

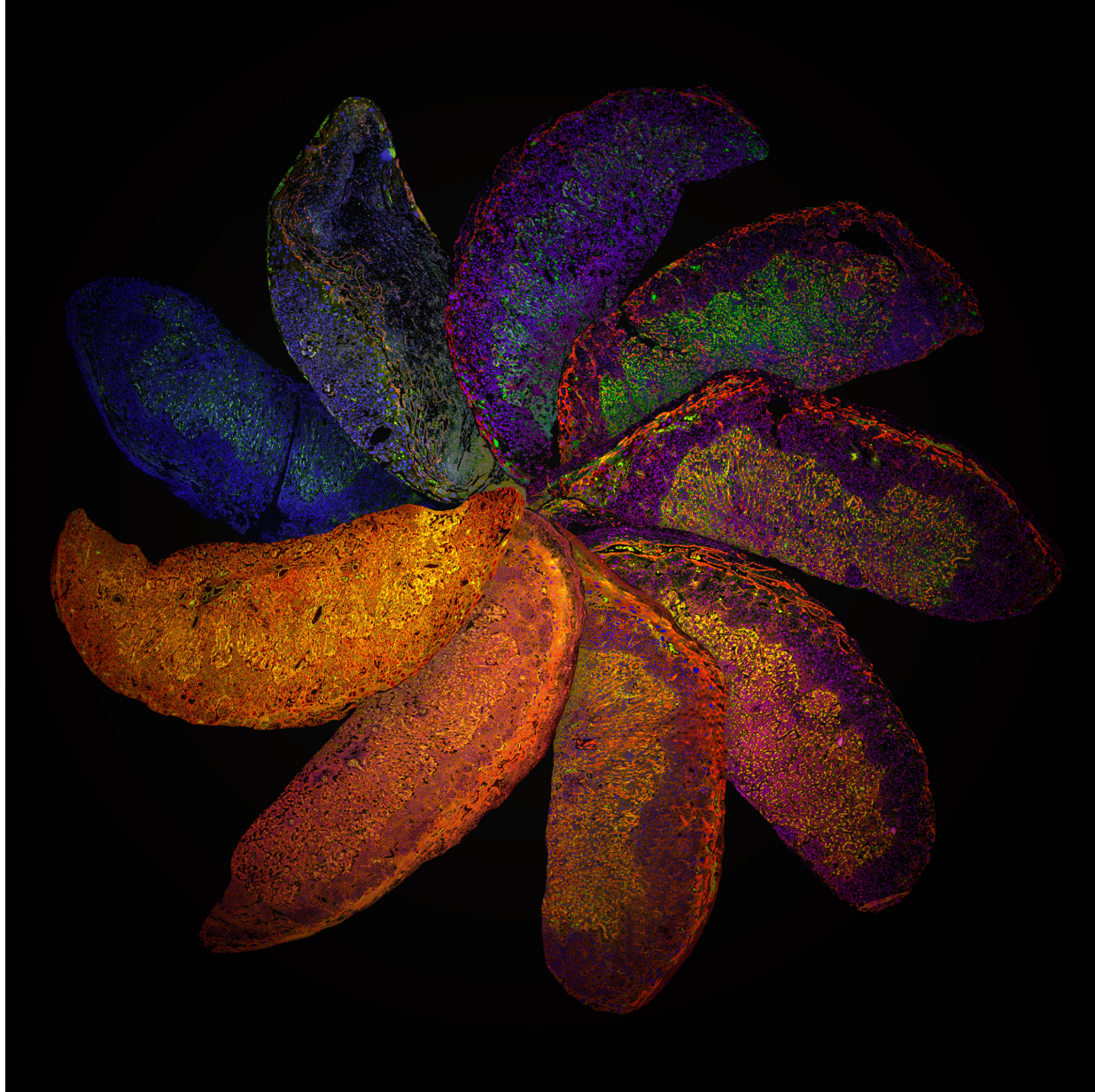
# WHRI Open Meeting

## Dec 2016



# 30<sup>th</sup> Anniversary





Suchita Nadkarni

Art of Science 2016

Placenta Rainbow



Barts and The London  
School of Medicine and Dentistry

# Friends and colleagues: old and new





New Year Celebration  
Friday 3<sup>rd</sup> February  
Morris Lecture Theatre

Organisers: James Whiteford  
Marika Charalambous  
Francesca Pugliese

- WHRI: the new team
- Research Themes: Success highlights, future strategy
- Centre highlights
- Recent key core facility initiatives
  - Echocardiography
  - Cryopreservation facility
  - Imaging: Confocal, 2-photon application
- Staff Survey
- REF 2021
- Education: update and future
  - Staff
  - UG
  - PGT
  - PGR

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# WHRI-The Team



William Harvey Research Institute  
2016-17



<b>Education</b> Maralyn Druce / Patricia McGettigan Lead Paul Chapple PGR Nina Ravic Manager Nick Goulding Director of Academic Development	<b>Co-Directors</b> Mark Caulfield & Amrita Ahluwalia <b>Deputy Directors</b> Costantino Pitzalis & Márta Korbonits	<b>Institute Management</b> Denise Elliott Lead Steven Coppen Deputy
<b>Inflammation</b>	<b>Cardiovascular</b>	<b>Endocrine</b>

## 2015-16 WHRI Finances

WHRI now numbers 510 staff across our 3 main themes

WHRI overall income in 2015-16 was £33.1 million

### Education

The WHRI overall income from tuition fees increased from £3,810,000 in 2014-15 to £4,854,000 in 2015-16.

### Research

The WHRI increased research income from £15,976,000 in 2014-15 to £20,770,000 in 2015-16.

6 % O/H £1.2M

VP-Health wants 10% growth





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# Cardiovascular

**Strategy: With BHC become the place to go for CV education, research and care**

- **NIHR BRC £6.5M**-supported 2 CV themes Inherited Heart Disease, and CV devices-Mark Caulfield Director (Panos Deloukas, John Deanfield), further consolidation of Barts Bioresource and Bioinformatics team.
- **EU funding-ERDF Total £3.1M** matched funding from ERDF for infrastructure for Devices Centre-Anthony Mathur
- **Barts Charity- £10.3M**
  - several projects started 2 clinical fellows in devices, 1 pharmacotherapeutics, CV CTU framework agreed (Vivienne Monk)
  - Chair recruitments: Andreas Baumbach, Alexander Lansky-Yale connection consolidated, CTU Director, HF Chair, Genomics Chair to recruit
- **High impact publications:** Nature Genetics x 3 (2xMunroe, 1x Caulfield/Warren), JCI (Dalli, Marelli-Berg, Ahluwalia), Circ Res x2 (Brown x1 Hobbsx1),
- **BHF MRes/PhD scheme:** further 5 years funding-Leads Federica Marelli-Berg, Tim Warner
- **Genomics Medicine Masters** Panos Deloukas, Nina Ravic 32 HEE funded and 14 self-funded students-in Jan a further 14 HEE funded.

# CiTI: update

**NEW WEBSITE!** [www.qmul.ac.uk/citi/](http://www.qmul.ac.uk/citi/)

**a) Chair 1 - non-clinical Arthritis Research UK Chair in inflammation Sciences. ADVANCED PROGRESS.**

**b) Chair 2 - A clinical Arthritis Research UK Chair in Experimental Medicine and Rheumatology. SEEKING FURTHER FUNDING FOR A CLINICAL LECTURERSHIP.**

**c) Identified Supporting Partners (UCB Pharma; Arthritis Research UK).**

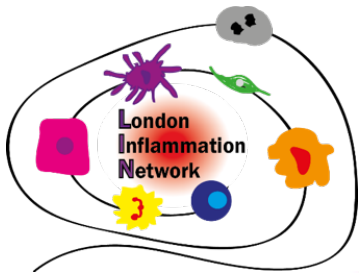
**d) ITN DTP –Evolution- supported by EU. New PhD Studentships (GSK – Nourshargh; AR-UK – Bombardieri).**

**e) Project Manager (0.2FTE) Dr Annebelle Scott ([a.n.scott@qmul.ac.uk](mailto:a.n.scott@qmul.ac.uk))**

**f) Engaged with UCLP. Joint DTP being prepared.**

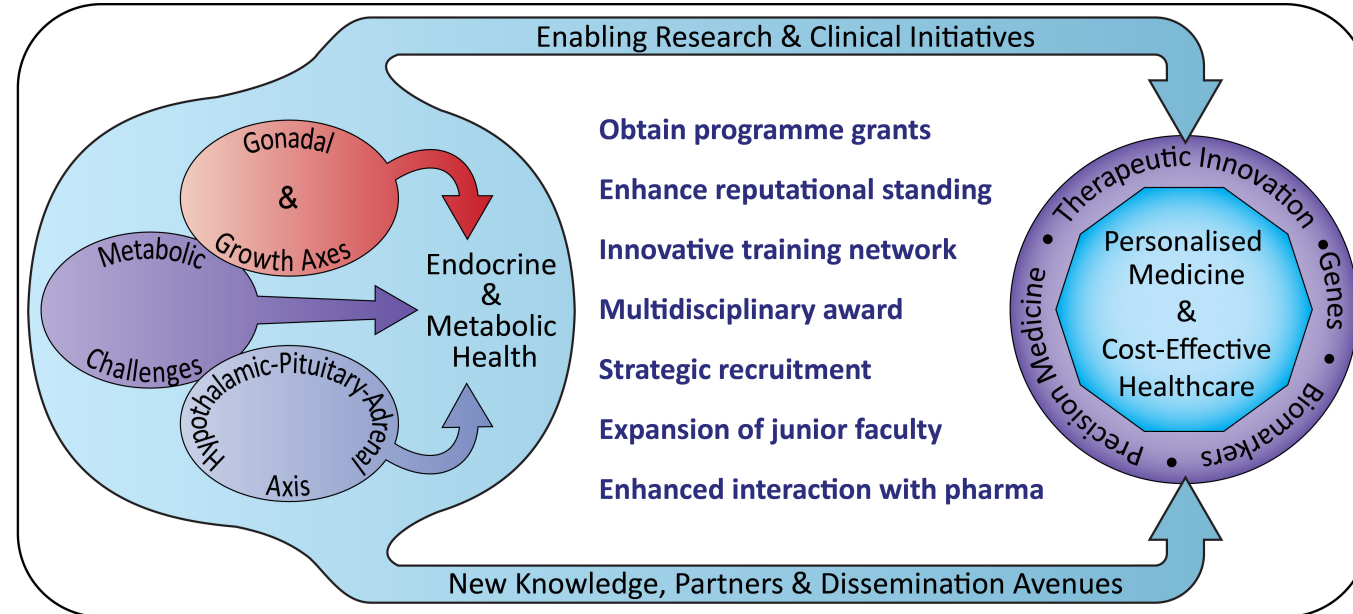
**g) Seeking further supporting partnerships (Visit to GSK Experimental Medicine Oct 31st; planning meeting with GE Healthcare).**

**h) LIN – LONDON INFLAMMATION NETWORK – very active and successful.**



# Endocrinology

**Strategy: To integrate basic and translational research to deliver more effective outcomes for patients with endocrine disorders over their life-course**



- **Funding:** NIHR EMEP £1.1M (Morris Brown & Will Drake), International Fund for Congenital Adrenal Hyperplasia (IFCAH) €100k (Guasti), BLC £226K (Storr)
- **Research training:** ITN TRAIN (Shoulders)
- **Teaching excellence:** MSc/PgDip Endocrinology and Diabetes (distance learning) 28 students, MSc/PgDip Clinical Endocrinology (in-house) 13 students (Druce)
- **Significant publications:** **Nature Genetics** (Charalambous), **EMBO** (Dunkel), 2x **PNAS** (Chan & Gaston-Massuet), **Human Molecular Genetics** (Chapple), 2x **JCEM** (Korbonits)



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# Centre for Microvascular Research

## Key achievements May – Nov 2016

### ❑ Prizes, Awards & Accolades:

- Tamara Girbl (Research Fellow):
  - ❖ Best Talk, Gordon Research Conference on Chemotactic Cytokines (Spain)
  - ❖ Best Poster, UK Cell Adhesion Society Meeting (London).
  - ❖ BHF Fellowship Extension (~£100k)
- Samantha Arokiasamy (PhD student):
  - ❖ Best Talk, 22nd CLSS-UK Annual Meeting
  - ❖ 1st Prize: "Picture This!" PhD photography competition, QMUL.
- Giulia de Rossi (Post-doc):
  - ❖ Best Poster, British Soc Matrix Biology (Cardiff)
  - ❖ Winner of the SMD Post-Doctoral Innovation competition.
- Yuki Ichihara (Post-doc): Best poster, William Harvey Day
- Loic Rolas (Post-doc): Awarded a Marie Curie COFUND Fellowship
- James Whiteford: Promoted to Senior Lecturer
- Sian Henson: Elected to the BBSRC pool of experts

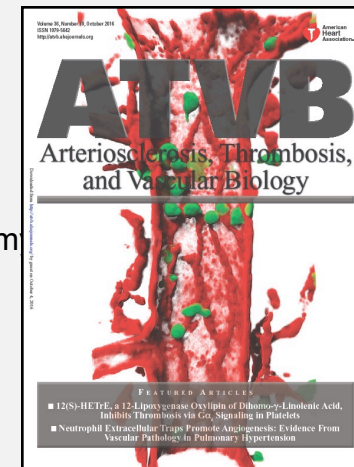


### ❑ New Recruits:

- 5 Post-docs: Tchern Lenn, Tomoya Ito, Satoshi Kainuma, Liz Carroll & Samantha Arokiasamy
- 4 PhD students: Charlotte Owen-Woods, Lorena Perez, Lauren Callender & Mihai Podaru

### ❑ Key Publications:

- Papers: *PLoS One*, *Cell Reports*, *J Immunol*.
- Review articles: *Trends in Immunol.*, *Int Rev Cell Mol Biol.*, *ATVB* (cover image)



Reglero et al., 2016

# Translational Medicine & Therapeutics

## Clinical trials

- Launch of the UK Perioperative Medicine Clinical Trials Network (<https://pomctn.org.uk/>); headed by Rupert Pearse who presented, and Gareth Ackland who also both presented at the November event.

## Prizes

- Dr Jianmin Chen and Dr Lukas Martin (TMT) won 2 out of the 15 Travel Awards of the International Federation of Shock Societies to present their work as oral communication at the World Congress in Tokyo.
- Mel Hayman won the poster prize at European Platelet Network (EUPLAN) meeting in Bad Homburg.

## Grants

- Rupert Pearse group have been awarded a \$1.5 million grant from a commercial partner, Edwards Lifesciences, which will fund a major randomised trial of perioperative haemodynamic therapy (OPTIMISE II).
- Adrian Hobbs was successful in his BHF Programme Grant application, to delineate novel roles for C-type natriuretic peptide in cardiac & vascular function.

## Papers

- Rauzi F, Kirkby NS, Edin ML, Whiteford J, Zeldin DC, Mitchell JA, Warner TD. FASEB J. 2016 Sep 15. **Aspirin inhibits the production of proangiogenic 15(S)-HETE by platelet cyclooxygenase-1.**
- Chen J, Kieswich JE, Chiazza F, Moyes AJ, Gobbetti T, Purvis GS, Salvatori DC, Patel NS, Perretti M, Hobbs AJ, Collino M, Yaqoob MM, Thiernemann C.. J Am Soc Nephrol. 2016 May 6 **IκB Kinase Inhibitor Attenuates Sepsis-Induced Cardiac Dysfunction in CKD.**

# Biochemical Pharmacology

## Public Engagement

- **Fulvio D'Acquisto:** Centre for Public Engagement large award (£19,930) for the project 'CPD to establish the Young Mind Science Knowledge Network'.

## Prizes

- **David Coe:** Winner of QMI POST DOCTORAL INNOVATION COMPETITION; New Method for Creating Effector Cells

## Education

- **Sadani Cooray:** Promotion to senior lecturer and WHRI Education prize for implementing and leading (and teaching) on brand new BSc course;
- **Dianne Cooper,** Ezra Aksoy, Sadani Cooray and F D'Acquisto have all become Fellows of the HEA after passing our PGCAP.

## Networks

- **Claudio Mauro:** The success of the London Inflammation Network which has been held 3 times in 2016 and is very much linked to the activities of CiTI

## Grants

- **Jesmond Dalli/Perretti** awarded a Large Project Grant (~£0.5M) by the Barts Charity.

## Papers

- **Jesmond Dalli:** PNAS paper (PMID 2779100) and a second paper in the journal of natural products PMID 27704804.
- **Suchita Nadkarni:** PNAS paper accepted in November



# Centre for Endocrinology

*Key achievements May-Nov 2016*

## Prizes & Awards:

- **Dr Rathi Prasad** - BES Early Career Prize of basic research, Brighton
- **Dr Donato Iacovazzo** - BES Multiple Endocrine Neoplasia Disorders (AMEND) Award and highly commended Early Career Presentation, Brighton
- **Dr Donato Iacovazzo** - Endocrine Society Outstanding Abstract Award, Boston
- **Dr Nicola Tufton** - BES Best Poster Award, Brighton
- **Jayna Mistry** - ESPE President's Poster Award, Paris

## Fellowships:

- **Dr Donato Iacovazzo** (Diabetes UK, George Alberti Research Fellowship)
- **Dr Nicola Tufton** (St. Bartholomew's Hospital Medical College Trust Clinical Fellowship - Akker & Korbonits)

## Awarded PhDs:

- **Daniela Aflorei** (Korbonits)
- **Emma Duncan** (Chapple)

## New PhD students:

- **Avinaash Maharaj** (funded by Trinidad and Tobago Government - Metherell)
- **Lisa Romano** (Funded by ARSACS Foundation and Ataxia UK - Chapple)
- **Pedro Marques** (BTLC Clinical Training – Korbonits)

**Publications:** Acta Neuropathologica Communications, Endocrine-Related Cancer, Human Mutation, Frontiers Endocrinology, Pediatrics, Pituitary, Hormone Research in Pediatrics

**In the news:** "Mid Ulster identified as 'giant hotspot' by scientists" – BBC TV1, BBC4, Times and all major news (Korbonits)



# Centre for Experimental Medicine & Rheumatology 2016



## Publications: 17 papers

- Ann Rheum Disease (Top Specialist Journal) x 7
- Arthritis Rheumatol (Top second Specialist Journal) x 2
- Arthritis Res Therapy, J Orthop Research, PLoS One, Sci Rep, J Immunol Cover Page, Nature Rev Rheumatol, Frontiers in Immunology x 2

## Competitive Funding: Over £3.0M of research income including:

- MRC project grants (x1), AR-UK Project Grants (x1), AR-UK PhD Studentship (x1), Small Charities Grants, Industry Pre-Clinical & Clinical R&D (x2) Totaling > £2.8M
- EPSRC £1.5m PAMBAYeSIAN N. Fenton (PI) F. Humby & D. Morrissey (Co-Is)
- Horizon2020 HarmonicSS project € 10M (€ 283,000 to QMUL Co-Is).

## New Staff 10 new staff appointed

- Edoardo Prediletto (PhD to Bombardieri/Corsiero), Elena Pontarini (post-doc to Bombardieri), Dr Gloria Lliso CRF (Humby), Sara Caxaria (Post-doc to F Dell'Accio), Emilie Roeder (Post-doc to F Dell'Accio), Aida Barawi (Technician to Suzanne Eldridge), Kiran Peddireddi (Technician to Giovanna Nalesso) Jason Pott: Manager Clinical Research Team EMR, Greg Parsonage: BioBank Manager

## Promotions and Awards

- Bombardieri to Reader in Immuno-Rheumatology
- Bombardieri NIHR PI leadership in commercial studies award

## Others:

- Teaching & Training Undergraduate Modules, BSc & MSc in SEM,
- 12 PhD Students (4 Clinical)
- Public Engagement (MATURA-PAG).



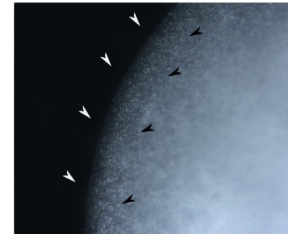
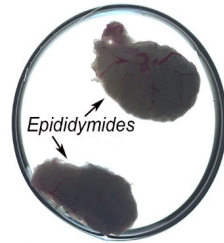
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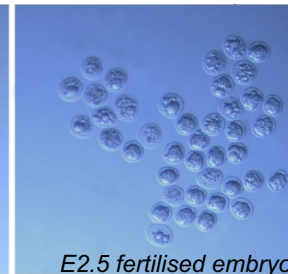
# Cryopreservation Facility

The Mouse Cryopreservation Facility at Charterhouse Square offers:

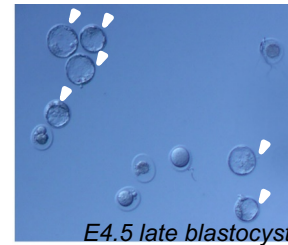
- Cryopreservation of sperm



- Cryopreservation of morula stage embryos



- Recovery of the cryopreserved lines through Non-Surgical Embryo Transfer or IVF



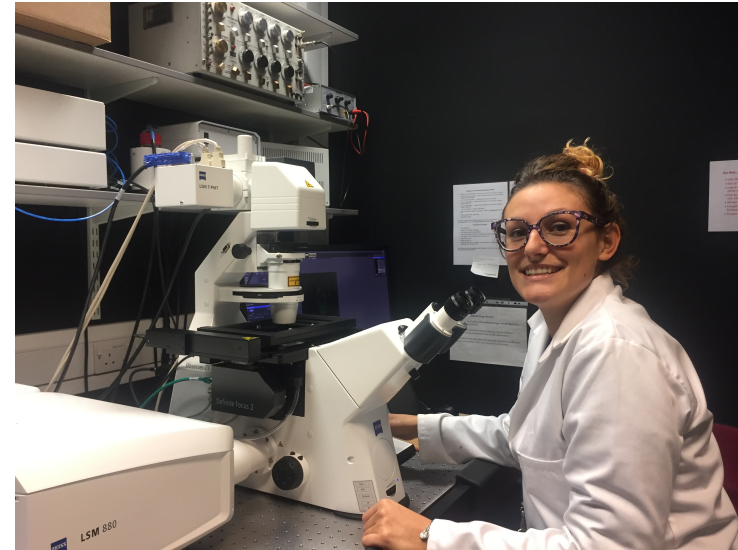
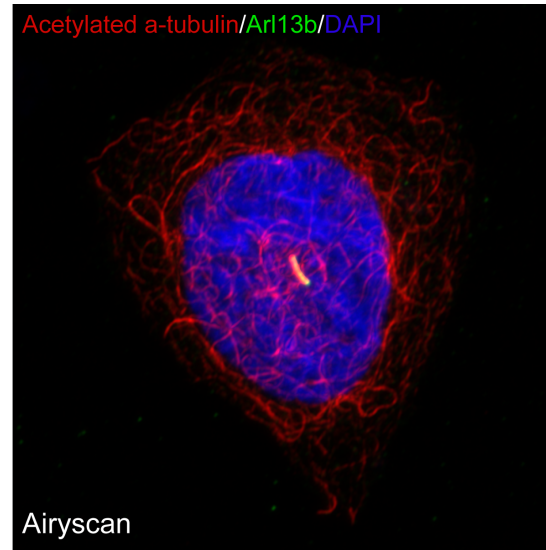
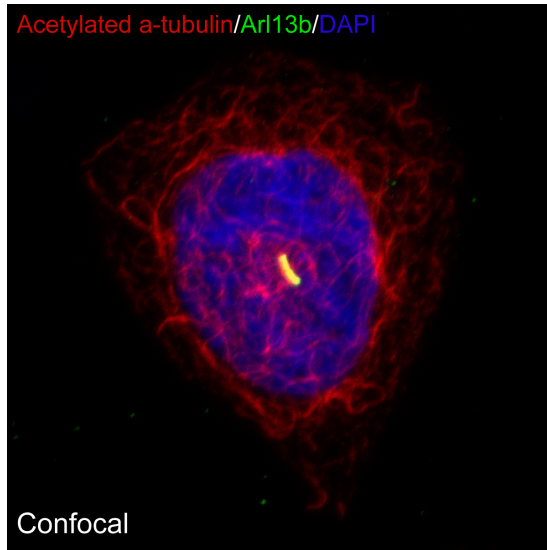
Angelica  
Gualtieri

[a.gualtieri@qmul.ac.uk](mailto:a.gualtieri@qmul.ac.uk)  
[c.gaston-massuet@qmul.ac.uk](mailto:c.gaston-massuet@qmul.ac.uk)



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# WHRI Core Confocal Facility



- **State of the art Zeiss confocal:** LSM880 + Airyscan for added resolution/sensitivity
  - Laser lines: 458nm, 488nm, 514nm, 405nm, 561nm, 594nm & 633nm
  - Spectral detection with 3 detector including one GaAsP, + the Airyscan
  - Inverted with scanning and Piezo stage + CO<sub>2</sub> & heat environmental control
  - FRAP and FRET modules
- **Training courses available from January**
- **Technical support 2 days per week**
- **Booking will be through iLabs**



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# Staff Survey Actions

- Sent reminder of facilities/protocols available
- Generated new protocols e.g. issue resolution
- New version of Handbook will be issued to all staff in the New Year
- Access WHRI shared drive for documents-Steve Coppen will send link in January

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# REF 2021

- We are looking good
- Ref Dry Run went well-some work to do
- Performance Review happening now with a view to supporting staff for next REF
- Impact statements need to be collated for optional assessment in January and hard deadline of February 28th-Leads Marta Korbonits, Cos Pitzalis, Amrita Ahluwalia
- Need to upload papers to elements
- 29<sup>th</sup> March-2<sup>nd</sup> Dry Run-checks on elements will be made

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# WHRI Academic Development Update

New Lecturer recruited Livia Carvalho Clinical Pharmacology

## QMUL Teaching Recognition Project 2016 – 2018

All QMUL academic staff are expected to hold a HEA-recognized teaching qualification by the end of 2018

### Current status:

WHRI academic staff who:

Hold a recognised qualification	31
Are currently registered on a PGCAP / CILT programme	6
Are currently engaged with the ADEPT Fellowship programme	12
Need to be trained (WHRI estimate)	33

# WHRI UG MBBS Contribution

## ***WHRI contribution to MBBS***

### ***includes:***

- SSC's
- PBL
- OSCE
- Prescribing course
- BMedSci (Molecular Therapeutics and Molecular Medicine) 22 students 2016
- BSc (Sports & Exercise Medicine) 31 students 2016

### ***WHRI staff in key MBBS leadership roles include:***

- Curriculum
- Assessment
- Student support
- Governance
- GEP

## ***New initiatives***

### ***2017/18:***

iMSC's- Intercalated Masters Degrees from 2017

- Clinical Endocrinology
- Clinical Drug Development
- Forensic Medical Science
- Healthcare Research Methods
- Critical Care
- Genomic Medicine

Other School of Medicine opportunities around:

- Development of Malta programme
- Physicians Assistant programme (MSc)

## ***Rankings***

2nd in the UK for Medicine – The Guardian University Guide 2017

## ***National Student Survey (NSS) results***

### ***– 2016***

- 94% overall student satisfaction for Medicine



# WHRI UG SBCS Contribution

## *WHRI contribution to SBCS Programmes*

### *Contribution to SBCS Modules*

- Infection, Immunology and Inflammation  
Endocrinology Physiology & Biochemistry  
Essential Biochemistry for Human Life  
Project skills in the life sciences  
Year 3 Biomedical Sciences option modules
- Receptor and mechanisms of cell signalling
  - Clinical Trials and Regulatory Affairs
  - Clinical Pharmacology
  - Genetics

### *UG Programme*

BSc (Pharmacology & Innovative  
Therapeutics )  
19 students 2016

## *Income*

UG Income from BSc programmes (iBSc and BSc)

- 72 students this year £648 000

Income from SBCS Contributions to modules etc

2015/16: £316 716

2016/17: £844 000

2017/18: £ more



# WHRI PGT Programmes

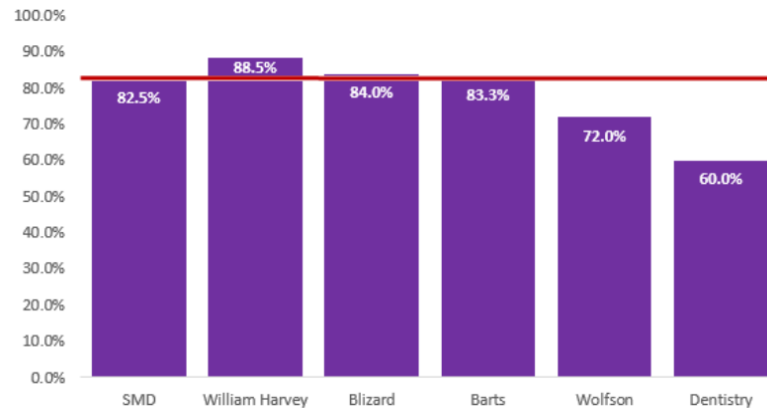
**PGT enrolment 2016/17: 203 new students**

**Income 2016/17: £ 1.932.900**

- *Postgraduate Student Experience Survey- Results 2016 :*

**question: 'Overall, I am satisfied with the quality of the course'**

<http://qmplus.qmul.ac.uk/mod/folder/view.php?id=551531>.



## ***New initiatives***

***2017/18:***

- iMSC-s- Intercalated Masters Degrees
- Summer School in Genomic Medicine (HEE funded)
- Two year Double Degree Masters with Universitas Padjadjaran (Indonesia) in MSc Sports and Exercise Medicine
- Collaboration with NATIONAL UNIVERSITY OF MEDICAL SCIENCES- Pakistan

## ***Awards:***

- *Principal's Prize 2015/16:*

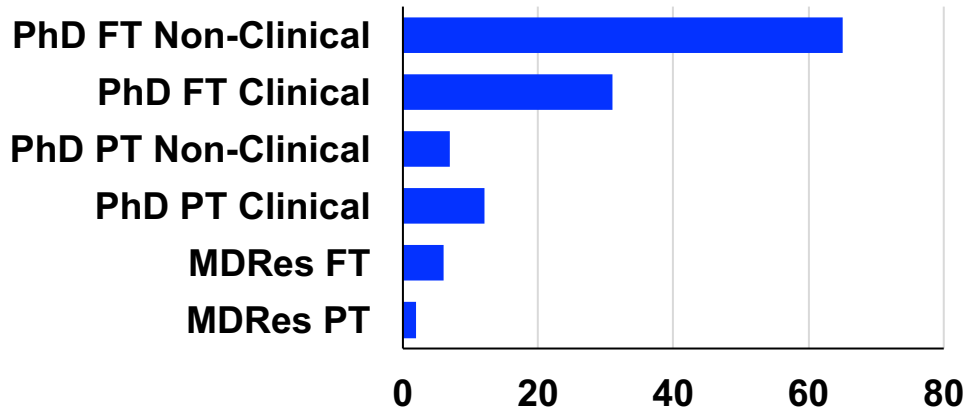
Ahmed Jalil Al-Salihi - MSc Clinical Endocrinology



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# WHRI Postgraduate Research

Currently **123** PGR students



**19 new students** have registered so far for **2016/17** academic year

- **Completion:** 2011 cohort **88.58%** submission within 4 years (35 students)
- **PRES 2015:** Overall satisfaction rate for WHRI students is **86.7%** (SMD:82.9%; QMUL:77%; RG:83%)
  - Q: 'I have regular **contact** with my supervisor, WHRI score is **95.6%** (SMD:91.8%; QMUL:87%; RG:89%)
  - Overall WHRI did well on development and training
  - Areas for improvement are response to student feedback and provision of computing
- **MySiS:** New functionality, 18 / 30 month progression and transfer to writing up now on MySiS
- **PGR Student committee:** Representation from each WHRI research center
- **BHF DTP:** 4 year MRes/PhD programme renewed 2017-2020 (5 students per year)