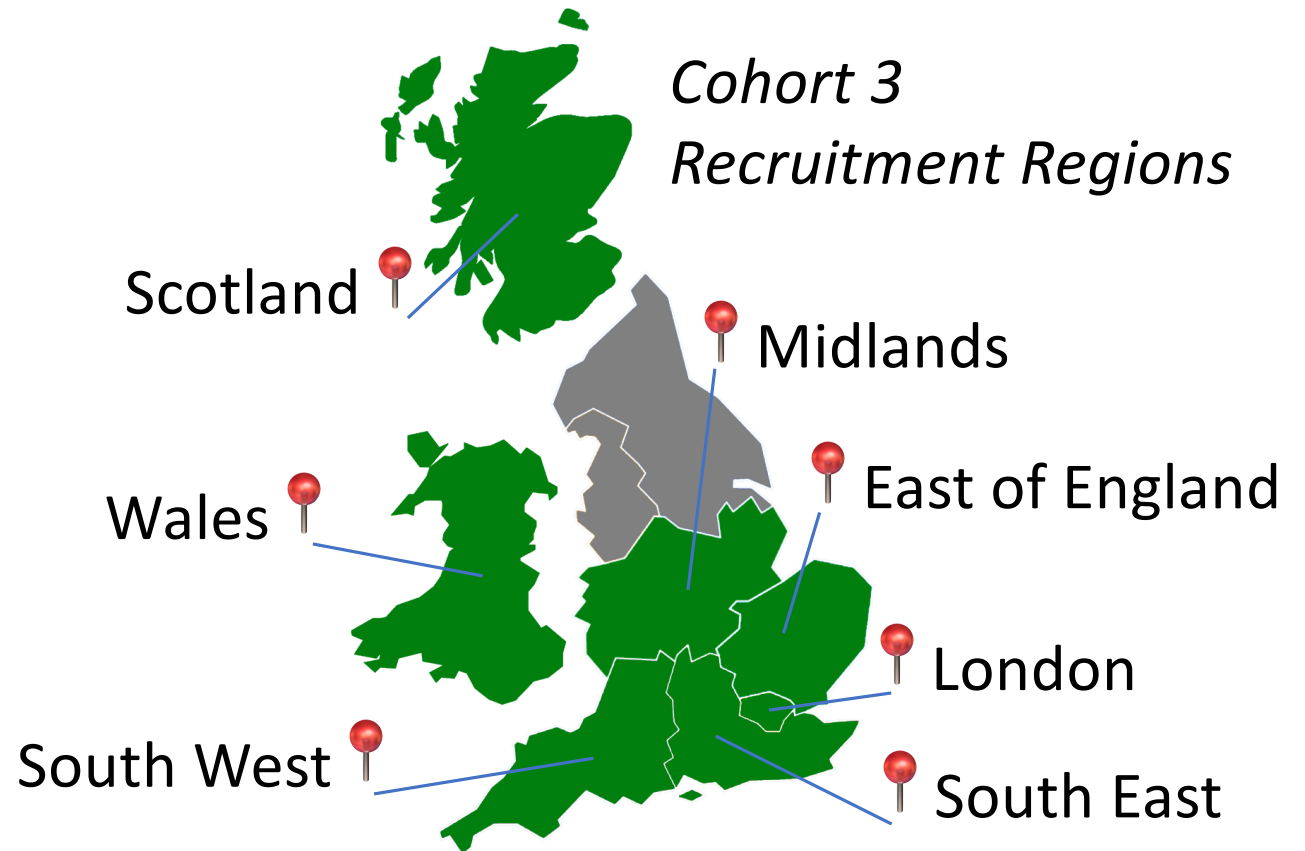


Deploy and evaluate of state-of-the-  
art clinical AI software in live hospital  
environments

# Footprint



England



Region	Project Title	Project Site
BSH (EOE)	<b>Deployment of AI-driven application to fast classify blood cells towards automated reporting of blood films</b>	Barts Health NHS Trust
BSH (WES)	<b>Integrating AI-based bone marrow fibrosis into routine clinical pathways</b>	Oxford University Hospitals NHS Foundation Trust
EOE	<b>ICU outcome and perioperative efficiency</b>	Cambridge University Hospitals NHS Foundation Trust
EOE	<b>Evaluating Real-world clinical impact of Imaging AI in a tertiary NHS Trust</b>	Cambridge University Hospitals NHS Foundation Trust
KSS	<b>Evaluation of AutoProstate</b>	University Hospitals Sussex NHS Foundation Trust
London	<b>Integrating auto-segmentation into radiotherapy planning and treatment pathways</b>	The Royal Marsden NHS Foundation Trust
London	<b>Clinical Deployment of Artificial Intelligence Autosegmentation (Limbus AI) in a Radiotherapy Imaging Workflow</b>	University College London Hospitals NHS Foundation Trust
London	<b>Global validation, Decentralised Federated Learning and pilot deployment of AI for infants with Retinopathy of Prematurity – the most common cause of vision loss in children</b>	Moorfields Eye Hospital NHS Foundation Trust
London	<b>Point-of-care AI-enabled clinical decision support for acute leukaemia diagnosis</b>	University College London Hospitals NHS Foundation Trust
London	<b>Implementing and extending novel predictive algorithms for high-cost early mental health care.</b>	South London and Maudsley NHS Foundation Trust
London	<b>Deploying &amp; Evaluating AI for Chest X-rays Reporting</b>	Guy's and St Thomas' NHS Foundation Trust
London	<b>AI-based software evaluation in digital pathology diagnostics</b>	Guy's and St Thomas' NHS Foundation Trust
London	<b>Head abnormality detection AI-tool deployment (HADAD): from feasibility to translation</b>	King's College Hospitals NHS Foundation Trust
Midlands	<b>Implementation and Monitoring of AI systems in the NHS</b>	University Hospitals Birmingham NHS Foundation Trust
Midlands	<b>Evaluation of Artificial Intelligence 3D and strain echocardiography analysis systems in oncology patients receiving potentially cardiotoxic chemotherapy compared to conventional echocardiography analysis</b>	Royal Wolverhampton NHS Trust



Region	Project Title	Project Site
Scotland	<b>Greater Glasgow and Clyde Radiology AI – A portfolio approach to evaluation, deployment and monitoring</b>	NHS Greater Glasgow and Clyde
SW	<b>Challenging the AI-lifecycle – from validation of a locally developed tool for ICU, through deployment of an AI-product for waiting list prioritisation to monitoring of an existing AI-support imaging device</b>	University Hospitals Bristol NHS Foundation Trust
SW	<b>Remote Health Monitoring Programme – Digitally enabled neighbourhoods (BRAVE-AI)</b>	South West Region
SW	<b>Challenging the AI-lifecycle – from validation of a locally developed tool for ICU, through deployment of an AI-product for waiting list prioritisation to monitoring of an existing AI-support imaging device</b>	University Hospitals Bristol NHS Foundation Trust
TV	<b>Deployment of Chest CT AI</b>	Oxford University Hospitals NHS Foundation Trust
TV	<b>Deployment of Fracture Detection AI</b>	Oxford University Hospitals NHS Foundation Trust
TV	<b>Deployment of Chest X-ray AI</b>	Oxford University Hospitals NHS Foundation Trust
Wales	<b>Evaluating clinician perception, image features and association with predictive risk factors during AI assisted polyp detection and characterization in bowel cancer screening colonoscopy</b>	Cardiff and Vale University Health Board
Wales	<b>Fellowship in AI at Betsi Cadwaladr University Health Board- including prostate AI deployment</b>	Betsi Cadwaladr University Health Board
Wessex	<b>Assessing the effectiveness and usability of an artificial intelligence tool for the clinical management of stone disease incorporating medical imaging</b>	University Hospital Southampton NHS Foundation Trust
Wessex	<b>Implementation of clinical artificial intelligence system for the detection of keratoconus progression in virtual monitoring clinics</b>	University Hospital Southampton NHS Foundation Trust
Wessex	<b>Assessing the effectiveness and usability of an artificial intelligence tool for the clinical management of stone disease incorporating medical imaging</b>	University Hospital Southampton NHS Foundation Trust

# Structure of the Fellowship

# Cohort 3 dates

**12 August 2024 – 11 August 2025**

12 months

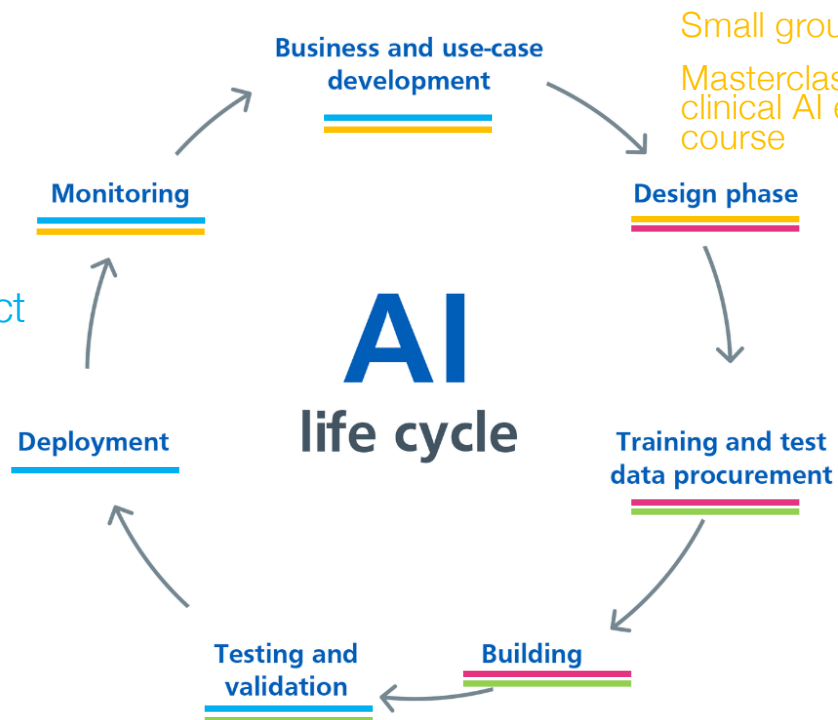
0.4 full time equivalent

i.e. 2 days (16hrs) per week- flexible

# Fellowship structure: multimodal delivery

The post lasts 1 year, at 2 days per week (0.4 FTE)

Assigned immersive AI project with expert supervision



Small group teaching:

Masterclass workshops co-developed with clinical AI experts, includes intensive 'bootcamp' course

Modular e-learning:

KCL Innovation Scholars



Self-directed e-learning:  
Programming in Datacamp



**Developing**  
healthcare workers'  
confidence in AI

Report 2 of 2

October 2022

NHS AI Lab & Health Education England

# Curriculum: learning objectives themes

Theme



AI Fundamentals



Regulation & Standards



Validation & Evaluation

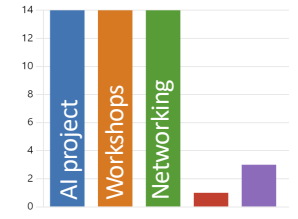
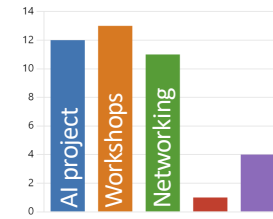
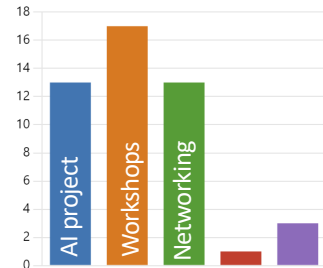
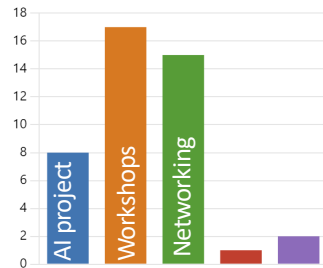
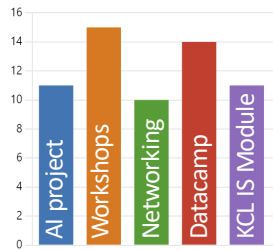


Integration & Systems Impact



Strategy & Culture

How achieved

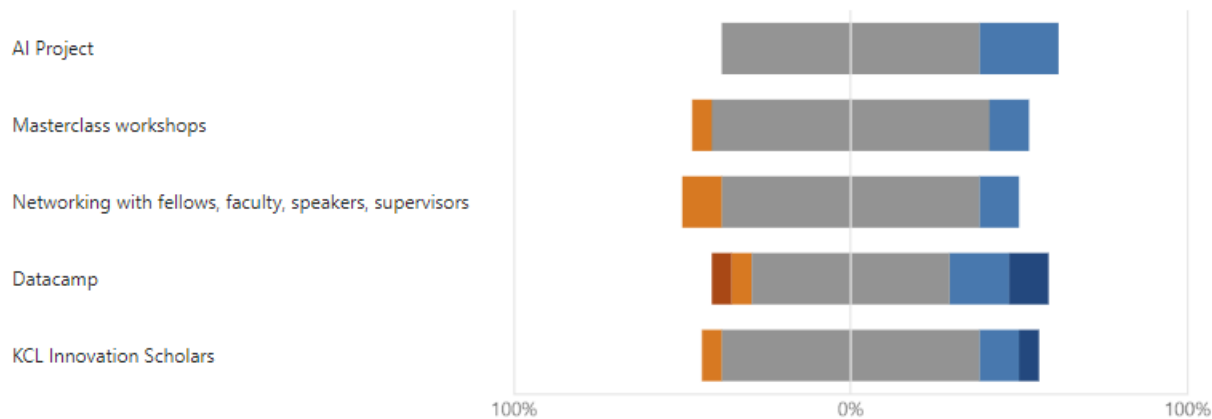


# Cohort 2: Time-commitment survey

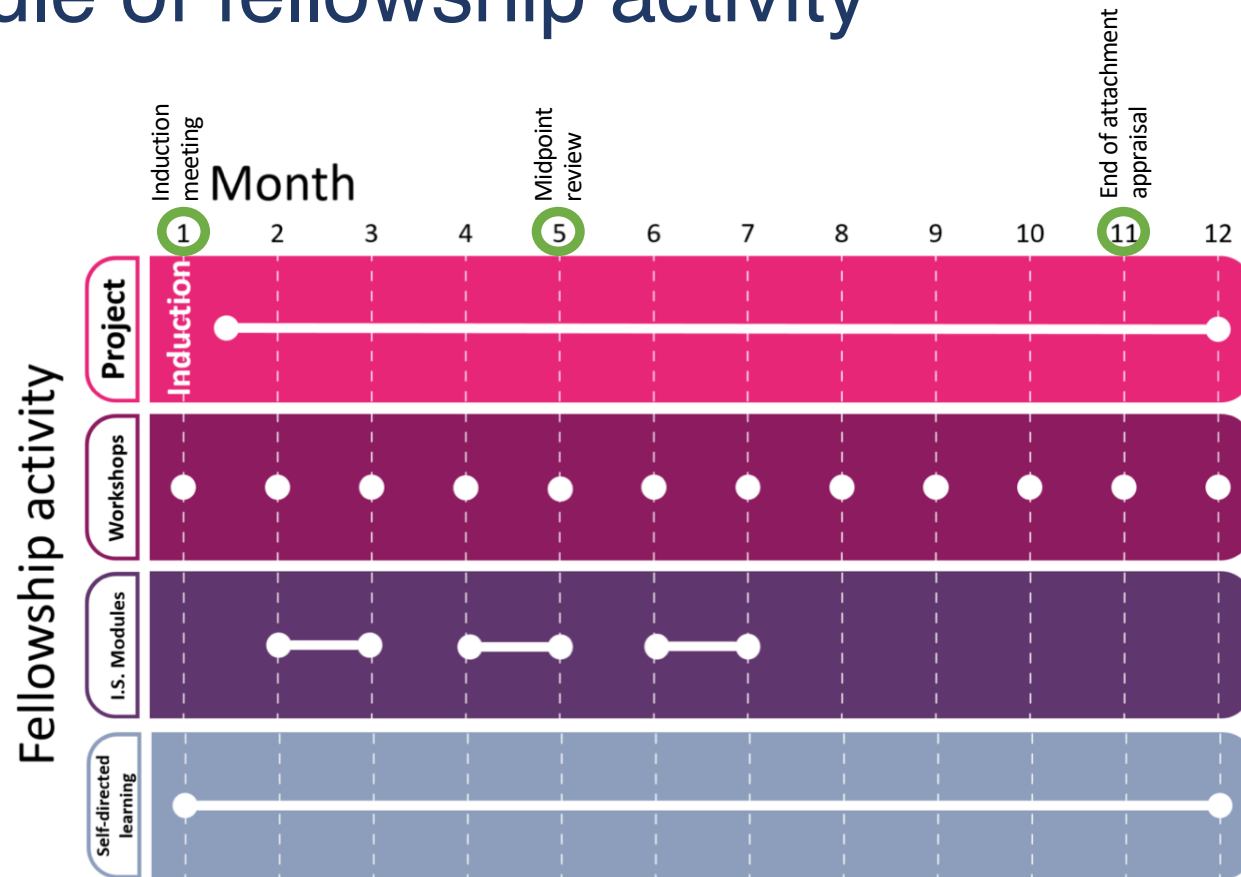
15. Was the division of time between course components suitable? For each course component please rate whether you would have preferred a different amount of dedicated time in order to meet your learning objectives.

[More Details](#)

■ Much less dedicated time needed  
 ■ Less dedicated time needed  
 ■ About right  
 ■ More dedicated time needed  
 ■ Much more dedicated time needed



# Schedule of fellowship activity



# Draft workshop schedule 2024-25

Year	Month	Date	Venue	Content
2024	1	August 12-14th	London	<b>3 day on-site Bootcamp workshops (mandatory)</b>
	2	Sep 16th	Remote	Full day workshop: AI Regulation and Standards
	3	Oct 21st	Hybrid: Leeds (LTH)	Full day workshop: AI Validation and Evaluation
	4	Nov 18th	Remote	Fellow-driven pastoral session
	5	Dec 16th	Remote	Show & tell day: Fellows' projects
2025	6	Jan 20th	Hybrid: Birmingham (UHB)	Full day workshop: AI Integration and Systems Impact
	7	Feb 17th	Remote	Fellow-driven pastoral session
	8	Mar 17th	Hybrid: Oxford (OUH)	Full day workshop: AI Strategy and Culture
	9	Apr 21st	N/A	N/A (Easter Monday bank holiday)
	10	May 17th	Remote	Remote-only: misc workshop/feedback session
	11	Jun 19th	London	Graduation showcase/conference (mandatory)
	12	Jul 21st	N/A	N/A (School Summer Holiday started)

We recommend you note and block out workshop days ahead of time as fellowship days.



# Leave and finances

## Leave:

Annual leave entitlement: pro-rata for the time allocated to the fellowship (0.4FTE). Fellows should inform their supervisor and project team of annual leave plans in writing with suitable notice (recommended 4 weeks in advance) to anticipate effects on projects.

## Finances:

**The fellowship faculty is not the fellow's Employer.** The fellow's salary is to be paid by their Employer. The Employer is to reclaim for 0.4 FTE (unbanded) of the fellow's salary for the duration of the fellowship from the funder of the fellow's post.

Costs incurred by fellows for travel and subsistence related to fellowship activities should be reclaimed from their Employer and/or funder in accordance with existing entitlements and mechanisms.

As above for publication/conference fees.

# Supervisors: Roles and Responsibilities

# Supervisor: Roles & Responsibilities

## Before fellow is matched:

- Project template
- Interview panel

## After fellow is matched:

- Organise **Letter of Access**, or **Honorary Contract** for your institution (long lead time!)
- Access cards, computer accounts, and other blockers to hitting the ground running.

## After fellow joins your team:

- 1hr direct supervision per week from **senior team member**
- Induction: work-shadowing of relevant team members, orientation on project
- Over 12mo: 3x supervisor meetings to co-develop Personal Development Plan, and review progress on project
  1. Induction meeting
  2. Mid-point review
  3. End of attachment appraisal

# Principles for great project placements

1. Opportunities to acquire of skills and knowledge highly relevant to the clinical AI curriculum: balancing the needs of the fellow's learning objectives and the project
  - *Especially exposure to other parallel AI projects at different stages of the AI life cycle*
2. Embed the fellow deeply in team
3. Opportunities for publication and presentation (we ask you kindly credit the NHS Fellowship in Clinical AI)
4. Appropriate composition and skills-mix of the hosting team and supervisor
5. Concrete and credible timelines

# Project pivoting

The project template is a roadmap, not a contract

Successful projects often evolve over the fellowship year- document this in updated project template.

If concerns are raised that the learning objectives of the curriculum are not being met by the project placement overall, the faculty shall undertake appropriate information gathering, and where relevant consider suitable remediation in consultation with the fellow, supervisor and funder. If remediation is not possible, the faculty shall re-assign the fellow to another host site or supervisor, if circumstances allow.

# Fellows: Roles and Responsibilities

# Workforce

## Doctors and Dentists

- Specialty trainee in CCT-path programme

## Nurses, AHPs, pharmacy:

- Band 7, 8a, 8b

# Person specification

## Essential

- Communicates effectively with key stakeholders in clinical AI including: hospital management, patients, clinicians, regulatory bodies, and software developers
- Works energetically as a vital member of an agile multidisciplinary team including data scientists, medical physicists, IT, health economists, and clinicians
- Has advanced ICT proficiency (e.g. using advanced functions in Office applications), and the ability to rapidly learn new skills and solve technical problems

## Desirable

- Experience in quality improvement projects, clinical trials, statistical analysis
- Experience in digital transformation, clinical informatics (DICOM, HL7, etc)
- Experience in programming, coding, mathematics



# Fellow Responsibilities (per curriculum)

1. Work energetically as a member of an agile multidisciplinary team including: AI specialists, medical physicists, IT, health economists, and clinicians
2. Communicate effectively with key stakeholders in clinical AI including: hospital management, patients, clinicians, regulatory bodies, and software developers
3. Curate clinical datasets in accordance with data-protection laws and regulations
4. Deploy clinical AI in a way that is safe, legal, equitable, and effective
5. Critically evaluate the performance of clinical AI in hospital workflows
6. Present scientific findings in clinical AI including clinical trials and QI projects
7. Understand and develop policies and standards for the regulation of clinical AI

# Troubleshooting and communication

# Causes for concern

Lack of engagement

Non-attendance

Unresponsive to correspondence

Poor quality work

Conflict with individuals in teams

# Escalation of concerns

Discuss *early* with faculty at first concern

On matters relating to fellowship, please always cc us in email chain (even if fellow says already discussed)

Faculty acts as liaison with local educational structures

# Working pattern

A fellow should **not** have a total working pattern over 1.0 FTE unless agreed beforehand with the faculty, supervisor, and relevant approvers.

*If you observe conflicting interests, please raise to faculty early*

# Prolonged absence

In general, interrupted time on the fellowship year **cannot** be automatically added on beyond the end of the fellowship year. Individual situations will be considered on a case-by-case basis at the discretion of the faculty and project supervisor in consultation with the funder.

Project supervisors propose projects related to cohort dates and are not required to provide supervision beyond these dates.

This fellowship is a time-bound opportunity that runs for 12 months between the dates specified. The educational activities and project placements are structured to deliver the learning objectives of the fellowship curriculum within this period.

# Early termination

## **Termination by fellow**

If a fellow no longer wishes to participate in the fellowship, they must inform the faculty with 20 standard working days' notice of their intent to end their post. Salary re-imburement for the fellow will be arranged to end upon conclusion of the notice period. The fellow must facilitate an appropriate handover to their project team for any uncompleted work. The fellow should submit a written report to the faculty describing the work achieved in their post to date (in lieu of presenting their work at the fellowship graduation). Individuals who withdraw from the fellowship will no longer be invited to educational activities hosted for current fellows. Individuals who withdraw from the fellowship can remain and participate in communication channels for alumni of the fellowship.

## **Termination by fellowship**

If a fellow's attendance, performance, or conduct during the fellowship is a cause for concern, the faculty shall consider suitable remediation in consultation with the fellow, supervisor and funder. In cases of demonstrable failure to respond to remediation, the faculty may inform the fellow with 20 standard working days' notice of the early termination of their post, with the same conditions as per above.

# Professional or training concerns

If there are concerns raised regarding the professional conduct or training of a fellow, the faculty shall bring these concerns to individuals and organisations with oversight and responsibility for the matter.



# Resources

## Curriculum

- [gstt-csc.github.io/assets/docs/FCAI\\_Curriculum\\_v2.7.pdf](https://gstt-csc.github.io/assets/docs/FCAI_Curriculum_v2.7.pdf)

## Education agreement

- [gstt-csc.github.io/assets/docs/FCAI\\_EducationAgreement\\_v3.4.pdf](https://gstt-csc.github.io/assets/docs/FCAI_EducationAgreement_v3.4.pdf)

## Supervision meeting templates

- Email to follow

# Staying in touch

Email: [ai4vbh@kcl.ac.uk](mailto:ai4vbh@kcl.ac.uk)

Microsoft Teams channel

In person events: graduation, Show & Tell events,  
workshops local to you