



**Senate**

<b>Paper Title</b>	Proposal for Barts Research Centre for Women's Health (BARC)
<b>Outcome requested</b>	Senate is asked to <b>approve</b> the title: Barts Research Centre for Women's Health (BARC)
<b>Points for Senate members to note and further information</b>	<ul style="list-style-type: none"> <li>• The aim is to develop a Centre with a Programme that is at the forefront of world-class research into the health of a woman at various stages of her life, including adolescence, reproductive, and postmenopausal ages;</li> <li>• The Centre will build on the exception clinical and expertise in women's health undertaken by BHT and the Women's Health Research Unit (QMUL);</li> <li>• The Centre's priorities will include the seamless recruitment of mothers into clinical trials; the timely completion of pilot projects to leverage national funding; establishing collaborative links with primary care to ensure delivery of interventions and follow-up of women in the community</li> <li>• This initiative involves an investment by Barts Charity of £2,000,000 over four years.</li> <li>• The funding for this proposal will permit the establishment of a core team of staff, allowing the Centre to quickly take on new studies and disseminate in an effective and coherent manner;</li> <li>• Core funding will also establish a new, cross partner Doctoral Training Programme</li> </ul>
<b>Questions for Senate to consider</b>	<p>In accordance with point 5. of Ordinance A12, Senate are requested to approve the formation of the "Barts Research Centre for Women's Health (BARC)", the administrative home of which will be within the Blizard Institute, SMD.</p> <p>This was approved by SEG May 2015.</p>
<b>Regulatory/statutory reference points</b>	N/A
<b>Strategy and risk</b>	N/A
<b>Reporting/consideration route for the paper</b>	Senate to approve before publication.
<b>Authors</b>	<p>Professor Khalid Khan, Professor of Women's Health and Clinical Epidemiology, Blizard Institute          Professor Shakila Thangaratinam, Professor in Maternal and Perinatal Health, Blizard Institute          Dr Natalie McCloskey, Institute Manager, Blizard Institute</p>
<b>Sponsor</b>	Professor Steve Thornton, VP Health, SMD

## **Proposal**

### **Barts Research Centre for Women's Health (BARC)**

#### **Introduction**

Our aim is to develop a Centre with a Programme that is at the forefront of world-class research into the health of a woman at various stages of her life, including adolescence, reproductive, and postmenopausal ages.

Between Barts Health Trust and the Women's Health Research Unit (QMUL), there is a wealth of clinical and research expertise, and a strong track record in impactful clinical research in Women's Health. The organisational changes that have occurred over the past five years has resulted in the following: largest maternity unit in Europe with over 17,000 deliveries; a world class fertility unit; and nationally recognised transfusion centre; clinical collaboration between various sites and specialties for conditions such as diabetes; a strong academic unit with a track record in successfully delivering national and internationally collaborative NIHR projects (over £10 million research income); formal PPI links with mothers and public (Katie's Team) and top recruiter in 2015 (over 3000 women) to Women's Health studies in the North Thames Clinical Research Network (CRN).

We have expanded participation in research outside the Trust, by developing the Katherine Twining (KT) Network that brought together clinicians, academics, midwives, nurses, trainees, R and D personnel, patient charity groups and neonatologists involved in the delivery of Women's Health research in North and East London. The KT Network includes eight NHS Hospitals (Royal London Hospital, Whipps Cross Hospital, Newham University Hospital, St Bartholomew's Hospital, Romford Hospital, Homerton Hospital, North Middlesex, Southend and Royal Free Hospitals) and three Higher Education Institutions (Queen Mary University of London, University of East London and City University) that collaborate closely in the development and delivery of NIHR and commercial project. By 2015, the KT Network participated in 25 portfolio studies, recruiting over 9000 women. In 2015/16, this accounted for 69% of recruits to the Reproductive Health and Child Birth specialty for the whole of the North Thames network.

Both Professor Khalid Khan and Professor Shakila Thangaratinam are leaders in the field of Women's Health research. Professor Thangaratinam has extensive experience of clinical research in gestational diabetes, prediction of pre-eclampsia, epilepsy in pregnancy and evidence synthesis. Professor Khan's research experience spans several decades and ranges from clinical studies on management of complex pelvic pain to post-partum haemorrhage and evidence synthesis across many domains in Women's Health.

Furthermore, the Women's Health Research Unit have a strong record of investment in research training. There have been several NIHR academic clinical fellows and clinical lecturers within the Women's Health Research Unit who have undertaken higher degrees and secured competitive external funding (e.g. WHO, NIHR, MRC).

## **The Vision**

We propose to establish a Centre of Excellence for Women's Health research in East London, building on the foundations of our clinical and academic expertise and focusing on issues directly relevant to the health of mothers in East London such as diabetes, anaemia and preterm birth. We will ensure that national funding bodies prioritise these areas for future research. We recently completed the Barts Charity funded definitive large ESTEEM trial (3600 women recruited) on Mediterranean diet in pregnancy, and are currently undertaking the PrePro pilot trial on prevention of preterm birth. Having successfully set those foundations, we will now create the infrastructure that will allow:

- seamless recruitment of mothers into clinical trials
- undertake and complete pilot projects in a timely fashion to leverage national funding
- establish collaborative links with primary care to ensure delivery of interventions and follow-up of women in community

This initiative involves an investment by Barts Charity of £2,000,000 over four years.

This funding will allow the Barts Women's Health Research Centre, under the supervision of Professor Shakila Thangaratinam and Professor Khalid Khan, to create a unique centre of excellence in which world-class scientific research will be undertaken in women's health.

The Programme will allow us to establish ourselves as a Centre for Women's Health Research in East London, similar to the current investment in West London through Tommy's, Wellbeing of Women Centres dedicated to improving the health of mothers and their unborn babies through cutting-edge research. The funding for this proposal will enable us to establish a core team of staff, allowing us to quickly take on new studies and disseminate in an effective and coherent manner. Several of the core members will be involved in a data linkage and validation project, and developing links with primary care. They will also work on the development of full-scale studies for several of the Barts Charity funded pilots. This will enable us to leverage funding, to successfully complete large-scale multi-centre definitive randomised trials. Core funding will also establish a new, cross partner doctoral training Programme supporting career and leadership development for clinicians, academics, midwives, and healthcare informaticians.

## **Education**

We will establish a new, cross partner doctoral training programme supporting career and leadership development for clinicians, academics, midwives, reviewers and trial managers. We will aim to have a year on year allocation of NIHR Academic Clinical Fellows/ Lecturers and Fetal Medicine Fellows to the programme leading to MD (Res)/ PhDs being awarded and Research Training Fellowship applications being made.

## **Public engagement**

We established 'Katie's Team' in 2015 to bring together local mothers, pregnant women and their families for engagement with the research activities of the Women's Health Research Unit. Katie's Team meet three times a year and contribute to developing research projects, shape research methods adopted in ongoing projects and improving awareness of healthcare research projects within the East London population. Katie's Team has developed novel strategies for PPI initiatives in women's health, which will contribute to our work within this Centre.

We will be using existing funding to help create a learning and engagement toolkit, consisting of web, audio-visual and print resources that will close the current gap in materials specific to maternal health research involvement. These materials will be developed together with members of Katie's Team, and aim to empower lay members to effectively engage with women's health research, as well as provide a toolkit to engage the wider community in our research.

Furthermore, we have support for our Programme of work from Diabetes UK, Women's Health and Family Service, Food Academy and Infertility Network UK. Within our Unit we also have engagement from APEC, Endometriosis UK and Epilepsy Action. We will continue to build these links.

## **Collaboration with Industry and Academia**

Our work support all the five key principles underpinning the school of medicine and dentistry (SMD), and is particularly aligned with the strategic objective to achieve the highest standard in research, integrating multi-disciplinary and translational approaches to address health related problems of local and global importance.

Increasing links with primary care, working with and for our local population, integrating research into everyday clinical practice. Increasing the clinical study base within the SMD, and all activities that support the wider School vision.

Participation in studies has the potential to improve not only the health of the pregnant woman, but also her unborn fetus and her family. The project mirrors the

objectives of the Academic Health Sciences Centre (AHSC) by increasing the strategic alignment of the NHS provider, Barts Health NHS Trust and their university partner, QMUL, in world-class research. It has significant potential to make a positive impact on health education and patient care in East London.

We will establish strong relationships both locally with local CCGs and primary care and nationally with the diabetes prevention programme. Our work also fits with the Schools Life Sciences initiative, working with partners from the local community, NHS, industry and other higher educational institutions.

Our KT network was the first step in establishing an East London Collaborative group encompassing clinicians and researchers in secondary care. The proposed Programme will expand this initiative further to include general practitioners, CCGs, bio-informatics experts, patient and public groups and commercial companies as part of the collaborative network to deliver the objectives of various work packages. We will actively seek to develop our partnership with industry, who are supporting our Programme of work (Pharmasure, Merck, Labcold). The KT Network has already participated in studies sponsored by Gynesonics, PregLem SA and GlaxoSmithKline. Increasing commercial income is one of the key objectives of BH Trust and the Medical School. The Centre will help establish new research links across the various disciplines in the School, with potential for synergism with the cardiovascular and endocrine research streams.

### **Further development and Research**

We are committed to securing further funding to support posts within the centre of excellence. The Programme Grant support by Barts Charity will pave the way for large-scale definitive studies identifying improved strategies for the identification, prevention and management of gestational diabetes, massive obstetric haemorrhage and infertility. We will seek consent/assent to follow-up mothers and babies at time of recruitment to establish a cohort of women and children in order to assess their long-term outcomes. The Centre will help establish new research links across the various disciplines in the School, with potential for synergism with the cardiovascular and endocrine research streams, to strengthen applications for BRC status.