

Programme 2 – Diabetes – based at King's College Hospital

Reference: 2122/KCL/02

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

Separate IPDs for clinical placements are available on foundation school websites

<p>Type of programme</p> <p>The Diabetes Research programme at Denmark Hill offers opportunities for research ranging from laboratory science in islet physiology, through experimental medicine studies in human metabolism to qualitative research into patient experience and education. We have a particular interest in hypoglycaemia as a complication of diabetes therapies; and in new technologies for glucose measurement and insulin delivery.</p>	
<p>Employing trust:</p> <p>King's College Hospital NHS Foundation Trust</p>	<p>Academic placement based at:</p> <p>King's College Hospital</p>
<p>Brief outline of department</p> <p>The Diabetes Research Group encompasses the islet physiology laboratories on the Denmark Hill and Guy's campuses, where basic research into islet function and growth inform clinical studies in beta cell replacement in type 1 diabetes and novel treatments for type 2 diabetes (Professors Jones and Persaud, Drs Choudhary and Huang) and the experimental medicine group at Denmark Hill exploring human metabolism with questions around the impact of ethnicity on the dysregulation of metabolism that leads to type 2 diabetes (Professor Amiel, Dr Goff), the central control of metabolism in hypoglycaemia in insulin therapy (Professor Amiel, Dr Choudhary), the use of new technologies in insulin delivery and glucose sensing in the improvement of diabetes control (Dr Choudhary), investigation of the mechanisms by which bariatric surgery improves metabolic control (Professor Rubino, Dr Hopkins); and research into the prevention and management of diabetes in pregnancy (Dr Hunt, Professor Forbes). We use laboratory research, insulin clamping, cognitive testing, neuroimaging and clinical trials in these investigations.</p> <p>We also have an award-winning programme in mental health in diabetes (Professor Ismail), focusing on the mechanisms for interaction between depression and diabetes outcomes; the interaction between type 1 diabetes and eating disorders and the use of psychotherapy in the prevention of problematic hypoglycaemia.</p>	
<p>Structure of academic project/what expected</p> <p>We offer options in clinically based or laboratory based projects for ACFs and Academic F2 trainees. Recent projects have investigated personality traits as predictors of response to hypoglycaemia avoidance algorithms, the prevalence of specific cognitive barriers to hypoglycaemia avoidance in participants in the US Type 1 diabetes exchange registry, new bench assays to assess activation of clotting cascades by human islets; and social drift in people with a new diagnosis of diabetes. The project is planned during the clinical attachment to Medicine in the first four months and carried out in four months of protected research time from December to March. The year concludes with four months in A and E at KCH. Supervision and training is provided throughout and all our recent</p>	

trainees have had the opportunity to present research findings at national and international meetings.

Clinical commitments during academic placement

There are no fixed clinical commitments during the dedicated research attachments. The clinical training periods comprise an initial 4 month clinical placement with the clinical firm delivering diabetes and endocrinology with internal medicine based on the relevant ward at King's College Hospital; with a final four months in the Emergency Department of the hospital but the research months will be clear of timetabled clinical work.

Departmental academic teaching programme (if applicable)

There are weekly academic meetings in diabetes at Denmark Hill and weekly lab meetings on the Guy's (islets, Fri am) and Denmark Hill (experimental medicine, Monday pm) throughout the year. In addition, there are weekly clinical meetings Monday and Thursday am; diabetes MDT meeting Thursday afternoons and a monthly academic speaker Wed pm. One to one supervision in aspects of research methodology is provided to support the project work with opportunities to attend national and international academic diabetes meetings

Academic Leads:

Professor Stephanie Amiel
 Professor of Diabetic Medicine and Head of Diabetes & Nutritional Sciences Division
stephanie.amiel@kcl.ac.uk

Dr Pratik Choudhary
 Senior Lecturer
pratik.choudhary@kcl.ac.uk