

2-YEAR ACADEMIC FOUNDATION PROGRAMMES AT IMPERIAL COLLEGE MEDICAL SCHOOL & PARTNER TRUSTS (IMP)

1. INTRODUCTION

Imperial College London, Imperial College Healthcare and partners have an international reputation for translating scientific breakthroughs to clinical practice. Imperial hosts a critical mass of international leaders in clinical medicine, healthcare policy, academia and technology and innovation which is unparalleled in the UK. Imperial has strengths in clinical trials, drug discovery, public health, bioinformatics, artificial intelligence (AI) and 'omic' approaches. Imperial is an NIHR Biomedical Research Centre (BRC) and was the UK's first ever Academic Health Sciences Centre (AHSC). Imperial takes pride in offering the highest quality of academic training for its AFP trainees.

The Imperial Academic Foundation Programme is led by Dr. Channa Jayasena (c.jayasena@imperial.ac.uk). Imperial offers a wide selection of academic programmes covering several major specialities and within these there are possibilities for lab based or clinical research as well as opportunities for research in medical education and leadership projects. Imperial Academic Foundation Trainees have access to a state-of-the-art educational programme alongside Academic Clinical Fellows, Research Fellows and Clinical Lecturers, this is organised through the Clinical Academic Training Office (CATO). This provides the ideal environment to enable interested trainees to undertake further research training and plan a future a clinical academic career. Imperial's academic trainees routinely succeed in publishing and presenting the work they have undertaken in their academic placement.

Successful applicants are recruited to a specific 4 month academic F2 post e.g. academic medicine. This post sits within a generic 2 year foundation programme with 5 other clinical placements, balanced to enable acquisition of foundation competences. Applicants should note that clinical placements are subject to change dependent on service need and provisional until confirmed by the employing Trust.

2. DETAILS OF TRAINING PROGRAMMES

A spreadsheet summarising all of the available programmes is available to download from <http://www.stfs.kss.hee.nhs.uk/tfs-academic-foundation-programme-recruitment>.

Programme Reference	Programme Theme	Based at
2021/IMP/01	Academic Paediatrics	St Mary's Hospital
2021/IMP/02	Academic Paediatrics	St Mary's Hospital
2021/IMP/03	Academic Paediatrics	St Mary's Hospital
2021/IMP/04	Academic Medicine	Hammersmith Hospital
2021/IMP/05	Academic Medicine	Hammersmith Hospital
2021/IMP/06	Academic Medicine	Hammersmith Hospital
2021/IMP/07	Academic Metabolic Medicine	Hammersmith Hospital
2021/IMP/08	Academic Metabolic Medicine	Hammersmith Hospital

2021/IMP/09	Academic Metabolic Medicine	Hammersmith Hospital
2021/IMP/10	Academic Primary Care	Charing Cross Hospital
2021/IMP/11	Academic Primary Care	Charing Cross Hospital
2021/IMP/12	Academic Primary Care	Charing Cross Hospital
2021/IMP/13	Academic Primary Care	Charing Cross Hospital
2021/IMP/14	Academic Primary Care	Charing Cross Hospital
2021/IMP/15	Academic Primary Care	Charing Cross Hospital
2021/IMP/16	Academic Obstetrics & gynaecology	Queen Charlotte's Hospital
2021/IMP/17	Academic Obstetrics & gynaecology	Queen Charlotte's Hospital
2021/IMP/18	Academic Obstetrics & gynaecology	Queen Charlotte's Hospital
2021/IMP/19	Academic Anaesthetics	Chelsea & Westminster Hospital
2021/IMP/20	Academic Anaesthetics	Chelsea & Westminster Hospital
2021/IMP/21	Academic Anaesthetics	Chelsea & Westminster Hospital
2021/IMP/22	Academic Vascular Surgery	Charing Cross Hospital
2021/IMP/23	Academic Vascular Surgery	Charing Cross Hospital
2021/IMP/24	Academic Vascular Surgery	Charing Cross Hospital
2021/IMP/25	Academic General Surgery	St Mary's or Charing Cross Hospital
2021/IMP/26	Academic General Surgery	St Mary's or Charing Cross Hospital
2021/IMP/27	Academic General Surgery	St Mary's or Charing Cross Hospital

North West Thames offers 27 jobs in the academic programme. In all cases the F1 year will be a standard F1 programme in order to ensure candidates can establish core clinical medical skills as described in the Foundation curriculum. However, doctors will have the opportunity to attend academic F1 early evening teaching sessions and will be encouraged to involve themselves in formal teaching commitments. All academic F1s are 'buddied' up with the F2 who is following the same programme as them for support and mentoring. We also arrange an evening meeting in January where academic F1s will meet their academic leads and start to plan their F2 academic placement in detail.

The F2 year will be based either at Imperial College Healthcare NHS Trust (Hammersmith, Charing Cross and St Mary's Hospitals), Northwick Park Hospital, or Chelsea and Westminster Hospital, in partnership with Imperial College London. Academic placements are grouped into the Academic Departments of Medicine, Metabolic Medicine, General Surgery, Vascular Surgery, Paediatrics, Obstetrics & Gynaecology, Primary Care, and Anaesthesia. The Academic F2 (AF2) lecture programme that goes on through the year will be based at any of three Imperial College Healthcare NHS Trust sites.

Common features of the AF2 programmes include:

- A named academic educational supervisor/mentor for the whole year. Trainees will be encouraged to meet with their academic supervisor well in advance of commencing their F2 year. At the start of their academic placement they will agree an personal academic development plan which would include exposure to research techniques, literature analysis, career advice on planning a career in research, grant funding etc.
- Attendance at research meetings within the academic department to which they are attached.
- At least termly whole day academic foundation programme teach-ins covering all areas of academic medicine, research and leadership.
- Core lecture programme (example, changes each year)
 - “my academic career” – talks from leading Clinician Scientists working at Imperial
 - Research Governance
 - Leadership workshop
 - Research Ethics
 - Translational Medicine
 - How to present scientific research
 - Guidance for a career as an academic clinician
 - Critical appraisal workshop
- Trainees will be encouraged to write a review article under the guidance of their academic mentor based an area related to their academic attachment, aimed for publication. During this they will learn critical literature analysis techniques.
- They will hopefully generate enough data from the 4 months laboratory or clinical research to contribute to a scientific paper. Clearly 4 months is not sufficient time to finish a project, but the time and work undertaken should have contributed significantly. Trainees are encouraged to submit their work for presentation at national and international symposia.
- They will attend a dedicated one day academic training day covering clinical research and teaching skills (based at Chelsea and Westminster).
- They will present their academic work at the CATO Annual symposium in the July of their F2 year.

Individuals will be working within routine busy clinical units and are expected to develop the same formal clinical F2 competencies as F2 doctors in non-academic programmes within 8 months instead of the standard 12. They will have named clinical supervisors in each placement who will ensure they address clinical skills in addition to the academic activity. All clinical placements have well established appraisal systems and on-going educational support.

3. PLACEMENTS

In light of responses to the Collins report and local service reconfigurations, it is possible that some of the clinical placements may change but all will retain the required balance to allow excellent training in Foundation and the acquisition of required Foundation competencies.

Programmes 1-3 - Academic Paediatrics - based at Hammersmith & St Mary's Hospitals

Reference: 2021/IMP/01

Reference: 2021/IMP/02

Reference: 2021/IMP/03

Individual Placement Descriptor (IPD) for the four month academic placement

<i>Type of programme</i> This is a research post in Paediatrics based at St Mary's Hospital.	
<i>Employing trust:</i> Imperial College Healthcare NHS Trust	<i>Academic placement based at:</i> St Mary's Hospital
<i>Brief outline of department</i> <p>Academic Paediatrics at Imperial hosts diverse expertise in many specialist areas including infectious diseases, global health, allergy, emergency and intensive care, respiratory medicine, neonatology and child public health. The wider paediatric department also has a growing interest in health services research and evaluation of new models of care.</p> <p>To help trainees to find specific projects and supervisors within their Academic Foundation Programme in Paediatrics we have three main themes where we suggest trainees base their time, although we are happy to discuss alternative proposals if there is a strong rationale for working in one of our other areas. The programme is led by Dr Aubrey Cunnington (Paediatric Infectious Disease) and Dr Dougal Hargreaves (Population Health) who can link you up with colleagues as needed.</p> <p>Paediatric Infectious Disease combines basic, translational and clinical research aimed at understanding susceptibility and severity in childhood infectious diseases and improving methods of diagnosis, prevention and treatment (http://www.imperial.ac.uk/infectious-disease/research/paediatrics/). A particular area of strength is in "Platform Science" – the application of omics technologies and bioinformatics to healthcare problems. Different groups within the Section vary in focus on host, microbes and their interactions. The Section leads major international Consortium projects (http://www.euclids-project.eu/; http://www.perform2020.eu/) and has strong global connections in The Gambia, Ghana and South Africa. We have a proven track record of nurturing aspiring clinician scientists at every career stage from AFP and ACF through to clinical lecturers and beyond, leading to a high rate of success in obtaining independent PhD funding and research fellowships.</p> <p>Paediatric Allergy, Respiratory & Sleep Medicine. St Mary's hosts a busy academic Paediatric Allergy team, headed by Professor Adnan Custovic. Current programmes include primary prevention of allergic disease using dietary and non-dietary approaches, investigation of the mechanisms of anaphylaxis, immunotherapy of allergic disease, temperature-controlled laminar airflow trials, and analysis of birth cohort data to define allergic disease phenotypes and their environmental and genetic determinants. There is also an active paediatric sleep medicine research programme, focussed on the development and validation of new approaches to the diagnosis of sleep-disordered breathing. Paediatric Respiratory Medicine, based</p>	

National Heart and Lung Institute, combines diverse expertise spanning basic mechanism through to clinical trials in asthma, bronchiectasis, cystic fibrosis and primary ciliary dyskinesia.

Population Health and Health Services Research for Children and Young people. Prof Sonia Saxena, Prof Mitch Blair and Dr Dougal Hargreaves in the School of Public Health lead major local and national collaborations to study and improve the health of children and young people (for example, through the NIHR Applied Research Collaboration NW London and the NIHR School of Public Health). Our team has experience of working with a range of routinely-collected datasets to identify novel patterns and associations, and evaluate the impact of individual or service-level interventions to improve outcomes. We also have close links to the Connecting Care for Children team at St Mary's Hospital (led by Dr Bob Klaber and Dr Mando Watson) and many other local partners. In neonatology, primarily at Chelsea and Westminster campus, additional work with large datasets of routinely collected clinical data is being used to transform understanding of the determinants of outcomes for preterm infants across the life-course and to embed pragmatic clinical trials alongside routine delivery of care.

Additional areas of research interest include neonatal hypoxic ischaemic encephalopathy, intensive care interventions, emergency care triage and risk stratification, adolescent health, medical education and paediatric surgery.

Structure of academic project/what expected

The AF2 year will consist of 4 months Acute Medicine and 4 months ICU at Hammersmith Hospital and 4 months Academic Paediatrics based at St Mary's Hospital, Imperial College Healthcare NHS Trust. The AF2 will have the opportunity to be part of a highly dynamic and supportive team of doctors and other health professionals working together in academic, service improvement and educational aspects of paediatrics and child health. If desired, the Academic F2 can be allocated to a Specialist Registrar level mentor during their academic paediatrics placement.

There is access to a wide range of teaching and other learning opportunities within the department, and each doctor will be strongly encouraged to make the most of these in order to support their personal learning plan.

A weekly teaching timetable detailing all opportunities will be sent to each doctor. There will also be the opportunity to develop important transferrable skills in the writing of ethics and grant applications, performing statistical analysis, and writing and revising manuscripts.

It is envisaged that doctors in this Academic Paediatrics placement will be successful in achieving journal publications and published abstracts, as well as presenting their work in regional and national meetings. The post will be an outstanding introduction to academic paediatrics and child health, and high performance in the post will undoubtedly strengthen any potential application for run-through paediatric training at ST1 level.

Clinical commitments during academic placement

There are no clinical commitments and no on call duties during the Academic Paediatrics placement.

Departmental academic teaching programme (if applicable)

There are many opportunities here and the post-holder will be introduced to these when they start.

Academic Lead:

Dr. Aubrey Cunningham, Reader in Paediatrics
a.cunnington@imperial.ac.uk

Dr. Dougal Hargreaves, Clinical Senior Lecturer in Paediatrics
d.hargreaves@imperial.ac.uk

Programmes 4-6 - Academic Medicine – based at Hammersmith Hospital

Reference: 2021/IMP/04

Reference: 2021/IMP/05

Reference: 2021/IMP/06

Individual Placement Descriptor (IPD) for the four month academic placement

Type of programme

This a research post where the AF2 will have the opportunity to spend four months doing cutting-edge research within a research group anywhere within the Faculty of Medicine at Imperial College.

Employing trust:

Imperial College Healthcare NHS Trust

Academic placement based at:

Hammersmith Hospital

Brief outline of department

The AF2 can choose to be attached to any one of a number of world-class research units within the Department of Medicine at Imperial College – explore the website at <http://www1.imperial.ac.uk/departmentofmedicine/> to understand the breadth and quality of opportunities available. The Department comprises 5 world class Divisions – Brain Sciences, Diabetes, Endocrinology and Metabolism, Experimental Medicine, Immunology and Inflammation and Infectious Disease. The Academic F2 can be attached to groups within any of these and undertake basic laboratory research, more clinical research and projects involving a mix and including innovative imaging and computing. Depending on the AF2's interests there are also possibilities for attachments in more diverse laboratories - e.g. a recent stint by one Academic F2

in the Department of Bioengineering. We aim to facilitate the AF2 in finding the project and department that suits them and will allow them the greatest opportunity to achieve outstanding academic outputs. Many of our previous AF2s have produced first author papers and / or presentations by the end of their programme.

Structure of academic project/what expected

The F2 year will consist of 4 months of Acute Medicine and 4 months of Renal medicine based at Hammersmith Hospital, and 4 months of Academic Medicine at any of the Imperial sites. Dr. Rohini Sharma oversees the Academic Medicine placements but the Academic F2 will be supervised during their academic placement by the relevant academic lead for the research project undertaken.

Dr. Rohini Sharma will assist trainees in finding the right supervisor early on in their F1 year to facilitate planning and familiarity with the group and ensure that they get the most out of their 4 month placement by being fully prepared. Each trainee will identify an academic supervisor within their chosen research group who will meet with them regularly, set the academic learning objectives at the beginning of the placement and review progress at the end of the placement.

There is access to wide range of teaching and other learning opportunities within the department, and each doctor will be strongly encouraged to make the most of these to support their personal learning plan. There will also be the opportunity to develop important transferrable skills in the writing of ethics and grant applications, performing statistical analysis, and writing and revising manuscripts. Other learning opportunities, such as development of educational research skills or understanding quality improvement methodologies will be offered in accordance with the needs of the trainee and the project undertaken.

It is envisaged that doctors in this Academic Medicine placement will be successful in achieving journal publications and published abstracts, as well as presenting their work in regional and national meetings. The post will be an outstanding introduction to academic medicine, and high performance in the post will undoubtedly strengthen any potential application for CMT / ACF posts.

Clinical commitments during academic placement

There are no clinical commitments and no-on call duties during the Academic Medicine placement.

Departmental academic teaching programme (if applicable)

Academic Foundation doctors will be expected to attend the weekly Department of Medicine Staff round, and any departmental seminars that they wish to attend. There will be different expectations of attendance at seminars within each research group and the academic supervisor will advise the trainees. They are also expected to attend their home Trust F2 weekly teaching session.

Academic Lead:

Dr. Rohini Sharma
Consultant and Clinical Senior Lecturer in Oncology
r.sharma@imperial.ac.uk

Programmes 7-9 - Academic Metabolic Medicine – based at Hammersmith Hospital

Reference: 2021/IMP/07

Reference: 2021/IMP/08

Reference: 2021/IMP/09

Individual Placement Descriptor (IPD) for the four month academic placement

<i>Type of programme</i>	
The AF2 will have the opportunity to spend four months doing cutting edge research in the Section of Endocrinology and Investigative Medicine at Hammersmith Hospital.	
<i>Employing trust:</i>	<i>Academic placement based at:</i>
Imperial College Healthcare NHS Trust	Hammersmith Hospital
<i>Brief outline of department</i>	
The Department of Investigative Medicine has an outstanding, world-class record for research running the whole gamut from bench to bedside.	
The Department is well-equipped and consists of a team of clinical academics and basic scientists with a wide variety of scientific expertise who work very closely together. The main research themes in the department, which interlock and reinforce each other include:	
<ul style="list-style-type: none">• Understanding the physiology of metabolic regulation, appetite control and reproduction in man.• Investigating the pathophysiology of diabetes, obesity and infertility.• Exploring the mechanisms of bariatric surgery, the most successful treatment so far for diabetes and obesity.• Developing new technologies for measuring hormones.• Translating the insights gained from such understanding into new treatments for diabetes, obesity and infertility.	
Examples of research breakthroughs from the Department include:	
<ul style="list-style-type: none">• The first human infusions of a number of novel peptide hormones in man including ghrelin (Wren et al. JCEM 2001), peptide YY (PYY) (Batterham et al. Nature 2002), oxyntomodulin (Cohen et al. JCEM 2003), kisspeptin (Dhillon et al. JCEM 2005, 2007, 2009).• The demonstration that glucagon-like peptide-1 (GLP-1) was a feasible treatment for patients with type 2 diabetes (Todd Clin Sci 1998) and that GLP-1 is capable of reducing appetite (Turton Nature 1996).	

- Showing that combination hormone infusions of PYY and GLP-1 (Neary 2005; De Silva Cell Metab 2011) and GLP-1 plus glucagon (Tan Diabetes 2013; Cegla Diabetes 2014; Salem Diabetes Obes Metab 2015) improve the desired effects of appetite suppression, increased energy expenditure and
- Capitalising on this fundamental work to develop analogues of PYY, pancreatic polypeptide, GLP-1 and glucagon as new treatments for diabetes and obesity (Tan Brit J Pharmacol 2011).
- The first clinical trials of kisspeptin as a treatment for infertility (Jayasena J Clin Invest 2014; Abbara JCEM 2015).

The Department's research in the last year has been featured in the media internationally on the BBC News website, BBC Horizon, The Guardian, ITV Tonight, BBC Persian World Service.

The Department is funded by numerous grants including programme and project grants from the Medical Research Council (MRC), National Institute for Health Research (NIHR) and the Wellcome Trust. The department has a very good record of training junior doctors; currently there are 8 Wellcome Trust, MRC, NIHR Clinical Training Fellows in the laboratory.

Alumni from the Department have gone on to work and lead in research groups internationally.

Further information can be found on the departmental website: <https://www.imperial.ac.uk/departments-of-medicine/research/diabetes-endocrinology-metabolism/endocrinology-and-investigative-medicine/>

Structure of academic project/what expected

The AF2 year will be based at Hammersmith Hospital, and will include 4 months of Acute Medicine, 4 months of Haematology, and 4 months Academic Metabolic Medicine where the AF2 will be given insight into the link between clinical medicine and the laboratory.

The AF2 will be incorporated into the laboratory's research themes during their four month research block and is expected to actively participate in a number of defined research projects. This involves working with doctoral and post-doctoral students and a range of other professionals. Additionally, the trainee is expected to partake in the variety of laboratory research meetings and presentations such as the journal club. There is also the opportunity to be involved with teaching and to attend general endocrine clinics.

This is an ideal post in which to gain clinical laboratory experience as well as experience in basic research. The AF2 will work with highly skilled clinical scientists who will provide training in the relevant techniques. The AF2 will gain the following specific skills:

- an understanding of metabolic medicine.
- experience in conducting basic and clinical research.
- laboratory experience and skills including hormone assays and cutting-edge molecular biology.

There will be both academic and clinical supervision throughout the programme. There will be enthusiastic support for trainees to undertake clinical projects investigating metabolic disease. This should lead to presentations at National or International meetings. The work of some AF2s in the past has resulted in several peer reviewed publications. Whilst a publication cannot be guaranteed for any research placement our previous academic F2s have a good track record of securing authorship on a publication from their 4 month research placement (e.g. Shah JCEM 2016; Calley Hum Reprod 2015; Sarang Sci Rep 2015; Sridharan J Clin Invest 2014; Hopkins Lancet 2010).

The research will be supervised by Professor Waljit Dhillon (w.dhillon@imperial.ac.uk), Professor Steve Bloom (s.bloom@imperial.ac.uk) and Professor Tricia Tan (t.tan@imperial.ac.uk).

Clinical commitments during academic placement

The AF2 has no clinical duties.

Departmental academic teaching programme (if applicable)

The AF2 will attend weekly research meetings as well as Trust F2 teaching.

Academic Lead:

Professor Waljit Dhillon
 Professor of Endocrinology
w.dhillon@imperial.ac.uk

Programmes 10-15 - Academic Primary Care – based at St Mary’s and Charing Cross Hospitals

- Reference: 2021/IMP/10
- Reference: 2021/IMP/11
- Reference: 2021/IMP/12
- Reference: 2021/IMP/13
- Reference: 2021/IMP/14
- Reference: 2021/IMP/15

Individual Placement Descriptor (IPD) for the four month academic placement

<i>Type of programme</i>	
This is a 4 month research and clinical placement in Academic Primary Care	
<i>Employing trust:</i>	<i>Academic placement based at:</i>
Imperial College Healthcare NHS Trust	Charing Cross Hospital
<i>Brief outline of department</i>	

Primary care is a major arm of health service delivery in the UK. This is a role strengthened by the new GP contract and more recent changes that place general practitioners at the forefront of commissioning health services. Academic Primary Care has a vital research role in providing evidence for interventions and a critique on practice, and in equipping undergraduates with skills and knowledge of relevance both to the specialty and to their development as doctors more generally. The academic department at Imperial has strong roots in epidemiological approaches to primary care, and a programme of undergraduate teaching which stretches across the whole curriculum.

The department also organises the Imperial College Master of Public Health (MPH) programme; and hosts the WHO Centre for Public Health Education & Training. These links give opportunities for working on international public health topics. There is also an opportunity to work in other departments and units of the Imperial College School of Public Health, such as the Department of Epidemiology & Biostatistics and the Clinical Trials Unit. See <http://www1.imperial.ac.uk/publichealth/> for further information.

Structure of academic project/what expected

The AF2 year will include four months of A&E at St Mary's Hospital, four months in either O&G at St Mary's or Gastroenterology at Charing Cross, and four months in Academic Primary Care. The academic placement is generally located in the Department of Primary Care & Public Health at Charing Cross Hospital or in one of the other departments or units in the Imperial College School of Public Health.

The AF2 will have active roles in research within the department. They will be allocated an academic and clinical supervisor at the outset of the attachment who will ensure the aims of the attachment are met and to assist your preparation for Foundation Programme assessments.

AF2's are based at the Academic Primary Care Department at Charing Cross Hospital campus.

The academic lead for the programme is Dr Andrew McKeown, who is supported in this role by other academics in the department. Research projects generally involve either a systematic literature review or an analysis of a data set. Previous F2 doctors have benefited from their experiences; and have presented their work at scientific meetings and published their findings in peer-reviewed journals. These publications include articles in the Journal of the Royal Society of Medicine, Journal of Ambulatory Care Management, Journal of Public Health, Informatics in Primary Care, and BMC Clinical Pharmacology.

The primary purpose of this placement is to gain experience and supervision in primary care research. In addition, trainees will have the opportunity to do the following to support their development:

- teaching medical students
- clinical exposure to general practice
- attending department activities (e.g. weekly seminars)

- attending training courses

Please see this website for more details of the programme and experiences of recent Academic F2s in Primary Care:

<http://www1.imperial.ac.uk/publichealth/departments/pcph/f2/>

Clinical commitments during academic placement

There are no clinical commitments, but trainees are encouraged to spend 2 days a week in an academic GP teaching practice to facilitate their research. The details of the weekly timetable are negotiated between the academic department and GP surgery, but depend largely on the practice's clinic times and needs, with Wednesdays generally set aside as a fixed day for academic activities such as departmental meetings and talks.

Departmental academic teaching programme (if applicable)

Weekly departmental meetings and seminars as well as weekly Trust F2 teaching.

Academic Lead:

Dr Andrew McKeown
Primary Care Faculty Development Lead
andrew.mckeown@imperial.ac.uk

Dr. Nina Dutta
Year 3 Medicine in the Community (MICA) GP Course Lead
n.dutta@imperial.ac.uk

Programme 16-18 – Academic Obstetrics & Gynaecology – based at Queen Charlotte's Hospital

Reference: 2021/IMP/16

Reference: 2021/IMP/17

Reference: 2021/IMP/18

Individual Placement Descriptor (IPD) for the four month academic placement

<i>Type of programme</i>	
This is a 4 month research placement in Obstetrics & Gynaecology	
<i>Employing trust:</i>	<i>Academic placement based at:</i>
The North West London Hospitals NHS Trust	Queen Charlotte's and Chelsea Hospital
<i>Brief outline of department</i>	

Academic Clinical Obstetrics and Gynaecology at Imperial is closely linked to Imperial Academic Health Sciences Centre and NIHR Biomedical Research Centre, and the Institute of Reproductive & Developmental Biology (IRDB), one of the largest stand-alone research facilities in O&G in Europe.

There is academic expertise in a range of clinical areas linked to Obstetrics and Gynaecology.

Gynecological oncology (Dr Mara Kyrgiou and Dr Sadaf Maghami)

Effect of treatment of cancer on reproductive performance (Dr Mara Kyrgiou)

Miscarriage and early pregnancy (Prof Tom Bourne, Prof Lesley Regan, Prof Phillip Bennett).

Ovarian Function and Polycystic Ovary Syndrome (Prof Steven Franks)

Cardiovascular adaptation, placentation, fetal growth and pre-eclampsia (Dr Christoph Lees)

Prematurity and Parturition (Prof Phillip Bennett, Dr Vasso Terzidou, Dr David Macintyre)

In addition there are more basic science oriented programs including:

Stem Cell Biology (Dr Veronique Azura, Dr Wei Cui)

G-protein and Tyrosine Kinase Coupled Receptor Biology (Dr Aylin Hanyaloglu, Dr Nick Dibb)

Systems Medicine, Microbiome and Metabolome (Dr David MacIntyre, Prof Phillip Bennett)

Infertility and Reproductive Medicine (Dr. Channa Jayasena)

Recent major new initiatives include the role of the microbiome in reproductive health, and integration of large scale biological data such as transcriptomics, genomics, metabolomics and miromics with clinical at metadata. We became both a Global Alliance Against Stillbirth and Prematurity (GAPPS) Research Centre and a 'Tommey' National Miscarriage Research Centre in 2016.

Recent research success include criteria for miscarriage diagnosis, (NEJM 2013, BMJ 2015 Bourne), improved surveillance for IUGR (Lancet 2015 Lees), a paradigm shift in understanding miscarriage (Nat Med 2013 Brosens, Regan), miRNA markers to predict preterm birth (2015 Terzidou Bennett), a link between vaginal microbiome, preterm birth and cervical cerclage (Sci Trans Med 2016, MacIntyre Bennett), and the role of sperm DNA damage in the male partners of women with recurrent miscarriage (<https://www.imperial.ac.uk/news/189690/recurrent-miscarriage-linked-faulty-sperm/>), all leading to international changes to practice.

Structure of academic project/what expected

The AF2 year will contain a 4 month research block in Academic Obstetrics and Gynaecology based at Queen Charlottes Hospital and the Institute of Reproductive & Developmental Biology, Hammersmith Campus, Imperial College Healthcare NHS Trust. Trainees will be under the overall supervision of Professor Phillip Bennett, Director of IRDB. The AF2 will have the opportunity to be part of a highly dynamic and supportive team of doctors and other health professionals working

together in academic, service improvement and educational aspects of Obstetrics and Gynaecology.

The Academic F2 may select a project from any of the areas of research activity listed above. Depending upon the nature of the project there will be close 'clinic-side' or 'bench-side' supervision from an appropriate clinical research fellow or scientist together with weekly meetings with the Principal Investigator. If desired, the Academic F2 can be allocated to an Academic Clinical Lecturer, Fellow, or Specialist Registrar mentor during their academic placement.

There is access to a wide range of teaching and other learning opportunities within the department. There will also be the opportunity to develop important transferrable skills in the writing of ethics and grant applications, performing statistical analysis, and writing and revising manuscripts. Doctors in this academic placement should be successful in achieving journal publications and published abstracts, and present work in regional and national meetings. The post will be an outstanding introduction and stepping stone into academic Obstetrics and Gynaecology,

Clinical commitments during academic placement

There are no fixed clinical commitments and no on call duties during the placement.

Departmental academic teaching programme (if applicable)

The department has a comprehensive program of teaching and seminars which the post holder will be encouraged to take part in.

Academic Lead:

Dr. Aylin Hanyaloglu
Reader in Cell Biology
a.hanyaloglu@imperial.ac.uk

Programmes 19-21 - Academic Anaesthetics – based at Chelsea & Westminster Hospital

Reference: 2021/IMP/19

Reference: 2021/IMP/20

Reference: 2021/IMP/21

Individual Placement Descriptor (IPD) for the four month academic placement

Type of programme

This is a 4 month research placement in Academic Anaesthetics.

Employing trust:

Academic placement based at:

Chelsea and Westminster Hospital NHS Foundation Trust

Chelsea & Westminster Hospital

Brief outline of department

The Magill Department of Anaesthesia, Intensive Care and Pain Management is a combined Academic and NHS department. There are a wide range of projects available in both departments. The Department has a broad mixture of academic and NHS anaesthetic consultants, an ITU and HDU, six main theatres, and additionally paediatric and obstetric theatres and a treatment centre. The Department has more than 30 consultants and 32 trainee anaesthetists.

The Academic Department of Anaesthetics was established at the Westminster Hospital in 1966. It is now led by Professor Masao Takata and is part of the [Anaesthetics, Pain Medicine, and Intensive Care \(APMIC\) Section](#) of the Division of Surgery, Imperial College London. Website: <http://www1.imperial.ac.uk/apmic/>

The NHS Magill Department changed its name to the [Magill Department of Anaesthesia, Intensive Care & Pain Management](#) in 1998 to reflect the broad nature of its activities. Specialist areas where projects can be undertaken include Intensive Care medicine, Pain management (Acute & chronic), burns, paediatric and obstetric anaesthesia. The high fidelity patient simulation facility at Chelsea & Westminster is headed by the anaesthetic department and offers further research and education opportunities.

Website: <http://www.magill-department.com/Website/Welcome.html>

Structure of academic project/what expected

The AF2 year will include four months of A&E and four months of Academic Anaesthetics at Chelsea & Westminster Hospital as well as four months in Intensive Care at the Royal Marsden Hospital. The anaesthetic placement can cover projects in anaesthesia, outreach, post-operative recovery and pain relief research, based on the AF2's skills and preferences. The posts are well suited for those wishing to gain a basic grounding in peri-operative medical research and have been highly valued by previous AF2s.

Education is a key objective for the academic department with medical student (including BSc) and postgraduate training. The AF2 would be expected to contribute to education in all areas of anaesthesia and pain management.

Clinical commitments during academic placement

There is no fixed clinical commitment during the Academic placement. However there is the opportunity to develop clinical skills if desired.

Departmental academic teaching programme (if applicable)

There is weekly departmental teaching as well as weekly Trust F2 teaching.

Academic Lead:

Dr. David Antcliffe
Clinical Senior Lecturer in Critical Care Medicine
d.antcliffe@imperial.ac.uk

Programme 22-24 - Academic Vascular Surgery – based at Charing Cross Hospital

Reference: 2021/IMP/22

Reference: 2021/IMP/23

Reference: 2021/IMP/24

Individual Placement Descriptor (IPD) for the four month academic placement

Type of programme

This is a research post in Vascular Surgery at Charing Cross Hospital.

Employing trust:

Imperial College Healthcare NHS Trust

Academic placement based at:

Charing Cross Hospital

Brief outline of department

The research methods employed within the group include clinical projects, including clinical trials, molecular and cellular biology, material science, ultrasound and contrast enhanced ultrasound imaging, health economics, biostatistics, systematic reviews, metabonomics and fluid dynamics.

For more information, please visit the Academic Section of Vascular Surgery website:

http://www.imperial.ac.uk/AP/faces/pages/read/Home.jsp?person=a.h.davies&_adf.ctrl-state=usx90ksw9_3&afrRedirect=2815034464756649

Structure of academic project/what expected

The AF2 year will be based at Charing Cross hospital and will consist of four months of Vascular Surgery and four months of A&E at St Mary's, and four months Academic Vascular Surgery at Charing Cross. The Academic Surgery placement will be based in the Academic Section of Vascular Surgery at Charing Cross under the supervision of Professor Alun Davies.

During the four months the AF2 will have the opportunity to be part of a dynamic and productive research team investigating carotid atherosclerosis, chronic venous insufficiency and varicose veins. The combination of clinical pathology and research techniques will be tailored to accommodate the interests of the AF2 as far as possible, selecting from a number of research projects which are running in parallel.

Supervision from Professor Davies will take the form of weekly meetings, with day to day support coming from a team of clinical research fellows, one of whom will be the lead research fellow on the assigned project.

There is access to a number of surgical clinics for the undertaking of clinical research projects and for postgraduate exam preparation as required. There is the opportunity to develop important transferrable skills in the writing of ethics and grant applications, performing statistical analysis, and writing and revising manuscripts.

The previous Academic F2s who have completed this placement have been successful in achieving first name author publications, including journal publications, book chapters, letters and published abstracts, as well as presenting their work in national meetings and winning local and national prizes. Furthermore, they have been supported in applying for core training and academic training jobs and have been successful in securing posts in their chosen specialties.

Clinical commitments during academic placement

There are no fixed clinical commitments and no on call duties during the Academic Surgery placement.

Departmental academic teaching programme (if applicable)

In addition to the Foundation Programme teaching, there are weekly research meetings. Courses will be offered in accordance with the needs of the trainee and the project undertaken. Many of the clinical research fellows teach relevant skills such as statistical analysis, critical appraisal and how to prepare a manuscript at a regional level.

Academic Lead:

Prof Alun H Davies
Professor of Vascular Surgery
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Programmes 25-27 - Academic General Surgery – based at St Mary’s or Charing Cross Hospitals

Reference: 2021/IMP/25

Reference: 2021/IMP/26

Reference: 2021/IMP/27

Individual Placement Descriptor (IPD) for the four month academic placement

Type of programme

This is an Academic surgical research programme based at St Mary’s Hospital.

Employing trust:

Academic placement based at:

Imperial College Healthcare NHS Trust

St Mary's or Charing Cross Hospitals

Brief outline of department

The Department of Surgery and Cancer is highly multi-disciplinary and includes multiple internationally renowned academic and clinical foci including surgical technology development, discovery biochemistry, cancer biology and medicine, reproductive medicine, critical care and pain management.

Their goals are to harmonise and develop existing research themes across the Department, and also to capitalise on world leading molecular phenotyping and metabolic profiling research capabilities to create a new healthcare paradigm based on a molecules-to-medicine approach. In particular, we will channel exciting new technology developments into clinical practice with particular emphasis on development of personalised healthcare and patient and patient stratification strategies across all our clinical delivery programmes.

The Department has established four research themes with the objective of integrating new technologies into personalised healthcare at the point-of-care to improve patient outcomes. These are:

- Molecular Phenotyping Directed Personalised Healthcare
- Population, Behaviour and Health Services Research
- Molecular Cell Biology and Immunology
- Surgical and Robotic Technologies

The department also has a major role in the delivery of teaching in surgery and O&G across all levels of the undergraduate curriculum as well as to postgraduates.

Structure of academic project/what expected

This AF2 year is based at St Mary's hospital and consists of four months General Surgery, four months A&E, and four months in any branch of Academic Surgery at St Mary's and Charing Cross Hospitals.

The purpose of this post is to provide a protected period of time and support to achieve competencies in different fields of academia as outlined in the Academic Foundation portfolio. The post is particularly focused on enabling Academic F2 doctors to gain experience in research and build a research profile from which they can apply for ACF posts and apply for research fellowships towards a higher degree.

They will be assisted to develop their teaching and managerial/leadership skills and to contribute to undergraduate teaching. The F2 will have access to clinical and non-clinical academics who can guide them in the development of their academic and research programmes.

F2s will be introduced to the research themes of the department and potential projects from the Division of Surgery that would be suitable for the period of research. They will be free to choose the supervisor and project that most appeals to them provided it is likely to enable the trainee to meet the aims of this programme.

Clinical commitments during academic placement

None. Trainees are welcome to attend optional clinical activities but are protected from any clinical rota activities for the duration of their academic placement.

Departmental academic teaching programme (if applicable)

There is weekly departmental teaching as well as weekly Trust F2 teaching.

Academic Lead:

TBC. Please contact c.jayasena@imperial.ac.uk (AFP Director) with any queries.

4. THE MEDICAL SCHOOL AND PARTNER TRUSTS

Imperial College London

Imperial College London is one of the world's leading universities. The quality of the college's research has been judged consistently to be of the highest international standard and the proportion of income from research grants and contracts is one of the highest of any UK university. The concentration and strength of research in science, engineering and medicine gives the college a unique and internationally distinctive research presence.

The college operates on a number of central London campuses: the South Kensington campus along with Charing Cross, Chelsea & Westminster, the Hammersmith, the Royal Brompton, St Mary's, Northwick Park and Central Middlesex hospitals.

Academic Health Science Centre

Imperial College Healthcare NHS Trust was created on 1 October 2007, by merging Hammersmith Hospitals NHS Trust and St Mary's NHS Trust. The Trust is the largest NHS Trust in the country, providing general and specialist care for patients nationwide as well as serving a large local community in west London. The new Trust and Imperial College London formed a unique partnership and together they became the UK's first Academic Health Science Centre (AHSC). On 9 March 2009, they received official recognition as an AHSC from the UK government. By 2019 the Imperial College AHSC had grown to comprise 3 NHS Trusts and 2 Higher Education Institutions across North West London: Imperial College London, The Institute of Cancer Research, Imperial College Healthcare NHS Trust, Royal Brompton & Harefield NHS Foundation Trust and The Royal Marsden NHS Foundation Trust.

Imperial College London is an internationally leading science and technology focused university and the three NHS partners, representing nine different hospitals in London and the South East, are equally renowned for their quality of care and contributions to improving healthcare. Together, we represent a formidable partnership acting to tackle major health issues in the UK today.

The AHSC vision is to use research and education to reduce the burden of disease. Where possible, the Imperial College AHSC seeks to prevent the onset of disease. Where it cannot prevent disease, it is focussed on detecting and diagnosing conditions earlier and, for all diagnosed diseases, the AHSC aims to develop better, precisely targeted treatments.

For patients seen at one of the AHSC Trusts, they are likely to benefit from some of the best outcomes to be found in the UK. This is because of the quality and focus of the staff who work within the AHSC – those who are exploring the frontiers of better quality care are also providing it every day in the AHSC

Chelsea & Westminster Hospital

Chelsea and Westminster Hospital NHS Foundation Trust is an undergraduate teaching hospital that is part of Imperial College School of Medicine and provides a wide range of specialist hospital services within an environment of academic specialization as well as general local services for people living locally. The hospital is a modern purpose designed and built facility which opened in May 1993. Most services are based at the Chelsea and Westminster Hospital site but the Trust also runs a highly successful network of HIV and sexual health centres. There are five Clinical Directorates: Anaesthetics & Imaging, Medicine, Surgery, Women & Children, and HIV & Sexual Health.

The hospital has developed increasing academic strength and taken on significant new research and development commitments. For example they were successful in securing more than £1 million in funding for the Eagle Simulator, a virtual operating theatre located at Chelsea and Westminster for training in anaesthesia and critical care. The Simulation Centre forms part of a Good Clinical Practice Centre, which incorporates a Clinical Skills Laboratory, Manual Handling training and Resuscitation training. The Centre is at the forefront of multi-disciplinary education and training.