

Imperial College
London

Infectious Diseases and Immunity



**RESEARCH-ORIENTATED,
DYNAMIC AND APPLIED**

An
Academic
Health
Sciences
Centre



Fellowships
for
Clinicians
and
Scientists

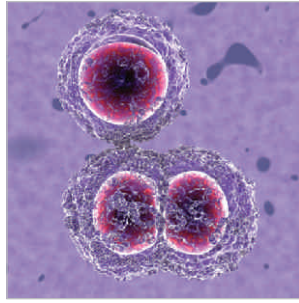
Imperial College London

Consistently rated among the world's best universities, Imperial College London has an outstanding reputation for Research and Teaching excellence in science, technology and medicine.

The College's Faculty of Medicine is one Europe's largest in terms of staff and student population and its level of research income and brings together all the major West London medical schools into one world-class institution. In 2009 with Imperial College Healthcare NHS Trust, this became the UK's first Academic Health Science Centre: a partnership between a healthcare provider and a university for the purpose of taking new discoveries

and promoting their application in the NHS and across the world. We are also a designated NIHR Comprehensive Biomedical Research Centre. These things make us the ideal place to undertake a PhD in applied patient-based research for both clinicians and scientists with an interest in health. There is also a vast range of research and education opportunities available for those more interested in non-applied and laboratory research.





Infectious Diseases and Immunity

Research is at the very core of the Infectious Diseases and Immunity section. Translational research; taking ideas from the patient's bedside to the laboratory and then solutions from the laboratory back to the clinic is central to our approach. This is unsurprising since the Section houses one of the largest groups of infection related clinician-scientists based in a UK University Hospital.

The Section is recognised both nationally and internationally as a major centre for research and training in infectious diseases and microbiology. We have cognate groups working on bacterial, viral and fungal infections, as well as clinical infectious diseases and aspects of medical microbiology. We have interests in TB and international health, healthcare associated infection and Gram Positive Molecular Pathogenesis. The Section is fully equipped to undertake research in molecular, cellular, diagnostic and clinical aspects of Infectious Diseases but we also have a strong Policy

Organisation and Behaviour group, which collaborates with members of the Imperial College Business School making us well suited to support those more interested in conducting Health Services Research of a more qualitative nature.

The overall goal of research in the Section is to improve understanding of the pathogenesis of infectious diseases and to develop new approaches to its' diagnosis, prevention and treatment to the benefit of patients.



“By joining Imperial as a Clinical Research Fellow you will have access to a tremendous range of clinical research and education opportunities. You will also be in good company; Infectious Diseases and Immunity has an outstanding track record in obtaining fellowships from the Wellcome Trust and the MRC.”

SAYS PROFESSOR JON FRIEDLAND, HEAD OF SECTION



Why take time out to do research?

Clinical Academic Training is of vital importance in improving patient care through translational medicine and in maintaining the UK as a leader in the field. Such training also brings great benefits to the individuals who undertake it. For those interested in pursuing a career in Academic Medicine the PhD is the first step, with clear career progression from there to intermediate and then senior fellowships and ultimately to a joint clinical/academic position. For those who are unsure, a Clinical Research PhD Fellowship provides an excellent introduction to what such a career may entail. For both, a period of research provides experience and access to mentorship and advice about future options for combining clinical work and research.

For those who know they wish to continue with clinical practice the PhD experience imparts valuable skills including a better understanding of the issues associated with the basic mechanisms of diseases and a

greater appreciation and knowledge of the techniques involved in diagnosis. This can make you a better Clinician, ensuring that the treatment you deliver is soundly evidence-based. A PhD may also advance your career, increase your confidence and provide you with a great sense of academic achievement. Most importantly you will have the opportunity to contribute to cutting edge research in a stimulating and supportive environment, in many cases working with leaders in the field.

For **post-doctoral scientists** (non-clinicians) who want to pursue an academic career, a personal fellowship is a significant measure of esteem and serves as a potential springboard to an academic post. The Section of IDI can help with your fellowship application and the College has a good track record of helping junior scientists progress.

What support is available?

If you are potentially interested in undertaking research with us, please send your CV to id@imperial.ac.uk

Members of the Gram positive group with with Professor Shiranee Sriskandan (above left)
Members of the Policy, Organisation and Behaviour Group (above right)

Whatever your discipline we are interested in hearing from you; the Section has had fellows from a broad range of specialties including Infectious Disease, Microbiology, Respiratory Medicine, Renal Medicine, Intensive Care and Neurology.

On receipt of your CV we will arrange for you to meet with senior academics who can guide you around the pitfalls of a fellowship application and who may act as potential supervisors. If you wish to go ahead the Section will help you to make an application to an appropriate funder for your PhD. Those who are short-listed will be given extensive interview practice and guidance. Once successful in your application and registered as a postgraduate student you will become part of the Imperial Graduate School of Life Sciences and Medicine (GSLSM) which provides generic (non-research specific) and transferable skills training for postgraduates. This training is designed to dovetail with the subject-specific and generic research training provided by the research group.

In addition to your supervisor we will also ensure that you will have access to a dedicated mentor. Dr Mick Jones, the section's Higher Degrees Representative and the Department of Medicine Education Administration team, will provide the guidance and pastoral support you need to complete your PhD.

The Section has an outstanding record of supporting junior and

senior staff to obtain personal Fellowships. The numbers of Training Fellowships, Career Development Fellowships, Advanced Training Fellowships and Senior Fellowships we have obtained over the years (see www.imperial.ac.uk/medicine/idi/fellows) are a testament to the nurturing environment you will find in Infectious Diseases and Immunity. Of our Fellows, six are now Professors, two are Readers and 10 hold Senior Lecturer/Consultant posts.



“After completing my medical degree at Cambridge and Barts I specialised in Infectious Diseases. Getting an MRC Clinical Training Fellowship allowed me to do a PhD at Imperial in an area which fascinated me. With plenty of local encouragement from supportive and knowledgeable mentors, I then applied for an MRC Clinician Scientist Fellowship which provided the chance to do post-doctoral research and begin an independent scientific career, developing collaborations and links that have underpinned future work. A senior colleague within the College convinced me to apply for a 3rd Fellowship. This brought tenure with the award and I am now a Professor at Imperial, leading the Gram Positive Pathogenesis research group.”

SAYS PROFESSOR SHIRANEE SRISKANDAN

Research Fellows' stories

Dr Justin Green joined the Infectious Diseases and Immunity Section on an MRC and RCP Fellowship. His current research is focused on the immunopathology of central nervous system tuberculosis; a disease of high morbidity and mortality, especially in these times of rising drug resistance.

Dr Green is now a clinical trials physician at a major pharmaceutical company, focusing on infectious diseases (ID) clinical trials in the developing world. He studied medicine at Oxford University, completing junior then registrar jobs in London on the North Thames ID rotation. After

year four of the rotation he secured an MRC Clinical Training Fellowship to work in Professor Jon Friedland's group on the Hammersmith Campus to investigate inflammatory responses in cerebral tuberculosis leading to the award of a PhD in 2009. This involved both in vitro work infecting cells with live Mycobacterium tuberculosis and looking at clinical correlates of disease by collaborating with the Wellcome Trust Oxford Clinical Research Unit in Vietnam. Several peer reviewed publications have resulted from this and he was awarded the GMJ Slott prize from the Royal College of Physicians for his work.

He returned to the NHS to complete clinical training and gained a CCT in both internal medicine and ID in 2009 before taking his current position.

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Dr Frances Davies is a specialist registrar in microbiology at the end of her training. She secured an MRC Clinical Training Fellowship working with Professor Shiranee Sriskandan in the Gram Positive Pathogenesis group and returned to clinical microbiology in autumn 2010 to finish her training. She is currently writing up her PhD and related papers and investigating intermediate fellowship opportunities.

Frances read medicine at the University of Nottingham, before moving to London for medical SHO and then microbiology registrar jobs. After four years of higher specialist training she obtained a MRC Training Fellowship. Her research investigated the role of Streptococcus pyogenes superantigens in tonsillitis and involved examining production of superantigens *in vivo* and *in vitro*, and exploring the immune interactions of superantigens with human tonsil lymphocytes.



“Working at Imperial has given me a wide range of skills, not only in laboratory science, that have stood me in good stead for the challenging environment

of conducting clinical trials of new drugs in difficult environments. I feel privileged that I was given this opportunity to immerse myself in one particular area of science. In addition, and no less importantly, I have made some really strong friendships and thoroughly enjoyed myself.”

SAYS DR JUSTIN GREEN

Although Frances found the research world to be different from clinical microbiology, she says that the enthusiasm for research which she encountered in everyone from her supervisor through to PhD students and postdoctoral scientists in the rest of the section helped guide her and ensured all the help she needed was available.

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“Now I’m back in the NHS, I have gained a deep respect for the pioneering microbiologists who helped develop the techniques and knowledge base which forms the foundation for the daily patient work. However now there has been a fundamental change – I no longer struggle to understand the latest techniques, but find myself thinking how to adapt them to other situations, patients and diseases and see potential research.”

SAYS DR FRANCES DAVIES

Dr Siouxsie Wiles has been a lecturer at the University of Auckland since leaving Infectious Diseases and Immunity to take up her 2009 Sir Charles Hercus Fellowship from the Health Research Council of New Zealand. She retains an honorary position at Imperial and maintains a number of active collaborations.

Dr Wiles undertook two postdoctoral projects at Imperial, following her PhD in Environmental Microbiology. Her work investigated the mechanisms of mycobacterial survival within a human whole blood model and developing biophotonic imaging (BPI), for monitoring *Citrobacter rodentium* infections. Her

work on *C. rodentium* culminated in winning the inaugural UK National Centre for the Replacement, Refinement and Reduction of Animals in Research prize awarded by Lord Sainsbury in 2006. In September 2007, she was appointed as a Lecturer within the Section of Infectious Diseases and Immunity at Imperial and began to focus on developing BPI to study a number of important human pathogens with funding from the NC₃Rs and the Bill and Melinda Gates Foundation.

“Working at Imperial afforded me the opportunities to make a career out of combining my twin passions of bioluminescence and infectious diseases. I found my time at Imperial to be both intellectually stimulating and enjoyable. Importantly, I have made a number of strong friendships and collaborations

which have survived my move down under.”

SAYS DR
SIOUXSIE WILES





If you would like any further information please contact:

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