

# INSTITUTE FOR INFECTION & IMMUNITY

# Strategy 2015

Our vision is to be a leading infection and immunity institute that drives improvements in health through collaborative basic and clinical research and training.

# Introduction to the Institute

On 1st February 2014, the Institute for Infection and Immunity Research was launched at St. George's. This was part of St. George's research strategy to focus research efforts into three areas – Infection and Immunity, Cardiovascular and Cell Sciences and Population Health and to concentrate its teaching activities within the Institute of Medical & Biomedical Education. The Institute for Infection and Immunity shares the Jenner Wing building and research support services with the Cardiovascular and Cell Sciences Institute.

The Institute for Infection and Immunity traces its history back to 1972 when Professor Harold Lambert established a Department of Infectious Diseases with the innovative idea of drawing together Infectious Disease clinicians and clinical academic staff. In 1992, Professor George Griffin took over as Head of Department. Over the next 20 years, he developed the Centre for Infection by building the Clinical Infection Unit at St. George's into one of the leading specialist units in London and establishing alongside it an integrated scientific research base in the Medical School.

The new Institute was set up with 41 Principal Investigators and their research groups. It is the principal focus for research activity within St. George's, and attracts over half of the University's total research income. In 2013, the average research income (spend) per PI was £200K.

A high proportion (23/41) of the Principal Investigators have clinical training with most holding honorary clinical contracts, either within St. George's Hospital Trust or elsewhere. Our primary link and translational capacity stems from our collocation and interwoven links with St. George's Hospital Trust.



Indeed the hospital's Clinical Infection Unit managing adult and paediatric out-patients and in-patient wards is run by the Institute's clinical PIs, who also support the diagnostic microbiology unit. Clinical microbiology, which processes ~1 million patient samples/yr from SW London is adjacent and closely integrated with the Institute's academic microbiology group. Within the Institute is also housed the Vaccine Institute, an academic led facility opened 15 years ago to carry out Phase I, II and III clinical trials.

The main responsibilities of the Institute are:

- 1. Research
- 2. Teaching and Training

# **Research Strategy**

The Institute's primary responsibility is to carry out basic and applied research into infection and immunity.

Our vision is to:

- (i) Provide an academic environment in which all researchers, particularly early career researchers, can thrive and build successful research groups
- (ii) Encourage a collegiate approach in which groups of researchers can maximise their chances of winning major awards through collaboration
- (iii) Link academic researchers with clinicians to develop innovative approaches in clinical management

Our research can be broadly grouped into 5 main areas. Most Principal Investigators have research programmes that are cross cutting between two or more research areas.



#### Our strategy is to:

- 1. Attract major grants for individuals within the Institute, including Wellcome Trust (Senior Investigator) and European Research Council (Advanced Grant). 2 such awards are currently held within the Institute.
- 2. Identify major research opportunities where teams of PIs can come together to form a Centre of Excellence and co-ordinate applications for funding.
- 3. Maintain growth of the Institute by identifying 3<sup>rd</sup> stream funding, including enterprise, commercial and charitable support.
- 4. Expand the research environment through establishing a wide network of local collaborating research organisations.

- 5. To achieve the above, a high baseline level of success is targeted across the institute.
  - 90% of PIs should be returned to the next Research Excellence Framework
  - Foster the establishment of high quality collaborative groups of researchers within the Institute.
  - Focus on the development of early career researchers. A mentorship scheme will be developed to ensure that they are well integrated into the Institute, knowledgeable about funding opportunities, to provide help with their funding applications both through academic advice and through collaborative project applications with established researchers within the Institute.
  - Support enterprise activities for research impact and income.
  - Prioritise retention of our core support staff for strategic priorities of the Institute.

Established partners:

- 1. St Georges Hospital NHS Trust Clinical Infection Unit (adult and paediatric), Clinical Microbiology, SW London Pathology Hub
- 2. CLAHRC South London (Collaboration for Leadership in Applied Health Research and Care)
- 3. Public Health England
- 4. London School of Hygiene and Tropical Medicine
- 5. The Bloomsbury Group (with London School of Hygiene and Tropical Medicine)

# **Guidelines for Principal Investigators are:**

- (i) Every PI to hold a grant from a major funding body (eg RCUK, Wellcome Trust, EU).
- (ii) Every PI to submit at least 3 major (> £150K) grant applications every 2 years.
- (iii) Every PI to have regular publications in a top journal in the PI's specific field, at least 1 paper per year per grant.
- (iv) Every PI to have 4 REF returnable papers (minimum 3\* quality) by end of 2019.

# Undergraduate teaching and postgraduate training

The institute recognises that its reputation as well as that of St. George's University of London is measured not only by the excellence of its research but also by the quality of the undergraduate and postgraduate education it offers.

#### <u>Undergraduate</u>

An important source of income for the Institute for Infection and Immunity is revenue from the Institute of Medical and Biomedical Education (IMBE) for provision of teaching, mainly to the undergraduate courses (Medicine and Biomedical Sciences).

#### Postgraduate

Masters and PhD student projects are an important source of innovation and an opportunity to explore new areas of research.

Under the UK research concordat, SGUL has implemented institutional steps to provide mentorship and training opportunities for post-doctoral scientists.

Through our clinical activities the Institute also has access to a number of clinical trainees, undergoing their clinical training in Infection and/or microbiology, who often want to carry out research projects. There is also a long history of hosting clinical academic fellows, funded through organisations like the Wellcome Trust and MRC.

#### Our vision is to:

- (i) work with IMBE to coordinate and extend the provision of comprehensive, state of the art, undergraduate teaching in infection and immunity
- (ii) to add value to undergraduate and postgraduate degree courses by offering challenging research projects
- (iii) establish a thriving graduate programme by providing a stimulating, intellectual, training environment for postgraduate students including Masters, PhD and clinical trainees

# Our strategy is to:

- (i) provide attractive opportunities for undergraduate students to learn about translational infectious disease research making use of our clinical connections with St. George's Hospital Trust
- (ii) devise new courses and opportunities to develop the undergraduate Infection and Immunity teaching programme at SGUL
- (iii) ensure that the teaching commitment of the Institute is fairly distributed across all PIs and their teams
- (iv) prioritise efforts to attract funding for PhD studentships
- (v) identify and encourage top post-doctoral scientists to apply for research fellowships
- (vi) engage better with clinical trainees, to offer more translational research projects to attract research funding from clinical sources (eg NIHR)

# **Guidelines for Principal Investigators are:**

- (i) each PI to be engaged with the Institute's programme of teaching for approximately 20% of their academic time (equivalent to 300 teaching diary hours/yr for a full-time academic, excluding PhD supervision).
- (ii) each PI to host at least one BSc research project per year.
- (iii) each PI to supervise at least one internal postgraduate student per PI per year.

# External communication and reputation

The Institute needs to establish and maintain a reputation both in the scientific community and in the public eye. Academic reputation supports funding applications, staff recruitment and student applications. Public awareness and engagement is an increasingly important academic activity which is becoming an expectation of major funding bodies and often supported by public funding.

# Our vision is to:

- (i) Promote recognition of the Institute as an internationally regarded centre for excellence for clinical infection and immunity research
- (ii) Develop an international reputation within the Institute for active and innovative programmes of public engagement and widening participation.

# Our strategy is to:

- (i) Enhance awareness of the St George's University of London Institute for Infection and Immunity in the academic community
- (ii) Support promotion of Institute senior staff to academic committees and decision making bodies
- (iii) Work with St George's public communication team to raise awareness of the Institute's expertise and research in the media and public
- (iv) Work with the University to expand the Institute's public engagement and widening participation activities.

# **Guidelines for Principal Investigators are to:**

- (i) Encourage presence and presentation of research results at conferences.
- (ii) Pls to develop a portfolio of external academic activities with an emphasis on improving esteem, to be agreed at annual review; (examples include journal editorship, grant review panels, external committee membership, conference organisation).
- (iii) Pls to develop a portfolio of public engagement and widening participation activities, to be agreed at annual review.