

# Barts and The London School of Medicine and Dentistry Postgraduate Prospectus Entry 2013



Barts and The London  
School of Medicine and Dentistry



Queen Mary  
University of London

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# Welcome to the School of Medicine and Dentistry



At Barts and The London School of Medicine and Dentistry, we offer access to world-leading expertise and a fantastic location in the heart of London – either at our Charterhouse Square or West Smithfield campuses, both close to the Barbican Centre, or at our campus in Whitechapel.

It's an exciting time for the School, with many successes to celebrate across our five institutes. The UK Government's last Research Assessment Exercise (RAE) results placed us in the top five research-active medical and dental schools in England, alongside Oxford, Cambridge, Imperial College and University College London. This outstanding research underpins our commitment to excellent education and clinical delivery.

Barts and The London is the largest recipient of charitable income among UK medical schools. Our world-leading academics are grouped across research in Cancer, Inflammation, Cardiovascular, Endocrinology, Epidemiology, Gastroenterology and Neuroscience.

Our high-calibre postgraduates play a key role in contributing to our future success. We look forward to welcoming you to our lively graduate community and to helping you to fulfil your ambitions.

**Professor Richard Trembath**, Vice-Principal for Health and Executive Dean  
Barts and The London School of Medicine and Dentistry



## School highlights:

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- There are 1,000 postgraduate students and 500 research staff.
- £123m turnover and annual research grant over £46m.
- The Barts Cancer Institute (BCI) is one of the top five cancer research centres in the UK (RAE 2008 UK government ranking), and is 1 of 13 Cancer Research UK 'Centres of Excellence'.
- Dentistry ranked 2nd in the UK in the last RAE (*Times Higher Education*); outstanding results across the rest of the School, consistently placed all institutes in the top five in London.
- Strategic partnerships with linked NHS and Hospital trusts including Barts and The London NHS Trust, Homerton, Newham, Whipps Cross and Queens' (Romford) mean that the School's research and teaching is informed by an exceptionally wide ranging clinical environment.
- The School was appointed to lead a £4.7m Policy Research Unit dedicated to research in cancer screening, symptom awareness and early diagnosis, with funding provided over five years by the Department of Health's Policy Research Programme.
- The School leads an innovative Health Innovation and Education Cluster (HIEC) on behalf of North East London Health (which includes all NHS bodies in NE London). The HIEC focuses on research and pioneering new approaches for treatments of common diseases.
- Our forward-thinking approach to collaboration has led to some exciting opportunities: from partnerships with higher education institutes in India and with University College London and membership of the Global Medical Excellence Cluster.

## Faculty structure

The School is divided into six institutes, five of which offer postgraduate courses and are listed below, as well as over 30 research centres.

<b>Barts Cancer Institute</b>	<b>89</b>
<b>Blizard Institute</b>	<b>99</b>
<b>Institute of Dentistry</b>	<b>114</b>
<b>Institute of Health Sciences Education</b>	<b>121</b>
<b>William Harvey Research Institute</b>	<b>124</b>
<b>Wolfson Institute of Preventive Medicine</b>	<b>134</b>



The Whitechapel Library



The Wolfson Institute of Preventive Medicine

## Research centres

- Centre for Cutaneous Research
- Centre for Diabetes
- Centre for Digestive Diseases
- Centre for Immunology and Infectious Disease
- Centre for Neuroscience and Trauma
- Centre for Pediatrics
- Pathology Group
- Centre for Cell Signalling
- Centre for Cancer and Inflammation
- Centre for Experimental Cancer Medicine
- Centre for Haemato-Oncology
- Centre for Molecular Oncology
- Centre for Tumour Biology
- Centre for Psychiatry
- Centre for Cancer Prevention
- Centre for Health Sciences
- Centre for Environmental and Preventive Medicine
- Centre for Clinical Pharmacology
- Centre for Endocrinology
- Centre for Microvascular Research
- Centre for Biochemical Pharmacology
- Centre for Experimental Medicine and Rheumatology
- Bone and Joint Research Unit
- Centre for Translational Medicine and Therapeutics
- Centre for Adult Oral Health
- Centre for Clinical and Diagnostic Oral Sciences
- Centre for Oral Growth and Development
- Centre for Dental Care Professionals
- Centre for Sports and Exercise Medicine
- Centre for Medical Education
- Centre for Community Based Medical Education
- Centre for Primary Care and Public Health

“Our diverse social environment between east London and the City offers exceptional research, teaching and clinical opportunities.”

Professor Richard Trembath, Vice-Principal for Health and Executive Dean Barts and The London School of Medicine and Dentistry



# Welcome to Queen Mary, University of London



Barts and The London School of Medicine and Dentistry is part of Queen Mary, University of London, one of the UK's top universities. At Queen Mary you will learn from leading experts and be able to build a strong network of colleagues who will be a valuable asset to your future career.

## Exceptional learning environment

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Our priority is to provide you with high-quality and relevant programmes of study. Alongside seminars and lectures, we offer research and transferable skills training, postgraduate-only study spaces, and many opportunities to present and discuss your work, helping you to get the very best out of your time with us.

## Research excellence and innovation

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We facilitate world-leading research across all academic schools and departments, with an impressive track record in initiating exciting and innovative interdisciplinary collaborations. We are ranked highly in external measurement exercises – for example, in the most recent Research Assessment Exercise (RAE), Queen



Mary returned outstanding results and was placed 11th in the UK by *The Guardian*. For more information on our research, see page 10.

## Queen Mary joins the Russell Group

In recognition of Queen Mary's long-standing commitment to excellence in research and teaching, we joined the Russell Group of leading UK universities in August 2012. The Group, which includes other top universities such as Oxford, Cambridge, UCL and Imperial, attracts the brightest students from all over the world as well as almost two thirds of available research funding in the UK.

## Studentships and bursaries

As the largest recipient of charitable income among UK medical schools, Barts and the London is able to offer a wide range of studentships and bursaries, ensuring that we attract the best newly qualified applicants.

In recent years, awards to our postgraduate students have totaled £2m per annum. These awards are available to both home and overseas students. For more information, see page 144.

## Rankings highlights

- In the top 20 universities in the UK and in the top 130 in the world according to *The Times Higher Education 2010 World University Rankings*
- Ranked 11th in the UK by *The Guardian* for the quality of our research in the last Research Assessment Exercise (RAE 2008)
- 1st in London and 5th in the UK for medical and dental research (RAE 2008)

## Postgraduate study at Queen Mary

- 3,699 postgraduate students following taught programmes or registered for research
- Students from 125 countries
- Over £250m invested in College buildings and facilities over the last five years
- Integrated and secure living and studying environment on the Mile End campus



Queens' Building (top left); dental students in a lab on the Whitechapel campus (above)

# Welcome to Barts and The London School of Medicine and Dentistry

## Facilities and resources

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You will be able to make use of excellent facilities and learning resources during your studies. We have listed a few of them below.

## Redevelopment programme

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Barts Health NHS Trust is undertaking a £1 billion redevelopment programme of its hospitals, due to be complete by early 2016. The Royal London Hospital in Whitechapel will be Britain's biggest new hospital, providing excellent general and specialist services. The historic buildings of Barts, Britain's oldest hospital, will be refurbished, alongside a major new building to create a Cancer and Cardiac Centre of Excellence.

## Innovation Centre

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The latest addition to the Whitechapel development is the Innovation Centre, which provides 39,000 sq ft of modern laboratory and office space for science and technology start-ups.



## William Harvey Heart Centre

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The £25m William Harvey Heart Centre, which opened in July 2011, aims to help meet the need for new therapies for heart disease, the leading cause of death worldwide. Bringing together our strengths in cardiovascular pharmacology and basic science, it provides an innovative space in which collaborative research can be translated into new clinical care.

## The Blizzard Building

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At the heart of the Whitechapel campus is the Blizzard Building, a £44m award-winning building designed by Will Alsop, which houses state-of-the-art cell and molecular science laboratories for 400 staff and postgraduate students. The innovative open-plan design of the laboratories – located on a single 3,500m<sup>2</sup> floor – encourages communication between researchers and the sharing of ideas.

## Specialist laboratories

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Whatever your area of study or research, we provide a range of specialist laboratories. Dental students, for example, have access to a Dental Metrology Unit equipped with facial laser scan and facial image analysis. Medical students have access to a new Genomics



Centre for high throughput DNA sequencing, genotyping and real-time PCR and a new Functional Genomics facility containing robotics and microarray readers.

We also offer dedicated postgraduate-only facilities. The Teaching Centre in the Institute of Cancer, for example, is specifically for use by MSc students, and includes teaching rooms, a laboratory, a surgical skills virtual reality suite and a computer lab.

## Libraries

You will have access to two medical and dental libraries based at the Royal London and at Barts Hospitals, as well as the Mile End Library. Whitechapel Library, near the Royal London, is open seven days a week, and until midnight on Mondays to Thursdays during term-time. West Smithfield Library, near Barts, is also open seven days a week and has a 24/7 computer and study area. In addition, most electronic resources are available day and night, on and off campus.

The Libraries are well resourced with medical and dental reference books, as well as extensive computer facilities, including wireless access, and access to a vast range of web resources, electronic journals and e-books. In addition, the Wolfson Institute of Preventive Medicine has its own specialist library, housing books and journals in the fields of epidemiology, medical statistics, medical screening and cancer and cardiovascular disease prevention.

The Academic Liaison Librarian for Medicine and Dentistry has an in-depth knowledge of appropriate resources. They can help you find the information you need and can also support your research skills, including help with communicating your research and making it widely available. We run literature search skills drop-in sessions each week at Whitechapel Library and every month at West Smithfield offering advice on accessing good quality web resources, searching databases and managing your references using EndNote.

## University of London

The prestigious University of London is made up of 19 individual colleges – including Queen Mary – all of outstanding quality. As part of the University of London you will belong to the largest and most diverse university in the UK with access to excellent additional resources.

## Rich history

Queen Mary has a rich and distinguished history. We have had a presence at our Mile End home since 1887, with the opening of the People's Palace, a philanthropic centre bringing education and culture to east London. Barts and The London School of Medicine and Dentistry dates back even further: The London Hospital Medical College, England's first medical school, was established in 1785, while St Bartholomew's Hospital was founded in 1123. To find out more, visit [www.qmul.ac.uk/about/history](http://www.qmul.ac.uk/about/history)

# Research and teaching excellence in medicine and dentistry



From showing that stem cells can regrow liver, pancreas and intestine to producing evidence that folic acid should be added to bread, our research puts us among the top research institutions in the UK.

At Queen Mary we have an impressive track-record of winning generous research funding, which in today's higher education environment ensures that we will continue to excel across the board. Our academics make a real difference to many different fields through publications, papers in key journals, participation at conferences and public events, and work in the media.

The latest Research Assessment Exercise (RAE) confirmed Queen Mary's position as a leading, research-focused institute (see table right).

The medical school was ranked as one of the top four medical schools in the UK, and top in London, for the quality of research. With staff engaged in outstanding research across the School's five institutes, we achieved impressive rankings across a wide range of subjects. For more information on our research, see page 88 or visit [www.smd.qmul.ac.uk/research](http://www.smd.qmul.ac.uk/research)

*The Times Higher Education* commented:

“The biggest star among the research-intensive institutions was Queen Mary, University of London.”

**Top 20 universities in *The Guardian* Research Assessment League Table:**

Ranking	University
1	The University of Cambridge
2	The University of Oxford
3	London School of Economics
4	Imperial College
5	University College London
6	The University of Manchester
7	The University of Warwick
8	The University of York
9	The University of Essex
10	The University of Edinburgh
<b>11</b>	<b>Queen Mary, University of London</b>
12	The University of St Andrews
13	The University of Bristol
14	University of Durham
15	The University of Southampton
16	The University of Leeds
17	The University of Sheffield
18	The University of Bath
19	The University of Lancaster
20	King's College London

In the last RAE, the following departments were ranked in the top five in the country:

- Dentistry (2nd)
- Epidemiology and public health (3rd)
- Pre-clinical and human biological sciences (4th)
- Health services research (4th)
- Cancer studies (5th equal)

**Other subject areas that did exceptionally well include:**

- Other hospital-based clinical subjects (7th)
- Other laboratory-based clinical subjects (7th)



# Living in London



London is one of the world's most culturally rich and inspiring cities. You can take advantage of some of the best resources in the country – such as special collections, libraries, and museums – that will feed into and complement your studies. You will also have access to outstanding art galleries, theatre, and live music, as well as first-class sporting and other recreational facilities.

London has 360 public libraries and a huge range of independent specialist collections. There are over 250 museums and galleries, and the major museums, such as the Science Museum, Natural History Museum, V&A and galleries such as Tate Modern, Tate Britain and the National Gallery offer free entry.

To find out more about everything from upcoming festivals to the location of your local pub, visit: [www.timeout.com/london](http://www.timeout.com/london)

## Our home in the east

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“London has been called a ‘world in one city’ and that’s not just empty rhetoric.”

*Lonely Planet 2011*

Nowhere is this more true than in east London, the exciting and culturally diverse area that is home to Barts and The London.

The hub of London's creative and cultural community, east London represents the best of the city – rich in history, yet always looking to the future, and ethnically diverse, while retaining a uniquely British character.

We're proud of our roots in the area. In 1887, Queen Mary College began life as the People's Palace, a philanthropic centre for the education of east Londoners. We still work closely with our local community today, for example, offering free dental clinics to local residents.

You can find maps of our Whitechapel and Charterhouse Square and Mile End campuses and surrounding areas on pages 154-156.

### **Stimulating clinical environment**

Our location gives us a wide-ranging and stimulating clinical environment, which informs our research and teaching. We serve a population of unrivalled diversity with a high prevalence of cancer, diabetes, obesity, heart and lung disease, HIV and oral disease.

### **Olympic legacy**

The Olympic Games 2012 will have taken place by the time you arrive at Queen Mary, but the impact they make on the surrounding area will be apparent for years to come with better transport links, improved infrastructure and first-class sporting facilities – some of which will be available for use by the public.



St Katherine's Dock, Wapping

The Olympic Park is only a couple of miles from our Whitechapel campus. At the time of going to press, the plan is to transform it into one of the largest urban parks created in Europe for more than 150 years. For more information, see: [www.london2012.com](http://www.london2012.com)



Olympic Stadium

## East London location

### Green space

London is one of the greenest cities in Europe and the area around Mile End is no exception. Next to the campus is Mile End Park and a short walk away is Victoria Park, one of London's oldest parks. Known in Victorian times as the 'People's Park', it provided much-needed green space for the local community and became a centre for political meetings. Today, the park hosts music festivals, open-air theatre and is a great place to relax.



Victoria Park

### Shopping

Europe's largest urban shopping centre, the new Westfield shopping centre at Stratford is only one stop away on the tube. If you're looking for something more unique, you can explore the boutiques, vintage shops and weekend markets of nearby Brick Lane or, a little further afield, the arts and crafts market at Spitalfields.



Spitalfields market

Image courtesy of Henry Lawford

See: <http://uk.westfield.com/stratfordcity>  
• [www.visitspitafields.com](http://www.visitspitafields.com)



O2 Arena



## Music

There is always live music in the capital, and it's often free. Nearby, you'll find large and well-known venues like 93 Feet East on Brick Lane and the O2 Arena. There's also live music in local pubs and bars.

See: [www.93feeteast.co.uk](http://www.93feeteast.co.uk) • [www.theo2.co.uk](http://www.theo2.co.uk)

## Food and eating out

London is a food lover's paradise, with cuisine from around the world, and restaurants to suit all budgets. There are also great fresh food markets, including Queen Mary's very own Farmers' Market. Held every week, you can shop for free-range, organic and locally farmed produce on the Mile End campus.



Brick Lane



Columbia Road, Flower Market

## Where to go

London is really a patchwork of different areas, each with their own distinct character. Have fun exploring!

### Old Street, Shoreditch and around

The heart of London's artistic community, with lots of bars and places to eat. Don't miss the White Cube gallery, the Geffrye Museum or Columbia Road flower market on Sunday mornings.

[www.whitecube.com](http://www.whitecube.com)

[www.geffrye-museum.org.uk](http://www.geffrye-museum.org.uk)

[www.columbiaroad.info](http://www.columbiaroad.info)

### Brick Lane and around

Another creative area. Also London's 'Curry Capital' – an entire street lined with Indian and Bangladeshi restaurants. Don't miss the Whitechapel Gallery.

[www.whitechapelgallery.org](http://www.whitechapelgallery.org)

### Charterhouse Square and around

A fascinating area of London, close to the fashionable bars of Farringdon, the historic Smithfield Market, and the Barbican cultural centre. Don't miss the Barbican's galleries, cinema and theatre. [www.barbican.org.uk](http://www.barbican.org.uk)

### Docklands and Canary Wharf

Not just a business and finance centre – also home to a large shopping centre and some great bars and restaurants. Don't miss the Museum of London, Docklands.

[www.mycanarywharf.com](http://www.mycanarywharf.com)

[www.museumoflondon.org.uk/docklands](http://www.museumoflondon.org.uk/docklands)

### Bethnal Green and Victoria Park

A vibrant residential area, with a range of good value cafés, restaurants and pubs and a daily fruit and veg market. Don't miss the V&A Museum of Childhood.

[www.vam.ac.uk/moc](http://www.vam.ac.uk/moc)

### Mile End and around

Queen Mary's home, with a range of cafés, restaurants and student-friendly pubs. Don't miss the independent Genesis Cinema.

[www.mileendwall.org.uk](http://www.mileendwall.org.uk)

[www.genesiscinema.co.uk](http://www.genesiscinema.co.uk)

## Campus life: Students' Union, sports and socialising



The Students' Union is here to represent and support you in your academic and welfare needs, encourage your personal development and ensure you enjoy your time at university. We will lobby and fight to secure the exceptional educational standards that all Queen Mary students deserve and ensure that your entire student experience is the best it can be.

As a Barts and The London student you will automatically become a member of Barts and The London Students' Association (BLSA) as well as Queen Mary Students' Union (QMSU). BLSA and QMSU aim to ensure that your time at university is not just about studying, but also socialising and gaining new experiences outside the lab or lecture room. The Union also provides academic advice and welfare support during your studies.

### Representation

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BLSA and QMSU are led by elected students who work to improve all aspects of your time at university. Elected trustees, student

councillors, and course representatives all play a valuable role in forming the direction of the Union and providing valuable feedback to the university. These elected students will represent your views but for more direct involvement you can run for election.

### Activities

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BLSA offers several opportunities for you to get involved, make friends and explore your personal interests. With activities including volunteering, fundraising, campaigns, media, sports, societies, and employment, there is something for everyone.

## Events and entertainment

BLSA and QMSU put on a range of events each year, from quiz nights and club nights to cultural celebrations and postgrad socials. Visit the website for a full schedule.

## Bars, shops and cafés

BLSA runs several social spaces and venues for you to take a break, relax or grab something to eat. The Association building in Whitechapel houses The Griff Inn, a newly refurbished restaurant and bar, as well as a common room, reception and shop. At Charterhouse Square is The Shield café and Fitness to Practice fitness centre.

## Sport, health and fitness

Taking part in sport at university is a great way to keep fit, meet people and generally have a good time. QMSU has over 50 sports clubs as well as the new Get Active sports programme that provides 'give it a go' sessions and intramural leagues.

QMSU also runs Qmotion Health and Fitness Centre, home to a range of gym equipment including a cardiovascular zone, a resistance zone and free weights. There's also a women-only gym area, as well as a wide range of classes. Membership rates are subsidised for students.

To find out more, visit [www.qmsu.org/blsa](http://www.qmsu.org/blsa)



Qmotion gym

## Eating on campus

Enjoy a great choice of cafés and restaurants on campus.



• **Nucleus** – A relaxed and modern café with a great choice of sandwiches, coffee and cake. (Whitechapel)



• **The Griff Inn** – A newly refurbished bar and restaurant serving a high quality menu of coffees, teas, sandwiches, burger, pizzas, salads and desserts.



• **The Shield** – With a relaxed atmosphere and comfortable seating, this is the perfect place to go for a coffee, some lunch or break from your studies. (Charterhouse Square)



• **Beigal Bunnies** – Beigals, cakes, hot and cold drinks in the Garrod Building. (Whitechapel)



• **Mucci's** – A traditional Italian trattoria serving delicious fresh food in a relaxed environment. The menu includes two vegetarian options every day. (Mile End)



• **The Curve** – A Starbucks coffee bar, deli and eatery serving freshly cooked international dishes and vegetarian options in a modern, relaxed, open-plan area. (Mile End)



• **Drapers' Bar and Kitchen** – A recently renovated venue providing a relaxed and easy-going environment; offering burgers, pizzas, salads and sandwiches. (Mile End)



• **Ground** – A vibrant, high-street style café serving coffee, refreshing frappés, real fruit smoothies, sandwiches and pastries. (Mile End)

# Our accommodation



Queen Mary has over 2,000 self-catering rooms on campus, with nearly 400 rooms reserved exclusively for medical and dental students in our halls on the Charterhouse Square and Whitechapel campuses.

You also have access to rooms in the fully catered University of London Halls in central London. In addition, there is a good range of private accommodation in the local area. We can provide you with information on available properties and guidance on renting privately.

Some of our residences are reserved exclusively for postgraduate students, while in others you can share with final-year undergraduates. Single sex accommodation is available in non-en-suite accommodation, subject to availability.

Once you have firmly accepted your offer to study at Barts and The London School of Medicine and Dentistry, you will be sent full details of how to apply for College housing. Rooms are offered on a first-come, first-served basis and there is no set deadline for postgraduate applicants. For the best chance

of getting the accommodation you want, apply before the end of May in the year of your entry\*.

If you live close enough to the College to commute, you will normally be expected to live at home until all those students who cannot commute have been housed. Some rooms may then become available after term begins.

Help will be given to late international applicants on their arrival in London. For more information for International students, see page 148.

## **Rent scales and information**

The prices quoted here relate to the academic year 2011-12 and are reviewed each year. Rent is payable each term in advance.

### **Dawson Hall (Charterhouse Square campus)**

Situated in picturesque grounds close to Barts Hospital, this hall has 209 single rooms, with

shared kitchen/dining/bathroom facilities, a common room, coffee bar, gym and launderette. Rents range from £107-£119 per week, including utility costs.

#### Floyer House (Whitechapel campus)

Situated close to the Royal London Hospital and the Dental Institute, this hall has 147 single rooms, with shared kitchen/dining/bathroom facilities, a common room, launderette and garden. Rents range from £105-£136 per week, including utility costs.

#### University of London Halls

About 150 Queen Mary students live in the University of London's Intercollegiate Halls in central London, alongside students from other University of London colleges. Single rooms cost from £170 per week, including breakfast, evening meals and gas and electricity costs.

#### Privately rented accommodation

Many postgraduates prefer to rent private accommodation off-campus in the local area. We provide advice, information and an online search facility of privately owned accommodation available for rent. Rents typically range from £100-£150 per week.

#### Family accommodation

If you have a family, we would strongly advise you not to bring your partner and children to live with you in London until you have secured suitable affordable housing. There is very little university or hostel accommodation for students with families, and housing in the private sector can be expensive.

## See what it's like

For virtual tours of our rooms and full details of all accommodation options, visit:

[www.residences.qmul.ac.uk](http://www.residences.qmul.ac.uk)

**\*Please note: We give priority to single, full-time, first-year postgraduates who apply before the start of the academic year in which they wish to study and who have not lived in Queen Mary accommodation before.**



# Careers and employability



Whether you are mid-career and looking to consolidate your professional experience or a recent graduate wanting to explore your subject in more depth, a postgraduate qualification from Queen Mary can give you an edge in today's job market.

## **The value of postgraduate study**

You will graduate from Barts and The London with an enhanced set of skills and knowledge attractive to employers. This will include improved cognitive and transferable skills and, if your studies are aligned to your career path, your specialist subject knowledge.

Your time with us is a great chance to reflect on where you fit in the job market. If you haven't started on your career yet, look to build your work experience alongside your studies and, whatever stage you're at, make sure you take advantage of the networking opportunities available to you on your course.

At Barts and The London School we offer a vast range of opportunities and support to help you network and develop your experience, skills, and, ultimately, your CV – both in and outside of your degree programme.

## **Careers support for postgraduates**

Just as important as developing your skills and knowledge, is learning to sell your postgraduate experience to employers. The Queen Mary Careers team can provide training in CV and application-writing, interview technique and other employer recruitment methods – whether you are applying for internships, part-time work or permanent positions.

We also offer a range of opportunities to network with employers and past students from your academic school. Employers and training organisations that visited the campus last year, included Barclays, Capgemini, Civil Service Fast Stream, Deloitte, Linklaters, and Teach First. Former students who shared their experience of the workplace, included aid workers, bankers, consultants, civil servants, dentists, doctors, engineers, journalists, lawyers and scientists.

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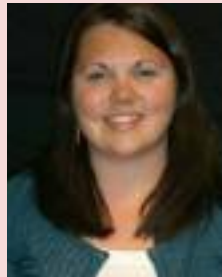
*“Postgraduate Education in the United Kingdom, a paper published by the British Library and the Higher Education Policy Institute (Hepi), found that, three and a half years after graduation, 94% of postgraduates found work in the professions, compared to 78% of undergraduates.”*

*The Guardian, 2010*

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With most postgraduate taught courses lasting nine months, it's important that you make the best of your time here. During your induction period, you will meet with the dedicated careers adviser for your school, so that you can set your objectives for the coming months. At any time during your studies or research, you can arrange a one-to-one with an adviser to discuss your career preparation and options.

You can read more about the Careers team and find job vacancies, a jobs blog and graduate career profiles, at:  
[www.careers.qmul.ac.uk](http://www.careers.qmul.ac.uk)



**NAME:** Elizabeth Page

**STUDIED:** MSc in Healthcare Research Methods

**CURRENTLY:** Research Assistant at the Institute of Cancer

#### **What do you do in your role?**

I am part of a research team looking into the genetics of cancer. I help coordinate and run an international research project investigating screening of individuals genetically predisposed to prostate cancer. The study runs in 44 centres in 15 countries and has 1,240 participants.

#### **What did you gain from your time with us?**

I gained an understanding of the processes involved in healthcare research and drug development in the pharmaceutical industry and healthcare settings. I developed personal skills in time management, critically reviewing publications and writing long documents. I also learnt about subjects I had very little knowledge of, such as, marketing in healthcare and pharmacoeconomics.

#### **What impact has your qualification had on your career?**

I think my qualification has given me greater job security. I have a better salary and have been able to take on more responsibility in my current role, for example, presenting research data at a number of national and international conferences. I have also achieved authorship on our teams' publications and am about to write and submit my own paper.

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## Graduate profiles



**NAME:** Dr Muhammad Umair Dastgir Bhatti

**STUDIED:** MSc Dental Public Health

**CURRENTLY:** Assistant Professor, Public Health Dentistry, University of Lahore

**What does your job involve?** I am concerned with the prevention of oral diseases and run various oral health promotion programmes targeting schools, mosques and female health workers.

**What did you enjoy most about your time with us?**

We were involved in real public health work. Every session brought a new challenge.

**What has been the impact of your degree on your career?** On my return to Pakistan, I was immediately recruited. Since then, I have been promoted, and I am currently acting head of three departments and leading four oral health promotion programmes. I'm earning four times what I was before.



**NAME:** Daniele Bassanese

**STUDIED:** MSc Clinical Drug Development

**CURRENTLY:** Clinical Trial Pharmacist

**What did you gain from your time with us?**

I've got a job in the field I was looking to move into. All my lecturers had a background in the pharmaceutical industry and this, combined with the work I did on my dissertation, meant that at job interviews I was able to show a real understanding and knowledge of clinical trials, despite my relative lack of work experience.

## What employers look for

At Queen Mary, we have worked with employers, students and academic staff to define the skills, values and behaviours that capture the distinctive features of our learning environment and make our graduates so sought after. They include:

- the skills to influence, negotiate and lead
- curiosity and openness to change
- initiative and resilience in meeting challenges
- ability to work individually and in collaboration with others
- the skills to use technologies to access and interpret information effectively.

Our postgraduate programmes give you maximum opportunity to enhance your set of attributes and skills. Some of these you will develop through study and research; others we encourage you to build through work experience or extra-curricular activities.

### Language learning

Learning a language gives you another valuable skill. The College's Language and Learning Unit offer a range: from Arabic to Chinese. See [www.languageandlearning.qmul.ac.uk](http://www.languageandlearning.qmul.ac.uk)

### Queen Mary postgraduates went on to work for a variety of employers in 2011, including:

Accenture, Bloomberg, Cancer Research UK, Citibank, Department of Health, Deloitte, Health Protection Agency, IBM, KPMG, Ministry of Defence, NHS, PwC, Stowers Institute for Medical Research and Unilever.

*Destination of Leavers from Higher Education Survey 2011*



## Notable alumnus

### Lord Robert Winston



The world-renowned fertility expert and member of the House of Lords, Professor Lord Robert Winston qualified in Medicine with us in 1964. Robert Winston was one of the pioneers of IVF (in-vitro

fertilisation) as well as gynaecological microsurgery. His work on the preimplantation of genetic diagnosis has made a huge difference to families carrying hereditary gene defects; their children have been born without fatal illnesses.

Lord Winston has also carved out a successful TV career. He has presented several award-winning BBC television series, including *The Human Body*, *The Superhuman* and, most recently, *A Child of our Time*. *The Human Body* won a record three BAFTAs, an Emmy nomination and a Peabody Award. He is the author of no fewer than 14 books, many of which have won prestigious prizes. *What Makes Me, Me* won the Aventis Prize in 2005; in the same year *The Human Mind* was also shortlisted for the Aventis and won the British Medical Association first prize for the Best Popular Medicine Book. *It's Elementary* also received a shortlisting for the Aventis prize in 2008.

Lord Winston has been a visiting professor at a number of American, Australian and European universities. He was Chairman of the British Fertility Society from 1984-87, Dean of the Institute of Obstetrics and Gynaecology for eight years, and President of the British Association for the Advancement of Science in 2005. He is currently a member of Council and Chairman of the Societal Issues Panel at the Engineering and Physical Sciences Research Council.

Throughout the course of his career Lord Winston has received numerous awards and honours, including honorary doctorates from 16 universities. In June 2008, he was voted 'Peer of the Year' by his fellow parliamentarians for his expertise and work on the Human Fertilisation and Embryology Bill.

### Work experience

Employers expect postgraduates to continue to build their skills and experience during their period of study or research. Queen Mary, with its research-rich environment, substantial campus and location between the Docklands, City and Olympic site, provides an unusually large and diverse range of opportunities.

- Many on-campus jobs, including assisting with undergraduate teaching and mentoring, helping to run conferences, building e-learning tools and stewarding halls of residence available through the QM Temps Agency
- Easy access to hundreds of off-campus jobs across London via the QM JobOnline vacancy site
- 60+ annual employer recruitment and networking events
- A thriving Students' Union offering over 500 opportunities to volunteer on- and off-campus in leadership, sports, creative and community roles
- Support and training for entrepreneurs and an active entrepreneurs' society.

Off-campus, London is an exciting, vibrant city with plenty of job opportunities. Queen Mary postgraduate students undertake a range of roles from museum intern to lab assistant.

Throughout your postgraduate studies, you are welcome to make use of the information, networks and advice on offer from the Queen Mary careers team. For a full overview of services, see: [www.careers.qmul.ac.uk](http://www.careers.qmul.ac.uk)

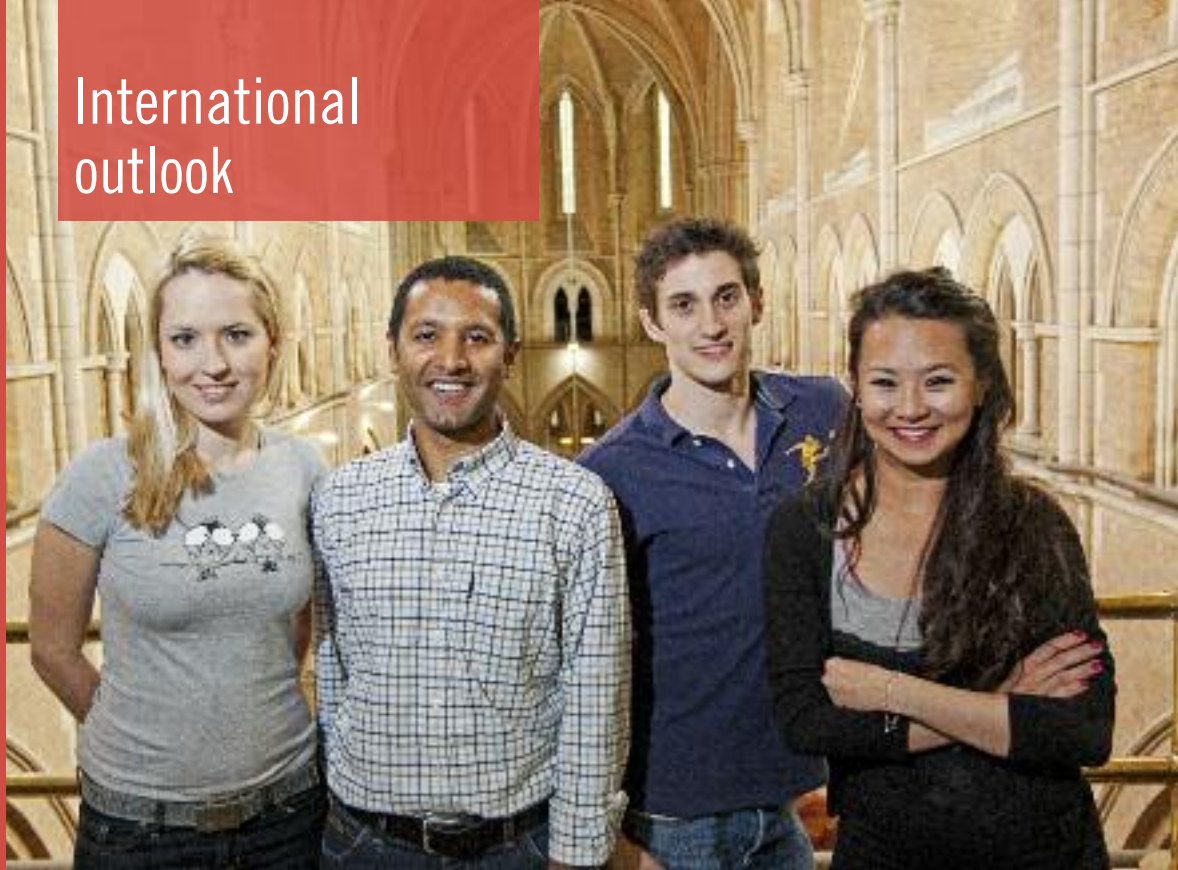
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In 2011, on completing their course, Queen Mary postgraduates had an average salary of £35,410.

*Destination of Leavers from Higher Education Survey 2011*

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# International outlook



Queen Mary welcomes students from all over the world and offers a lively, multicultural environment. We currently have over 5,000 international students from more than 125 countries studying with us. We are ranked among the top 150 universities globally\*.

## Global talent

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We value the contribution that our international students make to the life of the College. As an international student you will offer different academic approaches and a range of life experience, creating a rich learning environment.

The influence of so many cultures also feeds into the social life of the College. This is reflected in the diversity of our student-run clubs and societies, which cover politics, culture, religion and a range of sports.

## How we support you

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Our campus provides you with a safe, secure and supportive environment in which to study. In a recent survey, our international students expressed high levels of satisfaction with the quality and cost of their accommodation (International Student Barometer – Autumn 2011-12).

We also offer a range of specialist support services to help you feel at home, including an airport collection service and a welcome programme at the beginning of the academic year.

Throughout your studies, we offer immigration and counselling services, English language and study skills support, as well as fun day trips to interesting sites in London and around the UK.

### Careers

If you choose to study at Queen Mary, you will enhance your career prospects in a vibrant, creative and stimulating environment. Our international graduates go on to successful careers both in the UK and overseas. To read more about our careers support, see page 20.

### Scholarships

We constantly seek to attract the best postgraduate students. To help us do this, we are pleased to offer a range of scholarships to our international students. For more information on eligibility criteria and how to apply for a scholarship, visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Find out more

For more information on studying at Queen Mary, our overseas entry requirements, how to apply, English language support and our current tuition fees, please see pages 149-150 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)



### Student profile:

**Dr Jasleen Kaur**

**MSc Dental Public Health**

“London offers a very multicultural and socially diverse atmosphere. Queen Mary is right in the heart of London and is the perfect platform for ambitious international students to pursue academic, personal and leadership goals.

“It provides many opportunities for overseas students to experience life in the UK and to gain a deeper understanding of British society. It also gives students the opportunity to broaden their horizons by building strong relationships with people from widely differing backgrounds, cultures and schools of thought.

“Studying the MSc in Dental Public Health (DHP) has helped me understand the field of dentistry through the lens of public health. I now see how improved DPH can create a healthier and happier society.”



# Medicine and Dentistry



Barts and The London School of Medicine and Dentistry is a leading medical and dental school that offers an unrivalled tradition of international excellence in research and teaching. The London was the first medical school in England, founded in 1785, and Barts Hospital was founded in 1123. The School has almost 1,000 members of staff, consisting of over 650 academics and around 350 support staff. The School's total annual turnover is approximately £86m, of which over £60m is competitively awarded external research income (in addition to the funding that we receive from the government) placing Barts and The London in the top tier of research-active medical and dental schools.

## Research strengths

The School is nationally and internationally recognised for research in the following areas:

- cancer
- cardiovascular
- dentistry
- inflammation
- endocrinology/metabolism
- immunology and infectious diseases
- skin disease
- genomics
- neuroscience
- gastroenterology
- epidemiology
- public health and primary care.

Many of our researchers are world-leaders in their area. The School is organised into six institutes, each containing a series of research centres.



## Superb facilities in the centre of London

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As a student here you will have access to unrivalled facilities and location. Our research campus at Charterhouse Square in West Smithfield is in a fascinating and historic district of central London, close to the Barbican arts centre, St Paul's Cathedral, the fashionable areas of Farringdon and Clerkenwell, and London's legal district. Our other campus at Whitechapel is in the heart of London's lively East End, a unique urban setting, and contains the Blizard Institute, one of the most adventurous and spectacular research buildings in Europe.

## Research quality indicators

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### The Research Assessment Exercise

Our excellence in research was confirmed by the outstanding results in the most recent Research Assessment Exercise (RAE 2008). The RAE placed us in the top five research-active medical and dental schools in the UK,

along with Oxford, Cambridge, Imperial College and UCL. We were rated the top school of medicine and dentistry in London.

## Our institutes

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Barts and The London School of Medicine and Dentistry is structured across six institutes. Each institute houses specialist research groups made up of leading academics and PhD students. For more details about our institutes, including the resources that are located in each, see the relevant pages listed below:

- Barts Cancer Institute 89
- Blizard Institute 99
- Institute of Dentistry 114
- Institute of Health Sciences Education 121
- William Harvey Research Institute 124
- Wolfson Institute of Preventive Medicine 134

# Degree programmes



## Postgraduate Certificate in Aesthetic Medicine

**Eight months part-time – distance learning**

*This intensive programme provides education in the principles of safe practice to those working in or intending to work in non-surgical aesthetic techniques, such as dentists, dermatologists and general practitioners.*

### Overview

Providing a core curriculum and practical foundation in the principles of safe practice in aesthetic medicine, this programme is designed for medical and dental practitioners wishing to enter the field or for those who want to expand their existing knowledge. Delivered by distance learning, you can study for the certificate anywhere in the world – all you need is access to the internet. The virtual learning environment has a forum for discussion of cases and topics as well as audiovisual material to help illustrate case studies and good practice.

### Why study with us?

- The Blizard Institute includes research centres of excellence in Skin Disease, Immunology and Infectious Disease, Gastroenterology, Surgery, Paediatrics, Diabetes, and Neurosciences.
- Two optional hands-on training workshops are available covering principles of toxins, dermal fillers, skin care and peels.
- Training workshops are accredited by leading industry insurers and are suitable for continuous professional development purposes.

### What skills and knowledge will you develop?

- Understanding anatomy and physiology of the skin in health and ageing processes.
- Patient counseling of common aesthetic indications.
- Principles of safe practice in non-invasive aesthetic techniques (toxins, fillers, peels, lasers etc).

- Practical skills in toxins and dermal fillers preparations and their administration.

#### Where Aesthetic Medicine graduates work

- Various national NHS trusts, GP practices, private medicine

#### Programme outline

##### Modules

- Cutaneous Physiology, Wound Healing, Scarring and Ageing
- Hair Biology, Medicolegal Practice, Psychology and Patient Selection
- Skin Care Programmes, Fillers, Botulinum and Chemical Peels
- Laser and Camouflage Techniques

#### Teaching and assessment

- You are assessed through a combination of multiple-choice exams and written assignments.
- This programme is delivered via distance learning over eight months. In addition, there are two clinical teaching days.

#### Entrance requirements

- An MBBS or equivalent.
- An overseas qualification equivalent to an MBBS from an accredited institution.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

#### Further information

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[www.londonplastics.org](http://www.londonplastics.org)

## MSc in Aesthetic Plastic Surgery

### Two years part-time – distance learning

*This intensive programme is designed for established plastic surgeons or plastic surgical trainees who wish to specialise in the field of aesthetic plastic surgery.*

#### Overview

Delivered by distance learning, you will cover the entire spectrum of aesthetic surgery, with an emphasis on the fundamental principles and instruction in a wide range of the latest techniques. Online tutorials and a forum allow for discussion of cases and topics at your convenience. You will also have access to audiovisual material to help illustrate case studies and good practice. We also offer clinical days at conferences with live demonstrations of surgical techniques.

#### Why study with us?

- The Blizzard Institute includes research centres of excellence in Skin Disease, Immunology and Infectious Disease, Gastroenterology, Surgery, Paediatrics, Diabetes, and Neurosciences.
- The virtual learning environment enables you to communicate online with other students, and to speak directly with the programme leader.
- Four intensive clinical training days, held over two weekends, provide a clinical context to the more didactic syllabus.

#### What skills and knowledge will you develop?

- An understanding of patient assessment management, surgical techniques, and common aesthetic surgical and non-surgical procedures.

#### Where Aesthetic Plastic Surgery graduates work

- Various national NHS Trusts, aesthetic surgery facilities



## Degree programmes

### Programme outline

#### Modules

- Historical Perspective/Cutaneous Physiology/Cutaneous Healing, Scarring and Ageing/Hair Biology/Treatment Cutaneous Lesions
- Medicolegal Practice/Patient Selection for Aesthetic Surgery/Anaesthetic Practice
- Implants/Biomaterials/Liposuction
- Special Techniques: Skin Care Programmes/Fillers/Botox/Colour Hair/Dermabrasion/Chemical Peels/Laser Peels
- Aesthetic Surgery of the Eyes, Face and Neck
- Aesthetic Surgery of the Nose, Ears and Lips
- Aesthetic Surgery of the Breast, Trunk and Extremities
- Research Methods and Ethics in Aesthetic Surgery

### Teaching and assessment

- Weekly assessments are online and use multiple choice questions and extended matching questions (EMQs) and are marked by computer.
- A total of 80 assignments will be set within the weekly modules and you will be required to pass at least 80 per cent of these.
- At the end of the second year you will be required to submit a dissertation and sit clinical examinations.
- Home students must attend all the clinical training days. Overseas students should ideally attend the two clinical weekends, but alternative arrangements can be made.

### Entrance requirements

- MRCS Part A and B
- An overseas qualification equivalent to MRCS Part A and B from an accredited institution
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score



of 6.5 or an IBTOEFL score of 92.  
For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## Postgraduate Diploma in Burn Care

**Two years part-time – distance learning**

*This programme provides physicians or surgeons with a solid foundation in the management of burn patients.*

### Overview

Delivered by distance learning, this programme covers the entire spectrum of aesthetic surgery with an emphasis on the fundamental principles and instruction in a wide range of the latest techniques. You will develop knowledge in the management of acute burn injuries, according to a multi-disciplinary, evidence-based approach incorporating medical, surgical and psychosocial care as well as management of early and late burn complications. You will also explore cutting-edge research methods and research-derived products currently being implemented as well as identification of key ethical considerations of burn care.

### Why study with us?

- The Blizard Institute includes research centres of excellence in Skin Disease, Immunology and Infectious Disease, Gastroenterology, Surgery, Paediatrics, Diabetes, and Neurosciences.

### What skills and knowledge will you develop?

- Knowledge in management of acute burn injuries, according to a multi-disciplinary, evidence-based approach incorporating medical, surgical and psychosocial care as

well as management of early and late burn complications.

### Where Burn care graduates work

- Various national NHS Trusts, burn care facilities

### Programme outline

#### Modules

- Skin Structure and Function/Burn Pathophysiology
- Medicolegal Practice/Psychology/Psychiatry
- Fluid Resuscitation/Smoke Inhalation/Critical Care Management
- Anaesthesia/Pain and Pruritis/Dressings and Skin Substitutes
- Acute Burn Wound Care/Acute Surgery
- Fundamentals of Burn Reconstruction
- Burn Rehabilitation/Multidisciplinary
- Research Methods and Ethics In Burn Care

### Teaching and assessment

- Each of the teaching packages includes a weekly online assignment, 80 per cent of which must be successfully completed.
- You will also be assessed by a 15,000-word dissertation and a viva voce examination.

### Entrance requirements

- MBBS or equivalent
- An overseas qualification of an equivalent standard from an accredited institution
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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[www.londonplastics.org](http://www.londonplastics.org)

## Degree programmes

### MSc in Cancer Therapeutics

**One year full-time, two years part-time**  
**Distance learning option available**

*This research-led programme is taught by renowned experts in the field, and will provide you with a clear understanding of the scientific basis underlying the principles and practice of cancer therapeutics, including the development, evaluation and implementation of new treatments.*

#### Overview

Our innovative learning environment offers you an exceptional educational experience, exposure to modern techniques and the use of state-of-the-art laboratories. You will develop a thorough knowledge of cancer biology and pathology, research methodologies, drug development and regulatory issues. There is an emphasis on practical skills during the research skills module and the three-month laboratory project.

#### Why study with us?

- Barts Cancer Institute is one of the top five cancer research institutions in the UK (Research Assessment Exercise 2008).
- Part of the Barts and The London School of Medicine and Dentistry, Queen Mary University of London, we are based at the Charterhouse Square campus in the City of London.
- The Barts Cancer Institute has strong links with industry and works with a large number of pharmaceutical companies on pre-clinical or drug development research projects.

#### What skills and knowledge will you develop?

- A thorough knowledge of the principles underlying cancer treatment
- Skills in gathering, recording, analysing and presenting information within the regulatory framework underlying clinical research
- Good understanding of the principles of laboratory methodologies applied to clinical trials

- An understanding of the steps involved in developing and implementing new treatments
- The ability to apply this knowledge in a professional role and to contribute to the research activity and knowledge base in improving cancer care.

#### Where Barts Cancer Institute graduates work:

Roles this programme will equip you for include:

- PhD student
- Medical student (several of our graduates have used their MSc to gain entry to an MBBS)
- Clinical trials coordinator
- Research officer in a clinical trials network or laboratory
- Research assistant in lab environments
- Doctor in cancer therapy (if you already have an MBBS).

#### Programme outline

##### Core modules

- Basic Molecular Biology
- Basic Pathology
- Cancer Prevention and Screening
- Genomic Approaches to Human Diseases
- Molecular Diagnostics and Therapeutics
- Molecular Pathology of Solid Tumours
- Research Skills and Sciences
- Laboratory project

##### Option modules

- Biological Therapies
- Introduction to Bio-Informatics
- Molecular Genetics of Haematologic Malignancies

#### Teaching and assessment

- Each module is taught using a combination of teaching methods. These include: seminars/lectures; practical classes in our dedicated teaching laboratory in pairs or

small groups, where you will receive hands-on training for specific methods; demonstrations – these will take place in Institute laboratories or the classroom to teach specific technologies (expression array technology) or methods (array data analysis).

- For distance learning students video demonstrations will be provided. You will be able to ask module leaders for more information on these if required.
- You will also be required to deliver student poster and oral presentations on specific topics.
- Each module involves three hours of teaching contact time per week, across a ten-week semester. In semester 3 you would undertake a full-time research project.
- You will be assessed using a variety of methods to help you to develop both transferable skills as well as those directly related to a career in research. Methods include: written assignments; poster and oral presentations; written or multiple-choice question (MCQ) examinations; full laboratory project write-up.

### Entrance requirements

- This programme is open to graduate scientists, clinicians and other medical professionals working in healthcare, the pharmaceutical industry or contract research organisations.
- Entry to the programme will require a good degree, or degree-equivalent qualification from a recognised academic institution or an appropriate professional qualification or experience.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## Postgraduate Diploma in Clinical Dermatology

### One year part-time – distance learning

*This programme covers the core dermatological curriculum, with particular emphasis on the diagnosis and management of skin disease from a primary care perspective.*

### Overview

Delivered by distance learning, this programme can be studied anywhere in the world. There is no travel to the UK required, although we offer six clinical days for those studying the programme in the UK. There are regular small group tutorials and live interactive lectures. A discussion forum allows for discussion of cases and topics at your convenience. There are weekly audiovisual materials to demonstrate cases and good practice.

### UK programme

- Six clinical days with clinical cases, throughout the course of one year
- Small group consultant-led teaching
- Weekly audiovisual material to demonstrate cases and good practice.

### International programme

- This programme can be studied anywhere. No travel to the UK is required.
- Regular small group tutorials, with live discussion online
- Live interactive lectures online
- A discussion forum allows for discussion of cases and topics at your convenience
- Weekly audiovisual material to demonstrate cases and good practice.

## Degree programmes

### Why study with us?

- The Blizzard Institute includes research centres of excellence in Skin Disease, Immunology and Infectious Disease, Gastroenterology, Surgery, Paediatrics, Diabetes, and Neurosciences.

### What skills and knowledge will you develop?

- A good understanding of how to manage your dermatology patient
- Patient counselling skills in relation to common dermatological indications
- A good understanding of the principles of safe practice
- High-level practical skills.

### Where Clinical Dermatology graduates work

Various national NHS trusts, GP practices, private medicine

### Programme outline

The following topics are covered:

- How to Recognise and Investigate Skin Disease
- How to Manage Skin Disease
- Common Skin Infections
- Red and Spotty Faces
- Itchy Skin and Eczema
- Allergies at Home and at Work
- Psoriasis
- Harmless Lumps and Bumps
- Pigmented Lesions – the Good and the Bad
- Cancerous Lumps and Bumps
- Blistering Diseases
- Other Inflammatory Skin Diseases including Lichen Planus
- Urticaria
- Drug Reactions
- Rashes in Creases
- Hair – too Much and too Little
- Body Parts connected to Skin: Oral, Ocular and Aural

- Genital Dermatology
- The Psyche and the Skin
- Special Problems in Children
- Dermatoses in Different Skin Types
- Healing Wounds
- Vasculitis and Vascular Lesions
- Skin and Systemic Disease
- Connective Tissue Diseases
- Sunshine and Skin
- Uncommon Infections
- Surgical Solutions and Treatments
- Cosmetic Dermatology and Non-Invasive Treatments

### Teaching and assessment

- You will be assessed by weekly assignment with MCQ-style questions, based on clinical cases. The assignments are submitted on the virtual learning environment. 80 per cent of your assignments must be completed to pass the diploma.
- You will also be assessed on five 1,000-word written reports, one at the end of each module.
- A three-hour final written examination must be passed at the end of the course.

### Entrance requirements

- MBBS or equivalent and full GMC certification (UK students)
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## MSc/Postgraduate Diploma in Clinical Drug Development

**One year full-time, two to five years part-time**  
**Distance learning option available**

*This programme gives you the necessary academic background and specialist skills to carry out clinical drug development in a contract research organisation, pharmaceutical industry or health service environment.*

### Overview

The modular nature of the programme is designed to fit in with full-time employment. The taught elements of the modules are delivered in three-day blocks, every six weeks. The course is taught by individuals who are actively involved in clinical drug development in pharmaceutical companies, contract research organisations, and academic and NHS clinical research environments.

### Why study with us?

- The William Harvey Research Institute is the largest university-based pharmacological research institute in the UK. Our success in this area is illustrated by our publications in high-impact journals, accompanied by renewal and additional funding of one Medical Research Council and five Wellcome Programmes, which we lead or support as co-investigators.
- The Institute has strong links with the pharmaceutical industry both in the UK and abroad.

### What skills and knowledge will you develop?

- Ability to solve problems in healthcare practice
- Skills in gathering, recording and communicating information
- Good understanding of the regulatory framework governing good clinical research

- Ability to apply the principles that you have learnt in a professional setting and to contribute to the research culture and knowledge base in the healthcare profession.

### Where Clinical Drug Development graduates work

- Our graduates are in demand in the pharmaceutical industry, contract research organisations and healthcare research organisations. A number of our students go on to undertake further research either in Barts and The London or at other academic institutions.

### Programme outline

#### Modules

- Clinical Study Design
- Practical Aspects of Clinical Research and Early Drug Development
- Ethics and Regulation
- Data Management and Statistics
- Specific Topics in Clinical Trial Design
- Elective Dissertation
- Health Outcomes and Pharmacoeconomics
- Marketing Healthcare
- Research Project / Dissertation
- Drug Discovery and Pre-clinical Research and Development
- Toxicology

### Teaching and assessment

- Taught modules are subject to 100 per cent continuous assessment. You will be assessed by essay-style exercises, as well as a series of shorter question and answer tasks. You will not have a final written examination.
- To achieve the postgraduate diploma you must complete and pass eight modules. The MSc award is dependent on your successful completion of a further four modules, two of which will comprise a critical dissertation of approximately 20,000 words.

## Degree programmes

### Entrance requirements

- Either an appropriate degree or equivalent from a recognised academic institution, or an appropriate professional qualification (for example nursing) or experience acceptable to the Programme Director and Dean for Postgraduate Studies.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## MSc/Postgraduate Diploma in Clinical Microbiology

**One year full-time, two years part-time**

*This programme aims to equip you with a thorough understanding of clinical microbiology based on both theoretical teaching and extensive practical laboratory experience. It is designed to develop an ability to undertake effective research within clinical microbiology.*

### Overview

This programme develops your skills and understanding in clinical microbiology and gives you a thorough knowledge of associated subjects such as molecular biology and research skills.

Your formal teaching will include lectures, practicals and workshops. Your lecturers are specialists in their fields and are invited from many institutions in the UK. The practicals are extensive and will give you maximum hands-on experience in all aspects of clinical microbiology. The practicals are taught in a

large purpose-built teaching laboratory. Your studies will be broad-based, with extensive coverage of the following topics: bacteriology; virology; mycology; parasitology; bacterial pathogenicity; immunology; molecular biology; microbial disease – diagnosis, treatment and prevention; antimicrobials and chemotherapy; epidemiology and public health; and hospital infection.

### Why study with us?

- Many students use the programme as preparation for their FRCPATH examinations and the degree is accredited by the Association of Clinical Microbiologists as part of their training for clinical scientists.

### What skills and knowledge will you develop?

- Good knowledge of the basic sciences and research techniques underpinning the practice of clinical microbiology
- Ability to search and interpret the literature to apply the results from the relevant clinical sciences to the management of the patient
- Ability to review evidence, apply the correct use of statistics and critically appraise the scientific literature to draw conclusions about infectious disease and clinical care
- Broad knowledge of common and important infectious diseases at a level appropriate to underpin clinical experience and support independent practice
- Demonstrate knowledge of, and skills in and appropriate attitudes towards the diagnosis, investigation and management of patients with infectious disease
- Ability to utilise problem-solving skills in the clinical and research settings, which will enable independent practice as a specialists.

### Programme outline

#### Modules

- Clinical Microbiology: Pathogens and Commensals
- Diagnostic Microbiology and Laboratory Methods

- Molecular Biology, Microbial Pathogenesis and the Host Immune Response
- Antimicrobials
- Public Health and Communicable Disease Control
- Clinical Microbiology: Diagnosis and Management of Human Disease and Control of Hospital Infection
- Clinical Microbiology Research and Presentation Skills
- Advanced Clinical Microbiology and Laboratory Management
- Research Dissertation

### Teaching and assessment

- Part-time students attend one day a week for seven hours' teaching (theory and practical) for 26 weeks a year. Full-time students attend four to five days a week, with additional tutorials and practical sessions.
- To enable the full-time students to participate fully in discussions about laboratory techniques and clinical cases with their part-time colleagues, additional tuition is provided during the attachment to the Centre for Immunology Infectious Disease. The additional tuition provides further hands-on practical experience using material designed to reflect the clinical samples and laboratory procedures in a routine hospital laboratory.
- Modules are assessed by a combination of in-course assessments and end-of module examinations. Modes of assessment used include: written and practical examinations; scientific poster presentation; oral presentations; case reports; essays; MCQ; and comprehension of scientific papers.

### Entrance requirements

- Applicants should hold an MBBS or basic medical degree or a BSc honours degree in biomedical science from universities recognised by the University of London. The award must be at least an upper second (2:2) or above.



## Degree programmes

- Part-time applicants must hold an appointment or attachment in a microbiology department of a hospital, the HPA or other appropriate institution for the duration of the programme. General practitioners are also able to apply for a place on the part-time course.
- If you are an overseas student or a recent graduate in biomedical science you are more likely to want to follow the full-time programme. Graduates in other related disciplines are considered for either programme provided they have suitable experience in clinical microbiology.
- At the discretion of the Programme Leader and Dean for Postgraduate Studies a candidate for the course with alternative qualifications (such as Fellowship of the IBMS) and relevant experience in clinical microbiology, can register for the MSc.
- Applicants may be interviewed prior to acceptance and course entry may be competitive.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## MRes/Postgraduate Diploma/Postgraduate Certificate in Clinical Research

### Two years part-time

*Designed for clinical academic trainees in all specialties, this programme gives you the opportunity to develop academic research skills within the framework of your busy clinical training programme.*

### Overview

The programme aims to prepare you for a career in academic clinical research, equipping you to undertake independent research, including critical thinking and consideration of research impact. It provides formal training in the regulatory and ethical framework for clinical research and develops key skills in research design, statistical analysis and critical review. It will encourage you to engage with the public and patients, communicate effectively with different audiences, and understand the importance of communication to the public perception of research.

### Why study with us?

- The programme runs across the School of Medicine and Dentistry, taking advantage of outstanding research and educational expertise in all the component Institutes.
- External experts contribute extensively to the taught components of the course. Part 1 modules include teaching by experts from the pharmaceutical industry and interdisciplinary learning with industry employees, providing excellent opportunities for network development.
- Project elements enable close liaison with colleagues in our associated NHS Trusts.
- The programme fully meets the requirement of the NIHR and other funders to provide academic clinical fellows with relevant training in research methodology.



**What skills and knowledge will you develop?**

Studying on the programme will help you develop an invaluable set of generic research skills and knowledge including:

- Clinical research project design and implementation
- Written and oral communication
- Logical and critical thinking.

**Where Clinical Research graduates work**

- Your skills and knowledge will be valuable in any clinical career.
- You will be ideally placed to fulfil the aspirations of NIHR Fellowships and apply for funding to pursue future research.

**Programme outline**

You may register initially for the Postgraduate Certificate with the option to transfer registration to the Postgraduate Diploma or MRes in year 2.

**Core modules (Part 1)**

- Clinical Study Design
- Ethics and Regulation in Clinical Research
- Data Management
- Statistics

**Option modules (Part 1)**

- Communication and Public Engagement
- Practical Aspects of Clinical Research

**Option modules (Part 2)**

- Research from the Literature
- Practical Project
- The Grant Proposal

**Teaching and assessment**

- Part 1 modules are taught through short blocks of lectures and workshops at which attendance is required. Assessment is based entirely on coursework through a range of written tasks and an oral presentation.
- Part 2 modules are taught through individual supervision and tutorials, and a flexible

programme of attendance at seminars and workshops. Assessment is by dissertation.

**Entrance requirements**

- MBBS or BDS (or equivalent) plus employment as Academic Clinical Fellow or Clinical Lecturer at Queen Mary or associated NHS Trusts.
- Individuals with other qualifications who are employed at Queen Mary or in associated NHS Trusts will be considered on a case-by-case basis.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

**Further information**

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## MSc in Critical Care

**One year full-time, two to five years part-time**

*If you are a clinician, a senior nurse or an allied health professional working in critical care, this programme will give you a thorough grounding in critical care medicine, together with the tools to maintain your knowledge over a course of advanced, specialist instruction.*

**Overview**

This programme aims to provide advanced theoretical and practical teaching that covers a broad range of key topics related to the management of the critically ill or injured patient as well as developing skills, knowledge and confidence so that you can lead the provision of the highest standards of critical care. Additionally, the programme will develop and demonstrate your competence in a critical appraisal of research and your skills in conducting a robust clinical audit.

## Degree programmes

### Why study with us?

- The William Harvey Research Institute was established by the Nobel Laureate John Vane with the goal of becoming an international powerhouse for pharmacological research operating at the academic / industry interface. The Institute has had great success and growth in the depth and quality of our programmes in cardiovascular, inflammation and endocrine research.
- The Institute's major strength is in bringing scientists with different skills together, combining disciplines such as genetics, cell biology, pharmacology, epidemiology, advanced imaging and clinical trials with therapeutic innovation.

### What skills and knowledge will you develop?

- Advanced skills, knowledge and confidence in critical care
- Ability to critically appraise research and skills in conducting a robust clinical audit.

### Programme outline

#### Modules:

- Pathophysiological Basis of Critical Illness
- Supportive Care for Failing Organ Function
- Care of the Unconscious Patient
- Decision-Making, Communication and Ethics
- Research and Audit Methodology
- Special Patient Groups
- Neurocritical Care and Trauma Management
- Clinical Observership
- Dissertation

### Teaching and assessment

- You will learn by means of a variety of academic activities ranging from lectures, seminars, tutorials and direct involvement in basic and clinical research projects.
- Each module will be assessed on the basis of written work, examination and presentations.

### Entrance requirements

- Both UK and overseas doctors and nurses with a medical or nursing degree are eligible to apply, as are allied health professionals.
- You must have postgraduate experience of critical care medicine.
- Admissions will be carefully assessed to ensure that prospective students are able to meet the high academic standards required to successfully complete the course.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## Postgraduate Diploma in Dental Clinical Sciences

### One year full-time

*The programme builds on your existing skills and knowledge and provides you with opportunities to improve your clinical and professional skills and to orientate them to that of a UK general practitioner.*

### Overview

The programme offers comprehensive grounding in five key training areas: basic sciences and their application to modern day dental practice; clinical issues in dentistry; communication skills; professionalism; and management and leadership. There are two pathways which both provide strong foundations for continuing postgraduate study. If you wish to undertake the Membership of the Joint Dental Faculties professional examinations (MJDF) we recommend that you

apply for the core pathway. The enhanced pathway is recommended for those seeking MJDF and the overseas Registration Examination (ORE) or possible progression to a clinical MSc or MCLinDent programme. The enhanced pathway offers greater emphasis on clinical skills development, using dental manikins.

### Why study with us?

- You will have the opportunity to attend Continuing Development Courses of the London Deanery, Royal Society of Medicine (Odontology Section).
- You will prepare a professional development portfolio based on evidence gathered from lectures, tutorials, clinics, self-study and self-reflection sessions.

### Programme outline

#### Modules

- Statistics, Ethics and Research Methods
- Principles of Clinical Issues in Dentistry
- Clinical Skills I
- Clinical Skills II (Enhanced Dental Clinical Sciences students only)

### Teaching and assessment

- The syllabus is taught through lectures, seminars, tutorials and symposia.
- Communication and IT skills are developed through weekly journal club reports and presentations on dental and clinical governance topics.
- You are tutored in Objective Structured Clinical Examinations (OSCE) and Structured Clinical Reasoning (SCR) exams using the outstanding facilities in the newly equipped state-of-the-art dental skills laboratory.

### Entrance requirements

- For entry to the programme you should have a recognised degree in dentistry from an approved university and a minimum of 12 months' post-qualification experience.



## Degree programmes

- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## MSc in Dental Materials

**One year full-time, two years part-time**

*This programme will give you an understanding of the basic science underlying dental materials, providing opportunities if you want to develop your research career in dental materials at the academic/clinical interface.*

### Overview

This course will be of particular interest to dental school academics and basic scientists seeking specialist training in dental materials research. The programme provides a suitable training if you wish to go on to join a PhD programme in materials or dental materials.

### Why study with us?

- The programme is taught by experts in the field of dentistry and materials who work closely together on the latest developments in dental materials.
- The programme allows practitioners the opportunity to update their knowledge in the latest developments in the field.

### What skills and knowledge will you develop?

- This programme will equip you with a deep understanding of the field of dental materials and the knowledge necessary to participate in research or product development.

### Where do Dental Materials graduates work?

- Graduates work in dental support industries or the materials health sector.

### Programme outline

#### Modules

- Properties of Dental Materials
- Introduction to Oral Biology
- Research Methods/Experimental Techniques
- Surfaces and Interfaces in Dentistry
- Medical Ethics/Law/Regulatory Practice
- The Science of Biocompatibility
- Research Project

#### Option modules

- Minimally Invasive Dentistry
- Biomineralisation and Biomimetics

### Teaching and assessment

- The assessment procedure varies between each module and includes written papers and long essays.
- A third of your final grade is based on your 20,000-word project report. You will take part in an oral examination based on the report.

### Entrance requirements

- A minimum of two years' post-qualification full-time experience in addition to your recognised degree.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## MSc in Dental Public Health

**One year full-time, two years part-time**

*This programme allows you to develop a critical thinking and research capacity to work in the global arena towards improving oral health of populations and reducing health inequalities.*

### Overview

The skills acquired in this course will give you a competitive edge as you start your career either in academia, health systems or at non-governmental organisations globally. On the oral health needs and demands assessment module, you will study epidemiological principles and indices, critically evaluating the dental literature and preparing scientific reports. Later in the course you will study the principles and methods that underpin oral health promotion, and its limitations. You will also study oral health inequalities, wider determinants of health and health behaviour.

### Why study with us?

- This course can contribute to a three-year specialist training programme in Dental Public Health and your completion of the course makes you eligible to enter the Diploma in Dental Public Health (DDPH) examination of the Royal College of Surgeons of England.
- You will have the opportunity to undertake a placement within the NHS system and gain practical and applied skills; you will also have the opportunity to apply your theoretical knowledge in practice.

### What skills and knowledge will you develop?

- An good understanding of oral health in the health of society
- The ability to plan and evaluate dental services
- Teamwork and ability to engage with an international environment and to develop networking partnerships
- Communication skills.

### Where Dental Public Health graduates work

- Specialist registrars (Str) in dental public health
- Health promotion managers
- NGO project managers
- Academic staff
- PhD researchers and assistant researchers

### Programme outline

#### Modules

- Oral Health Needs and Demands Assessment
- Research Methodologies
- Information Technology
- Service Planning and Evaluation
- Placement Schemes
- Promoting Oral Health
- Global Health, Illness and Society

### Teaching and assessment

- The programme takes a one-to-one approach to supervision to develop critical thinkers. Your programme will include timetabled seminars, personal study and supervised research.
- Assessment methods used include: short essays; presentations; written papers; and viva.

### Entrance requirements

- A minimum of two years full-time post qualification experience in addition to having a recognised degree in dentistry, medicine or a related health science.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

## Degree programmes

### Further information

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## Graduate Certificate in Dental Technology

### Four months full-time

*This programme is designed to help those without a degree to build on their experience and qualifications so that they can go on to work in the field of dental technology. By the end of the programme you should be able to move onto masters-level education.*

### Overview

The programme concentrates on developing your knowledge and understanding of the sciences underpinning dental technology. Successful completion of the course will allow you to progress on to the MSc or PgDip in Dental Technology. This programme is also available to you if you have a dental or science qualification and are responsible for the teaching of related subjects.

### Why study with us?

- The Dental Institute has an excellent reputation for its postgraduate programmes in dental technology.
- This programme is suitable for those wishing to upgrade their knowledge in this field.

### Programme outline

#### Modules

- Basic Science I
- Basic Science II
- Technical Practice
- Project

### Teaching and assessment

- The course consists of formal teaching, technical practice and a supervised project.
- You will be expected to complete 12 essays as coursework assessments, which will constitute 40 per cent of your total marks.
- At the end of module four, you will be examined by two written papers on the subjects covered. We also expect you to complete a project report, sit an oral examination and keep a reflective practice log book for your technical work.

### Entrance requirements

- A recognised qualification in dental technology through assessments, including a written examination of a standard comparable to the Higher National Certificate in Dental Technology or the Dental Technicians Advanced Certificate of City and Guilds of London Institute.
- Minimum of two years' post-initial qualification experience, and the ability to demonstrate advanced technical expertise in the field.
- You may be required to satisfy a practical trade test.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## MSc/Postgraduate Diploma in Dental Technology

**One year full-time, two years part-time**

*If you are a dentist, dental technician or a scientist who wants to gain a better research knowledge of dental technology and dental materials, this is the training course for you.*

### Overview

On this course you will be taught elements of dental technology, CAD-CAM, implantology, occlusion, aesthetics and materials. Teaching is carried out by our clinical consultants, chief technicians and dental/biomaterials experts in the Institute of Dentistry. This course is designed for future leaders in the field of dental technology or dental biomaterials who will take up posts in academia, research or industry. You will gain an improved scientific base and research skills and – uniquely – are taught together with our clinical postgraduate students. You will interact with clinicians, attend implantology clinics and technical practice sessions and also attend management leadership and presentation skills courses.

### Why study with us?

- We have strong links with commercial dental laboratories (Knight Dental Labs, 2009 Private Dentistry Awards Best UK Laboratory Award) and encourage trips to these facilities to see the newest technology and encourage industry participation.
- You will have the opportunity to attend a series of lectures organised for our senior clinical house officers.
- This is a well-established programme that combines the examination of the science underpinning dental technology with the opportunity of developing new skills.

### What skills and knowledge will you develop?

- An understanding of the science which supports dental technology

- Knowledge of the clinical-dental technology interface
- High-level research skills
- Management and leadership skills.

### Where Dental Technology graduates work

Most of our graduates have gone on to work in teaching positions in universities or senior management positions throughout the world including Saudi Arabia, Kuwait, Jordan, Syria and Libya, with many returning to take up PhD studies.

### Programme outline

#### Modules

- Statistics, Ethics and Research Methods
- Properties of Dental Materials/Processing Methods
- Occlusion
- Introduction to Implantology
- Aesthetics
- Advanced Technical Practice
- Research Project and Report
- Management, Leadership and Communication Skills
- Research Project

### Teaching and assessment

- Teaching is in the form of lectures, small group seminars and technical practice sessions. In addition to the formal seminar programme, time is set aside for readings, reviews, discussion and problem solving for student projects, practical exercises and feedback.
- The MSc research project is conducted under supervision and is evaluated by thesis, presentation and viva examination.
- The course will offer students the opportunity to become familiar with the issues of study design, data analysis and critical thought. The course aims to offer a high teacher/student ratio so that access to advice and ease of communication can be assured.

## Degree programmes

- Assessment methods used include: written examinations; essays; practical assessments; oral examinations; a technical case submission and presentation; a written research project report and presentation.

### Entrance requirements

- A degree (minimum of second class honours) in dentistry or a subject relevant to dentistry, such as basic sciences or medical/bioengineering, or the equivalent in professional qualifications and experience.
- A dental technology foundation degree (see below), a minimum of two years' post-initial qualification experience, and the ability to demonstrate advanced technical expertise in the field. Applicants may also be required to satisfy a practical trade test.
- A recognised qualification in dental technology through assessments, including a written examination of a standard comparable to a three-year foundation degree in dental technology, or a graduate certificate in dental technology awarded at the level of merit.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## MSc/Postgraduate Diploma in Endocrinology and Diabetes

### Two years part-time – distance learning

*The course provides physicians, especially those training in endocrinology and related specialties, with a foundation in the theoretical and clinically applied aspects of this discipline. It is designed both for new entrants in the field as well as those already working in the area.*

### Overview

The programme aims to enhance awareness of the basic sciences and research techniques underpinning endocrinology and diabetes including literature searches, reviewing evidence, critical appraisal of scientific literature, use of databases, writing papers and articles and correct application of statistics. Studying this course will lead to improved knowledge in the subject including up-to-date and emerging areas of research. Completion of the course may be considered favourably by training bodies and prospective employers.

### Why study with us?

- The Department of Endocrinology is widely recognised as a world-leading centre of excellence in all aspects of clinical endocrinology. It attracts some of the brightest clinicians and receives referrals of many complex endocrine cases from all over the world.
- In the Department's early days of the, ground-breaking clinical research was performed on the hypothalamic releasing peptides and the application of dopamine agonists in treatment of prolactinoma.
- The Department played a leading role in the development and clinical application of radioimmunoassays for many peptide hormones.
- Endocrinology became incorporated into the William Harvey Research Institute in 2005 with the relocation to state-of-the-art laboratories in the John Vane Science Centre.



In addition to the longstanding strengths in adult endocrinology, the Department is also the leading centre for Paediatric Endocrinology research in the UK.

### What skills and knowledge will you develop?

- Good understanding of the basic sciences and research techniques underpinning the practice of clinical endocrinology and diabetes
- Ability to search and interpret the literature to apply results from the relevant clinical sciences to the management of the endocrine patient
- Ability to review evidence, apply the correct use of statistics and critically appraise the scientific literature to draw conclusions about endocrine physiology, pathology and clinical care
- Good knowledge of the common and important disorders in endocrinology and diabetes, at a level appropriate to underpin clinical experience and support independent practice
- Skills in the diagnosis, investigation and management of patients with disorders of the hypothalamus and pituitary, thyroid, parathyroids, bone metabolism, reproductive endocrinology, growth and development, energy balance, the adrenal glands, endocrine-related cancers and diabetes mellitus
- High-level problem-solving skills in the clinical and research settings.

### Programme outline

#### Modules

- Generic Skills and Core Knowledge
- Hypothalamus and Pituitary
- Thyroid, Parathyroid and Bone
- Reproductive, Pregnancy and Paediatric Endocrinology
- Metabolism, Energy Balance and Lipids
- Adrenal Cortex and Medulla

- Genetics, Oncology and Neuroendocrine Tumours
- Diabetes Mellitus
- Dissertation

### Teaching and assessment

- Assessment is by a mixture of coursework assignments for each module and a final exam. You will also be assessed on your performance during online tutorials, discussion groups and message boards.
- All students take all eight modules to complete the Postgraduate Diploma with a further independent research project (if eligible) to complete the MSc.
- Delivered by distance learning, all modules are taught via a virtual learning environment. You will therefore need access to a suitable computer and broadband internet access.

### Entrance requirements

- MBBS or basic medical degree from universities recognised by the University of London. You should generally have worked for one year after registration (two-three years post qualification).
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)
- You must be able to sit examinations at a British Council Centre, or a similar approved centre, under invigilation or be able to attend examinations in the UK.

### Further information

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### **Student profile:** Bana Abdulmohsen, MSc Dental Technology

“Queen Mary has a good reputation amongst Syrian students. A friend of mine highly recommended studying here at postgraduate level.

“It has been a great opportunity to meet colleagues in the same field and exchange knowledge. The College itself is a really friendly environment, with great facilities such as the Library, computers and modern accommodation.

“Ideally, I would like to teach as well as practise dentistry, and hope to apply for a PhD at Queen Mary. I enjoy attending conferences and learning about up to date research. I would also like to work on some research and publish articles.”

## **MCLinDent in Endodontology**

**Two years full-time, three years part-time**

*This programme is designed for dental graduates who wish to enhance and extend their knowledge and clinical practice in endodontology to specialist level.*

### **Overview**

The programme will provide in-depth and extensive current knowledge in endodontology, attainment of clinical proficiency in endodontics to an externally recognised specialist level, better understanding of the inter-relationship between endodontics and other dental disciplines and research skills development (literature review and research methodologies).

### **Why study with us?**

- Following successful completion of the programme students are eligible for entry to the Specialist Diploma (one year full-time or two years part-time) and may then sit the exit examination of the Dental Faculties of the Surgical Royal Colleges.

### **What skills and knowledge will you develop?**

- In-depth and extensive current knowledge in endodontology to specialist level
- Ability to undertake independent, proficient and advanced clinical practice of endodontics to specialist level
- Ability to relate endodontic care to other dental specialties
- Ability to utilise problem-solving and decision-making skills to assess, diagnose and treatment plan advanced cases
- Ability to accept secondary and tertiary referrals for endodontic advice and treatment
- Ability to analyse the literature and research bases for evidence-based clinical care and to plan and perform research including clinical audits
- High-level communication skills

### Where Endodontology graduates work

Our graduates work in a variety of settings both in the United Kingdom and other countries:

- as a specialist in endodontics in practice
- within the hospital service or in universities
- in dental primary care with an interest in endodontics.

### Programme outline

#### Modules

- Statistics, Ethics and Research Methods
- Evidence-Based Dentistry and Critical Appraisal
- Science of Endodontology
- Advanced Science of Endodontology
- Laboratory Endodontic Practice
- Clinical Endodontic Practice I
- Clinical Endodontic Practice II
- Advanced Clinical Endodontic Practice
- Assessment, Diagnosis and Treatment Planning
- Literature Review
- Research Project: Guidance

### Teaching and assessment

A variety of teaching and learning methods will be employed including:

- Lectures/seminars
- Pre-clinical laboratory practice sessions: demonstrations, “hands-on” practical and simulation exercises, discussion, analysis and reflective summaries of work
- Clinical practice sessions: treating patients under supervision, discussion and review of outcomes
- Assessment, diagnosis and treatment planning clinics: attendance at Consultant/Specialist-led referral and diagnostic clinics for endodontics and other restorative specialties
- Self-directed learning: course work, essays and other written assignments, library projects, literature searches and critical appraisal exercises
- Tutorials: One-to-one for those needing additional support, guidance and help

- Case reports and presentations: problem-solving exercises, critical analysis of treated cases, discussion on what, how, and why treatment was carried out, reflecting on shortcomings and how it could be improved
- Literature review and research project: leading to production of literature review and research project dissertations, and presentations at journal/study club meetings and conferences
- Reading lists of books and journal papers, e-resources and online materials.

A combination of assessment methods will be employed including:

- Formative assessment: formal and informal multi-source feedback regarding performance and achievement of the learning objectives by continual monitoring of activities (seminar performance, written assignments, direct observation of procedural skills, case-based discussions, performance and progress appraisals).
- Summative assessment: written papers and essays, practical skills tests, viva voce, clinical examinations, case reports and log book records, literature review and research dissertations and presentations.

### Entrance requirements

- For entry to the programme you should have a minimum of two years’ clinical experience after completion of your primary dental qualification.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## Degree programmes

### MSc in Experimental Oral Pathology

#### One year full-time

*The first step on the pathway to a PhD, this programme will develop your understanding of the dynamic nature of the academic research that supports clinical practice, and will lay the foundation for an exciting career in dental research.*

#### Overview

The course introduces the principals of experimental pathology applied to oral disease. It provides a grounding in experimental methods for dental graduates who plan to follow either a career in academic dentistry or one of the dental specialties. If you are a science graduate, the course provides an opportunity to learn about oral disease and the oral manifestations of systemic disease in preparation for a career in dental research. We offer you a fundamental training in the principles of laboratory research methods and the range of techniques used to study the behaviour of oral tissues in health and disease. You will gain hands-on experience of techniques of fundamental importance to experimental pathology, such as tissue culture, molecular biological techniques, immunocytochemistry, light and electron microscopy, imaging techniques and techniques such as ELISA and Western Blotting used for the investigation of biomarkers of disease.

#### Why study with us?

- Throughout the programme, emphasis is placed on the experimental evidence upon which the concepts are based and the way in which such evidence is obtained by observation and experiment.

- You will become part of an active research team as you carry out your research project and your results may become part of published research for which you will be a co-author. You are encouraged to take an active part in the seminars.

#### What skills and knowledge will you develop?

- Increased knowledge of oral disease and oral manifestations of systemic disease
- Knowledge and understanding of experimental methods suitable for underpinning research into the behaviour of oral tissues
- Skills in techniques essential to oral pathology
- Excellent writing and presentation skills.

#### Where Experimental Oral Pathology graduates work

Many graduates have gone on directly to PhD programmes both within our institute and at other universities. Others have returned to their home countries and taken up senior academic positions.

#### Programme outline

##### Modules

- Molecular Organisation of the Eukaryotic Cell
- Techniques in Cell and Molecular Biology
- The Biology of Oral Tissues
- Cellular Pathology
- Inflammation and Immunology – General and Oral
- Oral Pathology and Microbiology
- Laboratory Techniques
- Statistics, Ethics and Research Methodology
- Research Project

### Teaching and assessment

- Some teaching will have a didactic form at the beginning of the course. As the course progresses we expect you to have a more fully interactive participation in the seminars and the practicals will be, by definition, “hands on”.
- Contact hours will be a minimum of 20 hours per week in the first term, giving you time to assimilate your new knowledge. As we move into term two and the practical classes commence the contact time will increase to more than 30 hours per week depending on the nature of the class. During the period of the research project contact time will be flexible depending on the project and the requirement of supervision.
- A journal club forms a central role in the course where you will learn the skills of critical reading and presentation.
- The programme will be assessed using a variety of methods, including: written examinations; participation in seminars; presentations; coursework; reflective practical portfolio and lab safety examination; a written report on a research project supervised by a senior member of the research staff. The report will be examined by viva voce.

### Entrance requirements

- A degree in dentistry, medicine or a biological science subject.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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### Graduate profile: Oluyori Adegun

**Studied:** MSc in Experimental Oral Pathology

**Currently:** PhD in Dentistry

#### Why did you choose Queen Mary?

I chose Queen Mary because of the diverse cultural environment but more importantly, its reputation as a University par excellence for high quality teaching and research in dentistry.

#### What did you gain from your time at Queen Mary?

I researched the role of human papilloma-virus 16 (HPV16) in oral cancer at the new, open-plan Blizzard Building, which provided access to excellent facilities and the opportunity to collaborate with a diverse range of research groups. I particularly enjoyed presenting my research via posters at international conferences, such as the British Society of Oral and Maxillofacial Pathologists day. I was privileged to get a publication in an international journal and the rare chance of meeting high-profile clinicians, researchers and executives. Overall, my experience on the MSc was so enjoyable that I inevitably wanted to continue my research here. After graduating with a Distinction, I am delighted to now be a PhD student, researching diagnostic imaging for oral mucosal diseases.

#### What are your career plans in the next five years?

On completion of my PhD at Queen Mary, I intend to undergo a specialist training in oral pathology with a view to having an excellent background in the pathologic basis of oral diseases.

## Degree programmes

### MSc/Postgraduate Diploma/Postgraduate Certificate in Forensic Medical Sciences

**One year full-time, two to five years part-time**

*The programme provides an intermediate level of knowledge in a wide range of forensic medical subjects, providing a foundation for further more advanced study. One of the only courses of its kind, it attracts students from all over the world as well as from the UK.*

#### Overview

You will study forensic pathology and will visit mortuaries to observe autopsies, attend court hearings, gain a knowledge of how injuries are interpreted and how cases are prepared for court. In clinical forensic medicine you will study the role of the doctor in assessing persons in custody, assault victims, child maltreatment, assessing torture victims, etc. Other areas which are covered include drugs, alcohol and their misuse, and how these substances are detected and quantified. You will also study the various methods that deceased and living persons can be identified by both as single cases and in mass disasters, including by DNA, dental and other methods. You will learn the basic principles involved in carrying out research relevant to the forensic sciences.

#### Why study with us?

- The forensic unit comprises experienced staff with an international reputation for their excellence in teaching and research in forensic medicine.
- We are one of the very few universities in the UK with an academic centre of forensic medicine and the only centre in London and the South East of England actively teaching in this field to both undergraduates and postgraduates.

#### What skills and knowledge will you develop?

- Understanding of the organisation and function of the legal system in the UK and how it applies to forensic medical practice
- Knowledge and understanding of the roles of experts in court, how to recognise and interpret injuries, and methods of examination of injured patients for medico-legal purposes
- Ability to carry out basic analytical methods in toxicology and in the DNA laboratory
- Knowledge of the relevant aspects of human rights, including in relation to genocide and mass disasters as applicable to the forensic medical practitioner
- Independent research skills and ability to critically evaluate scientific literature.

#### Where Forensic Medical Sciences graduates work

- Forensic science laboratories for further training (including DNA labs and toxicology)
- A number of students gain entry into medical school as mature students
- Some graduates work with the police forces in relation to scene-of-crime work
- Other graduates have joined the NHS in medically related areas.

#### Programme outline

##### Modules

- Forensic Pathology
- Clinical Forensic Medicine
- Human Identification
- Legal Aspects of Medicine
- Toxicology
- Research Project

#### Teaching and assessment

- Teaching is carried out through lectures, practical classes, assignments and field visits.
- Modules are assessed through tutorial work, assignments, practical reports and examinations.

### Entrance requirements

- Either a good life sciences degree or appropriate experience or professional qualification.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## MSc/Postgraduate Diploma in Gastroenterology

**One year full-time (MSc) or eight months full-time (PgDip)**

**Distance learning option available**

*This programme provides a strong scientific understanding of gastrointestinal, liver and nutritional diseases with an introduction to research and is intended to provide a route for clinicians entering the field as well as broadening the knowledge of those already working in the area.*

### Overview

This programme is designed as a curriculum in adult and paediatric gastroenterology, hepatology and nutrition. It will provide knowledge and understanding of:

- the basic science, laboratory and clinical research techniques underpinning the specialty
- clinical manifestations of common complaints of the gastrointestinal (GI) tract
- current and future options and techniques for diagnosis and management of gastrointestinal, hepatobiliary and nutritional disorders

- principles and practice of research, including literature review, forming of hypothesis, planning and completion of methods, analysis and discussion of data.

### Why study with us?

- The Centre for Digestive Diseases is one of the largest departments in this country with over 70 members and a range of clinical and research interests and includes professors in GI genetics, GI paediatrics, GI surgery, neurogastroenterology, clinical gastroenterology, GI pharmacology and GI physiology all of whom contribute to postgraduate teaching.
- The programme's learning objectives cover much of the scientific aspects of the MCRP (Gastro) exam run by the Royal College of Physicians (UK).
- The programme has been approved by the British Society of Gastroenterology Education Committee.
- The Distance Learning Postgraduate Diploma was developed in collaboration with the United European Gastroenterology Federation (UEGF).

### What skills and knowledge will you develop?

The ability to:

- Make differential diagnosis of common complaints related with the gastrointestinal tract
- Identify appropriate investigations in order to confirm diagnosis
- Recognise suitable treatments according to the clinical scenarios
- Identify risk factors for and strategies for the prevention of GI diseases
- Critically assess and understand relevance of research and data in this field to enhance clinical decision making both for individual patients and the broader patient population
- Be able to write scientific essays and dissertations and give oral presentations.

## Degree programmes

### Where Gastroenterology graduates work

- For selected high-achieving students there are opportunities to stay in the Centre as clinical research fellows studying for higher degrees such as MD(Res) or PhD.
- Others further their careers in medicine and gastroenterology in the UK or abroad.

### Programme outline

#### Modules

- The Basis of GI Diseases
- Liver and Pancreatic Diseases
- Adult GI Diseases: Luminal Diseases
- Neurogastroenterology: Functional GI Diseases
- Paediatric and Adolescent GI, Liver and Nutritional Diseases, including GI Infections
- Introduction to Endoscopy
- Research Project in Gastrointestinal Science (MSc)

### Teaching and assessment

- The programme consists of a combination of lectures, small group tutorials and practical sessions. There is also a research project.
- The Centre has two endoscopy training simulators, and training on these simulators is included if you are a full-time student.
- There are opportunities to observe clinical meetings, clinics or endoscopy sessions mainly in the latter half of the year.
- For the distance-learning option, teaching is recorded and uploaded to the internet. Regular live online tutorials and meetings will be run with senior members of the Faculty.
- Modules examined by written exams at the end of each module (70 per cent) and coursework (30 per cent), which includes essays, oral presentation or poster presentation.
- The research project is examined by a written dissertation of approximately 10,000 words, presentation and viva.

### Entrance requirements

- MBBS or a basic medical degree recognised by the University of London, at least one year of working after this qualification and a clear intention to work in this speciality.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

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## MSc in Global Health and Public Policy

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## MSc in Health Systems and Global Policy

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## MSc in International Primary Healthcare

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### One year full-time, two years part-time

*These interrelated programmes will be of particular interest to public health doctors and other health practitioners in public and primary health care, but are also relevant to policy makers and NGO workers and social and laboratory scientists. Each programme will enhance your ability to plan and develop services, and to deliver health care and public services.*

### Overview

The Global Health and Public Policy programme builds on models of social determinants of health and international health concepts of policy-making at the extra-territorial level. You can specialise in areas as diverse as trade in health, global burden of disease, evidence-based policy making, pharmaceuticals, clinical trials, and ethics.



The Health Systems and Global Policy programme examines how the principles and practice of effective and fair public health care can inform health policy and health care systems in national and local settings. An important focus will be on the theoretical and practical principles of solidarity in health care systems. The programme analyses the principles of health systems, and makes global linkages to social, political, economic, and cultural issues in individual countries and themes. You will develop an understanding of competition and trade law and regulation and their application to public health care. The knowledge and analytic skills you will develop will help you address the challenges facing public health and public policy across a range of contexts. Strong emphasis is placed on research methods and analytic techniques for practical application or further research.

The vision of the International Primary Health Care programme is to build a vibrant, inter-professional, and interdisciplinary learning community of primary care practitioners, who will work together under the guidance of expert tutors to explore how the principles and practice of effective primary health care may be achieved in different countries, health care systems, and local settings. Aimed at doctors, nurses, allied health professions, policy makers, and managers working in a public health, primary care, or health policy setting throughout the world, it will promote high-quality research, teaching, and service development in these areas in an international context. This vision for developing public health and primary care is widely held (eg, it is prominent in World Health Organization strategic plans and is a strong theme in the new healthcare strategy in the USA), but it depends critically on capacity-building to produce the research leaders, educators, policy-makers, and change agents who are integral to this process.

### Why study with us?

- The Centre for Primary Care and Public Health is one of the UK's leading centres of health services research, coming 4th in the UK and first in London in the most recent RAE.
- The Centre combines the local and the global in a stimulating and challenging research and teaching environment – we have strong links to the NHS, local authorities, numerous third-sector organisations in east London, senior policymakers in the UK, and leading international figures in global health.
- You will have an opportunity to attend a residential seminar and networking weekend in the first semester.
- These programmes are of particular interest to medical and clinical practitioners, civil servants, public health practitioners, social and political scientists, and NGO workers.

### What skills and knowledge will you develop?

- Knowledge and understanding of the principles and policy norms of public health and health systems
- Knowledge and understanding of key concepts and theories in global health, public health, primary health, public policy, and the political economy of health care
- Knowledge and understanding of key concepts and theories of the social determinants of health at territorial, transterritorial, and global levels
- Knowledge and understanding of theories and operational principles of health equity
- Ability to apply epidemiological, public health, legal, anthropological, geographical, and political and social science perspectives to public health and primary care questions
- Ability to evaluate and critique current public health policy and primary care practices and propose alternative approaches

## Degree programmes

- Ability to synthesise arguments and information from different disciplines so as to solve problems and propose new approaches in primary health care, public health, and international health settings.

### Where Global Health Graduates work

- Graduates are likely to go on to work as health care practitioners, policy makers and service providers in public health and primary care settings, in governments and health departments, and in NGOs and transnational organisations.

### Programme outline

You will be required to take four core modules, along with the specialist module for your chosen programme and a choice of three elective modules.

#### Core modules

Epidemiology and Statistics • Health, Illness and Society • Health Inequalities and Social Determinants of Health • Health Systems, Economics, and Policy

#### Specialist modules

Social Determinants of Health: Ecological Approaches (MSc Global Public Health and Policy) • Globalisation and Healthcare Reform (MSc Health Systems and Global Policy) • Primary Health Care: Theory and Practice (MSc International Primary Health Care)

#### Option modules

Primary Health Care: Theory and Practice • Social Determinants of Health: Ecological Approaches • Globalisation and Health Care Reform • Patients, Quality, and Safety • Globalisation and Contemporary Medical Ethics • Research Appraisal and Synthesis • Migration, Culture, and Health • Human Rights and Public Health • Intellectual Property, Medicine, and Health Care • Managing Innovation and Change in Health Systems: Policy and Practice • Narrative Medicine in Clinical Practice: Patients, Families and Teams

### Teaching and assessment

- Each module will include lectures, small group tutorials and independent study. Most modules will follow a format of structured preparatory work (reading and reflection exercises), a weekly interactive lecture, a two-hour small group seminar, and topic discussions by email.
- Modules are assessed in a manner most suited to the subject matter, typically by a 3,000-word assignment. You will also be assessed on a 15,000-word dissertation.

### Entrance requirements

- Undergraduate degree in a relevant subject to public health (at least 2.1 or equivalent).
- For the MSc International Primary Health Care you are required to have at least one year's work experience in primary care.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information:

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## MSc/Postgraduate Diploma in Healthcare Research Methods

**One year full-time, two to four years part-time**  
**Distance learning option available**

*This programme gives you the necessary academic background and specialist skills to carry out healthcare and clinical research in health services, academic environments, contract research organisations, or pharmaceutical industry environments.*

### Overview

The modular nature of the programme is designed to fit in with full-time employment. The taught elements of the modules are delivered in three-day blocks, every six weeks. The course is taught by individuals who are actively involved in healthcare and clinical research in academic and NHS clinical research environments, and in pharma companies and contract research organisations.

### Why study with us?

- The William Harvey Research Institute is the largest university-based pharmacological research institute in the UK and our success in this respect can be measured by publications in high-impact journals, accompanied by renewal and additional funding of one MRC and five Wellcome Programmes, which we lead or support as co-investigators.
- The Institute has strong links with other clinical and healthcare research institutes and the pharmaceutical industry in Britain and abroad.

### What skills and knowledge will you develop?

By the end of the course, you will be able to:

- Solve problems in healthcare practice
- Demonstrate skills in gathering, recording and communicating information

- Understand the regulatory framework governing good clinical research
- Apply the principles that you have learnt to your professional commitments
- Contribute to the research culture and knowledge base in healthcare.

### Where Healthcare Research Methods graduates work?

- Our graduates are in demand in the NHS and academia as well as the pharmaceutical industry, contract research organisations and other healthcare research organisations. A number of our graduates go on to undertake further research either in Barts and The London or other universities.

### Programme outline

#### Modules

- Clinical Study Design
- Practical Aspects of Clinical Research and Early Drug Development
- Ethics and Regulation
- Data Management and Statistics
- Specific Topics in Clinical Trial Design
- Elective Dissertation
- Health Outcomes and Pharmacoeconomics
- Marketing Healthcare
- Research Project/Dissertation
- Health and the Human Body
- Healthcare Organisation and Decision Making
- Drug Discovery and Preclinical Research and Development
- Toxicology

### Teaching and assessment

- The taught modules are subject to 100 per cent continuous assessment with your submission of essay-style answers, a series of shorter answers or a mixture of both. You will not have a final written examination.



## Degree programmes

- To achieve a Postgraduate Diploma, you must complete and pass eight modules. The MSc award is dependent on your successful completion of a further four modules, two of which will comprise a critical dissertation of approximately 20,000 words.

### Entrance requirements

- Either an appropriate degree or equivalent from a recognised academic institution, or an appropriate professional qualification (for example nursing) or experience acceptable to the Programme Director and Dean of Postgraduate Studies.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## MRes Inflammation: Cellular and Vascular Aspects

### One year full-time

*This programme provides a practical training in modern molecular and proteomic research techniques and their application to traditional methods of pharmacological investigation of inflammatory and vascular disease mechanisms.*

### Overview

This course is an invaluable foundation if you want to pursue a career in industry or academic research. It will help you develop the skills you need to conduct biomedical inflammatory research, for example, in rheumatoid arthritis, atherosclerosis, hypertension, diabetes, nephrology or cancer. In the first term you will follow an initial three-

month course of tutorials and practicals to obtain a broad grounding in inflammation mechanisms, and to develop the necessary laboratory skills for conducting the project element of the programme. This is split up into generic skills (ie writing, presentation skills, statistics, laboratory safety and critical analysis), proteomics, molecular methods, immunological and pharmacological methods. In the following two terms, you will be expected to apply a variety of techniques as part of an integrated research project under the guidance of an experienced academic supervisor.

### Why study with us?

- The William Harvey Research Institute was established by the Nobel Laureate John Vane with the goal of becoming an international powerhouse for pharmacological research operating at the academic/industry interface. The Institute has had great success and growth in the depth and quality of our programmes in cardiovascular, inflammation and endocrine research.
- The Institute's major strength is in bringing scientists with different skills together, combining disciplines such as genetics, cell biology, pharmacology, epidemiology, advanced imaging and clinical trials with therapeutic innovation.

### What skills and knowledge will you develop?

Skills in areas necessary to conduct biomedical inflammatory research, such as:

- Rheumatoid arthritis
- Atherosclerosis
- Hypertension
- Diabetes
- Nephrology
- Cancer.

### Where MRes Inflammation graduates work

The majority of our graduates go on to undertake a PhD.



## Degree programmes

### Programme outline

You follow an initial three-month course of lectures, tutorials, problem-based learning sessions and practicals to obtain a broad grounding in inflammation / vascular mechanisms, and to develop the necessary laboratory skills for conducting the project element of the programme which follows. In the following two terms, you will apply a variety of techniques as part of an integrated research project under the guidance of an experienced academic supervisor.

### Teaching and assessment

- Tutorials and practicals will develop your understanding of inflammation mechanisms and laboratory skills required to complete the Research Project element of the course.
- Coursework continues throughout the year. You will develop a scientific understanding through the use of problem-based learning (you will write-up one PBL as a dissertation) and critical analysis and appraisal of key research papers.
- The research project forms a major part of the assessment and is divided into three elements; project write-up, project presentation and project viva.

### Entrance requirements

- A minimum second class honours degree (or the equivalent from an overseas university) in the life sciences, or an MBBS with or without an intercalated degree.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

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## MSc/Postgraduate Diploma in Mental Health: Psychological Therapies

## MSc/Postgraduate Diploma in Mental Health: Transcultural Mental Healthcare

## Postgraduate Certificate in Advanced Mental Health Assessment

**One year full-time, two years part-time**  
**Distance learning option available**

*There is an overwhelming demand from home and abroad for skilled psychological therapists and mental health professionals. These programmes are designed to help meet that demand and are suitable for both recent graduates as well as experienced practitioners already working in various mental health and social care settings.*

### Overview

These programmes provide a stimulating academic environment for training highly skilled mental health, social work and primary care practitioners. The courses will develop advanced knowledge and best evidence-based practice of mental health assessment and management. They will also address attitudes related to mental health. You will utilise an advanced level of knowledge derived from psychological, social, anthropological, medical, sociological, epidemiological and pharmacological understandings of the presentation, expression and management of mental distress.

### Why study with us?

- The Centre for Psychiatry provides undergraduate and postgraduate teaching and carries out research on a range of issues in epidemiological and cultural psychiatry, psychological therapies, forensic mental health and social and community psychiatry.

- The Centre is part of the Wolfson Institute of Preventive Medicine. The Institute has earned an international reputation for its research and teaching in epidemiology and preventive medicine. In RAE 2008 80 per cent of staff in epidemiology were classified as 4\*/3\*, with a grade point average score of 3.05.
- You will also benefit from having an appropriate reflective learning environment through which you might address the limitations of your current knowledge, skills and competencies.
- These programmes provide a unique and stimulating environment in which management of mental health issues and psychological problems can be explored in the spirit of advancing knowledge and education.

#### What skills and knowledge will you develop?

- Enhanced ability to assess mental health problems
- A knowledge base derived from social anthropological, medical, sociological, epidemiological and pharmacological understanding of the presentation, expression and management of mental disorders and psychological distress among black and ethnic minorities.

#### Where Mental Health graduates work?

The majority of our graduates continue to develop their career in the mental health field.

#### Programme outline

##### Modules

- Module 1 (Advanced Mental Health Assessment)  
This is a compulsory module for all students and completion of it enables you to exit with a Postgraduate Certificate in Advanced Mental Health Assessment.
- Module 2  
Completion of this module and allows you to exit with a Postgraduate Diploma in either Psychological Therapies or Transcultural Mental Healthcare.

## Graduate profile: Christine Langhoff

**Studied:** MSc Transcultural Mental Healthcare

**Currently:** Trainee Clinical Psychologist (Doctorate in Clinical Psychology, UCL)



**Why did you choose Queen Mary?** I chose to study the MSc in Transcultural Mental Healthcare at Queen Mary as it combined my interest in pursuing a career in clinical psychology with an enthusiasm for understanding and exploring other cultures. I was excited by the prospect of furthering my knowledge of culturally competent mental healthcare. The UK is becoming increasingly diverse and multicultural, so understanding and addressing the needs of a multicultural population is becoming a growing challenge.

I felt that a background in transcultural mental healthcare alongside my work experiences abroad would put me in a good position to understand the implications of socio-cultural factors in the field of clinical psychology.

#### What did you gain from your time at Queen Mary?

I have developed an understanding of the importance of the client's history and socio-cultural background in an individual's assessment and care. The knowledge gained on the course has certainly served me well as a trainee clinical psychologist and helped me to become a more reflective practitioner, with the ability to adequately assess and treat people from different ethnic groups.

Studying the MSc has taught me to be open-minded whilst at the same time remaining observant, analytical and able to recognise the diversity and heterogeneity of my clients' needs. Moreover, as part of my degree programme, I completed a placement in a multidisciplinary NHS mental health team, which offered me a unique insight into their work. I was also able to apply my knowledge by giving a presentation to the team and making suggestions for service improvement towards the end of my stay.

#### What are your career plans for the next five years?

I will qualify as a clinical psychologist next year and am hoping to find a job in oncology or palliative care.

## Degree programmes

- Module 3

This includes research methods and evidence-based practice. You are required to undertake a dissertation on an original topic that includes original research or an original and comprehensive literature review using systematic methods wherever possible.

Successful completion of all three modules will allow you to graduate with an MSc in either Psychological Therapies or Transcultural Mental Healthcare.

### Teaching and assessment

- Teaching and learning takes place through live lectures, e-lecturers, group discussions, PBL sessions and tutorial arrangements.
- A number of approaches are adopted for tuition about psychological therapies, transcultural psychiatry and research methodologies. Specific problems of research will be set as a research brief for you to address.
- Specialist lecturers and weekly tutorials will address critical appraisal, qualitative and quantitative methods, writing skills, writing a paper, and grant applications.
- In addition, you will be allocated particular topics/service models that you will research and present to each other, in order to develop your library skills, presentation skills, IT skills, independent learning skills and group discussion skills, peer review skills and community liaison skills. This will encourage a culture of interdisciplinary and collaborative work.
- Assessment consists of a series of oral and written examinations, oral presentations and examinations, a research dissertation, literature reviews, and write-ups of changing practice during clinical attachments.
- You will also be a member of a small tutorial group, and the tutor's ongoing assessment of your participation, contribution and overcoming obstacles during the course of study will contribute to your overall assessment.

### Entrance requirements

- Applicants should have a degree (minimum grade 2.2 or UK equivalent) in a related subject and/or a professional qualification and have worked in the relevant subject area for at least one year. We wish to include people from diverse backgrounds and career pathways especially people working in the independent and voluntary sector and NHS.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

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## MSc in Molecular Pathology and Genomics

**One year full-time, two years part-time**  
**Distance learning option available**

*This research-led programme is taught by renowned experts in the field. The innovative learning environment offers you an exceptional educational experience, exposure to modern techniques and state-of-the-art laboratories.*

### Overview

This programme combines in-depth teaching of disease mechanisms and molecular technologies with an emphasis on developing your critical and practical skills. It will provide you with the essential knowledge and skills to pursue a research career, either in a clinical or scientific setting, and contribute to the growing need for scientists and clinicians to translate molecular advances into the clinical situation.

### Why study with us?

- Barts Cancer Institute is one of the top five cancer research institutions in the UK



(Research Assessment Exercise 2008). The Institute is part of the Barts and The London School of Medicine and Dentistry, Queen Mary University of London and is based at the Charterhouse Square campus in the heart of the City of London.

- The Barts Cancer Institute works with a large number of pharmaceutical companies on pre-clinical or drug development research projects.
- We place a strong emphasis on the development of your practical skills and this is reflected in the Research Skills Module, and your three-month laboratory-based project.

#### **What skills and knowledge will you develop?**

On completion of the programme you will:

- Demonstrate a core understanding of human pathology and molecular biology
- Have an in-depth knowledge of the principles and applications of molecular technologies as applied to human disease
- Be proficient in experimental design, bioinformatics, data mining and interpretation
- Be skilled in oral and written presentation and in critical review of relevant literature
- Have contributed to the research process through your laboratory project placement
- Understand the ethical framework of the research process.

#### **Where Molecular Pathology and Genomics graduates work**

Roles this programme will equip you for include:

- Clinical Trials Co-ordinator
- Research Officer in a Clinical Trials Network
- Research Technicians
- Research Officer
- Research Assistants in lab environments





## Degree programmes

- Medical student (several of our graduates have used their MSc to gain entry to the MBBS)
- PhD Student

Many of our graduates have gone on to undertake several of the positions above within our Institute. Twelve of the current 65 PhD students within the Institute are from Barts Cancer Institute masters programmes.

### Programme outline

#### Modules

- Basic Molecular Biology
- Basic Pathology
- Cancer Prevention and Screening
- Genomic Approaches to Human Diseases
- Molecular Diagnostics and Therapeutics
- Molecular Pathology of Solid Tumours
- Research Skills and Sciences
- Laboratory project

#### Options

- Biological Therapies
- Introduction to Bio-Informatics
- Molecular Genetics of Haematologic Malignancies

### Teaching and assessment

- Each module is taught using a combination of teaching methods, including seminars/lectures; practical classes in our dedicated teaching laboratory in pairs or small groups; demonstrations – these will take place in Institute laboratories or the classroom to teach specific technologies (expression array technology) or methods (array data analysis); student poster and oral presentations on specific topics. For distance learning students video demonstrations will be provided, which you will be able to ask module leaders for more information on if required.

- Each 15-credit module involves three hours of teaching contact time per week, across a ten-week semester. In semester 3 you would undertake a full-time research project.
- You will be assessed using a variety of methods to help you to develop both transferable skills as well as those directly related to a career in research. These include: written assignments; poster and oral presentations; written or multiple-choice question (MCQ) examinations; full laboratory project write-up.

### Entrance requirements

- This programme is open to graduate scientists, clinicians and other medical professionals working in healthcare, the pharmaceutical industry or contract research organisations.
- Entry to the programme will require a good degree, or degree-equivalent qualification from a recognised academic institution or an appropriate professional qualification or experience.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## MSc/Postgraduate Diploma/Postgraduate Certificate in Musculoskeletal Clinical Sciences

**One year full-time, two years part-time**

*This programme is an ideal choice for clinicians who wish to gain advanced experience in musculoskeletal clinical sciences concentrating on clinical and research rheumatology.*

### Overview

This programme equips you with advanced knowledge and experience in musculoskeletal clinical sciences through study and clinical attachment (observer status). Learning will centre on the basic and clinical science behind the musculoskeletal system, pathobiology, scientific writing, research methods, as well as differential diagnosis and treatment. It will centre on the rheumatic and allied diseases.

### Why study with us?

- The William Harvey Research Institute was established by the Nobel Laureate John Vane with the goal of becoming an international powerhouse for pharmacological research operating at the academic/industry interface. The Institute has had great success and growth in the depth and quality of our programmes in cardiovascular, inflammation and endocrine research.
- The Institute's major strength is in bringing scientists with different skills together, combining disciplines such as genetics, cell biology, pharmacology, epidemiology, advanced imaging and clinical trials with therapeutic innovation.

## Degree programmes

### What skills and knowledge will you develop?

- Advanced knowledge and experience in musculoskeletal clinical sciences through study and clinical attachment (observation only).
- Advanced experience in musculoskeletal clinical sciences concentrating on clinical and research rheumatology.

### Where Musculoskeletal Clinical Sciences graduates work

The majority of our graduates continue to develop their career in the field of musculoskeletal science.

### Programme outline

#### Modules

- Musculoskeletal Science
- Inflammation and Immunology
- Musculoskeletal Disease
- Pharmacology of Musculoskeletal Disease
- Research Methods – Study Design
- Musculoskeletal Assessment I
- Musculoskeletal Assessment II
- Musculoskeletal Disease – Clinical Management
- Research Project

### Teaching and assessment

- You will learn by means of a variety of academic activities ranging from lectures, seminars, tutorials and direct involvement in basic and clinical research projects. Candidates will complete original research for their MSc as a full member of the research team.
- A wide range of assessment techniques are used, including: integrative assignments; dissertations; case reports; exams (essay, MEQ, MCQ); presentations; objective structured assessment; personal portfolio.

### Entrance requirements

- Applicants will usually need a degree in a medical field (MSc), or a nursing qualification (or equivalent for PgCert and PgDip options). Clinical candidates should generally have worked for one year after registration.
- You will also need references from two academic/scientific referees. References should include details of experience after graduation and a critique of a clinical research article.
- Applicants wishing to study part time must provide details of the services available in your unit for the research project. A written undertaking from your Head of Department is required to confirm that there is adequate time and appropriate facilities for you to complete the project.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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**Student profile:**  
Janette Looney,  
MSc in Neuroscience and  
Translational Medicine

“I have enjoyed many aspects of the Neuroscience and Translational Medicine course, especially meeting patients in a clinical setting while studying the diseases that they suffer from.

“We also learn about the drugs these patients are using, and this ties together the scientific, clinical and personal aspects of these diseases wonderfully. As scientists who aim to research and develop novel therapeutics for neurodegenerative diseases, I feel this course with its varied programme outline and excellent lecturing staff has strengthened my existing knowledge and introduced me to new concepts of research and drug development pathways.”

## Degree programmes

### MSc/Postgraduate Diploma in Neuroscience and Translational Medicine

#### One year full-time

*The aim of this programme is to train a new generation of physicians and scientists able to transfer successfully scientific discoveries from the bench to the bedside in neurology. The topics covered range from drug design and development to clinical application, providing training and essential skills for translational research.*

#### Overview

The programme provides a thorough training in the main concepts and methods of translational medicine, with a particular focus on unmet needs in diseases of the nervous system and the challenge of developing better therapies. The course emphasises a true translational approach by teaching basic science in an academic environment, involving the students in current research techniques and also offering the opportunity to meet patients suffering from neurological diseases.

Lectures and seminars focus on several themes including:

- Disease mechanisms and drug targets in neurology
- Gene therapy, viral vectors and transgenic technology
- Neural stem cell biology and regenerative medicine
- Drug design, in silico methods and in vitro screening techniques
- Disease models – efficacy, safety and toxicology profiling
- Pharmacokinetics, drug-interactions and pharmacogenomics
- Bioinformatics, systems biology and neuroimaging
- Biomarkers and clinical trials.

**Why study with us?**

- The Centre for Neuroscience and Trauma at the Blizard Institute is a renowned centre for research into translational neuroscience involving pre-clinical scientists and clinicians who are international leaders in their field.

**What skills and knowledge will you develop?**

- Detailed knowledge of the drug discovery and development process, clinical trial design and methodology, and the regulatory environment.
- The research project provides training in laboratory skills and research techniques, data analysis, oral presentation skills, and critical appraisal of scientific literature.
- This training will provide essential transferrable skills for a future career path, and provides excellent training to students who wish to pursue a PhD.

**Where Neuroscience and Translational Medicine graduates work**

- Clinical trials
- Regulatory affairs
- PhD studentships
- Continuation of medical careers
- Laboratory research

**Programme outline****Modules**

- Drug Discovery and Drug Development
- Neurodegenerative Disease
- Neuroinflammatory and Autoimmune Disease
- Chronic Pain and Epilepsy
- Neurotrauma and Stroke
- Neuro-oncology
- Research Project

**Teaching and assessment**

- Teaching for the first two semesters includes a combination of lectures, seminars and discussions of clinical cases. For the first semester you can expect four to five hours' contact time per week, and for the second semester seven to eight hours' contact time per week.
- In the third semester you will undertake a research project. This may be laboratory-based, a literature review or based on clinical data.
- The modules are assessed using a combination of final written examinations and a series of in-course assessments.
- The research project assessment is based on a written dissertation and an oral examination.

**Entrance requirements**

- A BSc in pharmacology, physiology, neuroscience, biochemistry or biomedical sciences, medical or pharmacy degree.
- Overseas qualification at degree level.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

**Further information**

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## Degree programmes

### MSc in Oral Biology

#### One year full-time

*The only programme of its kind in the UK, this MSc is designed for dental and basic or applied science graduates who may in future be responsible for the teaching of related subjects, or who need a greater understanding of the subject in order to develop their future academic or research careers.*

#### Overview

Dental disease is the most common disease in the UK and many developed countries. It can be caused by small daily problems but often leads to long-term suffering and loss of quality of life. This course focuses on the latest scientific development related to oral biology and health, and offers basic science in a clinical context. You will get hands-on clinical explanations of the major scientific developments relating to both preventative medicine techniques to avoid disease, and commercial research into products. You will also explore the latest developments in therapeutic dentistry; for example, the work being done into the oral delivery of drugs.

#### Why study with us?

- Oral biology is a big area of commercial research for the pharmaceutical industry, making graduates of this programme attractive to employers.

#### What skills and knowledge will you develop?

- Enhanced knowledge of the basic science underpinning modern dentistry.
- In-depth understanding of the principles of preventive medicine; methods of diagnosis of disease; and modern therapeutics and its delivery.

#### Where Oral Biology graduates work

- Academia
- Pharmacological research
- Senior scientists in oral biology or oral health care delivery
- Product development scientists

#### Programme structure

##### Modules

- Statistics, Ethics and Research Methods
- Introduction to Oral Biology
- Dental Hard Tissues and the Microenvironment
- Oral Microbiology
- Minimally Invasive Dentistry
- Properties of Dental Materials

#### Teaching and assessment

- In addition to basic science lectures, there will also be lectures from practising clinicians on current issues in modern clinical dentistry.
- You will also complete a laboratory-based project, which will be partly assessed by an oral examination.
- Methods of assessment include coursework and formal examinations. Many modules will include continuous assessment.
- The MSc research project will be conducted under close supervision during the summer term and is evaluated by thesis, presentation and viva examination. You will also independently research and write a dissertation of 10,000 words.

#### Entrance requirements

- For entry to the programme you should have a medical or dental degree, a non-clinical degree in basic sciences, biological sciences, or bioengineering, or the equivalent in professional qualifications and experience.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

#### Further information

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## MClinDent in Oral Medicine

### Two years full-time

*You will become proficient in skills relevant to the understanding and the clinical management of a broad range of oral mucosal conditions, with a commitment to lifelong learning and professional development.*

### Overview

This programme is for graduates in dental surgery who wish to further their knowledge and clinical skills in oral medicine. You will have opportunities to develop extended knowledge, understanding and enhanced clinical competency in oral medicine and related sciences and apply this to the unique clinical case mix of the north-east London population. Experienced clinical lecturers and scientists with national and international reputations provide tuition on this course.

### Why study with us?

- We have an internationally renowned Department of Oral Medicine with staff who are highly respected in the discipline. There is a strong patient base and we are able to offer postgraduates excellent opportunities for their personal development.

### What skills and knowledge will you develop?

- The knowledge and skills that you will acquire will prepare you for a career working in Oral Medicine whether this be in the UK or overseas.

### Where do Oral Medicine graduates work

Our graduates will normally work within dental hospitals or dental schools.

### Programme outline

The programme is divided into the following groups of Modules:

#### Theoretical

- Statistics and Research Methods
- Evidence-based Dentistry and Critical Appraisal

- Epidemiology: Methods
- Pathology and Immunology of Oral Disease
- Clinical and Laboratory Tests and their Interpretation

#### Clinical

- The Diagnosis
- Prevention and Management of Oral and Salivary Gland Disease
- Multidisciplinary Management of the Oral Manifestations of Systemic Disease

#### Research

- Literature Review
- Audit Project

### Teaching and assessment

- A variety of teaching and learning methods will be employed including: lectures; tutorials and seminars; clinical teaching; clinical case presentations and discussion that arise from the cases; and guided reading material.
- Each module will be assessed using different techniques including written papers, statistics tests, practical skill tests, viva voce, essay questions, clinical case presentations, a literature review report and an audit presentation.
- Informal verbal feedback will be given regularly on your performance and the achievement of the learning objectives.

### Entrance requirements

- A minimum of two years' clinical experience after completion of your primary dental qualification.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

## Degree programmes

### Further information

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## MClinDent in Oral Surgery

### Two years full-time

*If you are a dental graduate who wants to pursue a career in oral surgery, either in primary or secondary care services or in a university setting, this programme is for you. It can contribute to the first two years of clinical training leading to the Tri-Collegiate Specialty Membership examination of The Royal Colleges of Surgeons.*

### Programme outline

Our full programme includes patient diagnosis and treatment planning, teeth and root extraction, surgical endodontics, management of dental trauma, implantology and pain management, and anxiety control. The programme involves extensive clinical training, formal teaching and a supervised research project. All the taught and clinical modules in the programme are core modules. You will however have considerable choice when selecting a topic for your research project.

### Why study with us?

- The programme offers an excellent opportunity for those who wish to develop a career in oral surgery.
- The two-year degree may be enhanced by a third year of full-time study in the discipline. This will provide eligibility to sit the UK Specialty Examination of one of the Surgical Royal Colleges.

### What skills and knowledge will you develop?

- Understanding of the science underpinning the specialty of oral surgery and its clinical practice
- Clinical skills and knowledge as described in the UK GDC curriculum for oral surgery

### Where Oral Surgery graduates work

- Our graduates work in an increasingly broad variety of settings both in primary and secondary care in the UK and overseas
- The degree will also provide a basis for those wishing to follow an academic career
- Successful completion of the degree provides two years of the three-year training necessary to be a Specialist in the UK.

### Teaching and assessment

- You will experience a variety of teaching methods, all designed to facilitate your development and progression. These include lectures, small group seminars and tutorials together with teaching in the clinical environment.
- You will be assessed at the end of your first year through a written paper and a clinical viva voce examination. At the end of your second year there will be two written papers, four case presentations (two seen and two unseen) and a treatment planning exercise. You will also take part in an oral assessment of your research report.
- All three major components of the second-year exams (written, clinical, research) are equally weighted. During an optional additional third year, you will undertake (if eligible) the Royal College of Surgeons Membership examination. This entails case presentations, clinical diagnostic and treatment planning exercises.

### Entrance requirements

- A minimum of two years' experience after completion of your primary dental qualification.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 142 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

**Further information**

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## MClinDent in Orthodontics

**Two years full-time**

*This programme is designed for dental graduates who have obtained general professional training and now wish to pursue a career in orthodontics either in primary or secondary care services, or a university setting.*

**Overview**

This programme offers a high-quality learning experience with a strong clinical emphasis supported by robust academic elements. There is an integrated follow-on one-year Associate programme to provide enhanced clinical training with an emphasis on close chairside support. The modular programme emphasises strong clinical teaching, based on chair-side teaching and supported by seminars and a lecture programme and a supervised research project. Feedback for postgraduates is central to the programme and the teaching ratios are small. The programme is recognised as constituting two of the three years required for eligibility to sit the UK Specialty Examination in Orthodontics, the MOrth.

**Why study with us?**

- You may be eligible to enter for the MOrth examination of one of the UK Royal Colleges of Surgeons. This may give eligibility for the UK Specialist List in Orthodontics.
- Those eligible for the follow-on year will enrol on the new Postgraduate Clinical Diploma in Orthodontics on completion of their MClinDent.
- This programme is recognised for its excellence both within the UK and internationally.

**What skills and knowledge will you develop?**

- Understanding of the biomechanical principles of tooth movement
- Understanding of the development, growth and influence of the skeletal and soft tissues on the dentition
- Understanding the importance of materials science in orthodontics
- Ability to formulate a diagnosis of malocclusion and appropriate treatment plan
- Ability to apply the theory and practice of clinical orthodontics to treat a variety of malocclusions.

**Where Orthodontics graduates work**

- Successful completion of the MClin Degree and the further follow-on year for the Postgraduate Diploma in Orthodontics prepares you for a career as an orthodontic specialist working within either a primary or secondary care setting.
- In a number of countries outside the UK and Europe possession of the degree may provide recognition as a specialist.
- A number of graduates have progressed to develop academic careers in the discipline both in the UK and overseas. The programme provides a firm foundation in the discipline for both an academic and clinical career in the specialty.

**Programme outline****Modules**

- Statistics, Ethics and Research Methods
- Growth and Development
- Malocclusion
- Mechanics of Tooth Movement, Stability and Retention
- Diagnosis and Treatment Planning
- Multidisciplinary Interface
- Clinical Techniques
- Research

## Degree programmes

### Teaching and assessment

- A variety of teaching methods is used including lectures, seminars and supervised clinical care of patients referred for specialist orthodontic treatment.
- A research dissertation is a central component of the degree.
- You will be assessed at the end of the second year (MClin Dent examination) by two written papers, case presentations, a clinical diagnostic and treatment planning exercise.
- You will also be orally assessed on your research report. During the third year, you will undertake, if eligible, the Royal College of Surgeons Membership examination (MOrth). This entails case presentations, clinical diagnostic and treatment planning exercises.

### Entrance requirements

- A minimum of two years' experience after completion of your primary dental qualification.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7.5 or an IBTOEFL score of 109. For more information on international entry requirements, see page 142 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## MClinDent in Paediatric Dentistry

**Two years full-time, three years part-time**

*This programme will develop your skills and knowledge towards that of specialist level in paediatric dentistry.*

### Programme outline

You will be working within the Barts and The London Dental Institute which has a large referral base in north-east London and the surrounding counties, managing children with high caries risk, dental anomalies, dental trauma and the medically compromised. The emphasis is on a holistic approach of management for these children, including other disciplines such as orthodontics, restorative dentistry and other medical or dental specialties when needed.

### Why study with us?

- The programme has been accredited by the European Academy of Paediatric Dentistry and recognised by the Royal Colleges of Surgeons as constituting the first two years of clinical training towards eligibility to sit the Specialty Membership examination (MPaed Dent) in Paediatric Dentistry.

### What skills and knowledge will you develop?

You will be able to develop your knowledge and skill in:

- Diagnosis, treatment plan and provision of treatment to children with various dental conditions
- Evidence-based dentistry
- Working with other disciplines
- Critical appraisal of literature
- Research methodology
- How to conduct a research project and to write a dissertation

### Where Paediatric Dentistry graduates work

- Many graduates work as specialists in their own country. Some become senior government dental officers. Some take on posts as clinical academics working in dental schools.

### Programme outline

#### Modules

- Foundation Course
- Statistics, Ethics and Research Methods
- Basic Knowledge in Paediatric Dentistry
- Advanced Knowledge in Paediatric Dentistry I
- Advanced Knowledge in Paediatric Dentistry II
- Basic Clinical Skills and Case-mix
- Specific Clinical Skill
- Clinical Diagnosis and Treatment Plan
- Research Project

### Teaching and assessment

- Teaching methods include lectures, seminars, and small group discussion.
- You will receive one-to-one supervision for our research project.
- Clinical teaching will be supervised in the clinics by well-qualified staff, supplemented by laboratory demonstration and practical classes.
- The overall balance of the programme is 60 per cent supervised clinical practice, 25 per cent didactic teaching and 15 per cent supervised research.
- Each module is assessed separately, by methods including essays, written, clinical and viva voce examinations.
- Work-based assessments include mini clinical evaluation exercises, the direct observation of procedural skills in surgery, case-based discussion and procedure-based assessment.

### Entrance requirements

- For entry to the programme you should have a minimum of two years' clinical experience after completion of your primary dental qualification.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## MClinDent in Periodontology

### Two years full-time

*This programme is designed for dental graduates who wish to pursue postgraduate level education or a career in periodontology.*

### Programme description

The programme consists of intense or sound basic and advanced clinical training, formal taught elements and the completion of a research project and dissertation. The programme includes attendance at weekly new patient diagnostic clinics, clinical practice in periodontology, including surgical, antimicrobial, regenerative and mucogingival procedures, management of periodontal disease in patients with other restorative problems, and principles and practice of implant dentistry. This course aims to provide you with updated theoretical background and high-quality clinical training in the field of periodontology. It also provides you with training in the area of research and preparation of manuscripts for scientific publications.

### Why study with us?

- The programme is recognised by the UK Specialist Advisory Committee in Restorative

## Degree programmes

Dentistry as suitable for the first two years of specialist training in periodontology.

- An optional third year of training is available through competitive entry for UK/EU applicants wishing to be entered on the GDC specialist list.
- The additional clinical year of training will consolidate your experience to the specialist level. It would give you the opportunity of providing treatment to a wide variety of advanced periodontal cases, some requiring multi-disciplinary care, as well as the opportunity to gain valuable experience in the retention process of treatment, including periodontal surgical, regenerative, mucogingival and implant dentistry.

### What skills and knowledge will you develop?

- You will develop the knowledge and skills necessary for a career in periodontology.

### Where Periodontology graduates work

- Our graduates work in a practice setting, dental hospitals or schools.

### Programme outline

#### Modules

- Introduction to Clinical Postgraduate Study, Statistics and Research Methods
- Introduction to Periodontics
- Scientific Basis of Periodontology
- Clinical Periodontology
- Assessment, Diagnosis and Treatment Planning
- Non-surgical Management of Periodontal Disease
- Surgical Management of Periodontal Disease
- Complex Case Management
- Research Project

### Teaching and assessment

- The clinical training in diagnosis and management of periodontal disease emphasises the practice of advanced techniques in periodontology and includes

the relationship between periodontology and other dental disciplines like restorative and implant dentistry.

- The formal teaching element is designed to provide a wide scientific background in the practice of periodontology. Your supervised research project will prepare you academically for having audit activity and preparing publications in peer reviewed journals.
- You are assessed at the end of your first year by a single written examination paper and a clinical oral examination on the scientific basis of periodontology. At the end of the second year there are two written papers, four case presentations, and a clinical diagnosis and treatment planning test. You will also produce a written report of your research project and take part in an oral assessment of your research report. All three major components of the second year exams (written, clinical, research) are equally weighted.
- You will also be assessed on your supervised clinical treatment, attendance of consultant's clinics, seminars, case-base discussion, one-to-one discussions and self-directed learning. This will be complimented by work-based assessment, patient portfolios, viva, written examinations, and peer-reviewed research manuscripts.

### Entrance requirements

- A minimum of two years' clinical experience after completion of your primary dental qualification.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## Degree programmes

### MClinDent in Prosthodontics

#### Two years full-time

*This course is regarded as one of the foremost academically driven courses in fixed and removable prosthodontics in the UK.*

#### Overview

This programme provides academic and clinical training for a career as a specialist in prosthodontics. The degree provides the first two years of education and training. Graduates may then extend their studies by a further year by enrolling on the Postgraduate Diploma in Advanced Fixed and Removable Prosthodontics. Completion of the three years of study will provide eligibility to sit the Specialty Membership Examination in Prosthodontics of the The Royal College of Surgeons of Edinburgh (this is a UK Specialty examination in this discipline).

#### Why study with us?

- Applicants for the degree programme from within the EU may apply concurrently for training posts, which will lead, on successful completion, to acceptance onto the GDC specialist register.

#### What skills and knowledge will you develop?

- Clinical skills at the same level as a specialist prosthodontist in the UK
- Diagnostic skills at the same level as a specialist prosthodontist in the UK
- Knowledge of current pertinent literature and how to critically appraise new literature.

#### Where Prosthodontics graduates work

- Our international reputation has led to graduates working in many countries.
- UK graduates have become highly respected clinicians in private referral practice and many choose to return to the UK to become clinical teachers with us.
- Non-UK students have returned to their respective countries and have become Heads of Departments in Universities.

#### Programme outline

##### Modules

- Cariology and Management of the Deep Cavity
- Occlusion, TMJDF/Myofascial Dysfunction
- Endodontics and Periodontics in Relation to Prosthodontics
- Properties of Biomaterials/Dental Materials
- Adhesive Dentistry
- Diagnosis and Treatment Planning
- Management of Tooth Surface Loss/Wear
- Fixed Partial Dentures (Adhesive and Conventional)
- Removable Partial Dentures and Prefabricated Attachments
- Complete Dentures
- Immediate Dentures
- Implants and Prosthodontics
- Research Project
- Statistics and Study and Research Methods
- Clinical Audit Project

#### Teaching and assessment

- Didactic teaching is seminar based and is heavily reliant on literature-based evidence. The first year is the scientific basis of prosthodontics and the majority of the seminars occur in this year. Clinical teaching is delivered by highly qualified and experienced clinical teachers in our modern clinics.
- Assessment is by formal examinations, essays, clinical presentations, viva voce and varied clinical skills tests.
- Feedback is given on a day-to-day basis based on direct observation of your performance in clinics.

#### Entrance requirements

- A minimum of two years' experience after completion of your primary dental qualification.



- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 142 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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## MSc/Postgraduate Diploma in Sports and Exercise Medicine

**One year full-time, two to four years part-time**

*The programme is based on the philosophy of total care for the athlete and the promotion of exercise for the health of all. It is unique in the UK for the delivery of integrated academic and practical tuition.*

### Overview

The course is designed to offer you a foundation in the concepts and skills in sport and exercise medicine. It will be challenging, and the assessments are rigorous. To meet these challenges, we expect you to be proactive and quickly develop independence as a masters-level student. The course aims to meet a wide range of learning needs while maintaining flexibility of content and duration. You will undertake a number of core and option modules, plus a compulsory research methods module and research project for those undertaking the full masters degree. There is an inter-professional education component to the course, in that physiotherapists and doctors learn not only from the lecturers, but also from each other, especially in the practical sessions and discussions. You will develop a sound clinical base in sports and exercise medicine on which to build future clinical practice, together with a good understanding of the scientific work with

which such practice is allied. You will also acquire the key skills required to conduct research.

### Why study with us?

- The longest running course of its kind in the UK, the programme has produced high-profile alumni including the Chief Medical Officers for Team GB at Beijing 2008 and London 2012 and several staff working at premier league football and rugby clubs.
- We adopt a flexible, inter-professional and multi-professional learning approach.
- We have a very strong research track record, with an unprecedented 25 per cent student project publication rate.
- We have many UK and overseas collaborative links with partners and researchers.
- We have world-class staff including Centre Lead Professor Nicola Maffulli, one of only a very few professors in sport and exercise medicine in the UK.
- We have many links with elite sports teams and sports organisations in the UK and overseas, including UK Athletics, Arsenal FC, England Rugby and many more.
- We have collaborative links with many international research institutions involved in sport and exercise medicine research.

### What skills and knowledge will you develop?

- Sound clinical base in sport and exercise medicine on which to build future clinical practice.
- Firm understanding of the scientific work with which such practice is allied.
- Key skills to conduct and interpret research.

### Where Sports and Exercise Medicine graduates work

- NHS practice (consultants in sport and exercise medicine and physiotherapists)

## Graduate profile: Dan Lewindon

**Studied:** MSc in Sports and Exercise Medicine

**Currently:** I work full-time as Senior Physiotherapist for Northampton Saints RFC and as a locum physiotherapist for England RFU.

### Why did you choose Queen Mary?

As a physiotherapist working in professional rugby, it was always my intention to complete an MSc in Sports Medicine both to improve my understanding and expertise in this rapidly evolving field. After much research I found Queen Mary to be the best programme for my needs. It offered the best mix of 'foundation' modules in assessment and injury management, as well as other modules of interest, including team medicine, podiatry/ biomechanics and injection therapy. The flexibility of the programme also allowed me to limit time lost from work and spread the workload, which was essential in placating my employers.

### What did you gain from your time at Queen Mary?

Although by no means easy, and often requiring significant personal sacrifice, the MSc has been an extremely worthwhile experience for me, both with regard to my work within sport and also in general practice. It has improved the quality of my assessment skills and my ability to generate rehabilitation plans, which are criteria driven and evidence-based. I also gained an insight into the latest innovations in injury management and had the opportunity to network with leaders in the field of sports medicine, both lecturers on the programme and through organised shadowing sessions. I would whole-heartedly recommend this programme to any physiotherapist with an interest in sports medicine or an intention to work in the field.

## Degree programmes

- Team sports in a number of elite teams including international, national and regional teams
- Research
- Private practice
- Primary care/general practice

### Programme outline

#### Modules

- Research Methods
- Exercise Physiology and Team Medicine
- Sports Injury Treatment
- Sports Injury Assessment I and II
- Podiatry and Biomechanics
- Exercise as a Health Tool
- Medical Problems in Sport
- Sports Injury Rehabilitation
- Dissertation

### Teaching and assessment

- A wide range of teaching and learning methods are employed including lectures, practical sessions, clinics and individual one-to-one sessions with project supervisors.
- Assessment methods include essays, Self-Assessment Questionnaires, Objective Structures Clinical Examination, and vivas.

### Entrance requirements

- Doctors and physiotherapists with at least one year's postgraduate clinical experience. Current involvement with sport would be an advantage.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

Dr Christopher Hughes  
Tel: +44 (0)20 8223 8255



## MSc in Surgical Skills and Sciences

**One year full-time, two years part-time**

*This unique programme offers you the opportunity to develop or extend your expertise in the established and rapidly developing areas of laparoscopic surgery and gastrointestinal endoscopy.*

### Overview

This programme accelerates your surgical training and improves the surgical skills that are essential for building confidence in clinical practice. The programme will also provide you with a unique opportunity to gain postgraduate training and development in cognitive and motor skills using our surgical simulators. Our state of the art Virtual Reality Surgical Simulation Centre removes the patient from the equation to allow novice learning and skill mastery to occur in a low-stress, high-feedback environment while protecting the patient from procedural inexperience. You will be taught techniques of secure suturing, knot tying and bowel anastomosis using non-biological materials. You will also gain a clear understanding of the concept and theories surrounding the issues of research and critical appraisal along with academic writing. It is designed to enhance your future career prospects in surgery. If you perform well and express an interest you may be given the opportunity to proceed to MD(Res) or PhD studies.

### Why study with us?

- The programme is taught by experts in laparoscopy and endoscopy from Barts Health NHS Trust and the Homerton University Hospital NHS Trust and gives you the opportunity to see research first-hand at the annual ALS conference.
- The Institute has strong links with the Royal College of Surgeons (RCS) and runs an RCS course in Laparoscopic Surgery every year, which is also supported by Ethicon and Karl Storz. The College also has strong links with

Barts Health NHS Trust where you are able to attend rounds with the Course Director when appropriate.

- This programme is an excellent foundation for MRes/PhD studies. It will also accelerate your surgical training, improve your technical skills and enhance your career prospects in general surgery.

### What skills and knowledge will you develop?

On completion of the course you will have ability to perform the following on simulators:

- Perform basic and advanced laparoscopy tasks
- Perform laparoscopic suturing
- Perform laparoscopic Cholecystectomy
- Perform endoscopy (Gastroscopy and Flexible Sigmoidoscopy)
- The research methods module will give you the tools and methodologies for conducting research.

### Where Surgical Skills and Sciences graduates work

Graduates have gone on to continue their careers in mainstream surgical training. Many of our overseas students have begun their careers in medicine in the UK, while some have returned home to set up their own surgical training units.

### Programme outline

#### Modules

- Basic Laparoscopic Skills
- Advanced Laparoscopic Skills
- Laparoscopy Procedural Skills (Laparoscopic Cholecystectomy)
- Basic Endoscopy Skills
- Endoscopy Procedural Skills (Flexible Sigmoidoscopy)
- Endoscopy Procedural Skills II (Upper GI Endoscopy)
- Research Methods
- Dissertation



**Student profile:**  
**Dr Georgios Kallis**  
**MSc degree in**  
**Surgical Skills**  
**and Sciences**

"The continuous development of current surgical techniques as well as the constant stream of

revolutionary advancements in the surgical field sparked my interest to further broaden my learning in and experience of surgical techniques. However, I did not wish to embark on either a general course or a very classroom-orientated one.

"The MSc in Surgical Skills and Sciences offered by Queen Mary is unique in offering exclusive surgical skills through interactive learning and training at the state-of-the-art Virtual Reality Surgical Simulation Centre in a low-stress, high-feedback environment.

"I very much enjoy learning and training at the Virtual Reality Surgical Simulation Centre which provides me with the opportunity to enhance and develop a broad range of skills including my laparoscopic and endoscopic skills in a risk-free and controlled environment.

"I would rate the MSc course in Surgical Skills and Sciences very highly in terms of teaching excellence and academic facilities. In addition to the surgical skills training, the weekly journal club presentations have allowed me not only to develop a higher level of scientific appreciation, but also to learn how to critically appraise research papers and perform literature reviews. The focused syllabus and scope of the course has enabled me to advance the competencies relevant to my chosen specialty of surgery, both from a surgical perspective and the development of other necessary skills such as academic writing, presentation techniques and organisational/time management abilities."

**Teaching and assessment**

- Many different teaching methods are employed during the course, including lectures, seminars and practical classes and demonstrations using state-of-the-art surgical simulators in the BCI Teaching Centre.
- In addition, you will be attending and participating in the multidisciplinary cancer management meetings and the surgical grand round and have the opportunity to observe in theatre. Each week you will have approximately 13 hours' of contact time with your lecturers.
- You will be assessed in a variety of ways including practical skills assessments carried out through simulation and certification by the course tutor; final written theory exam consisting of short and essay questions; essay writing; critical appraisals; presentations; and dissertation project write-up and presentation.

**Entrance requirements**

- This programme is aimed at surgeons in training, trainee and specialist registrars, non-career grade surgeons, and associate specialists.
- You need to have a medical degree from a recognised institution and some postgraduate experience in surgery is desirable.
- The programme does not involve any direct contact with the patients so GMC registration is not required for overseas doctors.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

**Further information**

Robert Carver  
 Tel: +44 (0)20 7882 2081  
 email: [cancercourses@qmc.qmul.ac.uk](mailto:cancercourses@qmc.qmul.ac.uk)

## MSc in Trauma Science

### Two years part-time – distance learning

*Trauma is one of the world's biggest killers and is responsible for the loss of more life-years than any other disease. All countries recognise the importance of trauma to their health care systems. Many countries are actively pursuing rationalisation and specialisation programmes. This programme will provide you with a broad and critical understanding of the most up-to-date science and practice of trauma care.*

### Overview

The aim of the programme is to ensure that you have acquired a broad and critical understanding of the science and practice of trauma care. You will develop the knowledge, technical skills, decision-making and professionalism to safely deliver a core set of clinical functions in the management of injured patients, consistent with your scope of practice. The programme will be entirely delivered online, with web content, video presentations, asynchronous case-based discussions and open-forum sessions. The virtual learning environment will be the platform for the programme and will include learning materials, on-line discussions, assessments and feedback on your coursework assessments.

### Why study with us?

- Your lecturers are leading researchers in their field.
- You will join a two-week summer school at the end of the first year of study. This will be tailored towards your learning needs and will include practical courses in trauma surgery as well as group discussions and practical skills labs. The skills labs will be run in collaboration with the Royal College of Surgeons of England.
- Professor Brohi founded the Trauma.org website and the 'Trauma-list' international discussion group in 1995 to provide free, open access trauma education (case studies)

and information (resources with links to training, development and vacancies) to doctors and other healthcare providers around the world, and to provide a community forum for consultations and advice on patient care and current practice. Trauma.org was one of the first medical websites on the internet and is currently the largest and most active specialty medical website, providing a continuous international forum for the discussion of trauma care issues and for global trauma consultation.

### What skills and knowledge will you develop?

You will develop a strong transferable skill set and will:

- Understand the organisation of trauma systems, trauma registry management, trauma scoring systems, clinical governance and quality assurance
- Understand the principles of injury prevention with the ability to work effectively within relevant healthcare systems and teams, engaging effectively with the cultural and social environment in which trauma science is practised
- Undertake, with critical awareness, analysis of complex, incomplete, 'cutting-edge' or contradictory areas of key research and applicable research methodologies associated with injury and shock
- Develop team and leadership skills applicable to trauma care enabling the application of appropriate clinical, diagnostic and procedural measures
- Work effectively within relevant healthcare systems and teams, engaging effectively with the cultural and social environment in which trauma medicine is practised.

You will develop high-level practical skills including how to:

- Make decisions in complex and unpredictable situations for the immediate management of trauma patients

## Degree programmes

- Act autonomously in planning and implementing tasks for the resuscitation and management of trauma patients
- Demonstrate a detailed systematic knowledge, critical awareness and application of the principles of mass casualty management.

### Where Trauma Sciences graduates work

Our students already work in the medical profession, as nurses, paramedics, FY2s, registrars or consultants. After taking this programme you will have an enriched understanding and experience of the trauma field, which will offer you an advantage over your peers.

### Programme outline

#### Modules

- Trauma the Disease
- Haemorrhage and Response to Injury Torso Trauma
- Brain and Spinal Cord injury
- Critical Care and Trauma
- Fracture Biology and Extremity Trauma
- Military and Austere Trauma
- Research Methods
- Dissertation
- Summer School

#### Options

- Trauma Nursing
- Burns and Wound Healing

### Teaching and assessment

Delivered by distance learning, teaching methods include:

- Lectures: lectures will be delivered by members of the faculty (on average lectures will last two hours). Power point presentations will be available to you. When needed, lectures will be followed by an online discussion group. To accommodate different time zones, lectures will also be recorded and uploaded into the system to be available as podcast.

- Seminars: specific topics will be analysed in dedicated seminars. Seminars will be delivered in real time. Time will be set to accommodate students participating from different locations and time zones.
- Clinical case discussion: held via email discussion group or video-conference sessions.
- Printable PDFs and videos: especially linked to the Trauma.org website.
- Weekly reading list: you will be supplied with a selection of articles, journals and new relevant updates to the topic in an electronic format.
- Online discussion groups with a member of the faculty available to answer questions submitted via the virtual learning environment.
- Modules will be assessed by written coursework that will be submitted online every week (including MCQs and written reports). The form of assessments will reflect the nature of material that is being studied, but will normally include: critique of research literature; practical assessments in the research methodologies; portfolio-based assessments; written evaluative assignments and examinations.

### Entrance requirements

- An upper-second class degree (2.1) or higher in medicine or nursing combined with suitable professional experience and expertise.
- An equivalent overseas qualification.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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 Tel: +44 20 7882 2288  
 email: [s.rose-bucknor@qmul.ac.uk](mailto:s.rose-bucknor@qmul.ac.uk)

## MSc in Trauma Science (Military and Austere)

### Two years part-time – distance learning

*With global disasters, humanitarian crises and mass casualty events on the rise, the importance of specialist training in the science and management of these events is increasingly important. This programme will provide you with a broad and critical understanding of the most up-to-date science and practice of trauma care in these environments.*

#### Overview

Opportunities for the training of military trauma care specialists are extremely limited and many defence agencies rely on the deployment situation as the primary training for their personnel. All countries, developed and developing, recognise the importance of trauma to their health care systems. The aim of the programme is to ensure that you acquire a broad and critical understanding of the science and practice of trauma care. You will develop the knowledge, technical skills, decision-making skills and professionalism to safely deliver a core set of clinical functions in the management of injured patients, consistent with your scope of practice. The programme will be delivered by distance learning, with web content, video presentations, asynchronous case-based discussions and open-forum sessions.

#### Why study with us?

- With war predicted to be the sixth leading cause of death by 2020 and humanitarian disasters on the rise, this programme provides a vital training in trauma care within these environments.
- Your lecturers are leading researchers in their field.
- You will join a two-week summer school at the end of the first year of study. This will be tailored towards your learning needs and will include practical courses in trauma surgery

as well as group discussions and practical skills labs. The skills labs will be run in collaboration with the Royal College of Surgeons of England.

- Professor Brohi founded the Trauma.org web site and the 'Trauma-list' international discussion group in 1995 to provide free, open access trauma education (case studies) and information (resources with links to training, development and vacancies) to doctors and other healthcare providers around the world, and to provide a community forum for consultations and advice on patient care and current practice. Trauma.org was one of the first medical web sites on the internet and is currently the largest and most active specialty medical web site, providing a continuous international forum for the discussion of trauma care issues and for global trauma consultation.

#### What skills and knowledge will you develop?

You will develop a strong transferable skill set and will:

- Understand the organisation of trauma systems, trauma registry management, trauma scoring systems, clinical governance and quality assurance
- Understand the principles of injury prevention with the ability to work effectively within relevant healthcare systems and teams, engaging effectively with the cultural and social environment in which trauma science is practised
- Undertake, with critical awareness, analysis of complex, incomplete, 'cutting-edge' or contradictory areas of key research and applicable research methodologies associated with injury and shock
- Develop team and leadership skills applicable to trauma care enabling the application of appropriate clinical, diagnostic and procedural measures

## Degree programmes

- Work effectively within relevant healthcare systems and teams, engaging effectively with the cultural and social environment in which trauma medicine is practised.

You will develop high-level practical skills including how to:

- Make decisions in complex and unpredictable situations for the immediate management of trauma patients
- Act autonomously in planning and implementing tasks for the resuscitation and management of trauma patients
- Demonstrate a detailed systematic knowledge, critical awareness and application of the principles of mass casualty management.

### Where Trauma Sciences (Military and Austere) graduates work

Our students already work in the medical profession as nurses, paramedics, FY2s, registrars or consultants (gained from years of experience and training within their field). After taking this programme you will have an enriched understanding and experience of the trauma field, which will offer you an advantage over your peers.

### Programme outline

#### Modules

- Trauma the Disease
- Haemorrhage and Response to Injury
- Torso Trauma
- Brain and Spinal Cord Injury
- Critical Care and Trauma
- Fracture Biology and Extremity Trauma
- Military and Austere Trauma
- Summer School
- Dissertation

### Teaching and assessment

- Modules will be assessed by written coursework that will be submitted online every week (including MCQs and written reports). The form of assessments will reflect the nature of material that is being studied, but will normally include: critique of research literature; practical assessments in the research methodologies; portfolio-based assessments; written evaluative assignments and examinations.
- Delivered by distance learning, the programme uses a virtual learning environment, which will include learning materials, on-line discussions, assessments and space for feedback on your coursework assessments.

Delivered by distance learning, teaching methods include:

- Lectures: lectures will be delivered by members of the faculty (on average lectures will last two hours). Power point presentations will be available to you. When needed, lectures will be followed by an online discussion group. To accommodate different time zones, lectures will also be recorded and uploaded into the system to be available as podcast.
- Seminars: specific topics will be analysed in dedicated seminars. Seminars will be delivered in real-time. Time will be set to accommodate students participating from different locations and time zones.
- Clinical case discussion: held via email discussion group or video-conference sessions.
- Printable PDFs and videos: especially linked to the Trauma.org website.
- Weekly reading list: you will be supplied with a selection of articles, journals and new relevant updates to the topic in an electronic format.



- Online discussion groups with a member of the faculty available to answer questions submitted via the virtual learning environment.

### Entrance requirements

- An upper-second class degree (2.1) or higher in medicine or nursing combined with suitable professional experience and expertise.
- An equivalent overseas qualification.
- Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 6.5 or an IBTOEFL score of 92. For more information on international entry requirements, see page 149 or visit [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

### Further information

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# Research degrees



Barts and The London School of Medicine and Dentistry and its member institutes house a thriving academic research community. Our position as one of the country's top four medical schools has been confirmed by the latest Research Assessment Exercise (2008), which also placed us top in London for the quality of our research.

All of our academic staff are engaged in leading research – adding to the body of knowledge in their field of expertise and benefiting the students they teach and supervise. We welcome applications for research degrees and pride ourselves on the support and opportunities we provide to our postgraduate students. We also have clear policies on student supervision and monitoring.

If you are thinking of applying for one of our research degrees or to study with us for a PhD, you can find details of our research areas and

staff research interests listed under each of our constituent institutes, together with our contact details in case you have any queries or require further information from us.

We have an excellent record of attracting high-quality postgraduate students. As a research student at Barts, we encourage you to develop your career to its fullest potential, helping you to make the most of your career opportunities, both academically and commercially, at national and international levels.



# Barts Cancer Institute

## Barts Cancer Institute

The Barts Cancer Institute is made up of the following research centres:

- **Centre for Cancer and Inflammation**
- **Centre for Cell Signalling**
- **Centre for Experimental Cancer Medicine**
- **Centre for Haemato-Oncology**
- **Centre for Molecular Oncology and Imaging**
- **Centre for Tumour Biology**

## Research strengths

The Institute currently consists of six research centres, driven by a strong translational theme, with emphasis on specialised research areas, which focus on specific cancers. At the forefront of a number of scientific and medical discoveries, the Institute is one of the largest of its kind in the UK.

We provide a supportive and multidisciplinary environment for our research students, promoting academic exchange and personal development at all levels.

## Postgraduate resources

At present nearly 30 per cent of the School's research degrees are cancer-related, making us a key constituent of its research activity.

There are five, fully equipped state-of-the-art research laboratories that include suites for proteomics and mass spectroscopy, cancer pharmacology, FACS, molecular pathology services with automated immunohistochemistry /in situ hybridisation systems, intravital microscopy and confocal microscopy.

## Research quality indicators

### The Research Assessment Exercise (RAE)

The Barts Cancer Institute submitted more than 33 researchers (over 95 per cent of its academic faculty) to the RAE 2008. Fifteen per cent of submissions were in the highest 4\* category (world-leading) while 70 per cent were in the 3\* category (internationally excellent). This places the Institute 3rd overall in the country for the proportion of activity at this level.

### Projects, funding, research grants and awards

Grant funding for the Institute amounts to more than £10m per annum. The Institute is now part of the Barts Cancer Research UK Centre, with a multi-million pound support programme. Other significant funders include the Medical Research Council, the Wellcome Trust and the Department of Health, the National Institutes of Health (NIH) (USA) and the Leukaemia Research Fund.

## Scholarships/studentships

Graduate research students in the Institute are funded either by a grant award made to the project supervisor, or by personal awards to the student from national charities and overseas agencies. A number of scientific research studentships are available from the Institute each year, funded by Cancer Research UK (CR-UK). Most of our clinicians undertaking higher degrees are funded by awards such as MRC and CR-UK Clinical Research Training Fellowships.

Several internally funded PhD studentships are available each year, funded through the Research Advisory Board of the Charitable Foundation and directly by the School. In addition, Queen Mary provides a number of College studentships, for which overseas students are also eligible.

## Career opportunities

Key relationships have been established with the Cancer Research UK London Research Institute at Lincoln's Inn Fields to foster translational research. Integration with the new Comprehensive Clinical Research Network, (which covers 2.7 million people in north-east and north-central London, and is directed by the Director of the Barts Cancer Institute Professor Nick Lemoine), will build on our existing relationships with the north-east London Cancer Research Network involving the other acute hospitals in North East London and the North East London Consortium for Research and Development.

Through the introduction and development of new anti-cancer therapeutics, we have links with many major pharmaceutical and biotechnology companies. Some postgraduate student destinations include:

- graduate entry into medicine, PhD studentships (including within the Institute) in continuing education
- research positions within the Institute and other major research centres around the world
- clinical trials (including those within the Institute), clinical scientists in the NHS, research assistants in industry.

## Research degrees

The Barts Cancer Institute has over seventy research students undertaking PhD or MRes degrees. These students carry out an original research project in one of our Institute laboratories at Charterhouse Square at Barts and The London. The period of study for a research degree is typically three years for full-time students. Projects are offered in a range of cancer-related research areas, as outlined in more detail on the following pages. We have a clear policy on student supervision and monitoring.

As a research student at the Institute, in addition to carrying out your specific research project, you will receive training in a range of biomedical laboratory methods and in other transferable skills. Our aim is to equip you for a career in science and to make you very attractive to potential employers.

### Entry requirements

For entry to a research degree you should hold either:

- a first or upper second class honours degree in a relevant biological subject from a UK university;
- a masters degree;
- a recognised equivalent from an accredited overseas institution; or
- an equivalent professional qualification.

Proficiency in written and spoken English is essential and non-native English speakers are expected to demonstrate a proficiency in English equivalent to an IELTS score of 7 or an IBTOEFL score of 100.

### How to apply

Each year the Institute has around 15 new PhD studentships. These are available throughout the year and when available these are advertised on:

- the Barts Cancer Institute website at: [www.bci.qmul.ac.uk/vacancies](http://www.bci.qmul.ac.uk/vacancies)
- [www.findaphd.com](http://www.findaphd.com)

Prospective research degree students who have already obtained funding should contact Dr Simon Joel, Director of Graduate Studies, in the first instance.

The application form for research students can be found at:

[www.qmul.ac.uk/postgraduate/apply](http://www.qmul.ac.uk/postgraduate/apply)

You also need to include full details of your previous educational achievements and two academic references.

## Research areas

Our research strategy is built on an integrated molecular and cellular approach to the problem of cancer in individuals and in populations. A spectrum of research is underway and includes: therapeutic and diagnostic target identification and validation in both haematological and solid malignancies; clinical trials exploring new therapies; the development of novel molecular approaches for diagnosis, classification and treatment of human cancers; and investigations into the regulation of tumour spread and host anti-tumour responses.

The specialist areas of interest for each of the six research centres within the Institute are:

## Centre for Cancer and Inflammation

This Centre focuses on the links between cancer and inflammation. The overarching hypothesis that drives research in our Centre is that immune cells and mediators found in experimental and human cancers are more likely to promote cancer growth than be part of a host anti-tumour response. We believe that inhibition or re-alignment of this inflammatory process may be of therapeutic benefit.

Our aim is to translate our laboratory research in chronic inflammation, cancer growth and spread into new treatments for cancer, especially ovarian cancer, and we are involved in several Phase I and Phase II clinical trials. We have excellent collaborations with the Departments of Gynaecological Oncology and Medical Oncology at Barts and The London NHS Hospitals.

### Research groups

#### Cancer and Inflammation Group

This group aims to understand links between cancer and inflammation and translate this into novel clinical trials.



**Graduate profile:**  
Rhian Gabe,  
Phd on the  
evaluation of  
breast cancer  
screening using  
mammography

**Currently:** I'm a senior statistician at the Medical Research Council's Clinical Trials Unit (MRC CTU). I'm project lead for a number of innovative studies (randomised trials) that aim to find the best therapies and care for patients with cancer.

### Why did you choose Queen Mary?

My background in mathematics and epidemiology, and an interest in cancer research led me to the Cancer Research UK centre for Epidemiology, Mathematics and Statistics at the Wolfson Institute. This department and the Medical School as a whole at Queen Mary have good international reputations for cancer research. I was very interested in cancer epidemiology and in particular breast cancer screening. I knew the Centre had some of the top researchers in this field (Professors Duffy, Cuzick, Sasieni) and I was familiar with their work. I visited the Centre and came away thinking that not only did they have a range of exciting projects but these professors and their colleagues were friendly, easy to talk to and learn from. I was not wrong and enjoyed my time there immensely.

### What did you gain from your time at Queen Mary?

A greater in-depth knowledge of cancer screening and prevention. Less obvious, is the greater confidence acquired as a researcher, which comes from developing the right skill set, such as initiating and writing papers, presenting work at international conferences, formulating research ideas and applying for funding, and communication and contacts for successful collaborations.

### What are your career plans in the next five years?

The next step up in terms of a career at the MRC CTU would be 'programme leader' (equivalent to a group lead in a university setting) and hopefully my current experience getting studies off the ground will help towards this.

### Tumour Microenvironment

We aim to understand the fundamental mechanisms by which TNF-signalling promotes cancer; with particular reference to the role of macrophages and their phenotype in carcinogenesis.

### Staff research interests

#### Professor Fran Balkwill PhD OBE FMedSci Centre Lead

Links between cancer and inflammation, role of inflammatory cytokines and chemokines in cancer growth and spread and translating this information into novel clinical trials

#### Dr Thorsten Hagemann MD PhD Clinical Senior Lecturer

Interaction of the leukocyte infiltrate with the tumour microenvironment, with particular reference to the role TNF-alpha in innate immunity and the prospect of turning macrophages and NK cells back into tumour killers

#### Dr Melania Capasso PhD Lecturer

Basic functions of normal and malignant B cells, in particular how normal and malignant B cells are regulated by HVCN1, the mammalian voltage-gated proton channel

## Centre for Cell Signalling

The Centre for Cell Signalling is a world-class centre of expertise in both basic and applied PI3K signalling.

Uncontrolled PI3K signalling is one of the most commonly deregulated pathways in cancer. PI3Ks also play principal roles in inflammation, diabetes and other disease contexts, making these enzymes attractive targets for therapeutic intervention. The development of drugs that block PI3K action is being actively pursued by the pharmaceutical industry.

### Research groups

#### Cell Signalling Group

The main interests of this group include signal transduction in cell migration, proliferation, survival, intracellular vesicular transport, in the context of cancer, inflammation and immunology, angiogenesis, metabolism and stem cell biology.

Collaborative efforts with industry are under way in the preclinical development of isoform selective small molecule inhibitors for PI3K. We aim to help to translate this preclinical work to early phase clinical trials through our links with the Centres for Haemato-Oncology and Experimental Cancer Medicine.

#### Analytical Cell Signalling Group

We aim to understand the basic principles that govern cell signalling pathways, their molecular mechanisms and the contribution that different members of these pathways have to their signalling network. We are particularly interested in learning the properties by which these pathways control fundamental physiology and how they are deregulated in disease.

Experimentally, our group integrates state-of-the-art mass spectrometry, advanced separation technology, cell biology and biochemistry to the study of cell signalling pathways in health and disease. The ultimate goal of this work is to contribute to the understanding of the fundamentals of cell signalling and to translate this knowledge to the design of personalised therapies to treat conditions with deregulated cell signalling pathways.

### Staff research interests

#### Professor Bart Vanhaesebroeck MSc PhD Centre Lead

Signalling by PI3K and related pathways in cancer, metabolism and immunity; translational cancer research; mouse models of signalling in normal physiology and disease; systems biology, developing small molecule therapies

Dr Pedro Cutillas BSc PhD

Lecturer

Systems biology of cell signalling pathways

## Centre for Experimental Cancer Medicine

The Centre provides design and management support for all trials including national, pharmaceutical and investigator-led studies and centralises all staff involved in clinical trials to ensure compliance with the European Directive on Good Clinical Practice.

The aim of the Centre is to increase:

- recruitment into existing clinical trials
- the number of trials – NCRN, pharmaceutical-sponsored and investigator-initiated
- the diversity of clinical trials open at Barts Health NHS Trust.

### Research groups

Clinical Cancer Pharmacology Group

Dr Simon Joel

This group conducts pharmacodynamic and pharmacokinetic studies of cytotoxic agents against a background of clinical trials. The aim is to develop and test new agents in the laboratory and in clinical trials and to optimise the way in which established chemotherapy drugs are used through a better understanding of their molecular and clinical pharmacology.

### Staff research interests

Professor Nick Lemoine MD PhD FRCPath  
FMedSci

Institute Director and Centre Lead

Target identification and validation in studies on the molecular pathology of pancreatic cancer, target exploitation through viral and genetic therapies



## Staff profile: Professor Bart Vanhaesebroeck

Centre Lead, Cell Signalling

"I studied at the University of Ghent, Belgium, gaining a masters degree (1985) in Biology (Physiology and Biochemistry) and a PhD (1990) in Molecular Biology. My PhD work focused on immunology and signal transduction by cytokines.

"I joined the Institute of Cancer to set up the Centre for Cell Signalling, a group with a focus on understanding signalling through PI 3-kinases (PI3Ks), combining fundamental research with efforts to translate findings into diagnostic and therapeutic applications.

"Our team proposed the now universally accepted classification and nomenclature of the PI3Ks *Philosophical Transactions of the Royal Society of London* (1996:351:217, *TIBS* 1997:22:267).

"Other team activity includes pioneering the use of so-called 'kinase knockin' mice in which the active site carries a mutation in an ATP-binding amino acid residue, leading to inactivation of the kinase. These provide a more adequate physiological model for the effects of small molecule kinase inhibitors than classical gene knockout approaches (*Cell* 2004:118:274; *TIBS* 2005:30:194).

"Partly through these research efforts, delta has become a drug target in cancer, inflammation and auto-immunity. These discoveries were successfully incorporated into the drug development programme of Piramed, and is now being further developed by Roche.

"In addition to being a member of EMBO (European Molecular Biology Organisation), I have worked as a consultant for Serono (Geneva), Piramed, AstraZeneca and Intellikine."

Dr Thomas Powles MBBS MD MRCP

Clinical Senior Lecturer

The efficacy of tyrosine kinase inhibitors in urology cancers

Dr Shah-Jalal Sarker MSc Stat, MSc Epid, PhD Lecturer

Applied statistical research including design, conduct and analysis of cancer clinical trials, cost effectiveness trials, sample sizing, survival analysis, frailty and missing data analysis

## Centre for Haemato-Oncology

This Centre has a long and distinguished history in haemato-oncology, having led several pivotal trials in the treatment of these cancers.

### Research groups

Cancer Immunotherapy Group

Professor John Gribben, Dr David Taussig, Dr Alan Ramsay

This group aims to develop immunotherapy approaches for the treatment of cancer, including stem cell transplantation; to identify tumour antigens with particular emphasis on B cell malignancies; to characterise malignant stem cells and to understand the impact of the tumour microenvironment on outcome in haematological malignancies.

Clinical and Applied Medical Oncology Group

Professor Andrew Lister, Dr Silvia Montoto, Dr Jude Fitzgibbon

This group aims to characterise the molecular signature of lymphomas to identify recurrent genomic and expression changes within these lymphomas to guide treatment selection.

Cancer Genomics Group

Professor Bryan Young, Dr Manoj Raghavan

This group aims to understand the key genetic events in malignant transformation especially in acute myeloid leukaemia. Genomic approaches are being used to uncover novel genetic lesions important in the occurrence and evolution of haematopoietic malignancies.

### Staff research interests

Dr Rebecca Auer MRCP FRCPATH PhD

Clinical Senior Lecturer

Lymphoid malignancies, in particular chronic lymphocytic leukaemia and mantle cell lymphoma: molecular pathogenesis and novel therapies

Dr Jeff Davies MA BM BCh PhD MRCP

FRCPATH

Clinical Senior Lecturer

Developing and testing new strategies to improve blood and bone marrow transplantation as a treatment for cancer

Dr Jude Fitzgibbon BA PhD

Reader

Molecular events leading to the development and progression of lymphoma and leukaemia

Professor John Gribben MD DSc FRCP

FRCPATH FMedSci

Centre Lead

Immunological responses to leukaemia and lymphoma, molecular basis for alterations in immune cells in the tumour microenvironment

Dr Li Jia MB PhD

Senior Lecturer

Regulation of apoptosis and autophagy in malignant B cells; study of how to overcome resistance of lymphoma cells to apoptosis

Dr Simon Joel BSc PhD

Reader

Novel therapies and optimisation of the use of established agents, development of model systems for evaluating new therapeutic agents

Dr Silvia Montoto MBBS MD

Clinical Senior Lecturer

Follicular Lymphoma (FL): natural history, prognostic factors, impact of diagnosis, risk factors and prognosis of histological transformation in FL patients



**Dr Alan Ramsay PhD****Lecturer**

Investigating signalling interactions between tumour cells and T cells (cancer cell biology, immunology and immunotherapy)

**Dr David Taussig MRCP MRCPATH PhD****Senior Clinical Lecturer**

The interaction between normal and malignant stem cells; study of how leukaemia out competes normal haematopoietic stem cells to induce bone marrow failure

**Professor Bryan Young BSc PhD FMedSci****Professor of Cancer Genomics**

The uniparental disomy and microdeletions in leukaemia; high density SNP arrays; integration of large genome-based data sets

## **Centre for Molecular Oncology**

This Centre is focused on the development of innovative therapeutic and diagnostic approaches to cancer. We are an internationally recognised centre of expertise in gene therapy for cancer, with a particular focus on oncolytic viruses.

Linked to the clinic through a clinical fellowship programme and honorary consultants, our research is carried out within five laboratory groups.

**Research groups****Molecular Pathology Group**

Professor Nick Lemoine, Dr Tatjana Crnogorac-Jurcovic, Dr Claude Chelala, Dr Rebecca Roylance, Dr Adam Rosenthal, Dr Peter Szlosarek

This group aims to identify molecular biomarkers of disease progression and treatment response.

**Gene Therapy Group**

Professor Nick Lemoine, Professor Iain McNeish, Dr Gunnel Hallden, Dr Yaohe Wang, Dr Michelle Lockley

This group aims to develop gene-targeted intervention strategies to treat cancer using oncolytic viruses and genetic triggers of apoptosis.

**Genito-Urinary Cancer Group**

Dr Yong-Jie Lu, Dr Dan Berney

The Genito-Urinary Cancer group focuses on molecular and translational research of testis, bladder, renal, penile and prostate cancer.

**Molecular Imaging Group**

Professor Steve Mather, Professor Rodney Rezneck, Dr Norbert Avril

This group is focused on the development of molecular targets for radionuclide-mediated diagnosis and therapy of cancer. It includes both laboratory teams and clinical consultants, working in the Departments of Nuclear Medicine and Radiology at Barts Health NHS Trust.

**Staff research interests****Professor Norbert Avril MBBS MD****Reader**

Molecular imaging with positron emission tomography for non-invasive monitoring of cancer therapy to define (early) markers of treatment response

**Dr Claude Chelala PhD****Lecturer**

The development and application of computational solutions to cancer research

**Professor Finbarr Cotter MBBS FRCP(UK)****FRCPATH PhD****Professor of Haematology**

The application of molecular understanding and therapy for malignancy using array technology, proteomics and functional modelling of malignancy in NOD/SCID xenographs and Zebrafish

**Dr Tatjana Crnogorac-Jurcevic MD PhD FHEA  
Senior Lecturer**

The development of a biomarker programme in pancreatic cancer; functional analyses of markers involved in the development and progression of pancreatic adenocarcinoma

**Dr Gunnel Hallden PhD  
Senior Lecturer**

Novel treatment strategies to target late stage androgen-independent prostate cancers using replication-selective oncolytic adenoviral mutants

**Dr Yong Jie Lu MBBS MD PhD  
Senior Lecturer**

The significance of genome changes in the development, progression and treatment of male urogenital tumours; genetic alterations as markers for patient outcome prediction and targets for novel therapies

**Dr Michelle Lockley MRCP PhD  
Clinical Senior Lecturer**

The development of oncolytic adenoviruses as novel treatments for ovarian cancer; investigation and manipulation of the inflammatory response to intraperitoneal adenoviral vectors

**Dr Sarah Martin BSc PhD  
Lecturer**

Investigating nuclear and mitochondrial DNA repair as therapeutic targets in cancer; the identification of novel targets by siRNA and compound screens, which may be beneficial for cancer treatment

**Professor Iain McNeish MA PhD MRCP FRCP  
Professor of Gynaecological Oncology and  
Centre Lead**

Ovarian cancer; abnormalities in apoptosis and cell cycle control in ovarian cancer as a target for gene and viral therapy, pre-clinical imaging; clinical trials

**Dr Adam Rosenthal BSc MBBS MRCOG PhD  
Clinical Senior Lecturer**

Gynaecological cancer screening, inherited gynaecological cancers, minimal access surgery, molecular diagnostics in tumour cells; new generation of oncolytic adenovirus gynaecological cancer

**Dr Rebecca Roylance BSc MBBS MRCP PhD  
Clinical Senior Lecturer**

Understanding the different genetic changes associated with different morphological subtypes of invasive breast cancer

**Dr Peter Szlosarek BSc MBBS MRCP PhD  
Clinical Senior Lecturer**

Arginine deprivation and argininosuccinate synthetase expression in the treatment of cancer

**Dr Teresa Szyszko MBBS MSc MRCS FRCR  
Clinical Senior Lecturer**

Novel tracers (including angiogenesis and cell proliferation) in staging and treatment response of solid tumours and lymphoma

**Dr Yaohe Wang MD PhD  
Senior Lecturer**

The development of novel cancer therapeutic regimes using oncolytic adenovirus and vaccinia virus through further understanding the interaction of tumour cell, oncolytic virus and host immune response

## Centre for Tumour Biology

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This Centre is concerned primarily with understanding the role that cytoadhesion plays in modulating cancer spread and has focused particularly on the involvement of members of the integrin family of adhesion receptors technology.

### Research groups

**Cellular Adhesion in Invasion and Metastasis  
Professor Ian Hart, Dr John Marshall**

This group aims to understand how cell adhesion affects tumour spread and to develop strategies for blocking cancer metastasis.

**Angiogenesis Group****Dr Kairbaan Hodivala-Dilke**

This group aims to understand the roles of cell adhesion in disease, particularly with respect to angiogenesis and tumour cell-endothelial cell interactions.

**Epithelial-Stromal Group****Professor Louise Jones**

This group aims to understand the pathobiology of breast cancer with a particular focus on cell adhesion and myoepithelial cells.

**Gene Transcription Group****Professor Helen Hurst**

This group aims to understand the molecular mechanisms that control expression of key breast tumour genes, in order to identify novel targets for cancer therapy.

**Growth Factor Signalling Group****FGF receptors – Dr Richard Grose**

This group aims to understand and delineate the functions of FGFs and their receptors in tumourigenesis and wound repair.

**Spatial Signalling****Dr Stephanie Kermorgant**

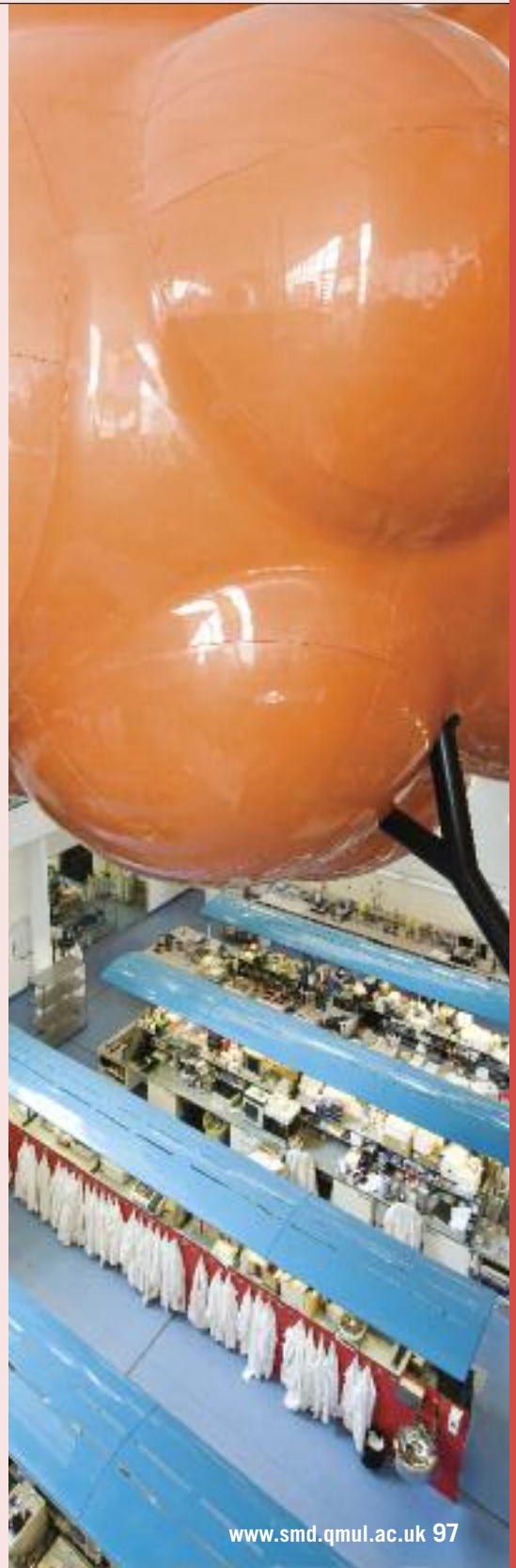
This group aims to understand how endosomal signalling of the c-Met receptor affects tumour cell metastasis.

**Staff research interests****Dr Richard Grose BSc PhD****Lecturer**

Functions of FGFs and their receptors in the skin, wound repair and carcinogenesis; identification of targets downstream of FGF signalling that are pivotal to their role in cancer

**Professor Ian Hart BVSc PhD FRCP FRCPath  
MRCVS FMedSci****Deputy Director and Centre Lead**

Integrin expression and function in tumour invasion and progression; regulation of tumour spread specifically by cell adhesion receptors



Professor Kairbaan Hodivala-Dilke PhD

Professor of Angiogenesis

Functions of integrins in pathological angiogenesis and wound healing, identification of differentially regulated angiogenesis related molecules

Professor Helen Hurst MA PhD

Professor of Transcription Biology

Aberrant patterns of gene expression in breast cancer, AP-2 family of transcription factors. Gene expression profile of hormone resistant tumours

Professor Louise Jones BSc MB ChB PhD

FRCPath

Professor of Breast Pathology

Mechanism of progression of in-situ to invasive breast cancer; role of microenvironment in control of breast cancer; identification of predictive and therapeutic markers

Dr Stephanie Kermorgant PhD

Lecturer

Links between signalling and endocytic trafficking of the proto-oncogene c-Met. Consequences on tumour transformation in vitro and in vivo

Dr Hemant Kocher MS MD FRCS

Clinical Senior Lecturer

Pancreatic cancer progression; the development of in vitro models of pancreatic cancer, and investigation of tumour-stroma cross-talk with aim of therapeutic targeting. Surgery. Liver and biliary cancers

Dr John Marshall PhD

Reader

Biology of the epithelial-specific integrin, avb6 in cancer; development of avb6 antagonists, developing novel targeting approaches to avb6-expressing carcinomas

### Further information

For further information on postgraduate programmes and the area of expertise of members of staff, visit: [www.bci.qmul.ac.uk](http://www.bci.qmul.ac.uk)

### For course enquiries, email:

[cancercourses@qmul.ac.uk](mailto:cancercourses@qmul.ac.uk)

### Director of Graduate Studies

Dr Simon Joel

Tel: +44 (0)20 7601 8924

email: [s.p.joel@qmul.ac.uk](mailto:s.p.joel@qmul.ac.uk)

### General postgraduate information

Tel: +44 (0)20 7882 7952/7840

email: [askthegradteam@qmul.ac.uk](mailto:askthegradteam@qmul.ac.uk)

### International students

Tel: +44 (0)20 7882 3066

email: [international-office@qmul.ac.uk](mailto:international-office@qmul.ac.uk)

### Barts and The London School of Medicine and Dentistry

The Admissions and Recruitment Office  
Room CB02, Queens' Building  
Mile End Road  
London E1 4NS

Tel: +44 (0)20 7882 5533

email: [pgsmd@qmul.ac.uk](mailto:pgsmd@qmul.ac.uk)

# Blizard Institute



The Blizard Institute is made up of the following research centres:

- **Centre for Cutaneous Research**
- **Centre for Diabetes**
- **Centre for Digestive Diseases**
- **Centre for Immunology and Infectious Disease**
- **Centre for Neuroscience and Trauma**
- **Centre for Paediatrics**
- **Centre for Primary Care and Public Health**
- **Pathology Group**

## Research strengths

The Blizard Institute is the largest Institute of the School of Medicine and Dentistry and is based in the award-winning Blizard Building on the Whitechapel campus. The aims of the Institute are:

- the development of innovative, interdisciplinary and cutting-edge programmes of research and education
- the provision of an intellectual environment and infrastructure for internationally leading research and training opportunities
- the development of partnerships with neighbouring NHS Trusts and local communities in east London to build research collaborations that address the health needs of our local population.

We aim to build a pipeline of research activity from basic science, clinical research and translational medicine and primary care/public health research to develop improved methods of diagnosis, management and therapy of disease.

## Research quality indicators

### The Research Assessment Exercise (RAE)

During the last Research Assessment Exercise (RAE), staff of the Institute were scrutinised under two Units of Assessment (UoA): UoA4 (Other Hospital-based subjects) and UoA10 (Dentistry).

Over 60 staff were returned in UoA4 and 80 per cent of our research activity was judged to be 4\* (world-leading) or 3\* (internationally excellent). In terms of national rankings, this placed the Institute first equal (with Cambridge) out of a total of 28 submissions.

In UoA10, 75 per cent of our research activity was rated 4\* or 3\*, which placed the School first equal (with Manchester) out of 14 returns from UK dental schools.

### Projects, funding, research grants and awards

The annual research income of the Institute in 2011-12 was in excess of £16m and major research funders include the Medical Research Council, the Biotechnology and Biological Sciences Research Council, the Wellcome Trust, Cancer Research UK, the European Community and the NIHR.

We place great value on the appointment of clinical academics working closely with basic scientists and have greatly benefited from the establishment of the Walport clinical academic training programmes, leading to the appointment of ten academic fellows and three clinical lecturers. Over the last three years, the Institute has been awarded five prestigious HEFCE 'new-blood' clinical senior lecturers. This has been complimented recently by the award of 15 career scientists / fellowships from the MRC, Wellcome Trust and other charities. So, if you study with us, you will be working alongside academics at the very forefront of their respective areas.

To achieve these aims, the seven centres and the Pathology Group within the Blizard Institute have major crosscutting research themes in:

- Genomic medicine
- Infection and immunity
- Cell and molecular medicine
- Experimental medicine
- Population health.

The laboratory-based activities of the Institute are housed in the Blizard Building. This exciting environment contains world-class facilities for biomedical research based on an innovative open-plan design and includes core facilities for imaging, flow cytometry, and global siRNA screening. Population sciences research is housed in purpose-built facilities in the adjacent Yvonne Carter Building on the Whitechapel campus.

The geographic location of the Blizard Institute and our close liaison with primary care and NHS trusts provides an excellent opportunity for the development of translational medical research. Clinical academics in the Blizard Institute are championing these links with the NE London Diabetes Local Research Network (LRN), Medicines for Children LRN, a hub of the Thames Stroke LRN, a spoke of the North Thames Dementia and Neurodegenerative Diseases LRN, and the Health Protection Agency Mycobacterial Reference Unit.

## Postgraduate resources

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We provide a highly supportive environment for prospective research students. The unique, award-winning Blizard Building provides state-of-the-art laboratory accommodation based on an innovative open-plan design for 400 staff and postgraduate students.

Our laboratory facilities are co-located on a single laboratory floor of approximately 3,500m<sup>2</sup>. The building's design aims to

encourage maximum interaction between our different research groups and cost-efficient usage of our core equipment and facilities.

Research students receive support from supervisors and the Blizard Institute Graduate Studies Committee. Research student interests are represented on the committee by student representatives. The committee monitors student progress and ensures completion in a timely manner. We expect you to participate in transferable skills training as well as research so that you are prepared for the challenges of the job market. You are also encouraged to attend The Blizard Institute student forums whose agendas range from social events, networking, help with research issues and career events.

## Career opportunities

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Our taught masters degrees and diplomas are useful for the career development of general practitioners, hospital clinicians, nurses and life science graduates. Some successful students also complete a one-year clinical attachment with Barts Health NHS Trust, or go on to study for MD(Res) and PhD degrees. These doctors are then eligible for specialist training posts, consultant positions and senior clinical academic positions. Our PhD programmes are highly regarded because of our emphasis on excellent research standards and the teaching of transferable skills. Our students are therefore highly sought-after and employable.

Blizard PhD postgraduates are found in research environments in the public and private sectors, as well as related career paths, working in scientific publishing, international conferencing, hi-technology product specialisms and for exhibition companies. They have also been commissioned to write scientific articles and act as advisers to the finance sector.

## Research areas

### Centre for Cutaneous Research

The Centre is one of the largest academic dermatology groups in Europe. Our research is currently organised into distinct programmes, which bring together a critical mass of clinical and non-clinical researchers under the current themes:

- Apoptotic pathways in melanoma
- Cancer research UK skin tumour laboratory
- Cell immortalisation
- Epithelial stem cells
- Genetically inherited skin disease
- Hair biology and basal cell carcinoma
- Keratinocyte migration and invasion
- Membrane transport biology
- Skin barrier
- Wound healing and tissue engineering

#### Major achievements within the Centre include:

- Mechanistic evidence for the carcinogenicity of the immunosuppressive azathioprine in skin, revealing a therapy-related cancer risk
- Evidence for human papillomavirus (HPV) modulation of AKT signalling, and a possible role for AKT2 in squamous cell carcinoma (SCC)
- The genetic and molecular mechanisms underlying basal cell carcinoma (BCC)
- That Axl is a novel marker of squamous cell carcinoma
- ABCA12 as the gene for the severe congenital skin disease Harlequin Ichthyosis, resulting in the development of rapid prenatal screening for affected families
- RSPO4 as the gene for anonychia, therefore a key role for the Wnt pathway in nail development



### Student profile: Cheen Peen Khoo, PhD in Adult Stem Cells

“I am researching the use of adult stem cells to repair the damaged pancreas as future treatment for diabetes. My work primarily focuses on the use of stem cells from the bone marrow and blood cells.

“I am undertaking my research in the Blizzard Building, which houses the BICMS, which is made up of many different departments. This closely knit community allows the exchange of ideas and advice, which is important for the development of my research project. Additionally, the Blizzard offers excellent core facilities.

“My supervisors are very supportive of my research. They are very knowledgeable in my field and they have provided me with very useful advice which has helped me to develop the direction of my current research. Additionally, other staff members from different departments have been very helpful in giving me advice related to their own research fields.

“During my time at Queen Mary, I have been accepted to do an oral presentation and two poster presentations. Besides having the opportunity to present my results to the scientific community, I have had the opportunity to travel to places that I had not been before, such as Germany and Holland.”

- Translational research into the identification of novel new polymers to support tissue engineered skin and characterisation of survival characteristics of engineered skin on patients
- Development of a burns network
- Promotion of cell migration by hypoxia via metalloproteinase-9 and phosphorylation of focal adhesion kinase in keratinocyte migration on matrix
- A signalling role for cadherins of the epidermal desmosome and the role of AKT signalling and its downstream pathway in skin barrier formation
- The first description of a non gap-junction functional role for connexin 31.

#### Staff research interests

Professor David Beach PhD FRS  
Professor of Stem Cell Biology  
Research interests are the mechanism of cell cycle control and its dysregulation in cancer; in particular the problem of cellular life span control

Professor Carolyn Byrne PhD  
Professor in Skin Biology  
Skin barrier formation

Dr Virginia Hubbard MBBS MRCP  
Clinical Senior Lecturer and Honorary Consultant Dermatologist  
E-learning, and in particular the different methods of online communication and support for students

Dr Victoria Jolliffe MA MRCP(UK)  
FRCS(Ed) MRCGP  
Clinical Senior Lecturer and Honorary Consultant Dermatologist  
Teledermatology, E-learning and the primary-secondary care interface

Professor David Kelsell PhD  
Professor of Human Molecular Genetics  
Genetic and functional studies in inherited syndromic and non-syndromic skin diseases, including the research of connexins, desmosomal proteins and ABCA12

Professor Kenneth Linton PhD  
Professor of Protein Biochemistry  
Membrane transport biology, with current interest in ABC transporters

Professor Ian Mackenzie BDS FDSRCS PhD  
Professor of Stem Cell Science  
Controls of epithelial growth, epithelial stem cells, and roles of malignant stem cells in tumour growth and therapeutic survival

Dr Simon Myers PhD FRCS(Plast)  
Clinical Senior Lecturer in Burns and Plastic Surgery  
Director of MSc in Aesthetic Plastic Surgery, Postgraduate Diploma in Burn Care and Certificate in Non-invasive Aesthetic Techniques  
Keratinocyte biology, and wound healing, particularly in relation to burn care

Professor Harshad Navsaria BSc MSc PhD  
Professor in Cell and Tissue Engineering  
The biology and clinical application of keratinocyte stem cell technologies, including tissue engineering of skin for in vitro toxicology

Professor Edel O'Toole MB PhD FRCPI DCH  
Professor of Molecular Dermatology  
Genetic skin diseases, signal transduction, extracellular matrix and keratinocyte migration in squamous cell carcinoma (SCC)

Professor Mike Philpott PhD  
Professor for Cutaneous Biology and Centre Lead for Cutaneous Research  
The biology of the human pilosebaceous unit and the role of Gli transcription factors in skin cancer



## Centre for Diabetes

The Centre has a major interest in genetic susceptibility to diabetes and related disorders. Barts and The London is at the forefront of the international gene discovery programmes in these disorders (including genome-wide association scans, candidate genes, functional genomics and prevention strategies). In addition, we have an on-going programme of research into epigenetic influences on diabetes development. Our clinical research is underpinned by a DOH-funded North East London Diabetes Local Research Network; prevention initiatives in type 1 diabetes; LADA; type 2 diabetes (T2D) focusing on the local Bangladeshi population.

Current research is focused in the following areas:

- Genomics and gene-to-environment interactions in diabetes and related disorders
- Immune mechanisms in diabetes
- Insulin action and secretion in metabolic and cardiovascular disease
- Inositide signalling
- Stem cells.

Major achievements within the Centre include:

- The discovery of novel genes associated with T2D using a genome-wide association scan and the first evidence of gene-to-gene interaction increasing susceptibility to disease
- The use of epigenetics to elucidate mechanisms of disease
- The demonstration of the importance of autoimmune diabetes through co-ordinated research programs such as ACTION LADA
- A landmark study demonstrating the feasibility of primary prevention of cardiovascular disease in T2D using a statin
- Establishing the role of the pyruvate dehydrogenase kinases in the control of the function in insulin-sensitive tissues and in pancreatic beta cells

- The identification of a novel signalling pathway important for insulin action in muscles and adipocytes
- The identification of the critical role of the enzyme phospholipase C gamma1 in metastasis development.

### Staff research interests

Professor Malcolm Alison BSc PhD  
DSc FRCPATH

Professor of Stem Cell Biology and Centre Lead for Diabetes and Metabolic Medicine  
Liver and pancreatic stem cell biology with particular reference to diabetes, end-stage fibrotic disease and cancer

Professor Marco Falasco  
Professor in Signal Transduction

The role of phosphoinositides and their regulatory enzymes in human diseases such as diabetes and cancer

Professor Graham Hitman MBBS MD FRCP  
Professor of Molecular Medicine and Diabetes and Deputy Director (Research)

Molecular genetics of diabetes and related disorders and diabetes / cardiovascular primary prevention programmes

Professor David Leslie MBBS MRCS MD FRCP  
Professor of Diabetes and Autoimmunity

Non-genetic factors including epigenetics causing autoimmune diabetes using unique national and international cohorts, including twins

Professor Paolo Pozzilli MBBS MD  
Visiting Clinical Research

Pathogenesis of type 1 diabetes

Professor Mary Sugden MA DPhil(Oxon)  
DSc(Lond)

Professor of Cellular Biochemistry  
Cellular aspects of diabetes mellitus and cardiovascular disease



**Student profile:**  
**Carol Rivas,**  
**PhD in Social**  
**and Cultural**  
**Contexts and**  
**Domestic**  
**Violence**

**“I’m looking  
at the effect that  
culture has on**

**women’s responses to psychological  
abuse from a male partner.**

“I am particularly interested in how women deal with their situation and how they manage their social identities when they stay within the relationship. I have interviewed Caribbean, African and white British women for the study.

“I think all three campuses are great for different reasons and it is nice that you can make use of the facilities at all three. The libraries are well resourced and there are libraries at each campus which is useful – you can return or renew at all of them interchangeably. I have found the staff to be nurturing and keen for me to get a good-quality PhD. I work with some leading experts in my field who are very accessible and who also present great networking and other opportunities.

“There are great opportunities to mix at Queen Mary, from the personal development courses to curry nights, barbecues, special talks and so on. There is also a performance arts group, who sometimes provide free ‘theatre’ workshops and shows. The gym has a women only room.

“I also help out with teaching, which I love, and taking children round the Centre of the Cell, which is the amazing new interactive exhibition at Whitechapel. I am also a science ambassador for schools, which means I go to special events for schools to promote science as a career. This might involve conducting mock job interviews, helping children do experiments or talking about my work. Last year I took children around the Big Bang, which also gave me the chance to enjoy it and have a go at everything.”

## **Centre for Digestive Diseases**

The Centre undertakes research and teaching into all aspects of the gastrointestinal tract, liver and nutrition.

The Centre was established in 2009 and brings together the former Centres for Gastroenterology and Academic Surgery. In so doing, we are directly aligned to the Digestive Diseases Clinical Academic Unit (CAU) at Barts Health NHS Trust.

We are one of the very few units undertaking research in both paediatric and adult disease. The Centre is organised as a research community with principal investigators grouped into major interdisciplinary research groups encompassing: epithelial cell biology; infection, immunity and inflammation; hepatology; neurogastroenterology; ano-rectal physiology; colorectal cancer and colorectal surgical development.

The Gastrointestinal Physiology Unit, an integral part of the Centre and a national referral centre, develops new investigations of colorectal function. There is a longstanding tradition of research in neurogastroenterology within the Centre, established by Professor David Wingate in the 1970s. This group is housed in a purpose-built facility, the Wingate Institute.

### **Major achievements within the Centre include:**

- Establishing the field of nutrition and gene regulation in the intestine, particularly epigenetic regulation
- Identifying that the chromosomal region harbouring IL1 and IL21 underlies the susceptibility to coeliac disease using a genome-wide association scan
- Elucidating the mechanism by which Dengue and Hepatitis viruses inhibit interferon signalling
- Discovering the central importance of interferon-gamma in the intestine resistance to infection with Cryptosporidium

- Developing a new vaccine platform to immunise against viruses
- Cerebral imaging of visceral pain; and elucidation of pain neuronal pathways from the upper GI tract in order to identify new therapeutic targets.

The Centre also teaches gastroenterology, hepatology and nutrition to undergraduates. Postgraduate teaching is undertaken in the MSc Programme in Gastroenterology.

### Staff research interests

Professor Qasim Aziz PhD FRCP  
Professor of Neurogastroenterology  
and Director, Wingate Institute of  
Neurogastroenterology

The modulation of gastrointestinal function by psychological stress

Dr David Bulmer BSc PhD  
Non-clinical Lecturer in Neurogastroenterology  
Processing of sensory information from the gastrointestinal tract

Professor Stephen Bustin BA PhD  
Professor of Molecular Science  
The role of hormones and dietary factors in the maintenance of normal bowel physiology. Novel approaches to detection of bowel disease-associated pathogens

Dr Nicholas Croft MBBS PhD DCH FRCPCH  
Clinical Senior Lecturer in Paediatric Gastroenterology  
Clinical and translational research into diseases of the paediatric gastrointestinal tract. Co-director in the UK Medicines for Children Research Network

Professor Graham Foster PhD FRCP  
Professor of Hepatology  
Clinical studies on epidemiology and outcome of viral hepatitis. Laboratory research on hepatitis virology, interferon signalling and regulation of inflammation

Professor Janusz Jankowski MB ChB MSc MD  
PhD FRCP FACG  
Sir James Black Professor of Gastrointestinal Biology and Trials  
Barretts oesophagus and cancer prevention, using molecular and translational investigations

Dr M Paul Kelly MD, FRCP  
Reader in Tropical Gastroenterology  
Epidemiology of intestinal infections, the interaction between nutrition and immunology of the gut, and clinical trials of antiparasitic chemotherapy

Dr Patrick Kennedy  
Clinical Senior Lecturer in Hepatology  
T cell immunology in hepatitis, adolescent Hepatology

Professor Charles Knowles MBBChir PhD  
FRCS  
Clinical Professor of Surgical Research  
Neuromuscular pathological aspects of gastrointestinal motility disorders; the molecular basis of gut sensorimotor dysfunction, particularly in relation to visceral hypersensitivity and pain

Professor Parveen Kumar CBE BSc MD  
DM(Hon) FRCP FRCP(E) FICG  
Professor of Clinical Medical Education  
Coeliac disease

Dr James Lindsay MA PhD BMBCh MRCP  
Clinical Senior Lecturer and Consultant in Gastroenterology  
The inflammatory bowel diseases, ulcerative colitis, Crohn's disease

Mr Peter Lunniss BSc MBBS MS FRCS FRCS  
Clinical Senior Lecturer in Colorectal Surgery  
Investigation of motility disorders of colon and anus

Dr Stuart McDonald PhD  
Non-clinical Lecturer in Gastroenterology  
DNA mutations in the genesis of gastrointestinal cancers



## Staff profile: Professor Aine McKnight

### Professor of Viral Pathology

"Throughout my academic career, I have had an interest in HIV/AIDS. In 1987, I joined a team at the Institute of Cancer Research (London), to study the role of neutralising antibodies to HIV-1 and HIV-2 in pathogenesis. I was awarded an MSc in Immunology, and a PhD both by the University of London.

"In 2000, I won a fellowship (RCDF) from The Wellcome Trust to develop an independent research group to focus on non-coreceptor determinants of HIV replication in cells at The Wohl Virion Centre, University College London. I am currently a Medical Research Council (MRC) Senior Non-clinical Fellow (awarded in 2005).

"The current focus of my research group is mainly on the interface between HIV and the immune system with regard to humoral immunity and a novel innate immune mechanism (Lv-2) that inhibits HIV replication after cellular entry resulting in abortive infection. The two viral genes involved in overcoming this antiviral effect have already been mapped, and we are currently mapping the host gene(s) involved. Other active research interests lie in HIV tropism and co-receptor use.

"I am also among a number of scientists taking part in a \$25.3 million international research consortium searching for an HIV vaccine. The grant is one of the largest awards in a \$287 million, five-year programme of 16 grants provided by the Bill and Melinda Gates Foundation to establish an international network of HIV vaccine discovery consortia, known as the Collaboration for AIDS Vaccine Discovery."

Dr Vincent McDonald BSc PhD  
Reader in Gastroenterology  
Molecular mechanisms of disease  
by intestinal parasites

Professor David Rampton DPhil FRCP  
Professor of Clinical Gastroenterology  
The inflammatory bowel diseases, ulcerative colitis, Crohn's disease

Professor Ian Sanderson MSc MD FRCP  
FRCPCH  
Professor of Paediatric Gastroenterology  
Lead, Centre for Gastroenterology  
Nutrients and gene expression in the intestine;  
diets as primary treatment of Crohn's disease

Professor Gareth Sanger BSc PhD DSc  
FBPharmacolS  
Professor of Neuropharmacology  
Gastrointestinal physiology and  
pharmacological control

Dr Mark Scott BSc PhD  
Senior Clinical Scientist  
Mechanisms of ano-rectal dysmotility

Professor Daniel Sifrim MD PhD  
Professor of Gastrointestinal Physiology  
Motility disorders of the oesophagus;  
therapeutic trials on oesophageal dysfunction

Professor Andrew Silver BSc PhD  
Professor for Cancer Genetics  
Understanding how intestinal/anal cancers  
develop. Creation of model systems for drug  
testing and extension of molecular technologies  
into clinical practice

Professor David van Heel BM BCh MA DPhil  
MRCP  
Professor of Gastrointestinal Genetics  
Genetics and immunology of coeliac disease  
and Crohn's disease

Professor Ping Wang MD PhD  
Professor of Experimental Immunology  
Molecular mechanisms of MHC class 1 antigen  
presentation and antigen-mediated molecular  
signalling in T cells

Professor Norman Williams MS FRCS FMedSci  
Professor of Surgery and Centre Lead for  
Academic Surgery

Large bowel function in health and disease and the application of such knowledge to improve the care of patients, particularly from the surgical perspective

Professor Sir Nicholas Wright MA MD PhD DSc  
FRCS FRCP FRCPath FMedSci

Professor of Histopathology

Gastrointestinal stem cells in relationship to the origins of colorectal cancer; lineage infidelity in bone marrow stem cells and gut biology

## Centre for Immunology and Infectious Disease

Our Centre has around 50 scientists dedicated to education and research on microorganisms and the immune system.

Two global health problems lie at the heart of our Centre's activities:

- Bacteria and viruses continue to cause serious disease and death, despite advances in antimicrobial therapy and vaccines
- An ever-increasing burden of inflammatory diseases – when the immune system, finely tuned to combating infection, gets out of balance and itself becomes a cause of disease.

Our research teams investigate these problems from many angles, from the molecular interactions that determine the outcome of T-cell development in the immune system, to the DNA changes that make viruses and bacteria escape our vaccines and antibiotics, to public health measures for improving the uptake of treatment for sexually transmitted infections. Our shared goal is to see the findings of our research translated into improvements in human health.

Our major research themes are:

- Inflammatory bowel diseases (MacDonald, Stagg)
- Bacterial pathogenesis (Curtis, Marches, Waite)
- T-cell development (Pennington)
- HIV and viral pathogenesis (McKnight, Dittmar, Deayton)
- TB antimicrobial development and epidemiology (Parish, Drobniewski)
- Antibiotic resistance and hospital infection (Wareham, Hall, Sefton)
- Reduction of sexually transmitted infection through health service intervention (Estcourt).

We also host the Health Protection Agency National Mycobacterium Reference Laboratory.

### Staff research interests

Professor Michael Curtis BSc PhD  
Professor of Microbiology and Director,  
Blizard Institute

Molecular mechanisms of pathogenesis of gram negative bacteria with particular reference to oral infections

Professor Francis Drobniewski MBBS MA MSc  
PhD DTM&H FRCPath

Professor of International Health  
and Tuberculosis

Director, National Mycobacterium Reference  
Laboratory and Clinical TB and HIV Group

All aspects of tuberculosis, AIDS, and opportunistic infections and virulence determinants of pathogenic mycobacteria

Dr Claudia Estcourt MD FRCP FChSHM  
DFFP DipGUM

Reader in Sexual Health & HIV Medicine  
Health service and public health research  
in STIs and HIV

Professor Lucinda Hall MSc PhD  
Professor of Molecular Microbiology  
Lead, Centre for Immunology and Infectious  
Disease  
Molecular genetics of antibiotic resistance  
and endogenous microbiota

Professor Thomas MacDonald PhD FRCPath  
FMedSci  
Professor of Immunology and Dean for  
Research  
Immunology and inflammation in the  
gastrointestinal tract

Professor Aine McKnight MiBiol MSc PhD  
Professor of Viral Pathology  
Interface between HIV and the immune system

Professor John Oxford  
Professor of Virology  
Pathogenicity of influenza, in particular  
the 1918 Spanish Influenza strain

Professor Tanya Parish BSc PhD  
Professor of Mycobacteriology  
Pathogenic mechanisms of the global  
pathogen *Mycobacterium tuberculosis*

Dr Daniel Pennington PhD  
Reader in Molecular Immunology  
Development and function of unconventional  
T cells

Professor Armine Sefton MBBS MSc ILTH MD  
FRCP(Edin) FRCPath  
Professor of Clinical Microbiology  
Antimicrobials and antimicrobial resistance,  
translational research and dangerous  
pathogens

Dr Andrew Stagg BSc PhD  
Senior Lecturer in Immunology  
Regulation of immune activity in the human  
intestine, and the role of dendritic cells

Dr David Wareham MBBS MSc PhD MRCP  
DTM&H FRCPath  
Clinical Senior Lecturer in Medical  
Microbiology  
Multi-drug resistant bacteria: emerging  
mechanisms, clinical impact, novel measures  
for treatment and control

## Centre for Neuroscience and Trauma

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The Centre has sixteen academic staff and research is focused on three interrelated topics: trauma; neuroinflammation and pain; neuro-oncology and genomics.

### Trauma

The focus of our research is on spinal cord and peripheral nerve injury and coagulation. The Trauma group has identified several therapeutic strategies to prevent complications of injury, and to limit and repair its damage.

### Neuroinflammation and pain

The main disease focus of the Neuro-immunology group is multiple sclerosis. Research is currently focused on immune tolerance strategies, the development of neuroprotective and neurorestorative therapies for progressive multiple sclerosis and the manipulation of the endocannabinoid biology as a therapeutic strategy to improve the symptoms of multiple sclerosis.

### Neuro-oncology and genomics

Our research includes:

- a molecular and developmental biology approach in mouse models that shows how cellular and molecular mechanisms control the development of the central nervous system and can contribute to brain tumorigenesis when deregulated
- a study of the function of human chromosomes and the genetic basis of cancer, with the discovery of distinct higher order chromatin configurations and loop domains that are dependent on gene density

and transcriptional activity. Research also focuses on critical pathways involved in tumorigenesis, with an emphasis on brain tumours.

There are also active research programmes in motor neurone disease, pain, muscle regeneration, biomarkers and clinical outcomes.

Future objectives for the Centre include the establishment of research and clinical units in spinal injury, preventative neurology and neuroinfectious diseases and further development of basic research in CNS tumour biology.

### Staff research interests

**Professor David Baker BSc PhD**  
**Professor of Neuroimmunology**

Modelling autoimmune, neurodegenerative and symptom-control aspects of multiple sclerosis, cannabinoid biology

**Professor Karim Brohi FRCS FRCA**  
**Professor of Trauma Sciences**

Traumatic coagulopathy and massive transfusion; damage response and activation of innate immunity; complex outcomes following trauma and post-traumatic disability; emergency preparedness and disaster management; trauma epidemiology and public health

**Professor Gavin Giovannoni MBBCh PhD FCP**  
**(Neurol) FRCP FRCPATH**

**Professor of Neurology and Centre Lead for Neuroscience and Trauma**

Epstein Barr virus as a possible cause of MS, MS-related neurodegeneration and MS biomarker discovery

**Professor Silvia Marino MD FMH-Path**  
**Professor of Neuro-oncology**

Self-renewal and differentiation mechanisms of stem cells in the brain and skeletal muscle and their role in regeneration and tumourigenesis

**Professor Adina Michael-Titus Lic Sci M es Sci**  
**Doct en Sci**

**Reader in Neuroscience and Pharmacology**

The development of new neuroprotective treatments in neurotrauma and neurodegeneration with particular emphasis on strategies with translational potential

**Professor John Priestley MA DPhil**  
**Professor of Neuroscience**

The anatomy and neurochemistry of the spinal cord and of pain pathways, strategies to reduce cell death and promote regeneration after spinal cord injury and peripheral nerve injury

**Professor Denise Sheer BSc DPhil**  
**Professor of Human Genetics**

The structural and functional organisation of the human genome and the nucleus; genetic and epigenetic aberrations in cancer, currently focused on brain tumours

## Centre for Paediatrics

The Centre facilitates paediatrics research, as well as child health teaching on the MBBS programme. We organise the intercalated BSc in pathology programme and work closely with the paediatric clinical services provided by the second largest paediatric service in London (Barts and The London Children's Hospital).

Our research in paediatrics is organised into the following themes:

### Haematology

Our principal research interest is bone marrow failure, focusing on the pathophysiology of the bone marrow failure syndromes, particularly dyskeratosis congenita (DC). Studies are also being undertaken on other haematological disorders including: the pathophysiology of myelodysplasia / leukaemia and the establishment of a clinical network for sickle cell disease in east London.

### Neonatal Medicine

A major initiative within Neonatal Medicine relates to investigation of the associations between low birth weight and airway function and the underlying mechanisms. Other areas of research include:

- the use of Doppler ultrasound in the investigation of the neonatal circulation
- the mechanisms and control of placental transport of nutrients from mother to foetus.

### Respiratory and Environmental Medicine

Main research interests are paediatric asthma, and the impact of environmental pollutants on the developing lung. An environmental research group is studying the cellular and molecular mechanisms underlying the increased vulnerability to pneumococcal pneumonia in children exposed to particulate air pollution.

### Down's syndrome

Professor Nizetic utilises a functional genomics approach to the study of effects of gene dose in human aneuploidy, with an emphasis on Down's syndrome as a model. In particular, gene dose effects of trisomy of human chromosome 21 on embryonic stem cell differentiation and cell fate, and myeloid stem cell lineages in relation to childhood leukaemia in Down's syndrome are under investigation. The work involves gene expression arrays, proteomics and potentially ZF transgenic modelling.

### Staff research interests

Professor Kathleen Costeloe MB BCHir  
FRCP FRCPCH

#### Professor of Paediatrics

Population-based health outcomes of extremely preterm infants. Prevention of hospital-acquired infection in the newborn

Professor Inderjeet Dokal MBChB MD FRCP  
FRCPCH FRCPath, FMedSci

#### Professor of Paediatrics and Centre Lead for Paediatrics

Pathophysiology of aplastic anaemia (AA)/ bone marrow failure including dyskeratosis congenital and related disorders

Professor Jonathan Grigg BSc MBBS MD  
MRCP FRCPCH

#### Professor of Paediatric Respiratory and Environmental Medicine

Particulate air pollution and children's health, management of preschool wheeze, and management of difficult asthma

Professor Dean Nizetic MD PhD

#### Professor of Cellular and Molecular Biology

Gene dose effects (aneuploidy and haploinsufficiency) on physiology of stem cell differentiation and pathogenesis of neuronal dysfunction and childhood leukaemia and pathogenesis of neuronal dysfunction and childhood leukaemia

## Centre for Primary Care and Public Health

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The Centre brings together multidisciplinary research groupings addressing a range of themes in primary healthcare, public health and medical sociology.

We are committed to addressing global health challenges while at the same time improving health outcomes locally in the ethnically diverse and socio-economically deprived community of east London.

We have expertise in a range of research methodologies including observational epidemiology, randomised trials, design and implementation of complex interventions, translational research, and qualitative and developmental research, as well as extensive experience in postgraduate teaching (traditional and online) and PhD support.



Current research is focused in the following areas:

#### Environmental and respiratory health

- managing asthma and chronic obstructive pulmonary disease (OEDIPUS, MEDEA, BELLA projects)
- the impact of the London Low Emission Zone on children's respiratory health (LEZ)
- the effect of vitamin D on respiratory conditions (OVID)
- the causes of asthma and COPD across the lifecourse

#### Screening, early diagnosis and risk management

- intimate partner abuse in primary care (IRIS)
- HIV screening in primary care (RHIVA2)
- comparing tests for TB screening (PREDICT)
- diagnosis of chronic pelvic pain (MEDAL)
- prediction model for complications in preeclampsia (PREP)

#### The illness experience and self-management of illness

- reducing depression in nursing homes (OPERA)
- self-management in chronic pain (COPERS)

#### Systematic review and meta-analysis

- developing guidelines for realist and metanarrative review (RAMESES)

#### Innovation and new technologies

- developing assisted living technologies for ethnic elders (ATHENE)

Together with the Centre for Psychiatry, based at the Wolfson Institute of Preventive Medicine, the Institute houses the Pragmatic Clinical Trials Unit (registered with the UK Clinical Research Collaboration), which has infrastructure funding from the National Institute for Health Research. We also collaborate widely with other universities in the UK and abroad.



### Staff profile: Professor Trish Greenhalgh

**Global Health, Policy and Innovation Unit,  
Centre for Primary Care and Public Health**

"My first degree, in social and political sciences, ignited a lifelong interest in the social aspects of illness and health care.

"I now lead a programme of research at the interface between social sciences and medicine which seeks to celebrate and retain the traditional and the humanistic aspects of medicine and healthcare, while also embracing the unparalleled opportunities of contemporary science and technology to improve health outcomes and relieve suffering. My work covers such diverse themes as reclaiming narrative and literature as legitimate components of the medical curriculum; exploring how 'rationing' decisions are made when demand for healthcare exceeds the resources available; studying the social, political and ethical implications of new technologies such as networked electronic patient records; and searching for better metaphors than 'knowledge translation' to illuminate the complex links between research and clinical practice.

"Queen Mary is a great place for postgraduates interested in study in this area. The College attaches real value to socially engaged, interdisciplinary and applied research. And our location in the vibrant and culturally diverse East End makes for a great social experience too."

### Staff research interests

Professor Sandra Eldridge BA MSc PhD  
Professor of Biostatistics

Clinical trials, especially cluster randomized trials, modelling complex interventions, statistical methods in primary healthcare

Professor Trisha Greenhalgh MA MD  
FRCP FRCGP

Professor of Primary Health Care  
Innovation, new technologies, policy, philosophy of science, medical sociology

Professor Chris Griffiths MA DPhil MBBS FRCP  
FRCGP

Professor of Primary Care  
Asthma, COPD, TB, allergy, diabetes, vitamin D, primary care, clinical trials and qualitative research

Professor Khalid Khan MBBS MSc MRCOG  
MMed FHEA

Professor of Women's Health  
Women's health, meta-analyses, clinical trials

Professor Allyson Pollock MB ChB MSc FFPH  
Professor of Public Health Policy

Globalisation; pharmaceuticals, clinical trials and access to medicine; marketisation and PFI /PPPs; health inequalities; child injuries

Professor Clive Seale BEd MSc PhD  
Perrin Professor of Medical Sociology

Communication in healthcare consultations, mass media and health; internet and health, end-of-life decisions, palliative care, sociology of cancer, social research methods

Professor Seif Shaheen MA MRCP MSc  
PhD FFPH

Professor of Respiratory Epidemiology  
Epidemiology, causes of asthma and COPD, developmental origins of health and disease, diet, gene-environment interactions, epigenetics

Professor Stephanie Taylor MBBS DCH  
DRCOG MRCGP MSc MD FFPHM

Professor of Primary Care and Public Health,  
Health Services Research and Development

Complex interventions, self-management of chronic disease (respiratory, heart failure), adolescent obesity, clinical trials, observational epidemiology, systematic reviewing

Professor Robert Walton BSc MD FRCP  
FRCGP

Professor of Primary Medical Care  
Smoking cessation, hepatitis, liver cancer, TB, KIR, HLA, genetics, pharmacogenetics

### Pathology Group

This group focuses on, and explores cellular pathogenesis. We are experts in the morphological aspects of disease, gene and protein expression in health and in disordered function eg cancer, inflammation and trauma. We play a large and important role in the on-going teaching programmes across the medical and dental schools, and play an integral role in the research of groups in Pathology as well as other centres. Major links exist with groups working in gastroenterology, cancer, neurosciences, cutaneous and child health.

The Academic Haematology Unit has developed from a broad clinical base and particular areas of clinical excellence including haematological malignancies and autoimmune thrombocytopenia (ATP). Our ATP research has led to the development of particular expertise in flow cytometry under Professor Marion Macey and a cross-Centre interest in autoimmune disorders.

Other research interests lie in gene therapy for haemophilia, molecular pathology of von Willebrands disease, the link between cancer and thrombosis and the mechanisms of inhibitor development in haemophilia A.

### Staff research interests

Professor Rino Cerio BSc MRCS FRCP(Lond)  
FRCP(Edin) FRCPATH DipRCPath ICDPath  
Professor of Dermatopathology

Postgraduate training in dermatopathology with special interest in skin cancer, autoimmune dermatoses and management of severe psoriasis

Professor Paola Domizio BSc MBBS FRCPATH  
Professor of Pathology Education  
Gastrointestinal pathology and medical (particularly pathology) education

Professor Stephen Greenwald BA PhD  
Professor of Cardiovascular Mechanics  
Mechanical factors in the genesis of arterial disease, non-invasive measurement of vascular function, foetal programming of essential hypertension, histomorphometry

Professor Joanne Martin MA MBBS PhD  
FRCPATH  
Professor of Pathology  
Neuromuscular pathology with a particular emphasis on gastrointestinal dysmotility

Professor Adrian Newland BA MB BCh MA  
FRCP(UK) FRCPATH  
Professor of Haematology  
The cell biology and genetic basis of autoimmune thrombocytopenia, and the study of apoptosis with an emphasis on leukaemia development

Professor K John Pasi MB ChB PhD FRCP  
FRCPATH FRCPCH  
Professor of Haemostasis and Thrombosis  
Gene therapy for haemophilia, molecular pathology of von Willebrands disease

### Entry requirements

For entry to a research degree you should have a minimum of either:

- a first or upper second class honours degree from a UK university, or
- a masters degree, or
- an equivalent professional qualification (ie MBBS, BDS), or
- an overseas qualification of an equivalent standard from an accredited institution.

Proficiency in written and spoken English is essential and non-native English speakers are expected to demonstrate a proficiency in English equivalent to an IELTS score of 7 or an IBTOEFL score of 100.

### Further information

Further information on postgraduate programmes and the area of expertise of members of staff can be found on our website: [www.icms.qmul.ac.uk](http://www.icms.qmul.ac.uk)

### For postgraduate enquiries in the Blizard Institute

Victoria Adrienne  
Tel +44 (0)20 7882 3468  
email: [v.adrienne@qmul.ac.uk](mailto:v.adrienne@qmul.ac.uk)

### General postgraduate information

Tel: +44 (0)20 7882 7952/7840  
email: [askthegradteam@qmul.ac.uk](mailto:askthegradteam@qmul.ac.uk)

### International students

Tel: +44 (0)20 7882 3066  
email: [international-office@qmul.ac.uk](mailto:international-office@qmul.ac.uk)

### Barts and The London School of Medicine and Dentistry

The Admissions and Recruitment Office  
Room CB02, Queens' Building  
Mile End Road  
London E1 4NS  
Tel: +44 (0)20 7882 5533  
email: [pgsmd@qmul.ac.uk](mailto:pgsmd@qmul.ac.uk)



# Institute of Dentistry

Research in the Institute of Dentistry is organised within multidisciplinary research groups:

- Caries, hard tissue and material research
- Clinical and population research
- Infection and immunity
- Oral cancer
- Clinical and population research.

## Research strengths

The Dental School of The London Hospital Medical College was formed in 1911 and moved into the current Institute of Dentistry building in 1965. Barts and The London School of Medicine and Dentistry was formed in 1995 and merged with Queen Mary, University of London in the same year. The School embraces its east London location and the potential this offers for teaching and learning.

The Institute of Dentistry has a long and proud record of internationally recognised research in oral and dental sciences. We combine a strong tradition of clinical, epidemiological and public health research in dentistry, with a solid basic science research base that brings together a range of multi-disciplinary teams with complementary skills from clinical science, cell and molecular biology, microbiology, material science and biophysics. Extensive collaboration throughout Queen Mary, University of London brings us great benefits from the excellent research facilities available within the College.

## Research quality indicators

### The Research Assessment Exercise

The results of the 2008 RAE demonstrated that the Dental School at Barts and The London School of Medicine and Dentistry is one of the best in the country. Based on the quantity of 3\* (internationally excellent) and 4\* (world-leading) outputs, we were first equal with Manchester and, when this was converted to rankings, we come second out of 14 UK dental schools.

### Projects, funding, research grants and awards

Researchers within the Institute compete successfully for major research grants for the UK Research Councils (MRC, BBSRC, EPSRC, CRUK), UK government, and major medical charities. We also have strong collaborative links with industry.

## Postgraduate resources

The Institute of Dentistry is a special place to undertake postgraduate studies, bringing together a number of world-leading researchers in basic and clinical sciences who supervise research students in the fields of oral medicine, oral pathology, oral microbiology, oral epidemiology, oncology, dental biomaterials, dental biophysics, dental public health, dental education, periodontology, orthodontics, paediatric, prosthetic and conservative dentistry. In addition, our research students benefit from extensive interdisciplinary links with other areas of research within Queen Mary, University of London.

The well-established Centre for Oral Biometrics, comprising the fifth and sixth floors of the Institute of Dentistry, provides a focus for clinical postgraduate activity, offering seminar space, office, computing and clinical facilities. It includes a Dental Metrology Unit equipped with facial laser scan and facial image analysis.

Microbiology and Cell and Molecular Biology resources are based in the award-winning Blizard Building, which is a multi-disciplinary research facility housing over 400 biomedical scientists.

Core research facilities within the School of Medicine and Dentistry also include a new Genomics Centre development for high throughput DNA sequencing, genotyping and real-time PCR; a new Functional Genomics facility containing robotics and microarray readers; and a new Imaging Centre containing confocal and electron microscopy.

Biophysics and Biomaterials are based in modern, well-equipped laboratories on the Mile End campus, adjacent to relevant collaborators in the Departments of Chemistry and Materials Science. In addition, the Institute of Dentistry is located in east London and serves a large multicultural population with high socioeconomic diversity. This provides a unique opportunity to carry out population-based studies and infer conclusions to other environments.

## Scholarships/studentships

Graduate research students are funded in one of three ways:

- a grant award made to the project supervisor;
- a personal award to the student from national charities or overseas agencies; or
- student self-funding.

Several internally funded PhD studentships are available each year, funded through the Research Advisory Board of the Charitable Foundation and directly by the School. In addition, Queen Mary provides a number of College studentships, for which overseas students are also eligible. There is no separate application form and all applicants for an MPhil or PhD programme to commence in the 2012-13 session will automatically be considered for a research studentship.

Clinicians undertaking higher degrees are eligible for awards such as the MRC Clinical Research Training Fellowships.

## Career opportunities

Key relationships have been established with groups working in other Institutes of the School of Medicine and Dentistry such as in Diabetes and Metabolic Medicine and the Tobacco Dependence Research Unit. There are also active collaborations with the Engineering and Materials Science and Geography departments at Queen Mary. National and international links have been made with industrial (including GlaxoSmithKline and GC Corp), academic (including Washington USA, North Carolina USA, Aarhus Denmark, Imperial College and Manchester) and non-governmental organisations (Cancer Research UK).

There is increasing collaboration with the primary care trusts serving the 2.7 million individuals in north-east and north-central London in areas such as the epidemiology of adult oral health.

## Research degrees

The Institute welcomes postgraduate students in the areas of interest listed below. Our research students are registered for University of London degrees and work under the supervision of senior researchers. They are trained in transferable skills in accordance with the British Research Council's requirements for research students.

## Research areas

### Caries, hard tissue and mineral research

- Physical chemistry of dental caries
- X-ray microtomography of dental hard tissues
- Crystallographic studies of enamel and biomaterials



**Student profile:**  
Jonathan Collier, PhD in Dentistry

“I researched the role of chemokine receptors in oral cancer metastasis. Oral cancer is a devastating disease and this study focused on a possible mechanism by which these tumours spread around the body.

“There is an enormous amount offered by the College with regards to facilities and further development. As a clinician it was important to be close to a major teaching hospital.

“The facilities are first class and there is a huge diversity of departments within the College that really facilitates collaborative research. If you are stuck and don't know how to tackle something then there is a wealth of resources (academic and practical) available to help you.

“I was proud to be able to present my work in competitions at the national and international conferences for dental research. The latter was in Brisbane, Australia – and the bonus was I won!”

- Changes in bone structure associated with ageing and tooth loss
- Salivary proteins in enamel homeostasis and dental caries
- Biomechanical properties of bone and dental hard tissues
- Polymer chemistry and dental materials
- Development of polymers for drug delivery devices.

**Staff research interests**

Dr Maisoon Al-Jawad BSc PhD  
Lecturer in Dental Physical Sciences  
Biomineralisation – enamel formation, protein absorption at interfaces for biomedical applications, enamel structure-function relationship, using neutron and synchrotron X-ray scattering techniques novel to dentistry

Dr Paul Anderson BSc PhD  
Reader in Biophysics in relation to Dentistry  
Chemistry of enamel, X-ray microscopic methods, salivary proteins and enamel mineralization

Professor Alan Boyde PhD BDS LDSRCS MDHonCaus  
Professor of Mineralised Tissue Biology  
Bone and cartilage structure, imaging, development

Dr Mike Cattell MSc PhD  
Lecturer in Dental Technology  
Synthesis and characterisation of glass-ceramic materials, mechanical testing of ceramic materials

Professor Bunsan Chong BDS MSc PhD FDS MFGDP MRD  
Professor of Restorative Dentistry  
Root end filling materials and tissue response

Dr Graham Davis BSc(Eng) PhD  
Senior Lecturer in Biophysics  
X-ray microtomography, 3D imaging techniques

**Professor Robert Hill BSc MSc PhDDIC**  
**Professor of Physical Sciences in Relation to Dentistry**

Degradable glasses, bioactive glasses, restorative dental fillings, glass (Ionomer) cements, glass-ceramics, demineralisation, remineralisation phenomena and caries, toothpastes, mode of action of strontium and fluoride on hard tissues

**Dr Tomasz Janicki BDS PhD**  
**Clinical Lecturer in Adult Oral Health**

Biomaterials, laser dentistry, soft tissue and hard tissue lasers, air abrasion and air polishing, SEM images, implant dentistry

**Dr Natalia Karpukhina PhD**  
**Lecturer in Dental Physical Sciences**

Setting mechanism in glass ionomer cements, characterisation of various dental cements, structural characterisation of bioactive glass and bioceramics, structural study of substitutions in apatites, structural study of bioapatites, establishing utility of solid-state nuclear magnetic resonance technique to monitor amorphous or nanocrystalline structure and its evolution in dental materials

**Dr Ginny Kingsmill BDS PhD**  
**Clinical Senior Lecturer**

Osteoporosis, osteonecrosis of the jaws, post-extraction bone resorption

**Dr Jelena Kosoric BDS PhD**  
**Clinical Lecturer in Paediatric Dentistry**

Interaction of salivary proteins with hard dental tissues: enamel and dentine

**Dr Sahar Mohsin MBBS MMedSci PhD**  
**Lecturer in Anatomy**

Bone histology, bone biomechanics, tissue response to orthodontic tooth movement, fabrication of synthetic bone scaffold, dental implants, other prosthesis like hip implants, study osseointegration and other mechanical and biological aspects, use of growth factors and BMP in dental implants, detection of microdamage in vivo using advanced imaging

techniques, osteoporosis: drug release antibiotics, anti-resorptive, anabolic drugs, strontium and zinc

**Dr Sandra Parker BSc Hons MPhil PhD**  
**Lecturer in Dental Materials**

Polymeric dental materials, elastomeric materials for biomedical applications

**Dr Mangala Patel PhD MSc BSc**  
**Senior Lecturer in Dental Materials**

Synthetic polymeric materials in clinical dentistry and orthopaedics, drug delivery systems

**Dr Simon Rawlinson BSc PhD**  
**Lecturer in Oral Biology (Physiology)**

Skeletal development, regulation of bone growth by mechanical loading, regional variation in bone tissue, influence of biomaterials on bone cell growth, osseointegration

**Professor Ferranti Wong BDS MSc PhD**  
**FDSRCSEd FDSRCS(Eng)**

**Senior Lecturer/Honorary Consultant in Child Dental Health**

X-ray microtomography, dental traumatology, clinical paediatric dentistry

## Clinical and population research

- Clinical and population studies on sociopsychological, economic, and behavioural determinants of oral health inequalities
- Clinical and population studies on tobacco cessation in the oral health environment
- Clinical and population studies on oral health impact on quality of life
- Population studies on the burden of oral diseases
- Clinical studies on determinants of treatment outcomes of oral and dental conditions, including oral cancer, Behcet's Syndrome,

dry mouth, periodontal diseases, and malocclusion, clinical studies on minimum intervention

- Development of primary care networks for practice-based research
- Systematic reviews (collaborative work with the Cochrane Oral Health Group).

### Staff research interests

Dr Aylin Baysan BDS MSc PhD MFDS  
RCS(Edin) FHEA

Clinical Lecturer in Restorative Dentistry

Cariology, minimal intervention, dental caries and root caries, detection of dental caries, domiciliary dental care, quality of life, clinical trials

Dr George Cherukara BDS MFDS RCP PhD  
Specialist Registrar (Clinical Lectureship)

Dental metrology, translational research, educational research

Professor Elizabeth Davenport BDS PhD MSc  
FDSRCSEd FHE

Professor of Dental Education

Education research, learning styles, professionalism, assessment, inter-professional learning children healthcare, systemic disease and periodontal disease

Dr Ana Gamboa BDS MSc DDPH PhD  
Clinical Lecturer in Dental Public Health

Socio-economic and psycho-social factors related to periodontal health, access and utilisation of oral healthcare, clinical trials

Dr Ama Johal MSc PhD FDSMOrth  
FDS(Orth) RCS

Senior Lecturer / Honorary Consultant  
Orthodontist

Orthodontics: quality of life and psycho-social factors related to orthodontic need and treatment, treatment mechanics, sleep-related breathing disorders: role of mandibular advancement splint therapy in management: design factors; modes of action and outcomes of treatment, clinical trials

Dr Helen Liversidge B Ch D MSc PhD  
Senior Clinical Lecturer

Worldwide variation in the timing of permanent tooth formation, application of dental maturity standards to estimate age, third molar development and estimating age of majority

Professor Wagner Marcenes BDS MSc PhD  
Professor of Oral Epidemiology

Epidemiology of oral diseases, socioeconomic and psychosocial determinants of oral health inequalities, behaviour and biological pathways, quality of life, oral health needs assessments, epidemiological surveys, and clinical trials

Dr Sharan Sidhu BDS MSc PhD MFDS RCS  
FADM, FICD

Clinical Senior Lecturer/Honorary Consultant  
in Restorative Dentistry

Cariology, dental materials; glass ionomer materials; adhesion to tooth structure, dentine perfusion, laser preparation of teeth, dental materials and the biological interface, clinical trials

Dr Lifong Zou BSc PhD

Clinical Scientist in Dental Metrology

Clinic orientated freeform surface measurements

## Infection and immunity

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- Microbial pathogenesis and virulence
- Microbial-host interactions and immune defences
- Naturally occurring antibacterial peptides and other molecules
- Mucosal immune responses
- Clinical studies and genetic factors in oral ulceration
- Host bacterial reactions in periodontal diseases
- Cell biology of bone formation and tissue regeneration
- Risk and prognostic factors in periodontitis.



### Staff research interests

Professor Robert Allaker BSc PhD ILTM  
Reader in Mucocutaneous Microbiology  
Host-microbial interactions, antibacterial molecules

Dr Lesley Bergmeier CBiol MIBiol PhD  
Senior Lecturer in Applied Mucosal Immunology (non-clinical)  
Mucosal immunology, heat shock proteins, immune responses

Professor Farida Fortune CBE BDS MBBS  
MRCP FRCP FDS RCSeng FGDP PhD Dip Ed  
Professor of Medicine in relation to Oral Health  
Clinical epidemiology, oral oncology, genetic, inflammatory and immune determinants of oral mucosal diseases

Dr Eleni Hagi-Pavli BSc PhD  
Non Clinical Lecturer in Oral Sciences  
Basic biology and clinical oral research in investigating mucosal inflammation, Behcet's Disease, Crohn's Disease, Lichen planus and Erythema Multiforme

Dr Ian McKay BA DPhil  
Lecturer  
Basic bone biology, periodontal disease, control of osteogenesis, development of osteogenic biomaterials, infection control, wound healing, alveolar bone biology

Dr Anwar Tappuni LDS RCS PhD  
MRACDS(OM) FHEA  
Clinical Lecturer in Oral Medicine  
Dry mouth / Sjogren's Syndrome, oral manifestations of HIV, Behcet's Disease

Dr Robert Whiley BSc PhD  
Senior Lecturer  
Research interests: oral microbiology, oral streptococci, streptococcus pneumonia, candida albicans, and microbiological aspects of biomaterials

## Oral cancer

- Oral epithelial ageing and role of telomerase in oral cancer
- Epithelial stem cells in cancer
- Keratinocyte biology
- Biology of tumour invasion and role of integrins
- Clinical studies of treatments in oral cancer
- Behavioural factors and smoking cessation.

### Staff research interests

Dr Alan Cruchley PhD  
Senior Lecturer in Oral Pathology  
Epithelial permeability barrier, the pathogenesis of oral submucous fibrosis and oral cancer

Professor Eric K Parkinson BSc PhD  
Professor of Head and Neck Cancer  
Immortalisation of human keratinocytes, telomerase in oral cancer

Dr Muy-Teck Teh BSc PhD  
Lecturer in Head and Neck Cancer  
Early molecular events in oral carcinogenesis cancer initiation

Dr Hong Wan BSc MSc PhD  
Non Clinical Senior Lecturer in Molecular Immunobiology  
The role of desmosomal proteins, including Dsg3, in junction assembly, cell polarisation, differentiation and tissue morphogenesis

Dr Ahmad Waseem BSc MSc (Biochemistry)  
MPhil PhD (Biochemistry)  
Reader in Oral Biology  
Centre for Clinical and Diagnostic Oral Sciences, Molecular markers of oral cancer, cytokeratins

### Entry requirements

For entry to a research degree you should have a minimum of either:

- a first or upper second class honours degree from a UK university, or
- a masters degree, or
- an equivalent professional qualification (ie MBBS, BDS), or
- an overseas qualification of an equivalent standard from an accredited institution.

Proficiency in written and spoken English is essential and non-native English speakers are expected to demonstrate a proficiency in English equivalent to an IELTS score of 7 or an IBTOEFL score of 100.

### Further information

For further information on postgraduate programmes and the area of expertise of members of staff, visit

[www.dentistry.qmul.ac.uk](http://www.dentistry.qmul.ac.uk)

### Director of Graduate Studies

Dr Judith Jones

Tel: +44 (0)20 7882 8646

email: [judith.jones@qmul.ac.uk](mailto:judith.jones@qmul.ac.uk)

### General postgraduate information

Tel: +44 (0)20 7882 7952/7840

email: [askthegradteam@qmul.ac.uk](mailto:askthegradteam@qmul.ac.uk)

### International students

Tel: +44 (0)20 7882 3066

email: [international-office@qmul.ac.uk](mailto:international-office@qmul.ac.uk)

### Barts and The London School of Medicine and Dentistry

The Admissions and Recruitment Office  
Room CB02 Queens' Building

Mile End Road

London E1 4NS

Tel: +44 (0)20 7882 5533

email: [pgsmd@qmul.ac.uk](mailto:pgsmd@qmul.ac.uk)



# Institute of Health Sciences Education

The Centre for Medical Education is situated within the Institute and is concerned with managing, maintaining and developing teaching. The majority of staff are involved in teaching, largely undergraduate, but also some postgraduate modules.

The units within the Centre are as follows:

- Anatomy Centre
- Assessment
- Communication and Clinical Skills Unit
- Curriculum Delivery
- E-Learning
- Human Development
- Performing Medicine
- Quality and Education Development.

Several members of staff have active research programmes with PhD candidates. Interested individuals are encouraged to approach potential supervisors on an ad hoc basis and discuss their interests. The Institute is keen to encourage ad hominem applications for fellowship and other funding to support this type of research training.

## Staff research interests

**Dr Vivien Cook BSc PGCE MA EdD**  
Senior Lecturer

Dr Cook is an educationalist with interests in faculty development, work-based, non-formal learning and qualitative research methods. She teaches educational theory and practice within the MBBS programme and BSc in Medical Education.

## Research quality indicators

### The Research Assessment Exercise

According to the last RAE 2008, 20 per cent of WHRI staff were considered to be 4\* ('world leading'), and 45 per cent were considered 3\* ('internationally excellent'). This excellent result places the WHRI third in the UK in this unit of assessment (Human Biology and Preclinical sciences), coming just after Cambridge University and UCL. 28.6 members of staff who had their work submitted had also jointly achieved a research spend of over £37.5m over the six-year period.

### Projects, funding, research grants and awards

Our research scientists have invested more than £38.5m in research since 2001. During this time there have been major grant awards from the MRC, five from the Wellcome, and two BHF programme grants.

We now have in excess of 240 clinicians and scientists from over 44 countries who work collaboratively and have produced multiple papers in high-impact specialist journals.

The WHRI has a £24.7m Heart Centre, which is near completion and will incorporate four new Cardiovascular Chairs. This group opened in 2011 offering a unique approach of applying a systems biology approach to therapeutics innovation.

Our National Institute of Health Research Translational research programme (£5.45m) integrates cardiovascular genetics, stem cell biology, pharmacology, electrophysiology, epidemiology and large-scale trials to create a flow of concepts from the bench into the clinic. With NIHR funding we have been able to add high fidelity deeper phenotyping using advanced cardiac imaging with 1.5T MRI (shortly 3T) and the first Siemens Flash low radiation dual source CT scanner to enhance characterisation of patients in early phase trials.

Professor Della Freeth BSc PhD CertEd  
FSS FHEA

Professor of Professional Education

Professor Freeth researches professional education and workplace practices, mainly in relation to supporting patient safety. Her published work coalesces around the themes of interprofessional collaboration, learning through simulated professional practice, safety culture and transitions from professional education to professional practice. She supports research students from a wide range of health professions to undertake studies in these areas or aspects of the student's professional practice. For example, current and recently completed doctoral students focused on: human factors in operating theatres; interprofessional collaboration in paediatric settings; practice-based assessments of interpersonal skills in nursing; mentorship in nursing; targeting CPD resources to individuals' abilities to engage with practice developments in occupational therapy; professionals managing risks in forensic mental health; providing child-focused diabetes care.

Dr Jon Fuller MBBS BSc FRCGP MHPEd  
Senior Lecturer

Dr Fuller is a General Practitioner in Hackney. He trained in medical education at Maastricht University, Netherlands. His interests include faculty development, teaching about education, developing educational quality and curriculum development.

Professor Joy Hinson BSc PhD DSc FSB FHEA  
Professor in Postgraduate Education and Dean  
for Postgraduate and Postdoctoral Studies

Professor Hinson's interests are in Doctoral Development Training and in research degree examinations. Joy is published on support mechanisms for UG students and improving access to learning for disabled students. Joy is an endocrinologist with a strong interest in both endocrine education and endocrinology in the media.

Dr Ann O'Brien, MBBS MA DFRSH FRCGP  
Clinical Senior Lecturer

Ann's interests are professionalism in the undergraduate student and education for leadership in the NHS. She is published in communication skills for patient centred practice. Ann is a general practitioner with a particular interest in diabetes and GP appraisal.

Dr Patricia Revest BA PhD  
Senior Lecturer

Dr Revest is Head of Assessment in the MBBS course. With an interest also in E-learning Dr Revest is also head of the SMD E-Learning Unit and leads on a number of E-learning projects including IVIMEDS (International Virtual Medical School). She is author of a number of student textbooks including *The Nervous System* (Michael-Titus, Revest and Shortland, 2007) and *Medical Sciences* (ed Naish, Revest and Syndercombe-Court, 2009).

Professor C Michael Roberts MB ChB MA  
(Med Ed) MD FRCP ILTHE

Professor of Medical Education for Clinical  
Practice, Dean for Students, Consultant

Physician, Whipps Cross University Hospital

Professor Roberts's clinical research interests include COPD and oxygen therapy. He is Associate Director of the Clinical Effectiveness and Evaluation unit of the Royal College of Physicians of London and leads the national COPD audit programme for the UK and the European COPD programme. He is the long term conditions lead for the NECLES Health Innovations and Education Cluster researching service improvement in primary care. Education research includes the transition from undergraduate to postgraduate medicine, specific learning disorders and clinical practice, and e-learning.

Professor Olwyn Westwood BSc PhD FIBMS  
FRSM FHEA

Professor of Medical Education  
and Associate Dean (Education Quality)

Professor Westwood has worked for around 20 years in medical and healthcare education. She is recognised for her work in curricula design, assessment and quality assurance, and as such, an advisor in Europe, China, Brunei, Mexico and South Africa. She is a General Medical Council visitor for Quality Assurance in Basic Medical Education and has a keen interest in making biomedical sciences education accessible and relevant in medicine.

### Entry requirements

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- a masters degree; or
- an equivalent professional qualification (ie MBBS, BDS); or
- an overseas qualification of an equivalent standard from an accredited institution.

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Professor Della Freeth  
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email [d.freeth@qmul.ac.uk](mailto:d.freeth@qmul.ac.uk)

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email: [international-office@qmul.ac.uk](mailto:international-office@qmul.ac.uk)

### Barts and The London School of Medicine and Dentistry

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Room CB02, Queens' Building  
Mile End Road  
London E1 4NS  
Tel: +44 (0)20 7882 5533  
email: [pgsmd@qmul.ac.uk](mailto:pgsmd@qmul.ac.uk)



# William Harvey Research Institute

The William Harvey Research Institute has three central research themes, and one centre:

- Cardiovascular medicine
- Endocrine research
- Inflammation science
- Centre of Sports and Exercise Medicine.

## Research strengths

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The William Harvey Research Institute (WHRI) recently celebrated its 25th year with success and growth in the depth and quality of our programmes in cardiovascular, inflammation and endocrine research. Our major strength is in bringing scientists with different skills together, combining disciplines such as genetics, cell biology, pharmacology, epidemiology, advanced imaging and clinical trials with therapeutic innovation. Recently, we have invested over £4.1m in excellent researchers to support our mission and increased our staff levels by 24 per cent.

The William Harvey Research Institute was established by the Nobel Laureate John Vane with the goal of becoming an international powerhouse for pharmacological research operating at the academic/industry interface. The Institute has now grown to accommodate 240 researchers and is independently rated amongst the top 20 pharmacological research centres worldwide.

We benefit from strong clinical links to cardiology, renal medicine, critical care, anaesthesia, rheumatology and clinical endocrinology in our allied Barts Health NHS Trust.

We are the largest pharmacological research institute in the UK university sector and our success in this respect can be measured by publications in high-impact journals, accompanied by renewal and additional funding from the MRC, the Wellcome Trust, British Heart foundation, Arthritis Research UK and other leading grant awarding bodies, where we lead or support as co-investigators.

Our real advantage is our model of therapeutic innovation, which allows a two-way flow of hypothesis generation from the scientist at the bench through the clinician to our patients and back again in the form of clinical data, samples and experience. We believe in capitalising on the diversity of the community that we serve and this provides us with a major opportunity to investigate new therapies that may have implications for emerging countries in South Asia and Africa.

Embedded within the WHRI is the Centre for Sports and Exercise Medicine, which offers a modular programme in sports and exercise medicine for both doctors and physiotherapists, as well as a research programme including work on the legacy of the 2012 Olympics.

## Postgraduate resources

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As part of our overall development we have worked to underpin our scientific environment with purpose-built space for core facilities including the Genome Centre, FACS, proteomics/mass spectroscopy, intravital microscopy and confocal microscopy suites.

We have a small animal Positron Emission Tomography in our Biological Services Unit and have a GCP compliant Clinical Trials Unit. This unit has generated a research network of 120 general practices serving an east London population of 500,000. These facilities, combined with our state-of-the-art laboratories, funded by an extensive Science Research Infrastructure investment programme of £7m,

provide an excellent environment for postgraduate studies.

## Scholarships/studentships

There are internal PhD studentships available, which are funded by the School and awarded on a competitive basis. Holders of MRC research grants and fellowships are eligible for PhD studentships and this funding is matched with an equivalent sum from the College. We also run a successful four-year MRes/PhD programme, currently funded by the MRC and the Medical School.

The Centre for Experimental Medicine and Rheumatology leads an Oliver Bird Studentship Scheme, in conjunction with King's College London. We are regularly awarded a number of studentships by such bodies as the ARC, BHF and Wellcome Trust. We have recently been awarded MRC funding to support our MRes programme, which trains high-quality graduates for further research studies, most of these students continue working towards a PhD within the Institute.

## Career opportunities

We offer a mentoring system whereby we encourage our research students to recognise when their research training would benefit from a period in another research institution so they may accrue new strengths.

At postdoctoral level, you will be offered career advice and support from senior members of the Institute and you will be strongly supported during fellowship applications. As evidence of this we have just secured a promising research fellowship for the MRC PhD student who discovered the association of WNK 1 with hypertension in BRIGHT and Graphic students to take this into functional studies jointly with Cambridge. We have also recently secured two further Arthritis Research UK fellowships. Several other young scientists have also been nurtured into fellowship awards.

## Research quality indicators

### The Research Assessment Exercise

According to the last RAE 2008, 20 per cent of WHRI staff were considered to be 4\* (world leading), and 45 per cent were considered 3\* (internationally excellent). This excellent result places the WHRI third in the UK in this unit of assessment (Human Biology and Preclinical sciences), coming just after Cambridge University and UCL. 28.6 members of staff who had their work submitted had also jointly achieved a research spend of over £37.5m over the six-year period.

### Projects, funding, research grants and awards

Our research scientists have invested more than £40m in research since 2001. During this time there have been major grant awards from all the leading grant awarding bodies including the MRC, the Wellcome Trust and the BHF.

We now have in excess of 240 clinicians and scientists from over 44 countries who work collaboratively and have produced multiple papers in high-impact specialist journals.

The WHRI has a £24.7m Heart Centre, which opened in 2011 with four new Cardiovascular Chairs, offering a unique approach of applying a systems biology approach to therapeutics innovation.

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We encourage you to develop your career either internally or by assisting you with international collaborators to further your opportunities both academically and commercially at national and international levels.

## Research areas

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### Cardiovascular Research

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Research in this area extends from vascular biology, which shares considerable overlap with Inflammation Science, to cardiovascular genetics, clinical trials and stem cell research.

Specific research topics are:

#### Endothelial cell biology

Having established the effects of dietary polyphenols and beetroot juice in regulating endothelial function, we are now developing novel approaches in biomarkers of cardiovascular disease. Work is also being carried out on the endothelium and its capacity to release vasodilators, and the putative identity of endothelium-derived hyperpolarising factor (EDHF), showing the important role of EDHF in blood pressure regulation. There is continued investigation into the role of kinin B1 and the kinin B1 receptor in stimulating CXCR5 and the role of shear stress. We have further interest in the role of guanylate cyclases in the functioning of the cardiovascular system. Finally we have a major interest in the role of platelets in vascular function.

#### Genetics of cardiovascular disease

The WHRI co-ordinates the MRC British Genetics of Hypertension (BRIGHT) study and has conducted the largest linkage-based genome screen in human hypertension, identifying four regions for essential hypertension and have refined this to a principal locus on chromosome 5. Our researchers have shown that single nucleotide polymorphisms and haplotypes in a serine threonine kinase (WNK1) are associated

with essential hypertension, which could present a novel therapeutic target for hypertension. Our scientists have published a novel strategy for identifying linked co-variate phenotypes, contributed to the first 2D scan in hypertension and we published the first genome-wide association scan for hypertension in Nature.

#### Cardiovascular clinical trials

We have been represented on international steering groups for several major clinical trials that have significant implications for clinical practice in cardiovascular disease. In particular, the Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT) (Pfizer, £2.02m) tested the influence of combinations of newer anti-hypertensives and lipid lowering agents upon cardiovascular morbidity and mortality. This study changed UK and international guidance on lipid lowering and NICE/British Hypertension Society guidance on hypertension management.

#### Cardiac stem cells

We have developed innovative strategies for cardiac stem cell research and therapy, defining various aspects of behaviour of grafted cells in a cardiac environment including survival, proliferation, paracrine effects, differentiation and integration within the host myocardium. This complements our clinical programme evaluating adult stem cells for treating heart disease.

#### Electrophysiology of the heart

The electrical activity of the heart and blood vessels is generated by the coordinated activity of ion channels, pumps and carriers. We are interested in ion channels particularly potassium channels and cell signalling through G-protein coupled receptor pathways in the cardiovascular system. Our specific clinical focus is the molecular basis of normal and abnormal heart rhythm. We use a variety of techniques to explore these problems ranging from basic molecular and electrophysiological techniques to complex in-vivo monitoring and the study of patient samples.



### T cell trafficking in inflammation and immunoregulation

The regulation of T lymphocyte motility and homing is the main focus of this research. We were the first to describe that primed T cells are induced to cross endothelial cell barriers following recognition of cognate antigen expressed on the endothelium itself. This is now recognised as a key mechanism by which specific T cells 'find' antigen-rich tissue where they exert their effector functions.

### Staff research interests

Professor Amrita Ahluwalia BSc PhD  
Professor of Vascular Pharmacology

Identification of model mediators protecting against vascular dysfunction, new pathways in endothelial biology

Dr David Bishop-Bailey BSc PhD  
Basic Science Lecturer

Investigating the roles of nuclear receptors within the cardiovascular system

Professor Mark Caulfield MBBS MD FRCP  
Professor of Clinical Pharmacology, Head of Clinical Pharmacology and Institute Director, National Co-ordinator of MRC British Genetics of Hypertension (BRIGHT) Study, Genetics of Pre-eclampsia Consortium  
Metabolic syndrome translation from models to man

Professor Roger Corder BSc MSc PhD  
MRPharmS  
Professor of Experimental Therapeutics  
Links between diabetes and atherosclerosis, assessing new therapeutic approaches and identifying biomarkers of the disease

Professor Charles Hinds FRCP FRCA  
Professor of Experimental Medicine  
Pathophysiology and treatment of sepsis, 'goal directed' therapy, endocrine aspects of critical illness, genomics of sepsis and intensive care for patients with malignancy



### Staff profile: Sussan Nourshargh

Professor of Microvascular Pharmacology  
Centre for Microvascular Research

"I was appointed Professor of Microvascular Pharmacology at the William Harvey Research Institute to head a new Centre focusing on Microvascular Research. My research group focuses on the mechanisms of leukocyte trafficking into sites of inflammation and the consequence of this response on regulating the phenotype of emigrated cells.

"The group's principal experimental approach is the use of advanced imaging techniques (eg intravital and confocal microscopy) for analysis of leukocyte/vessel wall interaction in vivo. Our work is supported by The Wellcome Trust, The British Heart Foundation and funds from the EU and has been published in high ranking journals such as Journal of Immunology, Blood, Journal of Experimental Medicine, Nature Reviews and Science.

"My PhD project addressed mechanisms of neutrophil activation in vitro, and I extended my interests in this area to the in vivo inflammatory scenario through post-doctoral work at the MRC Clinical Research Centre based in Harrow, and then at the National Heart & Lung Institute (NHLI) in London where I was appointed to Lecturer position in 1988.

"In 2001, I was awarded the Quintiles Prize for outstanding contribution to Immunopharmacology and became Fellow of the British Pharmacological Society in 2005. I have acted as a committee member on the British Heart Foundation Project Grant panel (2002-2006), was a co-founder and committee member of the London Vascular Biology Forum (2001-2008) and am currently the Treasurer of the UK Adhesion Society and Programme & Fellowship Committee member for the American Society of Investigative Pathology (ASIP)."

Professor Adrian Hobbs BSc PhD  
Professor of Cardiovascular Pharmacology  
The physiological and pathological actions and interactions of a family of homologous enzymes, the guanylate cyclases (GC), with emphasis on the cardiovascular system

Professor Atholl Johnston BSc MSc PhD  
FBPharmacolS CPath  
Professor of Clinical Pharmacology  
Drug concentrations as a guide to therapy and in relation to toxicity; clinical trial design, statistical data analysis, modelling pharmacokinetics and pharmacodynamics

Professor Richard Langford MBBS MRCS  
LRCP FRCA  
Professor of Inflammation Science  
Acute and chronic pain studies

Professor Federica Marelli-Berg MD PhD  
Professor of Cardiovascular Immunology  
Investigating the role of T cell trafficking in inflammation and immunoregulation

Professor Anthony Mathur MA MB Chir  
FRCP PhD  
Professor of Cardiology and Lead for Clinical Cardiology  
Investigating the role of cell therapy in the treatment of cardiovascular disease, in particular the role of stem cells in cardiac repair for patients with heart failure

Professor Sussan Nourshargh PhD  
FPharmacolS  
Professor of Microvascular Pharmacology  
Leukocyte transmigration and regulation of leukocyte responsiveness

Dr Rupert Pearce MBBS MD  
Clinical Senior Lecturer in Intensive Care Medicine  
Improving survival following major surgery, development of cardiac output monitoring technology, effects of exogenous adrenergic agents in critical illness

Professor David Perrett BSc PhD FRSC CChem  
Professor of Bioanalytical Science  
Interested in many aspects of biomedical separation science and decontamination of surgical instruments in relation to vCJD

Dr Steffen Petersen MD DPhil  
Reader in Cardiovascular Imaging  
Integrating cardiovascular MR, echo, PET-CT and cardiac CT and to drive the technical development of imaging to encompass large scale population-based imaging (eg UK Biobank); to provide support for clinical trials and other activities within the Institute; and deeper myocardial phenotyping

Dr Romana Scotland PhD  
Lecturer in Vascular Pharmacology  
Include sex-differences in cardiovascular disease focusing on mechanisms of vascular homeostasis and inflammation

Professor Ken Suzuki MD PhD  
Professor of Translational Cardiovascular Therapeutics  
Cardiovascular stem cell and gene therapy Research

Professor Adam Timmis MA MB BChir MRCP  
MD FRCP FESC  
Professor of Clinical Cardiology  
Outcomes of stable and unstable ischaemic syndromes

Professor Andrew Tinker BA MBBS FRCP  
PhD FMedSci  
Professor of Electrophysiology and Vascular Pharmacology  
The role of potassium channels and the electrical excitability of cells using both in vivo and in vitro models

Professor Peter Vanezis OBE MBChB MD PhD  
FRCPATH FRCP(Glas) DMJ(Path)  
Professor of Forensic Medical Sciences  
Forensic medical sciences

**Professor Tim Warner BSc PhD**  
**Professor of Vascular Inflammation**

The regulation of vascular smooth muscle function and formation and action of mediators derived from vascular endothelial cells

**Professor Magdi Yaqoob MBBS MD FRCP**  
**Professor of Nephrology; Lead Clinician,**  
**Director of the Department of Renal Medicine**  
**and Transplantation at BLT**

Experimental and clinical aspects of cardiovascular diseases in uraemia, diabetic nephropathy, pleiotropic effects of erythropoietin, chemical nephrotoxicity and mediators of ischaemia reperfusion injury

**Professor Shu Ye MB MD PhD MRCP FRCP**  
**Professor of Molecular Medicine and Genetics**  
 Positional and functional candidate genes for coronary artery disease

## Endocrinology

Developing on the internationally renowned expertise in clinical endocrinology established at St Bartholomew's Hospital over the last 40 years, basic endocrine research has been greatly stimulated by incorporation into WHRI and the provision of state-of-the-art laboratory space and facilities including confocal imaging. Close links with clinical research persist with a strong tradition of clinical academic training and major support from industry (eg Pfizer £1.5m unrestricted plus £1.2m NESTEGG study) and the Wellcome Trust and Research Councils.

Specific research topics are:

### Melanocortin receptors

ACTH action and resistance has been a major focus of research in the group and they have defined the basis of ACTH receptor/melanocortin 2 receptor (MC2R) desensitisation and internalisation and have described the impairment of this phenomenon as a potential factor in adrenal tumour formation. Work discovering genes causing

inherited forms of ACTH insensitivity has led to the successful identification of a new gene, MRAP, which encodes an accessory protein for the MC2R. Existence of MRAP was predicted from earlier work, and has broader implications for G protein-coupled receptor function in general.

WHRI scientists have defined the transcriptional and post-transcriptional regulation of the MC2R in the differentiating adipocyte, identifying a novel role for PPAR and C/EBP and alternative splice site selection. This area has significant synergy with the inflammation research group.

### Lipidology

We work at the interface between endocrinology and cardiovascular research. Key areas include elucidating the genetics and the underlying biology of FCHL-lipid abnormalities; establishing roles of Sar1 Isoforms in lipid homeostasis; and homing in on the biochemical properties of a highly conserved, ancient, DUF (Domain of Unknown Function) protein which contributes to the synthesis of cholesterol and triglycerides and may play a role in metabolic syndrome.

### Metabolism and endocrine disease

Work has been extended on describing the role of ghrelin (the stomach-derived brain-gut peptide) in appetite regulation and obesity and has investigated the role of ghrelin and the cannabinoids in modulating AMP regulated protein kinase (AMPK) in the cell. We are also researching the farnesoid X receptor and tumour suppressor activity in human pituitary tumours. The latter exemplifies the major research benefits derived from the extensive clinical endocrine activity conducted jointly between the WHRI and Barts Health NHS Trust.

### Growth genetics

Work in paediatric endocrinology is being performed to define novel mechanisms of foetal and childhood growth failure including

identification of pseudoexon activation as a new mechanism of disease and the role of IGF1 in foetal growth failure. The NESTEGG aims to identify the major genetic influences on foetal and childhood growth failure. This study, coordinated from the WHRI, has completed collection in four European centres of 1,500 phenotyped children with foetal and / or childhood growth failure and their parents and is now in the genotyping phase of the project. This study has benefited from the Genome Centre and the expertise and teamwork developed in the MRC BRIGHT study.

### **Growth and puberty**

Current focus in this group is in utilising novel cell models to interrogate the genetic factors underlying the regulation of growth and the timing of sexual maturation through the GnRH neuronal network. In these studies we generate induced pluripotent stem cell lines to study neuronal development and differentiation to GnRH neurons in patient cohorts with disorders of sexual maturation, constitutional delay in growth and puberty, Kallman Syndrome and hypogonadotropic hypogonadism. We aim to combine these technologies to inform our approach to unraveling the cellular biochemistry underlying the neuroendocrine control of sexual maturation.

### **Staff research interests**

**Dr Paul Chapple BSc MSc PhD**  
**Senior Lecturer in Endocrine Cell Biology**

The mechanism by which molecular chaperones modulate the folding of proteins within cells and the cell biology of disease-linked proteins that have homology to molecular chaperones

**Professor Shern Chew BSc MB BChir MD FRCP**

**Professor of Endocrine Medicine**

The mechanisms of regulation of pre-mRNA splicing with clinical research in clinical endocrinology

**Professor Leo Dunkel MD PhD**  
**Professor of Paediatric Endocrinology**

Utilising novel cell models to interrogate the genetic factors underlying the regulation of growth and the timing of sexual maturation through the GnRH neuronal network

**Professor Ashley Grossman BA BSc MD FRCP FMedSci**

**Professor of Neuroendocrinology**

Translational research and working on optimising diagnostic techniques and therapeutic modalities in pituitary and neuroendocrine tumours

**Professor Marta Korbonitis MD PhD**  
**Professor of Endocrinology and Metabolism**  
Ghrelin and its receptor GHS-R

**Dr Tristan McKay BSc PhD**  
**Lecturer in Stem Cell Biology**

Mechanisms of pluripotent stem cell programming, genetic reporters of differentiation and disease in cells

**Professor Carol Shoulders BA DPhil**  
**Professor of Lipidology**

Identifying the diverse range of cellular processes that contribute to premature cardiovascular disease through promoting the assembly and secretion of very low-density lipoproteins (VLDL) and chylomicrons (Cm)

## **Inflammation Science**

The Inflammation Science Strategy Group meetings, chaired by Professor Rod Flower FRS, ensure delivery of a co-ordinated and interactive research agenda. Researchers in this group have held numerous fellowships and grants, from Wellcome, ARC and the Multiple Sclerosis Society, among others.

Our specific research themes are:

### **Annexin biology**

We conduct research into the role of annexins in glucocorticoid action; research on the identification and characterisation of the

annexin receptor and its ability to modulate cell activation in various models of experimental inflammation; the role of annexin1 in T cell activation, and in Systemic Lupus Erythematosus (SLE).

### **Endogenous anti-inflammatory effectors (resolution of inflammation)**

Work on annexin and glucocorticoid biology has extended into analyses of other endogenous anti-inflammatory pathways. There is investigation into the biology of galectins in vascular inflammation. Research into the molecular and cellular mechanisms activated by melanocortin peptides as another exciting area for innovative anti-inflammatory drug discovery. And finally, studying anti-inflammatory actions of nuclear receptor agonists in vascular inflammation.

### **Latent cytokines**

Bone and Joint's primary research focus is the development and targeting of latent cytokines and other therapeutic compounds. This includes a study of the application of latent cytokines to treat unstable plaques in atherosclerosis, and an investigation into signalling pathways in T cells with particular regard to the contribution of lipid rafts.

Translational research and stem cells in inflammatory disease research looks at developing a translational immunological research focusing upon analysis of the signalling defects in both T and B cells of patients with SLE.

Specific areas of collaborative research interest include the regulation of cell adhesion by glucocorticoids, engineering of fusion proteins consisting of a human synovium-specific homing peptide and an anti-inflammatory cytokine for the targeted therapy of rheumatoid arthritis and the use of mesenchymal progenitor cells for joint tissue repair.



## **Student profile: Neil Duffton, PhD in Inflammation and Immunology**

**“My tutor at Bath was an old friend and colleague of Professor Flower and both undertook their PhD research with John Vane who set up the William Harvey Institute.**

“I came for an interview and was immediately struck by the enthusiasm for both my project and the progression of science in the department.

“I am currently getting to grips with a huge number of new techniques ranging from molecular biology, in vitro immunology and in vivo pharmacology so there is plenty to keep me out of trouble.

“I have two very dynamic Professors, Perretti and Flower, as my supervisors who are always open for discussion, often leading to a raft of new ideas for both current and future work. The group is always willing to help by either providing technical expertise or just bouncing ideas that may relate to their field of investigation.

“Charterhouse Square green is a great place to spend your lunch break when the sun is shining, and with three barbecues available for general use you will often see people gathering on a summer evening. The William Harvey has a good social scene with curry nights, barbecues and a marquee ball in the summer. There is also an annual five-a-side football tournament that often leads to some amusing rivalries between labs.

“I enjoyed convincing fifteen colleagues predominantly from my department to take part in a four-mile charity space hop around London City for Red Nose Day. It was a great day all round, especially seeing the professors on hoppers before we embarked round London, and we managed to raise more than £2,500.”

### Inflammation in the Vasculature

Success in characterising the roles of vascular smooth muscle cells in inflammatory responses of the blood vessel wall has led to further research into the role of PPAR, farnesoid X receptor and retinoid X receptors and their potential for therapeutic modulation.

There are collaborative projects to target cytokines and platelet nuclear receptors in arthritis and with cardiologists at the Barts and The London Heart Attack Centre on platelet reactivity in acute myocardial infarction.

### Staff research interests

Professor Yuti Chernajovsky BSc MSc PhD  
ARC Professor of Rheumatology and Centre Lead Bone and Joint Research Unit  
Development of gene transfer strategies for rheumatoid arthritis via cell engineering, molecular design and genetic engineering

Dr Fulvio D'Acquisto BSc PhD  
Reader in Immunopharmacology  
The multiple functions and properties of Annexin-A1 in the adaptive immune system; in particular the biological role of Annexin-A1 in T cell activation and differentiation

Dr Mohey El Shikh MD PhD  
Senior Lecturer in Experimental Medicine and Rheumatology  
The mechanisms involved in autoreactive B cell activation and breakage of tolerance

Professor Rod Flower FRS BSc PhD DSc  
Professor of Biochemical Pharmacology and joint Centre Lead, Biochemical Pharmacology  
The mechanisms of anti-inflammatory drugs, particularly NSAIDs and glucocorticoids

Professor Rizgar Mageed BPharm PhD  
Professor of Experimental Immunology  
Defining the cellular and genetic factors that underlie the development of immune-mediated diseases

Professor Mauro Perretti BSc MSc PhD  
FBPharmacolS  
Professor of Immunopharmacology, Senior Research Fellow of the Arthritis Research Campaign, Joint Centre Lead Biochemical Pharmacology  
Host inflammatory response, with particular attention to 'anti-inflammation and the phase of resolution', specifically targeting the leukocyte-endothelium interaction

Professor Constantino Pitzalis MD PhD MRCP  
Professor of Experimental Medicine and Rheumatology, Centre Lead Experimental Medicine and Rheumatology  
The development of innovative therapeutic and diagnostic approaches to inflammatory and degenerative arthropathies

## Centre of Sports and Exercise Medicine

### Staff research interests

Dr Chris Hughes BSc MBBS MRCP FFSEM MFSEM MSc PGCME FHEA MAcadMed  
Clinical Senior Lecturer  
Exercise as a therapeutic intervention for primary, secondary and tertiary disease prevention including the use of Exer-gaming; Adjustment and mood disorders in elite athletes

Professor Nicola Maffulli MD MS PhD  
FRCS(Orth)  
Professor of Sports and Exercise Medicine and Centre Lead Sports and Exercise Medicine  
Randomised trials and evidence-based musculoskeletal medicine, soft tissue injuries and tissue engineering

Dr Dylan Morrissey PhD MSc MMAC MCSP  
Clinical Senior Lecturer  
Movement and pathology (shoulder, knee, lumbar spine and achilles tendon), evidence based pathways for musculoskeletal conditions, legacy of London 2012 Olympic games

**Entry requirements**

For entry to a research degree you should have a minimum of either:

- a first or upper second class honours degree from a UK university; or
- a masters degree; or
- an equivalent professional qualification (ie MBBS, BDS); or
- an overseas qualification of an equivalent standard from an accredited institution.

Proficiency in written and spoken English is essential and non-native English speakers are expected to demonstrate a proficiency in English equivalent to an IELTS score of 7 or an IBTOEFL score of 100.

**Further information**

For further information on postgraduate programmes and the area of expertise of members of staff, visit [www.whri.qmul.ac.uk](http://www.whri.qmul.ac.uk)

**Enquiries about postgraduate research programmes:**

Professor Tim Warner  
Director of Graduate Studies  
Tel: +44 (0)20 7882 2100  
email: [t.d.warner@qmul.ac.uk](mailto:t.d.warner@qmul.ac.uk)

**Enquiries about postgraduate taught course programmes:**

Dr Nina Ravic  
Academic Manager for Postgraduate Studies  
Tel: +44 (0)20 7882 3404  
email: [n.ravic@qmul.ac.uk](mailto:n.ravic@qmul.ac.uk)

**International students**

Tel: +44 (0)20 7882 3066  
email: [international-office@qmul.ac.uk](mailto:international-office@qmul.ac.uk)

**Barts and The London School of Medicine and Dentistry**

The Admissions and Recruitment Office  
Room CB02, Queens' Building  
Mile End Road  
London E1 4NS  
Tel: +44 (0)20 7882 5533  
email: [pgsmd@qmul.ac.uk](mailto:pgsmd@qmul.ac.uk)





# Wolfson Institute of Preventive Medicine

The Wolfson Institute of Preventive Medicine is made up of the following research centres:

- Centre for Environmental and Preventive Medicine
- Centre for Cancer Prevention
- Centre for Psychiatry.

## Research strengths

The Wolfson Institute of Preventive Medicine captures scientific opportunities arising from laboratory-based epidemiological and screening research into common diseases such as cardiovascular disease, cancer and congenital malformations through integrating epidemiology and statistics with pathology and clinical medicine. The inclusion of the Centre for Psychiatry in this internationally renowned Institute reflects the importance of the public health implications of psychiatric disease.

The Wolfson Institute opened in 1991, comprising the existing Centre for Environmental and Preventive Medicine (CEPM – the Epidemiology Department of the Medical School) and the Medical Research Council (MRC) Epidemiology and Medical Care Unit (which closed in 2001). In 2002, the Cancer Research UK (CRUK) Centre for Epidemiology, Mathematics and Statistics joined the Institute (now called the Centre for Cancer Prevention). In 2005, the Tobacco Dependence Research Unit joined CEPM and the Centre for Psychiatry joined the Institute as a third Centre. The Institute has about 150 staff whose research continues to make a significant impact on public health practice and advance the science of preventive medicine.

## Research quality indicators

### The Research Assessment Exercise

The internationally renowned Wolfson Institute maintained its long-held position in RAE 2008 with a grade-point average (GPA) of 3.05 in Epidemiology, placing it third out of 21 submissions. Psychiatry, separately returned, had a GPA of 2.3, with noted strengths in environmental and cultural psychiatry.

### Projects, funding, research grants and awards

Most of our research income comes from medical research charities, research councils or government health bodies. Our research spend was £5.6m last year. Our key funding bodies include Cancer Research UK, MRC and the NHS National Institute for Health Research.

Much research is carried out in-house, but collaborative research also takes place with groups within the Medical School, other departments at Queen Mary, and more widely within and beyond the UK. We benefit from east London's diverse local population. Important public health initiatives have arisen from our research including:

- Limiting salt intake through proven links with blood pressure, heart attacks and strokes
- Fortification of flour – lack of folic acid shown to be a major cause of the serious birth defects spina bifida and anencephaly
- Antenatal screening for Down's syndrome, now used worldwide
- Prohibition of smoking in public places – environmental tobacco smoke being a cause of lung cancer and heart disease
- Development of cervical screening policy and development of a vaccine for HPV
- Prevention and treatment of breast cancer showing the benefits first of tamoxifen and later anastrozole



- Prevention of cardiovascular disease by pharmacoprevention and development of the Polypill
- A greater understanding of pathways to mental health care across ethnic groups
- Greater protection for schools against the effects of aircraft noise on reading comprehension in children.

## Postgraduate resources

With the largest group of medical statisticians in the School of Medicine and Dentistry and a number of research groups within each Centre, the Institute is able to offer a wide variety of subjects for postgraduate study. You will have access to our powerful computing facilities, extensive databases (managed by Oracle and Sequel-Server) and SAS and STATA, IT support, excellent laboratory facilities and our specialist reference library. You can be involved in local, national and international research networks and increasingly national and international consortia. Regular seminar series are organised at Centre, Institute and School level.

## Scholarships/studentships

Our scholarship information changes every year. Recent awards have been from Cancer Research UK, MRC, ESRC, NHS and The Facial Surgery Research Foundation. For home and eligible EU students with a good first degree (first or upper second) these will all cover tuition fees and maintenance. There are also some College studentships, for which international students are also eligible. There are now a number of studentships available from the East London NHS Foundation Trust for their staff for programmes run by the Centre for Psychiatry.

## Career opportunities

Many students pursuing further study do so to seek professional development and/or to improve their clinical practice. Students who take the MSc/Diploma in Psychological

## Staff profile: Dr David Wald

**Senior Lecturer  
and Consultant  
Cardiologist**

“As an Interventional Cardiologist, my main interest lies in the prevention of cardiovascular disease, in particular bridging the interventional and preventive approaches to cardiovascular disease which are often viewed as distinct. I am currently co-ordinating a proposed randomised trial to assess the value of coronary angioplasty in preventing future coronary heart disease among patients receiving angioplasty to treat an acute myocardial infarction.

“This follows a randomised trial which showed the minimum fully effective dose of folic acid for serum homocysteine reduction, for which I was awarded the BMA Brackenbury Research Prize.

“I have acted as an adviser to the Food Safety Authority of Ireland in helping them reach a decision on dietary fortification with folic acid. In collaboration with other members of the Institute, this led to research into the expected effect of folic acid intake on cardiovascular disease prevention. This in turn showed how even the largest randomised trials of folic acid supplementation were underpowered to show the expected effect.

“Another recent joint initiative involved showing that screening for familial hypercholesterolaemia, by serum cholesterol measurement, is effective if done in early childhood after the first year of life. This finding underpins a novel ‘child-parent’ population screening strategy that screens children and their parents within the same programme. This involved assessing imaging techniques like carotid ultrasound and CT scanning in screening for coronary heart disease to determine their value in medical practice.

“Additionally, I co-ordinate the Polypill Prevention Programme, a novel service that adopts the Polypill approach in coronary heart disease and stroke prevention.”



Therapies or Transcultural and Mental Healthcare have come from mental health agencies or the NHS and find that the qualification assists them in promotion to case, ward or team managers. Others find our programmes useful in going on to apply for a PhD.

## Research areas

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### Centre for Cancer Prevention

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The Centre for Cancer Prevention focuses mainly on clinical trials and observational studies evaluating screening and methods for the prevention of cancer. We have particular strengths in preventive treatment for breast cancer with our IBIS trials, evaluating and improving cervical screening using HPV testing and HPV vaccines, colorectal cancer screening using sigmoidoscopy and improved prognosis and management of clinically localised prostate cancer.

We lead a £4.7m Policy Research Unit dedicated to research on cancer screening, symptom awareness and early diagnosis. We are involved in the development of new mathematical and statistical methods for treatment evaluation, the study of risk factors and projecting future cancer incidence and mortality. Our Clinical Trials Prevention Unit is the only trials unit in the UK with specialised expertise in cancer prevention and screening. Much of our research is collaborative, both nationally and internationally. There are opportunities for postgraduate projects in many of these areas.

### Centre for Environmental and Preventive Medicine

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The Centre for Environmental and Preventive Medicine (CEPM) has several important discoveries to its credit – for example, showing that passive smoking is a cause of lung cancer and heart disease, developing current methods

for antenatal screening for Down's syndrome and neural tube defects, showing that folic acid deficiency is a cause of spina bifida, developing a novel approach to cardiovascular disease prevention based on the 'Polypill', showing the value of two-view mammography in breast cancer screening, and showing that adult hypothyroidism screening is worthwhile. We run large-scale randomised prevention trials and epidemiological studies into the causation of disease. For example, prevention screening for *Helicobacter pylori* infection in the prevention of stomach cancer; child-parent screening for familial hypercholesterolaemia; and coronary angioplasty in preventing future coronary heart disease events. Trials to evaluate the Polypill in reducing cardiovascular disease are underway.

The Tobacco Dependence Research Unit within CEPM is one of Britain's leading centres in smoking cessation. It runs a well-recognised smokers' clinic, providing a base to support its research programme and offers opportunities for postgraduate projects on treating nicotine dependence. It is also exploring health behaviour interventions in weight management.

### Centre for Psychiatry

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The Centre for Psychiatry has three research groupings:

**Epidemiological and Cultural Psychiatry group** focuses on the association of physical and social environmental factors and ethnicity with common mental disorders and affective disorders. It also has an international reputation for cultural psychiatry and health services research (geographical mobility as a risk factor for mental distress). This group runs the popular MScs in Mental Health: Psychological Therapies/Transcultural Mental Healthcare.

**Forensic Mental Health group** has been studying violence in individuals who pose a risk to the public and is using multilevel modelling

to assess the accuracy of screening methods to identify those who carry exceptional risks.

**Social and Community Psychiatry group** is involved in developing concepts and methods for assessing treatment processes and outcomes, evaluation of mental healthcare and developing and testing innovative complex interventions. It has been successful in gaining European funding, with many projects addressing more than one area of study.

All three of our Centres are involved in statistical research, covering a wide range of methodologies and applications. These will include epidemiology, demography, clinical trials, longitudinal studies, health screening, infection control, birth weight and gestation, systematic reviews, cluster randomisation, meta-analysis, logistic regression, survival analysis, multi-level modelling, and models of disease progression.

#### Staff research interests

##### Epidemiology and Preventive Medicine

Jonathan Bestwick BSc MSc  
Lecturer in Medical Statistics  
Medical screening

Professor Jack Cuzick PhD  
John Snow Professor of Epidemiology  
Cancer prevention and screening with focus on endocrine treatments and breast cancer, HPV and cervix cancer, and natural history of prostate cancer

Professor Stephen Duffy BSc MSc CStat  
Professor of Cancer Screening  
Evaluation of cancer screening programmes; cancer epidemiology; and treatment of early or screen-detected cancers

Professor Peter Hajek MA PhD  
Professor of Clinical Psychology  
Psychological treatments in medicine, weight management



#### Student profile: James Cook, PhD in Medical Statistics

“I am currently looking at the prevalence of trisomy 13 and trisomy 18 in England and Wales as part of my PhD in medical statistics. I'd heard good things about the quality of research at Queen Mary, it was part of the reason I chose to study here.

“I'm now surrounded by excellent researchers, all of whom are happy to help and support me however they can. Working in central London has its perks too!

“The facilities are amazing. Charterhouse Square and Whitechapel both have superb departments for medical research, and the Educational and Staff Development department at Mile End is great for learning more general skills. Sitting outside in Charterhouse Square is a great place to work in the summer.

“I also work as a Problem Based Learning facilitator on the undergraduate medical degree programme. It's a really interesting way to teach, which I think works much better than constant lectures.”

Professor Attila Lorincz PhD  
Professor of Molecular Epidemiology  
Human diagnostics, HPV and cervical cancer

Dr Peter MacCallum MD FRCP FRCPath  
Clinical Senior Lecturer in Haematology  
Epidemiology and management of venous  
and arterial thrombosis

Professor Joan Morris MSc PhD  
Professor of Medical Statistics  
Epidemiology of Down's syndrome and  
other chromosomal and non-chromosomal  
anomalies, mathematical modelling

Professor Sue Moss  
Professor of Cancer Epidemiology  
Evaluation of cancer screening programmes,  
cancer epidemiology

Professor Peter Sasieni MA PhD  
Professor of Biostatistics and Cancer  
Epidemiology  
Evaluation of service screening,  
chemoprevention of cancer, cervical  
screening and HPV, survival analysis

Dr David Wald MA MBBS MRCP MD  
Clinical Reader in Preventive Cardiology  
Interventional cardiology, screening for  
prevention of cardiovascular disease

Professor Sir Nicholas Wald FRS FRCP  
Professor of Environmental and  
Preventive Medicine  
Epidemiology and preventive medicine, namely  
antenatal screening and neural tube defects  
and cardiovascular disease

Jianhua Wu MSc PhD  
Lecturer in Medical Statistics  
Mathematical modelling, statistical  
methodological development

## Psychiatry

Professor Kamaldeep Bhui MD MBBS  
FRCPsych,  
Professor of Cultural Psychiatry  
and Epidemiology  
Methodological innovations for researching  
health and social care of black and minority  
ethnic communities

Dr Kenneth Carswell MPhil DClinPsy  
Lecturer in Mental Health  
Refugees, asylum and mental health,  
psychological therapy, e-health interventions

Dr Charlotte Clark BSc PhD  
Senior Lecturer in Environmental Mental  
Health Epidemiology  
Psychiatric and environmental epidemiology,  
lifecourse predictors of mental health

Professor Jeremy Coid MB ChB MD FRCPsych  
MPhil DipCriminol  
Professor of Forensic Psychiatry  
Epidemiology of violent and criminal behaviour

Dr Constantinos Kallis PhD  
Senior Lecturer in Medical Statistics  
Risk assessment for reoffending, medical  
screening and statistical predictive modelling

Yasmin Khatib PhD  
Lecturer in Mental Health  
Social and cultural factors in mental health

Professor Ania Korszun PhD MD MRCPsych  
Professor of Psychiatry and Education  
Neuroendocrinology and genetics of  
depression, women's mood disorders, interface  
of depression and stress with other medical  
conditions

Dr Rose McCabe BA PhD  
Senior Lecturer in Psychiatry  
Mental health service evaluation, clinician-  
patient communication, therapeutic  
relationships, psychotic disorder

**Andrea Palinski MSc**  
**Lecturer in Mental Health**  
 Cultural consultation, integrating anthropological and psychiatric approaches in mental health delivery

**Professor Stefan Priebe Dipl Psych**  
**Dr med habil**  
**Professor of Social and Community Psychiatry**  
 Therapeutic processes and treatment evaluation in mental healthcare

**Dr Gella Richards MSc DPsych**  
**Lecturer in Mental Health**  
 Practitioner psychologist

**Professor Stephen Stansfeld MBBS PhD**  
**MRCP FRCPsych**  
**Professor of Psychiatry**  
 Environment and mental health, work and mental health, cohort studies, depression and coronary heart disease

**Dr Ruth Taylor BSc MSc MBChB MRCPsych**  
**Clinical Senior Lecturer**  
 Attachment, somatic symptoms and somatisation

**Dr Simone Ullrich Dipl Psych PhD**  
**Senior Lecturer in Forensic Mental Health**  
 Personality disorders, empirical research methods, epidemiology, risk assessment

**Dr Nasir Warfa PhD**  
**Senior Lecturer in Transcultural and Mental Health**  
 Cross-cultural studies of refugee and marginalised populations, khat use and quality of life

**Professor Peter White OBE MD**  
**FRCP FRCPsych**  
**Professor of Psychological Medicine**  
 Causes and treatments of chronic fatigue syndrome / ME, graded exercise therapy for ME

### **Entry requirements**

For entry to a research degree you should have a minimum of either:

- a first or upper second class honours degree from a UK university; or
- a masters degree; or
- an equivalent professional qualification (ie MBBS, BDS); or
- an overseas qualification of an equivalent standard from an accredited institution.

Proficiency in written and spoken English is essential and non-native English speakers are expected to demonstrate a proficiency in English equivalent to an IELTS score of 7 or an IBTOEFL score of 100.

### **Further information**

For further information on postgraduate programmes and the area of expertise of members of staff, visit [www.wolfson.qmul.ac.uk](http://www.wolfson.qmul.ac.uk)

### **General postgraduate information**

Tel: +44 (0)20 7882 7952/7840  
 email: [askthegradteam@qmul.ac.uk](mailto:askthegradteam@qmul.ac.uk)

### **International students**

Tel: +44 (0)20 7882 3066  
 email: [international-office@qmul.ac.uk](mailto:international-office@qmul.ac.uk)

### **Barts and The London School of Medicine and Dentistry**

The Admissions and Recruitment Office  
 Room CB02, Queens' Building  
 Mile End Road  
 London E1 4NS  
 Tel: +44 (0)20 7882 5533  
 email: [pgsmd@qmul.ac.uk](mailto:pgsmd@qmul.ac.uk)

# Essential information



## How to apply

### Application method

**Applications should be made on the official application forms.**

There are two ways in which you can apply for a postgraduate programme:

1) **Online – using our online application form**  
This is our preferred method of application.

For further details on how to apply online, see: [www.qmul.ac.uk/postgraduate/apply](http://www.qmul.ac.uk/postgraduate/apply)

### 2) **Paper-based application**

Download a paper-based application form at: [www.qmul.ac.uk/postgraduate/apply](http://www.qmul.ac.uk/postgraduate/apply)

The Admissions Office is happy to help you with any application queries you have, although if you would like more information on programme content, please contact the relevant institute (see ‘Further information’ in the degree programmes section).

**If you are applying for research programmes, please contact the relevant person in the institute in which you would like to study first.**

There are generally no closing dates for applications to postgraduate study, although entry to some programmes is very competitive and places may be full several months before the start of the academic year. Check the webpages for the institute you wish to apply to for up-to-date information on any deadlines.



If you are concerned about programmes filling up and would like advice on availability, contact:

Admissions Office  
Freephone 0800 376 1800  
From outside the UK: +44 (0)20 7882 5533  
email: [admissions@qmul.ac.uk](mailto:admissions@qmul.ac.uk)  
[www.qmul.ac.uk](http://www.qmul.ac.uk)

International students applying overseas may wish to contact one of our representatives in-country. For a full list of their contact details, please visit:

[www.qmul.ac.uk/international/countries](http://www.qmul.ac.uk/international/countries)

## Person specification for entry to postgraduate clinical dentistry programmes

Criterion	Essential	Desirable
Education	Primary qualification in dentistry – BDS or equivalent.	Primary dental qualification registerable with the General Dental Council in the UK;  MFDS, MJDF or FDS or equivalent;  Other postgraduate diplomas, degrees;  Other evidence of high academic achievement (eg course grades, award of degree with honours or equivalent. Previous first degree BSc).
Experience	Two years' full-time (or equivalent) post-qualification clinical practice of dentistry.	Evidence of experience of practice of a broad range of general dentistry; completion of formal vocational training course, general professional training program, or equivalent such as hospital internship. Specific clinical experience in discipline/specialty to which they are applying.
English Language	English as first language  OR  Minimum IELTS score of 7.0 (no less than 6.5 in any part), IBTOEFL scores 100 and must have been completed within the last two years.	
Career intentions	Clear commitment to pursuing postgraduate studies in the one specialty/discipline applied for.	Other equivalent tests will be considered on merit.
Generic skills	Ability to use a computer and familiar with common programs such as MS Office.	



**Please note:**

- 1 You may not apply for more than one speciality in the hope of acceptance on one. We do recommend applicants consider application for the Diploma in Dental Clinical Sciences course here prior to applying for any of the clinical programmes, as it will show commitment and allow us to assess the candidates' work ethic and knowledge before any decisions are made.
- 2 The personal statement should show genuine enthusiasm for the speciality, such as attendance at relevant conferences, membership of appropriate professional bodies and postgraduate course attendance and not be generic in nature.



## Tuition fees

Undertaking postgraduate study is a serious commitment and involves careful financial planning at the time of application and for the duration of the programme. Your costs will comprise tuition fees and living costs.

**You can find a full list of both UK/EU and overseas tuition fees here:**  
[www.qmul.ac.uk/tuitionfees](http://www.qmul.ac.uk/tuitionfees)

If you are in doubt as to whether you will be classed as an overseas or home student please consult the Admissions Office at an early stage.

Freephone (UK callers only): 0800 376 1800  
Overseas callers: +44 (0)20 7882 5533  
email: [admissions@qmul.ac.uk](mailto:admissions@qmul.ac.uk)

### **Please note:**

No additional charges are made for registration, examinations, or membership of the Students' Union. Additional costs will be incurred, however, in the following cases:

- Students attending field or language courses away from the College will be required to pay part or all of the cost
- Examination re-entry fees are charged to students who are not in attendance
- Research students taking longer than twelve months after finishing their research to write up their thesis may become liable to pay a writing-up fee
- Research students who are, following a first assessment, required to re-enter the PhD or MPhil examination will be required to pay an examination re-entry fee.

The Research Councils and many other funding bodies (including those based overseas) pay fees direct to the College. Students who are not sponsored by public bodies, either in this country or elsewhere, are required to pay their fees either before, or at the time of enrolment at the beginning of the session.

## Funding your study

### Funding for research students

Possible funding sources to consider include:

- Principal's Studentships (funded by Queen Mary, University of London)
- Research Council Studentships
- Professional and Career Development Loans
- Medical Research Council Awards

#### **Principal's Studentships**

(Home, EU and International students)

The College offers a number of these research studentships each year, which are tenable for up to three years. The studentships cover tuition fees and provide maintenance at the basic research council level (for guidance: £15,590 during the 2012/13 session).

Applicants for admission to PhD programmes to commence in the 2013/14 session will automatically be considered for the studentships in which they express an interest; there is no separate application form but deadlines will apply (see the website below). Details on the studentships available can be obtained directly from the each institute or at [www.qmul.ac.uk/postgraduate/funding](http://www.qmul.ac.uk/postgraduate/funding)

PhD studentships, including those linked to specific funded projects within the College, are advertised on our website as well as the following external websites:

[www.findaphd.com](http://www.findaphd.com), [www.jobs.ac.uk](http://www.jobs.ac.uk), and [www.postgraduatestudentships.co.uk](http://www.postgraduatestudentships.co.uk)

#### **Research Council Studentships**

(Home and EU students only)

These are a major source of funding for Home and EU students and cover tuition fees and maintenance costs. They are available for research and some masters programmes. Candidates must ordinarily be resident in the UK for a period of three years prior to the date

of application (excluding any period spent in further or higher education). The studentships are normally only available for candidates who have obtained a first degree of good honours standard.

Details about the Research Council Studentships available for 2013/14 entry, including deadlines and how to apply, can be obtained from each institute or at [www.qmul.ac.uk/postgraduate/funding](http://www.qmul.ac.uk/postgraduate/funding)

### **Professional and Career Development Loans (PCDLs)**

(Home and EU students)

Postgraduate students wishing to undertake certain programmes to enhance their job, skills or career prospects, who cannot obtain alternative funding, may borrow a maximum of £10,000 to cover 80 per cent of tuition fees plus living expenses. Repayments are delayed and the government pays the interest for the duration of your study and for one month afterwards. However, PCDLs are normally only available for courses lasting up to two years. You may wish to apply with the last two years of your course, if you have secured funding for the initial years. Details are available from the Directgov website ([www.direct.gov.uk](http://www.direct.gov.uk)) and participating banks.

### **Commonwealth Scholarships**

(International students only)

The Commonwealth Scholarships and Fellowship Plan (CSFP) is an international programme under which governments offer scholarships and fellowships to citizens of other commonwealth countries. Awards are focused on masters- and doctoral-level studies. For more information, see [www.csfp-online.org](http://www.csfp-online.org)

### **China Scholarship Council Scholarships**

(International students only)

Queen Mary offers PhD Scholarships with the China Scholarship Council. These are available to students from China for PhD study in various areas. Under this scheme Queen Mary, University of London provides a scholarship to cover all tuition fees and the China Scholarship Council (CSC) provides living expenses and one return flight ticket to successful applicants. For more information, please refer to: [www.qmul.ac.uk/international/scholarships/index.html#CSC](http://www.qmul.ac.uk/international/scholarships/index.html#CSC)

## **Funding for taught masters students**

### **British Council Awards**

(International students only)

A number of scholarships, including Chevening scholarships, are awarded via the British Council overseas. This scheme operates in approximately 70 countries. The British Council publicises the awards and is responsible for the selection of candidates. For more information go to [www.britishcouncil.org](http://www.britishcouncil.org) and [www.chevening.com](http://www.chevening.com)

### **Professional and Career Development Loans (PCDLs)** (Home and EU students)

Postgraduate students wishing to undertake certain programmes to enhance their job, skills or career prospects, who cannot obtain alternative funding, may borrow a maximum of £10,000 to cover 80 per cent of tuition fees plus living expenses. Repayments are delayed and the government pays the interest for the duration of your study and for one month afterwards. However, PCDLs are normally only available for courses lasting up to two years. Details are available from the Directgov website ([www.direct.gov.uk](http://www.direct.gov.uk)) and participating banks.

There are also some scholarships for international students. Please see [www.qmul.ac.uk/international/scholarships](http://www.qmul.ac.uk/international/scholarships)

## Living costs

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The cost of living in London depends on your lifestyle. Typically, however, postgraduates need at least £11,000 to cover food, accommodation, travel, books and so on for a full year (52 weeks), plus adequate funds to maintain any dependants. International students will need to show evidence of having at least £9,000 for living costs plus 100 per cent of tuition fees in order to obtain Entry Clearance under Tier 4 of the UK Border Agency's Points Based System of immigration. Additional amounts need to be shown for dependants. £9,000 is based on nine months of study and is an immigration requirement only.

Please note that while the College will offer advice to students who encounter financial difficulties, it is not able to fund postgraduate students who have started a programme without adequate or reliable funding. Although hardship funds may be available, payments are small and cannot cover fees or compensate for not having adequate funding in place. There are no mandatory awards for postgraduate study, and alternative funding sources are limited.

Consequently it is vital that you consider how you will pay your fees and maintain yourself at an early stage in the application process. All funding information for taught and research students is available on our website. Please visit: [www.qmul.ac.uk/postgraduate/feesfunding](http://www.qmul.ac.uk/postgraduate/feesfunding)  
[www.welfare.qmul.ac.uk](http://www.welfare.qmul.ac.uk)

## Casual/part-time paid work – earning while you study

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Working part-time while you study will help you supplement your income and add valuable work experience to your CV. However, you must be careful that any work you take on does not infringe on your studies. International students can work for up to 20 hours a week during term and full-time during the vacations; there are no restrictions on the number of hours Home or EU students can work.

At Queen Mary, we offer various opportunities for flexible paid work at the College, both during term-time and vacations. Opportunities could include working as a marketing assistant in our communications department, tutoring in the local area, assisting with conferences, working as student ambassador, mentoring local school students, working in one of the College's cafés or restaurants or acting as a steward in College accommodation. There are, of course, numerous other opportunities for part-time work in and around London.

## Financial advice and guidance

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Our experienced Welfare Advisers in the Advice and Counselling Service have specialist training to offer you professional advice on a range of financial issues. Our aim is to advise you about possible financial solutions and options, so that you can concentrate on your academic progress. Most of our work is about helping you with your rights and entitlements, including:

- postgraduate funding
- financial support for student parents (childcare costs etc)
- fee status
- planning a budget
- dealing with debt

- welfare benefits and tax credits
- hardship funds
- funding from trusts and charities
- council tax.

As well as helping you to find solutions to problems, we can give you information and advice to help you to avoid problems before they happen. We can also give you advice before you start your studies.

For example, we can help you to plan a budget, and check that you are getting all the funding that you are entitled to. We can offer you advice by telephone if you cannot attend in person: Tel: +44 (0)20 7882 8717  
[www.welfare.qmul.ac.uk](http://www.welfare.qmul.ac.uk)

For your Postgraduate Funding Guide, please visit  
[www.welfare.qmul.ac.uk/documents/leaflets/funding/5071.pdf](http://www.welfare.qmul.ac.uk/documents/leaflets/funding/5071.pdf)

## Further information

If you have any queries about tuition fees or the scholarships and bursaries available through Queen Mary, please do not hesitate to contact us:

Admissions Office  
 Tel: +44 (0)20 7882 5533  
 email: [bursaries@qmul.ac.uk](mailto:bursaries@qmul.ac.uk)

# Alumni

When you finish your studies at Queen Mary you will have something in common with over 75,000 former students around the world: a global network of people, from all walks of life, who share your experience as a Queen Mary student. Our alumni are among our best ambassadors. You can see how their studies have influenced some of their career choices at: [www.qmul.ac.uk/alumni](http://www.qmul.ac.uk/alumni)

As a member of the Queen Mary Alumni Network, we will send you our alumni magazine, QUAD, which includes news of the College and other alumni, as well as invitations to events and reunions worldwide. Our regular QM Alumni e-Newsletter also keeps you in touch with what is going on. You can also join our Queen Mary, University of London Alumni Network group on LinkedIn. You may also sign up for the Alumni card, which gives you a Queen Mary lifelong email address, discounted memberships of Qmotion gym and entitles you to use the College Library for reference purposes.

### Contact

Alumni Relations and Fundraising Office  
 Tel: +44 (0)20 7882 7790  
 email: [alumni@qmul.ac.uk](mailto:alumni@qmul.ac.uk)  
[www.qmul.ac.uk/alumni](http://www.qmul.ac.uk/alumni)

# International students

Queen Mary has a cosmopolitan graduate community, with students from all over the world making a valuable and active contribution to academic and social life. Whether or not you have studied in the UK before, you will find a very warm welcome at the College.

## Entry requirements

Each application received at Queen Mary is evaluated on a case-by-case basis, comparing international and UK qualifications. We look both at your qualifications, the institution you have attended, and any relevant work experience. You can find detailed country-specific entry requirements on our website: [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

## Support for international students

We offer a range of support services to help you feel at home.

### Airport collection

New international students are offered a free airport collection service before the start of term in September 2013. This service will be advertised on our website along with an online booking form: [www.qmul.ac.uk/prearrival](http://www.qmul.ac.uk/prearrival)

### The welcome programme

A welcome programme will be provided for all new international students before the start of term in September 2013. This is an opportunity to meet other international students studying a variety of programmes and gain practical advice about living and studying in London. Following the welcome programme, students can take part in a number of social events throughout the year. In 2012, these included trips to Amsterdam, Bruges, the Scottish Highlands, Wales and the Wye Valley.

### Advice and Counselling

The Advice and Counselling Service offers professional advice and support to international students. We can advise you on finance and funding, Tier 4 Entry Clearance, Tier 4 extensions, immigration problems, UK work schemes after study, and offer counselling support for personal/emotional issues. For further details, see: [www.welfare.qmul.ac.uk](http://www.welfare.qmul.ac.uk)

As a member of the international community at Queen Mary, you will automatically have membership of International Students' House (ISH) in central London. ISH offers a wide range of services to international students including advice on travel, accommodation and an extensive social programme. For details of these and other services please see the ISH website: [www.ish.org.uk](http://www.ish.org.uk)

### Healthcare

There is a Student Health Service on campus. You (and your spouse and children if they are in the UK with you as your dependants) are entitled to free medical treatment on the UK National Health Service (NHS) if you are registered on a programme lasting six months or longer. If your programme lasts for less than six months, you should make sure you have adequate medical insurance cover. If you are an EEA national, you should obtain a European Health Insurance Card (EHIC) before coming to the UK, which entitles you and your family to full NHS treatment.

For more information, visit: [www.studenthealth.qmul.ac.uk](http://www.studenthealth.qmul.ac.uk)

## Living costs

International students will need to show evidence of having at least £9,000 for living costs plus 100 per cent of tuition fees in order to obtain Entry Clearance under Tier 4 of the UK Border Agency's Points Based System of immigration. Additional amounts need to be shown for dependants. £9,000 is based on nine months of study and is an immigration requirement only – most students require

more money than this for 12 months' living costs – normally around £11,000. For further information, visit [www.welfare.qmul.ac.uk/international/money](http://www.welfare.qmul.ac.uk/international/money)

## Scholarships

We constantly seek students of the highest quality, and, in recognition of the important investment that international students are making in their education, we are pleased to offer a range of scholarships to reward outstanding academic achievement.

For more information, visit [www.qmul.ac.uk/international/scholarships](http://www.qmul.ac.uk/international/scholarships)

## Representatives in your country

In many countries we have offices or representatives who you can visit to discuss applying to Queen Mary. Contact details can be found at [www.qmul.ac.uk/international/countries](http://www.qmul.ac.uk/international/countries)

## International Office

Members of staff at Queen Mary regularly make visits overseas to meet with students, and their families. To see when we will be visiting your region or for more information on any aspect of life at Queen Mary as an international student, please see our website: [www.qmul.ac.uk/international/events](http://www.qmul.ac.uk/international/events)

or contact us:  
International Office  
Tel: +44 (0)20 7882 3066  
email: [international-office@qmul.ac.uk](mailto:international-office@qmul.ac.uk)  
[www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

## English language

All tuition and examinations at the College are in English, so a sound command of the language is essential for success in any course of study, or when following a research degree. Queen Mary provides a number of programmes in English for academic purposes to help international students get the most out of their study. You need to be able to cope with reading, note taking from lectures, books, journals and other materials; to speak well in seminars, discussions groups and tutorials; and to present yourself effectively in written assignments and examinations.

### English language requirements

If your first language is not English, you must provide evidence that your English skills are sufficient by including with your application details of recognised language qualifications and experience in using the language. If you are an international applicant you are strongly advised to contact your local British Council Office, take the IELTS (International English Language Testing Service) test and submit the results with your application. The College's minimum requirement for postgraduates is an IELTS score of 6.5, or IBTOEFL 580 (internet-based IBTOEFL 92 or PTE Academic 68), however, some courses may require a higher score. For detailed English language entry requirements for all of our programmes including individual component scores, you should check [www.qmul.ac.uk/international](http://www.qmul.ac.uk/international). For many nationals, it is now also an immigration requirement that you sit a secure English language test.

Applicants who present English language scores slightly below the required band may be eligible to attend a pre-sessional English Language Summer programme (see over) before the start of their course.

### English language summer programmes

(pre-sessional programmes)

From June to September, we arrange a series of English language programmes for students who wish to improve their proficiency in English before starting their university studies. The programme aims to enhance ability in the four language skills of listening, speaking, reading and writing; to teach study skills such as note-taking, academic writing and seminar participation; to develop skills essential to working independently at postgraduate level; and to familiarise you with life in Britain. We encourage independent work and use of English by setting individual projects. Queen Mary academic staff and other visiting lecturers will participate by giving a series of introductory guest lectures. We provide some residential accommodation on summer programmes in the College's halls of residence.

### Insessional English language support

For students who were educated in a language other than English and need to improve their command of the language for study purposes, the Language Centre runs a series of insessional English programmes in academic writing, grammar and vocabulary, lecture comprehension and seminar skills and general English during the main teaching periods of the academic year. **These are free of charge.**

### Academic study support

To help students with the transition to higher degree study, the Library runs a programme of short courses, tutorials and drop-in classes in such skills as organisation and time management, research and note-taking, oral communication and presentation, academic writing, personal development planning and revision and examination skills.

#### For more information:

English Language and Study Skills Office

Tel: +44 (0)20 7882 2827

email: [elss@qmul.ac.uk](mailto:elss@qmul.ac.uk)

[www.slif.qmul.ac.uk/languagecentre](http://www.slif.qmul.ac.uk/languagecentre)

For more information about academic study support:

[www.library.qmul.ac.uk/academic\\_study\\_tutorials](http://www.library.qmul.ac.uk/academic_study_tutorials)



## Join us

### Visiting Queen Mary – Campus Tours

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The best way to find out more about Queen Mary is to come and see it for yourself. The Education Liaison Office organises Campus Tours throughout the year. These are informal and restricted to small groups so everyone has the chance to ask questions. They are a great way of finding out about living and studying here and normally last about one hour. You will be shown around by a current student. To book your place email: [campustours@qmul.ac.uk](mailto:campustours@qmul.ac.uk)

### Postgraduate Open Evening

---

Queen Mary offers prospective students the opportunity to attend a College Open Evening. The Open Evening gives visitors the opportunity to hold individual discussions with School and institutes representatives, visit subject specific facilities, tour the general research and learning provision available on campus and speak to all the Queen Mary support services including Careers and Admissions staff.

The Open Evening is held at the Mile End campus for students wishing to apply to schools in the arts, humanities, social sciences, science and engineering and medicine and dentistry.

The date for the next Open Evening is the 6th February 2013. To book your place: email: [askthegradteam@qmul.ac.uk](mailto:askthegradteam@qmul.ac.uk)  
[www.qmul.ac.uk/pgopenevening](http://www.qmul.ac.uk/pgopenevening)

### Contact us

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#### Admissions Office

Freephone (UK callers only) 0800 376 1800  
Tel: +44 (0)20 7882 5533  
email: [admissions@qmul.ac.uk](mailto:admissions@qmul.ac.uk)

#### International Office

Tel: +44 (0)20 7882 3066  
email: [international-office@qmul.ac.uk](mailto:international-office@qmul.ac.uk)  
[www.qmul.ac.uk/international](http://www.qmul.ac.uk/international)

# How to find us

## Underground

Queen Mary's Whitechapel campus is right behind the Royal London Hospital on Whitechapel Road. Whitechapel Underground station (Hammersmith and City, District and Central lines) is directly across the road from the Hospital.

Based in the City of London, close to the Barbican, Queen Mary's Charterhouse Square Campus is five minutes' walk from St Bartholomew's Hospital, and not far from the main University of London campus. The nearest Underground station is Barbican (Hammersmith and City, Metropolitan and Circle lines). Farringdon is also not far away.

Queen Mary's Mile End Campus is located between Mile End station (Central, District, Hammersmith and City lines) and Stepney Green station (District, Hammersmith and City lines). Both stations are in London Underground Zone 2.

## Buses

All of our campuses are well served by London bus routes. Please check the Transport for London website for detailed bus route maps and timetables. There's also a useful interactive journey planner: [www.tfl.gov.uk](http://www.tfl.gov.uk)

## Travelcards and Oystercards

Daily, weekly, monthly or yearly travelcards are the best, most cost-effective way to pay for public transport in London. (Buying tickets for single journeys is much more expensive). Load your tickets and travelcards on to an Oystercard (London's travel smart-card).

## Cars

Traffic is heavy and parking difficult, making driving in London an unattractive option. There are no parking places for students on campus, with the exception of students displaying an authorised blue disabled sticker (who have applied for and received a College parking permit). Contact the Disability and Dyslexia Service for advice on 020 7882 2756.

## Taxis

Black cabs use a meter to calculate your fare and you can hail one in the street. They are safe to use, but can be expensive. Mini-cabs are normal cars and charge a fixed price. Only use registered mini-cab firms. If you want to find the licensed minicab and black cab operators in your area, you can text HOME to 60835. For more information, see:

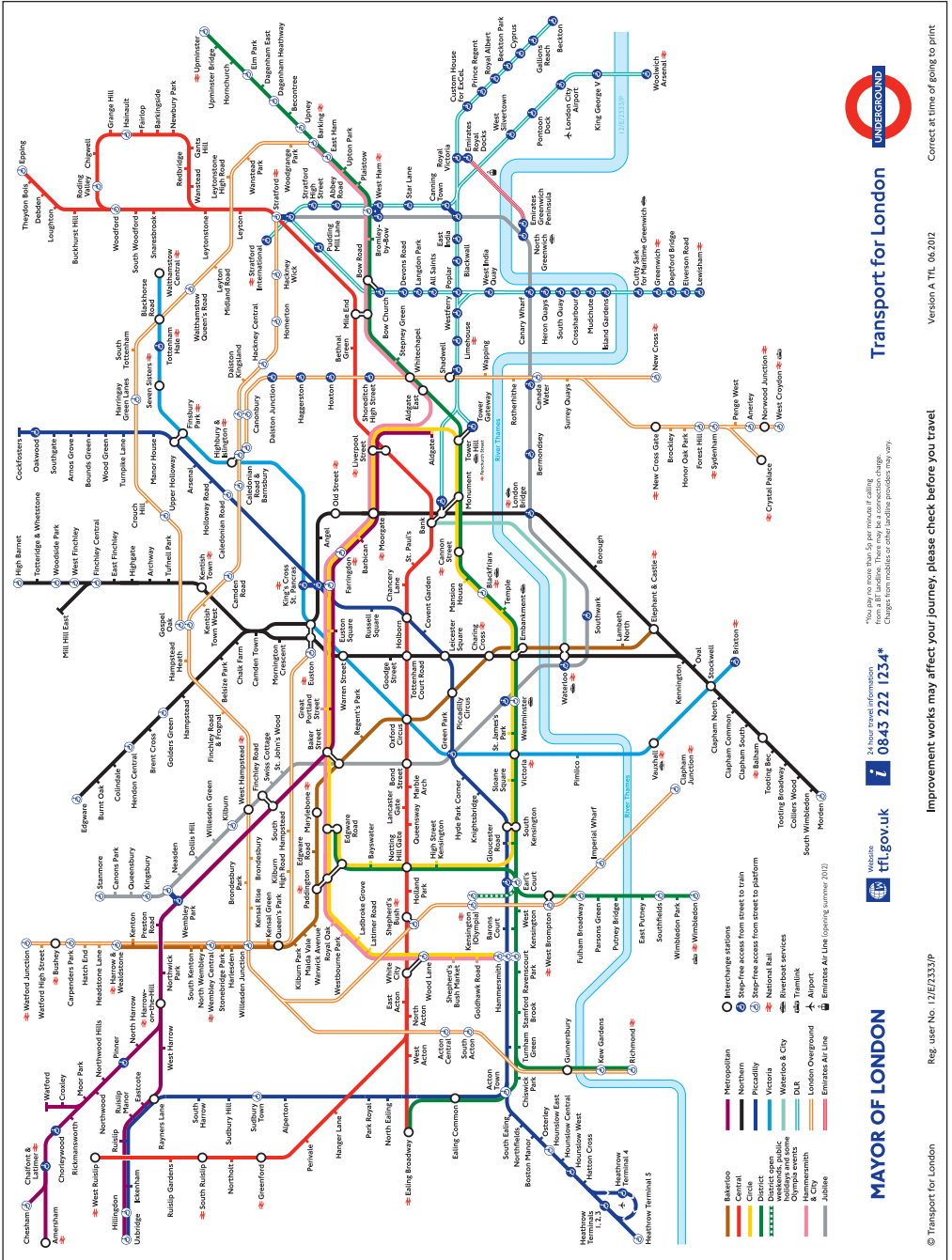
[www.tfl.gov.uk/pco/findaride](http://www.tfl.gov.uk/pco/findaride)

## Trains

London is very well served by train stations, all within easy reach of Queen Mary's campuses. The closest is Liverpool Street, just two stops east from Whitechapel on the underground (Hammersmith and City line) and two stops west from Charterhouse Square. Trains from Liverpool Street run to Stansted Airport, as well as other destinations. King's Cross and St Pancras (for Eurostar services to mainland Europe and Luton Airport) are both a short journey from any Queen Mary campus on the Underground's Hammersmith and City line. London Bridge and Fenchurch Street are also close by.

## Airports

The closest airport is London City Airport – just five miles away – which offers regular flights to UK and other European cities. Heathrow, Gatwick, Luton and Stansted are within easy reach of the College, and all can be reached in anything from one to two hours by train or Underground.



Transport for London

Correct at time of going to print

Version A.T1. 06/2012

Improvement works may affect your journey, please check before you travel

0843 222 1234\*



MAYOR OF LONDON

# Campus maps

## Charterhouse Square Campus Map Index

Educational / Research		Residential		Facilities		
John Vane Science Centre	1	Dawson Hall	4	The Shield	4	🚭 Please do not smoke on the campus.
Wolfson Institute	2			Gym	4	📺 These premises are alarmed and monitored by CCTV, please call security on 020 7882 5000 for more information.
The William Harvey Heart Centre	3			Post Room	5	🏠 Fitness centre
Dawson Hall	4			Security	4	🍷 Bar
Joseph Rotblat Building	5			Staff car park		☕ Coffee place
Old Anatomy Building	6			Bicycle parking		🅅 Staff Car Park
Dean Rees House	7					🚲 Bicycle Parking
Lodge House	8					



# Whitechapel Campus Map Index

## Educational / Research

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Dental Institute	<b>C</b>
John Harrison House	<b>D</b>
53-55 Philpot Street	<b>E</b>

### College Buildings

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Library	<b>2</b>
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--------------	-----------

## Facilities

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Nucleus	<b>6</b>
Post Room	<b>4</b>
Security	<b>1</b>
Students' Union	<b>3</b>

Bicycle parking	<b>4</b>
-----------------	----------

- Please do not smoke on the campus.
- These premises are alarmed and monitored by CCTV, please call security on 020 7882 5000 for more information.
- Library/bookshop
- Fitness centre
- Bar
- Coffee place
- Eatery
- Staff Car Park
- Bicycle Parking



# Campus maps

## Mile End Campus Map Index

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Information

Visitors who require further information or assistance please go to the Main Reception in the Queens' Building.

Please do not smoke on the campus.

These premises are alarmed and monitored by CCTV, please call security on 020 7882 5000 for more information.

Library/bookshop

Fitness centre

Bar

Coffee place

Eatery

Staff Car Park

Bicycle Parking

Cash Machine





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# Notes

www.qmul.ac.uk

#### Notes for applicants

To apply please visit  
[www.qmul.ac.uk/postgraduate/apply](http://www.qmul.ac.uk/postgraduate/apply)

For admissions enquiries, please contact:  
Freephone: 0800 376 1800  
If calling from outside the UK:  
Tel: +44 (0)20 7882 5533  
email: [pgsmd@qmul.ac.uk](mailto:pgsmd@qmul.ac.uk)

If you would like information on individual courses or research areas, please contact the relevant department.

#### Visit us!

The next Postgraduate Open Evening for 2013 entry is on 6 February 2013.

To book your place:  
email: [askthegradteam@qmul.ac.uk](mailto:askthegradteam@qmul.ac.uk)  
[www.qmul.ac.uk/pgopenevening](http://www.qmul.ac.uk/pgopenevening)

The information given in this prospectus is correct at the time of going to press. The College reserves the right to modify or cancel any statement in it and accepts no responsibility for the consequences of any such changes. For the most up-to-date information, please visit [www.qmul.ac.uk](http://www.qmul.ac.uk)

We would like to thank the Students' Union for providing some images, as well as all the students who took part in photographs. Student and departmental photography by Jonathan Cole ([www.jonathancolephotography.com](http://www.jonathancolephotography.com)) and Morely Von Sternberg ([www.vonsternberg.com](http://www.vonsternberg.com)).

**Any section of this publication is available upon request in accessible formats (large print, audio, etc). For further information and assistance, please contact: Diversity Specialist, [hr-equality@qmul.ac.uk](mailto:hr-equality@qmul.ac.uk), 020 7882 5585**

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# Are we the right choice for you?

Postgraduate study is an excellent way to enrich your academic experience and open up new career opportunities. Queen Mary, University of London is the right choice because:

- We are a member of the Russell Group of leading UK universities
- We are a research-led institution with an international reputation. Our performance in the last Research Assessment Exercise confirmed this; we are ranked 11th overall in the UK (*The Guardian*)
- We are in the top five in the country in individual department rankings (RAE 2008), including Dentistry (1st), Epidemiology and Public Health (3rd), Pre-Clinical and Human Biological Sciences (4th), Health Sciences Research (4th), and Cancer Studies (5th)
- We offer postgraduate students teaching and supervision by leading researchers in their academic fields – a thriving and stimulating research community
- We are one of the largest colleges of the University of London – graduate students have access to resources and facilities in the wider University as well as those at Queen Mary
- We are the only University of London college to benefit from an integrated teaching, research and residential campus in central London
- As well as the programmes offered by the School of Medicine and Dentistry, Queen Mary offers a wide range of subjects in the humanities, law, social sciences, engineering and science
- We offer an international environment, with students from over 125 countries.



Scan the code to find the right Queen Mary programme for you.

QR readers can be downloaded for free online. Data charges may apply. Please contact your network provider for more details.

We offer taught medicine and dentistry masters courses and PhD research opportunities across five institutes:

**Barts Cancer Institute made up of the following research centres:**

- Centre for Cancer and Inflammation
- Centre for Cell Signalling
- Centre for Experimental Cancer Medicine
- Centre for Medical Oncology
- Centre for Molecular Oncology and Imaging
- Centre for Tumour Biology

**Blizard Institute made up of the following research centres:**

- Centre for Cutaneous Research
- Centre for Diabetes
- Centre for Digestive Diseases
- Centre for Health Sciences
- Centre for Immunology and Infectious Disease
- Centre for Neuroscience and Trauma
- Centre for Paediatrics

**Institute of Dentistry organised within multidisciplinary research groups:**

- Infection and immunity
- Oral cancer
- Clinical and population research

**William Harvey Research Institute with three central research themes, and one centre:**

- Inflammation science
- Cardiovascular medicine
- Endocrine research
- Centre of Sports and Exercise Medicine

**Wolfson Institute of Preventive Medicine made up of the following centres:**

- Centre for Environmental and Preventive Medicine
- Cancer Research UK Centre for Epidemiology Mathematics and Statistics
- Centre for Psychiatry

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Mile End Road  
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email: [admissions@qmul.ac.uk](mailto:admissions@qmul.ac.uk)