



UNIVERSITY OF
CAMBRIDGE

Clinical Academic Training within the Department of Public Health and Primary Care

2023

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Overview and background

The Department of Public Health and Primary Care provides academic training opportunities for doctors, nurses, midwives and allied health professionals throughout all stages of the academic pathway. This includes hosting doctors within the NIHR Integrated Academic Training (IAT) Programme (Table 1), non-medical healthcare professionals within the NHS England/NIHR Integrated Clinical Academic (ICA) Programme (Table 2), and both medical and non-medical trainees within the NIHR Fellowship Programme (Table 3), the Wellcome Fellowship programme (Table 4), and a range of locally and nationally funded internships and fellowships (Table 5).

For clinical academic training, our focus is on General Practice and Palliative Medicine, both of which we are the lead Department in Cambridge academic training for. Together with the MRC Epidemiology unit we also support training for public health clinicians and we additionally host academic trainees in other disciplines, including those in Diabetes and Endocrinology, Infectious Diseases and Microbiology and Medical Education. For these posts we work closely with the School of Clinical Medicine Clinical Academic Training Office (CATO) who, together with NHS England East of England (NHSE-EoE), lead applications for NIHR funded posts, manage allocation of posts across specialities, co-ordinate recruitment, and provide administrative support and guidance to trainees throughout their posts.

For nurses, midwives and allied health professionals (NMAPs), we host research placements and fellowships for a range of health professionals and also play a central role in the leadership of local and regional academic training for NMAPs through the Professor of Nursing post which is based in the Department and part funded by Cambridge University Hospitals (CUH).

In all cases, trainees based in the Department benefit from individually tailored academic mentoring and supervision from senior academics to develop knowledge, understanding and skills in research methods. This includes practical experience of research, opportunities to conduct and publish well defined personal research projects, and support for applying for subsequent funding and pre-doctoral, doctoral and post-doctoral Fellowships.

The Department views the strength of these clinical academic pipelines as central to our mission, and a key contribution to the academic training across the region and the UK as a whole.

Table 1. NIHR Integrated Academic Training (IAT) Programme posts for clinicians (doctors and dentists)

Academic Clinical Fellows (ACFs)	Academic Clinical Fellow (ACF) posts are clinical specialty training posts for doctors that incorporate academic training into the early stages of specialty training to provide trainees with protected academic time to prepare an application for a PhD, or if applicable a postdoctoral fellowship. Posts are 3 years, except for GPs where posts are for up to 4 years. Trainees spend 25% of their time during the posts in academic training. They remain employed by the NHS during that time and are visitors within the Department. Posts are funded either by the NIHR or locally by NHSE-EOE. https://www.nihr.ac.uk/explore-nihr/academy-programmes/integrated-academic-training.htm#one
In-Practice Fellowships	In-Practice Fellowships (IPFs) are NIHR funded posts that provide pre-doctoral academic training to fully-qualified GPs, general dental practitioners, and community dentists. Funding is available from the NIHR to support the academic component of 50% clinical, 50% academic posts full time for two years or part-time over 30 or 40 months. IPFs are employed by the University and are members of staff within the Department. https://www.nihr.ac.uk/explore-nihr/academy-programmes/integrated-academic-training.htm#four
Clinical Lecturers (CLs)	Clinical Lecturer (CL) posts are post-doctoral awards that provide up to four years of combined clinical practice and academic training for doctors to establish themselves as independent researchers and leaders. General Practice CL posts are offered after completion of clinical training (CCT); in all other specialities CL posts are pre-CCT. Posts are funded either by the NIHR or locally by NHSE-EOE for all specialities except General Practice. CLs are employed by the University and are members of staff within the Department. https://www.nihr.ac.uk/explore-nihr/academy-programmes/integrated-academic-training.htm#two

Table 2. NHSE-EOE/NIHR Integrated Clinical Academic (ICA) Programme posts for non-medical health professionals, including NMAHPS

Pre-doctoral Clinical and Practitioner Academic Fellowships (PCAF)	The NHSE-EOE/NIHR Pre-doctoral Clinical and Practitioner Academic Fellowship (PCAF) scheme offers salaried time to healthcare professionals (except for doctors and dentists) to develop a doctoral fellowship application and to undertake funded academic training that will equip awardees with the skills and experience to access doctoral level funding. https://www.nihr.ac.uk/explore-nihr/academy-programmes/hee-nihr-integrated-clinical-and-practitioner-academic-programme.htm#two
Doctoral Clinical and Practitioner Academic Fellowships (DCAF)	The Doctoral Clinical and Practitioner Academic Fellowship (DCAF) scheme funds registered healthcare professionals to undertake a PhD by research and, concurrently, to undertake further professional development and practice. It is a three-year award (up to six years part time), approximately 80% of which is spent working academically over the course of the fellowship. The remaining 20% is spent devoted to practice and professional development. https://www.nihr.ac.uk/explore-nihr/academy-programmes/hee-nihr-integrated-clinical-and-practitioner-academic-programme.htm#three
NHSE-EOE East funded research internships and bridging fellowships	These NHSE-EOE funded research internships and bridging fellowships are available to healthcare professionals (except for doctors and dentists) to provide an introduction to research and to support individuals with Masters-level qualifications and applications for doctoral and post-doctoral fellowships. https://www.claceast.net/home/for-nurses-midwives-and-allied-health-professionals/hee-bridging-programme-for-east-of-england

Table 3. NIHR Fellowship Programme posts available to clinicians and/or NMAHPs

NIHR Doctoral Research fellowships	NIHR doctoral Fellowships are awards that support individuals to undertake a PhD in applied health or social care research. They are available for clinical and non-clinical applicants full time for 3 years or part-time between 50-100% full time equivalent. Clinical applicants are able to include up to 20% clinical time as part of the fellowship, to ensure the maintenance of their clinical competence whilst undertaking the fellowship. https://www.nihr.ac.uk/explore-nihr/academy-programmes/fellowship-programme.htm#two
NIHR Advanced Fellowships	NIHR Advanced Fellowships are post-doctoral awards that are available for clinical and non-clinical applicants at several points of their career. The fellowship is between 2 and 5 years and can be completed on a full-time or part-time basis - between 50% and 100% whole time equivalent https://www.nihr.ac.uk/explore-nihr/academy-programmes/fellowship-programme.htm#three
NIHR Development and Skills Enhancement Awards	The NIHR Development and Skills Enhancement Award is a post-doctoral level funding opportunity aimed at supporting early to mid-career researchers in gaining specific skills and experience to underpin the next phase of their research career. It is open to clinical and non-clinical applicants. https://www.nihr.ac.uk/explore-nihr/academy-programmes/fellowship-programme.htm#four

Table 4. Wellcome Fellowship Programme posts available to clinicians and/or NMAHPs

Wellcome PhD Programme for Health Professionals at the Universities of Cambridge and East Anglia	The Wellcome PhD Programme for Health Professionals at the Universities of Cambridge and East Anglia is available for all health professionals who are registered with a national professional regulatory body (e.g. the General Medical Council, Health and Care Professions Council) in the UK. https://pgstdnt.medschl.cam.ac.uk/prospective-students/funding-opportunities/phd-programme-for-health-professionals-at-the-universities-of-cambridge-and-east-anglia/
Wellcome PhD Programme for Primary Care Clinicians	The Wellcome PhD Programme for Primary Care Clinicians is available for fully-qualified GPs, as well as practice nurses, health visitors, dentists, primary care pharmacists, and optometrists working in primary care. This programme is led by a consortium of the nine current members of the NIHR School for Primary Care Research plus the University of Cambridge. https://www.spcr.nihr.ac.uk/career-development/doctoral-training-programme-for-primary-care-clinicians
Wellcome Early-Career Awards	Wellcome Early-Career awards are five-year awards available to all post-doctoral early career healthcare professionals from any discipline to develop their research identity and be ready to lead their own independent research programme by the end of the award. https://wellcome.org/grant-funding/schemes/early-career-awards
Wellcome Career Development Awards	Wellcome Career Development awards are eight-year awards available to all mid-career healthcare professionals from any discipline https://wellcome.org/grant-funding/schemes/career-development-awards

Table 5. Other key pre-doctoral and doctoral training posts and fellowships available to clinicians and/or NMAHPs and hosted by the Department

Specialised Foundation Programme posts (SFPs)	<p>The Foundation Programme is the two-year programme all medical graduates across the UK undertake after medical school. A small number of Specialised Foundation Programme (SFP) posts are available each year for those interested in Academic Medicine / Research. Trainees in SFP posts complete the first year of the Foundation Programme (F1) in full time clinical placements. In the second year (F2) they have four months of protected research/academic time. They remain employed by the NHS during that four-month research block and are visitors within the Department. Posts are funded by NHSE-EOE. https://foundationprogramme.nhs.uk/programmes/2-year-foundation-programme/specialised-foundation-programme/</p>
East of England Applied Research Collaboration (ARC) Research and Implementation Fellowships	<p>Applied Research Collaboration (ARC) Research and Implementation Fellowships are 12-month programme, aimed at those working in the voluntary sector and health and social care professionals who are keen to develop either an understanding of the research environment, and to develop skills in research methodology, service redesign and change management (Research Fellowships) or developing knowledge and skills to implement evidence-based improvements in health and care settings, for the benefit of the population (Implementation Fellowships). The posts provide up to £12,500 per Fellow to backfill up to one day a week of research, alongside a programme of training activities. https://arc-eoe.nihr.ac.uk/training-development/arc-research-and-implementation-fellowships</p>
General Practice Fellowships	<p>The General Practice Fellowship scheme is open to any newly qualified GP or practice nurse who qualified within the last 12 months and is employed in a Cambridgeshire & Peterborough Practice in a substantive post. The posts provide funding for backfill of one session a week for Fellows to have protected learning time along with mentoring payments to practices and access to educational programmes and coaching for the Fellows. https://cptraininghub.nhs.uk/fellowship-in-general-practice/</p>
Charitable Research Fellowships and other organisations	<p>Many other charities also offer training and fellowship opportunities for clinical academics, including Cancer Research UK, the British Heart Foundation, Diabetes UK, Novo Nordisk UK Research Foundation and the MRC.</p>

Academic Training in General Practice

Departmental and Speciality Lead: Juliet Usher-Smith

In General Practice, we offer academic training opportunities at all stages of the training pathway (Figure 1).

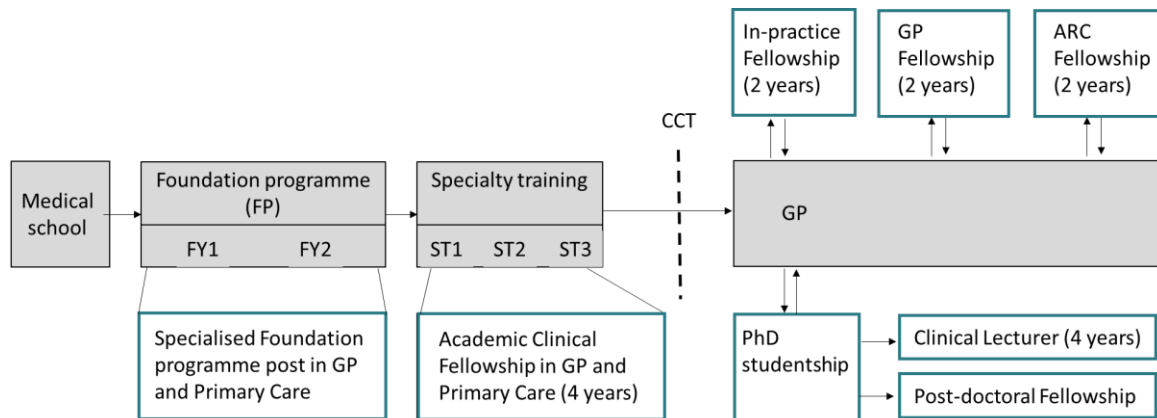


Figure 1. Academic General Practice pathway

Specialised Foundation Programme Posts

Since 2021, trainees applying to the Cambridge scheme have had the option to select General Practice / Primary Care from a choice of specialities and work within the Primary Care Unit for the academic component. The first two trainees joined the Primary Care Unit in August 2023.

Academic Clinical Fellowships (ACFs)

ACF posts in General Practice are four-year posts in which Fellows have 12 months protected academic time added on top of the standard three-year clinical training programme. The posts are funded either by the NIHR (where General Practice is one of up to three specialities competing for one post) or by NHS England East of England where funding is provided specifically for ACF posts in General Practice. The Department has a longstanding close working relationship with NHS England East of England and has benefitted from a locally funded ACF post each year for the past five years. The funding for this is less certain now with the merging of Health Education England within NHS England and local changes to the allocation of funding.

The Department typically have between 8-12 GP ACFs at any one time. The ACFs divide their time between clinical and academic posts. The Cambridge programme is unique across the country in offering ACFs the opportunity to spend 50% of the first six months of their training in an academic post. This enables Fellows to explore a research area of interest early in their training and lay the foundations for the later academic training component.

In addition to a named senior academic as a supervisor, all GP ACFs are also allocated a second supervisor and an advisor, with at least one of those an academic General practitioner who is able to support their development as an academic clinician. Regular meetings are also arranged within the Department for all the GP ACFs to meet and share their learning and research and in 2022 we hosted a very successful National Academic GP conference.

Our ACFs are encouraged to complete the University of Cambridge Masters Programme in Population Health Sciences, either full time over one year or part time over two years. £2000 is available for each ACF to put towards the cost of that course from the Cambridge Academic Training Office. The Primary Care Research theme within that programme has been developed specifically to provide ACFs with high level training in research methodology, including epidemiology, public health, biostatistics, and the use of routinely collected primary care record data. All ACFs are also supported to apply for further research funding and/or an application for a doctoral or postdoctoral training fellowship.

Thirty-nine ACFs have been appointed since 2006. Eleven are current Fellows within the Department. Of the 22 who completed the programme four or more years ago, over half (55%) have gone on to NIHR In-practice Fellowships, doctoral Fellowships or post-doctoral Fellowships, with eight of those (36%) going directly to Fellowships from the ACF programme. The reputation of the programme is also reflected in testimonials from past ACFs and in the number of applications we receive for posts; in 2022 we received over 70 applications for two posts.

Clinical Lecturers

Six Clinical Lecturers in General Practice have been appointed since 2006. All have progressed to senior academic posts, two within the Department: Fiona Walter gained a competitive NIHR Clinician Scientist award in 2012, went on to lead the Cancer group in the PCU and is now Director of the Wolfson Institute of Population Health and Professor of Primary Care Research at Queen Mary University London; Nahal Mavaddat is now Associate Professor at the University of Western Australia; Rupert Payne is Professor of Primary Care & Clinical Pharmacology, University of Exeter; Juliet Usher-Smith gained a Cancer Research UK Postdoctoral Fellowship and is now an NIHR Advanced Fellow and Assistant Professor of General Practice within the PCU; Greg Irving is Director of the Edge Hill Primary and Integrated Care (EPIC) Research Centre and Associate Director of the Health Research Institute at Edge Hill University, and Carol Sinnott is a Senior Clinical Research Associate at THIS Institute.

NIHR In-Practice Fellowships

Ten IPFs are awarded nationally each year. Since 2016, five have been hosted in the Department. Three were previous ACFs within the Department and two were local GPs supported by the Department to apply. One has progressed to a PhD and two are current IPFs. The other two have returned to clinical practice as GPs but have retained an academic focus in their roles. We are currently supporting a local GP to apply in 2024. We also currently co-supervise an IPF based at UCL on a palliative medicine project.

Doctoral studentships

The three main PhD programmes open for academic GPs are the Wellcome PhD Programme for Health Professionals at the Universities of Cambridge and East Anglia, the Wellcome PhD Programme for Primary Care Clinicians and the NIHR Doctoral Training Fellowship programme. In the past 10 years we have supported three GPs with successful applications for NIHR funded PhDs and three for Wellcome funded PhDs on the programme for Primary Care. Four further GPs have successfully been awarded PhDs from charitable funding and the MRC Epidemiology Unit.

Hosting other GP Fellows

We have hosted one GP on a General Practice Fellowship. In the past we hosted a number of CLAHRC Fellows (the ARC forerunner) but we have not hosted any ARC Fellows. In the past we also hosted GP trainees in Integrated Training Posts (ITPs). These were six-month posts in which GP trainees spent 50% of their time for six-months on a research placement, funded by NHSE-EoE (Health Education England at that time). Ten GP trainees were hosted between 2007 and 2017 before the posts were then withdrawn. A proposal was made to NHSE-EoE in 2021 in the hope of reinstating these but the priority at that time across the East of England was on the wider workforce in primary care so that was not possible. One GP is also currently funded on a pre-doctoral Fellowship funded by Addenbrooke's Charitable Trust on a palliative medicine project.

Two GPs have been supported in the past 10 years to be awarded post-doctoral Fellowships – one a Cancer Research Prevention Fellowship and subsequent NIHR Advanced Fellowship and the other as an NIHR Clinician Scientist, the forerunner of an NIHR Advanced Fellowship for clinicians.

Academic Training in Palliative Medicine

Departmental and Speciality Leads: Anna Spathis and Stephen Barclay

For palliative care we currently offer training at all stages except for Foundation Programme level (Figure 2).

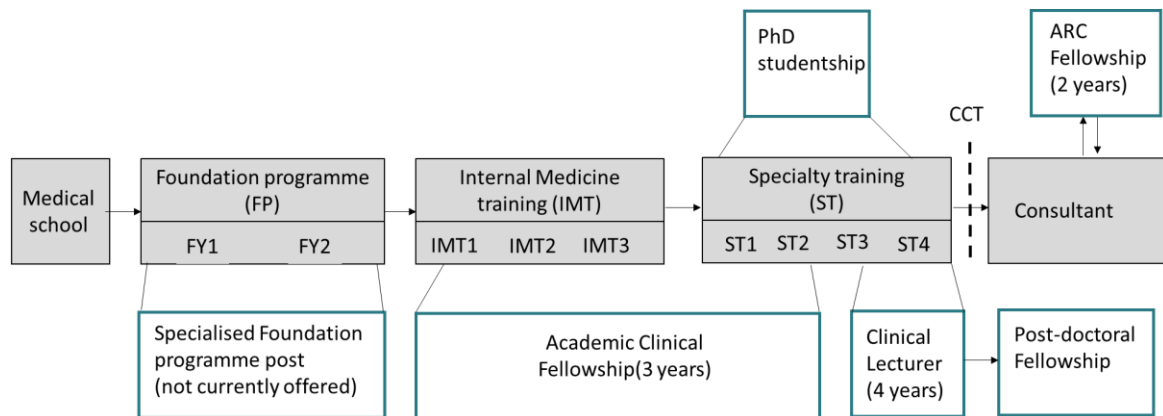


Figure 2. Academic Palliative Medicine pathway

Specialised Foundation Programme Posts

The Department hosted one very successful Palliative Medicine SFP post in 2017. Posts are currently not available specifically within Palliative Medicine but we are keen to host more such posts in the future.

Academic Clinical Fellowships (ACFs)

ACF posts in Palliative Medicine are three-year NHS posts, involving 25% academic time, alongside 75% clinical work. The academic and clinical work are undertaken in parallel with 10 hours of academic time each week. The posts are either funded by the NIHR or by NSHE-EoE. NHSE-EoE posts are locally funded clinical training posts that have been 'flipped' into becoming academic with the support of the regional Specialty Training Committee.

A total of four Palliative Medicine ACFs have been appointed in this region, all of which were based in the Department. One is NIHR-funded (still in post), and three were locally funded. Two of the four ACFs have subsequently undertaken a doctoral research degree: one undertook an NIHR-funded Doctoral Research Fellowship (DRF) and the other will shortly start a charitably funded MD Doctoral Research Fellowship.

From 2022, there has been agreement with the regional Specialty Training Committee for one locally funded Palliative Medicine ACF to be appointed each year.

Clinical Lecturers

Palliative Medicine CL posts need to be taken up not later than one year before the completion of clinical training. Two Palliative Medicine Clinical Lecturers have been appointed in this region, both based in the Department, one in 2016 and one in 2020. There have been very few Palliative Medicine CLs ever in the UK; to the best of our knowledge the current CL is the only one in the UK in 2023. The first CL moved to a clinical consultant post and is research active as

the research lead of her employing organisation. The second CL is currently applying for senior clinical academic positions.

Doctoral studentships

Over the last 10 years, we have provided primary supervision to seven doctors and nurses undertaking palliative care doctoral studentships in Cambridge and co-supervision to one based externally, with a range of funders including the NIHR School of Primary Care Research, the NIHR, and the Wellcome PhD Programme for Health Professionals at the Universities of Cambridge and East Anglia. The NIHR-funded Doctoral Research Fellowship was the first ever awarded to a Palliative Medicine trainee in the UK.

Hosting other Palliative Care Fellows

From 2012-2019, twelve NIHR CLAHRC Fellows undertook research in palliative care topics. Since 2019, two ARC Fellows have been supported within the palliative care research group. A nursing PhD student has subsequently gained a Wellcome Trust funded post-doctoral Fellowship.

Academic Training in Public Health

Speciality Lead: Nick Wareham, MRC Epidemiology Unit

Departmental Lead: Nora Pashayan

Academic public health training in the region is led by Nick Wareham in the MRC Epidemiology Unit. The Department of Public Health and Primary Care hosts public health trainees whose interests are aligned with members of the Department. Together with the MRC Epidemiology Unit and MRC Biostatistics Unit, the Department also runs a Public Health Stream within the MPhil in Population Health Sciences which all public health trainees in the region complete at part of their training, funded by NHSE-EoE.

Public Health trainees can be either clinically trained, in which case they are eligible for the NIHR Integrated Academic Training (IAT) programmes, or non-clinically trained, in which case they are considered Allied Health Care Professions and eligible for the NHSE-EoE/NIHR Integrated Clinical Academic (ICA) Programme.

Specialised Foundation Programme Posts

From 2024 Specialised Foundation Programme posts in Public Health will be available and trainees will have the option of being based within the Department or within the MRC Epidemiology Unit.

Academic Clinical Fellowships (ACFs)

ACFs in Public Health have 25% of their time protected for academic training. In addition, they complete the MPhil in Population Health Sciences within the first year of their ACF. Funding for that is provided by NHSE-EoE. In recent years, the Department has hosted one ACF who progressed to a PhD Fellowship at THIS institute.

Clinical Lecturers (CLs)

Public Health CL posts need to be taken up not later than one year before the completion of clinical training. In recent years the Department has hosted one CL in Public Health who progressed to a Senior Clinical Lecturer post in the Wolfson Institute, Queen Mary University London.

Hosting non-clinical Public Health Fellows

We have recently hosted a non-clinical Public Health Speciality Registrar as a Pre-doctoral Clinical and Practitioner Academic Fellow (PCAF).

Academic Training for Nurses, Midwives and Allied Health Professionals (NMAPs)

Departmental lead: Joanne McPeake

Although the Department has always been open to non-medical researchers, training for NMAPs accelerated with the appointment of the first Professor of Nursing (Christi Deaton) at the end of 2013. The professorial post is part funded by Cambridge University Hospitals (CUH) with the remit to build research capacity among NMAPs both in Cambridge and in the East of England Region. Since 2017, NMAPs in the East of England have been awarded seven NIHR Pre-doctoral Clinical Academic Fellowships (PCAF), nine NIHR doctoral research fellowships, five Charity doctoral research fellowships and two NIHR or Charity post-doctoral fellowships (23 total fellowships to 21 individuals). Eighteen of these awards went to staff at CUH or University of Cambridge, and eleven of the fellowships were or are hosted by the PCU within the Department.

Developing NMAPs to be competitive for national awards has been possible through infrastructure and research training opportunities at CUH, in the region funded by NHSE-EoE or through ARC East fellowships. The importance of these early training opportunities cannot be over emphasised; of fourteen national doctoral fellowships to CUH staff, eleven were to individuals who had CUH or regional pre-doctoral fellowships. Opportunities and training at CUH and the region are led or co-led by the Professor of Nursing as detailed below.

Support within CUH

NMAPs within CUH are supported to develop research skills through a research strategy implemented by the Professor of Nursing and Leads for NMAP Research. This includes educational modules, seminars, annual research conference and mentoring. A NMAP clinical research group was begun in 2015 and has since grown to 60+ members with monthly meetings. There are now eighteen NMAPs at CUH who are doing a PhD or are post-doctoral and able to mentor others.

Clinical research ('pump-priming') fellowships supported by Addenbrookes Charitable Trust and Cambridge Biomedical Research Centre (BRC) was opened to NMAPs in 2015 and has supported 12 NMAPs since then. The intent is to provide time and funding to allow awardees to develop competitive fellowship applications. Four of the awardees have received competitive doctoral fellowships, two from NIHR and two from Charities.

CUH has also established a framework in which to support post-doctoral clinical academic careers in the Trust.

NHSE-EoE funded research internships and bridging fellowships

Professor of Nursing at the time, Christi Deaton, and Professor of Rehabilitation Tina Jerosch-Herold (UEA) submitted a tender for the programme in 2018 and have led it since its inception. Since 2019 45 NMAPs in the East of England have taken the pre-master's internship programme, 25 have taken the pre-doctoral bridging fellowships, and four have had post-doctoral bridging fellowships. Professors Deaton and Jerosch-Herold lead the pre-doctoral and post-doctoral bridging fellowships, which include six masterclasses for the pre-doctoral fellows and action learning sets for the post-doctoral fellows. Six of the pre-doctoral fellows now have

NIHR or Charity doctoral fellowships and others are pending review, and one post-doctoral fellowship is under review.

Cambridge BRC Research Capacity Building

Professor Joanne McPeake is the new Professor of Nursing following the retirement of Professor Deaton but Professor Deaton continues as the lead for Capacity Building within BRC 4, and was Deputy Lead for BRC 3. Capacity building supports medical and non-medical trainees to develop research skills, including ACT/BRC fellowships, Specialist Foundation Year research placements, co-funded PhD fellowships, seminars and training. Additional support is provided within BRC 4 for early research placements for NMAPs and support for post-doctoral clinical academic posts.

PhD Programme for Health Professionals at Universities of Cambridge and East Anglia (funded by Wellcome Trust)

Professor Deaton is also a co-director of this programme which was opened to non-medical applicants in 2021, and funds seven doctoral fellowships annually. The first nurse was awarded a fellowship in 2022 (hosted in the PCU), and the 2023 intake includes a midwife.

