

Programme 13 – Infectious Diseases – based at Guy’s and St Thomas’ Hospitals

Reference: 2122/KCL/13

Individual Placement Descriptor (IPD) for the four month academic placement
 Separate IPDs for clinical placements are available on foundation school websites

Type of programme	
Research	
Employing trust:	Academic placement based at:
Guy's and St Thomas' NHS Foundation Trust	Guy’s and St Thomas’ Hospitals
Brief outline of department	
<p>The Department of Infectious Diseases supports multi-disciplinary research that bridges rich clinical resources in the areas of infectious diseases and sexually transmitted diseases with the strengths of KCL’s Health Schools in basic biomedical research. The Department comprises research laboratories at two sites: virology is undertaken in the Borough Wing of Guy’s Hospital, while microbiology is studied in the North Wing at St Thomas’ Hospital (Centre for Clinical Infection and Diagnostics Research, CIDR). The Department is also home to the KCL Infectious Diseases Biobank, which serves as a centralised archiving and molecular analysis facility that assists scientists undertaking cohort-based projects.</p> <p>Our virologists exploit assorted molecular genetic, cultured cell, biochemical, structural, bioinformatic, systems and cohort-based methodologies to study the biological and molecular principles that underpin virus transmission, replication, pathogenesis and immunity. Current areas of interest include HIV/AIDS, human coronaviruses (including SARS-CoV-2), filoviruses (e.g., Ebola virus), influenza viruses, rhinoviruses, HCV, host-virus interactions, innate and adaptive immune responses, viral assembly and stem cell manipulation. The CIDR is organised into four sections: healthcare associated infections, epidemiology and modelling, diagnostics and clinical infection. Its chief objectives are to translate output from clinically relevant observational, intervention and pathogenesis studies, together with diagnostic development, to the prevention and treatment of infectious diseases. In 2020, the Dept has formed a close-working multi-disciplinary partnership to address urgent clinical needs in COVID-19, and has developed and evaluated diagnostic tests that are in clinical use. Through the careful curation of patient and community specimens, the Dept is positioned to undertake future cutting-edge research on many aspects of COVID-19, stretching from fundamental biology to infection control and vaccine development.</p> <p>Previous trainees have worked on mechanisms of cell-mediated control of HIV infection, HIV budding and the determinants of MRSA transmission. http://www.kcl.ac.uk/lsm/research/divisions/diid/index.aspx</p>	
Structure of academic project/what’s expected	
<p>Projects in the Department involve full-time research. It is likely that this will involve extensive “wet-lab” experimentation, often handling infectious micro-organisms, though certain projects may have a heavier computational/bioinformatic focus. In all cases scientific rigour, discussion and</p>	

collaboration are expected. A diverse portfolio of projects is on offer, and the final selection is determined by the specific interests of trainees and project availability. Participation in relevant research presentations, seminar series and lab meeting is required.

Clinical commitments during academic placement

The academic F2 will be required to be on an out of hours rota at Guy's and St Thomas' NHS Foundation Trust which comprises of 1 in 4 weekend twilight shifts and will not affect the academic weekday timetable. The F2 is expected to attend the monthly F2 teaching and encouraged to engage with other relevant clinical educational events where applicable.

Departmental academic teaching programme (if applicable)

The Department undertakes undergraduate and postgraduate teaching.

Academic Lead

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