Institution: London South Bank University

Unit of Assessment: 3 - Allied Health Professions, Dentistry, Nursing and Pharmacy

1. Unit context and structure, research and impact strategy

1.1 Overview:

Our mission is to improve the health and wellbeing of patients, individuals, and the general population, to provide critical insights into the delivery of health and social care, and the education of its professionals, and address through interdisciplinary approaches, some of the grand challenges for health. This is a multi-disciplinary submission and presents the work of an integrated programme of applied health research. The 21 staff (19.2 FTE) who have significant responsibility for research (SRR) and six former staff who have made an important contribution to this Unit are organised into four research groups: Population Health and Prevention; Ageing, Acute and Long Term Conditions; Mental Health and Intellectual Disability; Workforce Innovation and Professional Education. Our research addresses a wide range of topics that contribute to the burden of disease e.g., kidney disease, mental illness and disability and obesity. Alongside this, we address some of the major societal challenges that impact on wellbeing e.g., serious violence and, as befits one of the leading providers of healthcare education, our research investigates new and changing roles and pedagogies.

1.2 Structure:

To integrate our strengths in health-related research, we established a single research centre, the Centre for Applied Research in Improvement and Innovation (CApRII) which is in the Institute of Health and Social Care. This offers a unified research environment for the four research groups that are linked through their focus on cross-cutting themes of: i) intervention and service development and evaluation; ii) workforce development and professional education; and iii) improving the health and wellbeing of patients and the health of the general population:

Population Health and Prevention is a group that recognises the strength of our work in health promotion and social care. This research group led by **Sykes** and **Whittaker** has a broad and integrated programme of research that is responsive to local needs, addressing issues concerned with the health and wellbeing status and behaviour of individuals, communities, and populations with clusters of research focusing on women's health, serious violence and health promotion, and health literacy. It comprises 12 staff, six of whom are included in this submission (**Church, Havard, Moorley, Sykes, Whittaker, Wills**), has supported four doctoral students to completion and has two current doctoral students. In the REF period this group has secured grants totalling £498,195.

Ageing, Acute and Long Term Conditions: This research group reflects our strength across a range of issues and enables us to assist our partner Trusts to improve clinical practice based on evidence of effectiveness. The group is driven by the needs of the partner Trusts and has research clusters focusing on pain and physical activity (Mansfield, Thacker), kidney disease (Thomas), critical illness (Bench), assistive technologies (Atwal, Benwell [retired], Sugarhood), and older people with dementia (Baillie [retired]). The group has conducted research that has widened understandings of people's health and social care needs and experience e.g. assistive technology to reduce the isolation of older people (Sugarhood); developed and evaluated innovative ways of delivering care to enhance service user outcomes e.g. person-centred care with frail older people (Baillie); developed and promoted service user



engagement and empowerment in health and social care delivery e.g. patient involvement and engagement of people with chronic kidney disease (**Thomas**). This group comprises 23 staff, six of whom are in this submission (**Atwal**, **Bench**, **Mansfield**, **Sugarhood**, **Thacker**, **Thomas**). It has supported eight doctoral students to completion and has four current doctoral students. Research income is £734,083 over this REF period.

Mental Health and Intellectual Disabilities: This is a new research group which reflects an expanding area of clinical and professional focus. Its particular focus is on research which helps to improve the lives of people who use mental health and intellectual disability services through investigations into changing workforce roles. Examples include learning disability nursing (**Chaplin, Thomas B.**); self- management e.g. peer support for people with aphasia following stroke (**Flood**) and for people with learning disabilities (**Chaplin**); clinical intervention and service model developments including patient safety (**Flood**); prescribing in mental health settings (**Brimblecombe**); caring for a child with an intellectual disability (**Wills**); partner selection for people with an intellectual disability (**Terry**); and, cognitive behavioural treatments for those with gambling problems (**Chaplin**). The group has a growing membership of seven staff, four of whom are included in this submission (**Brimblecombe, Chaplin, Flood, Thomas B**.) and now includes the Foundation for People with Learning Disabilities, previously part of the Mental Health Foundation. It has supported four doctoral students to completion and supports three current doctoral students. Research income is £750,000 over the REF period.

Workforce Innovation and Professional Education (lead Terry). Reflecting the priority given to research-informed teaching by LSBU and the role of the Institute of Health and Social Care as a major education provider, this research group has 37 staff with interest in this area, five of whom have SRR and are in this submission (Francis, Leary, Malby, Stewart Lord, Terry). It has research income of £740,897 over the REF period. It has supported 23 doctoral students and has eight current doctoral students. This was previously a theme in REF2014 and has expanded its work related to values-based behaviour of the workforce e.g., environmental awareness (Terry) and work linked to the development of new roles. The area of focus encompasses investigations into public health (e.g. Sykes, Wills), specialist roles and advanced practice (Leary, Stewart Lord) and work on leadership in health care (Malby) which is outlined in an impact case study in UoA 17.

1.3 Research strategy:

1.3.1 Achievement of strategic aims for research during the assessment period

Our aim is to create a vital and sustainable research culture and to do so, we identified that we would need to enhance our clinical academic links, appoint new staff to tackle specific strategic areas, and "clarify the way in which research is grouped, presented and grown". Since REF2014 we have therefore:

- Invested in the professoriate through new appointments and career development leading to internal promotions (see section 2.1)
- Encouraged and enabled greater staff engagement with research through the establishment of four cross cutting research groups (see section 1.2)
- Created greater opportunities for staff to develop research careers through the identification of research active staff and an allocation of dedicated time in workloads
- Encouraged early career researchers through postdoctoral awards for short term funding or to promote novel or collaborative research (see section 2.1)
- Developed clinical academic links through joint appointments and a post-doctoral bridging programme for clinical academic careers (see section 2.2)



- Supported staff to become more productive and improve the quality of research with a targeted development programme (see section 2.3)
- Produced more impactful research with an expectation that all research should have a clear pathway to impact (see section 1.3)
- Increased research grant income and from more diverse sources (see section 3.1)
- Increased the amount of research with international networks (see section 4)
- Responded to changing health and social care agendas by appointing new staff (see section 2.1)
- Increased our doctoral student programme and the number of studentships (see section 2.5)
- Increased interdisciplinary research across the university.

1.3.2 Building a vital and sustainable research culture

An important commitment of the research strategy presented in REF2014 was to adopt an inclusive approach of building research into the activity and expectations of staff. To achieve this, we have rigorously identified staff who have significant responsibility for research (SRR) and those who might do so in the future. Currently 9.7% of staff are identified as having SRR and we expect this to double as we begin to use a workload model to allow for the use of dedicated time for research. We have increased the number of research active staff from 14.6 FTE in REF2014 to 19.2 FTE in this submission, reflecting this developing research culture and a larger number of early career researchers able to contribute to this submission (five of those submitted are ECRs). In REF2014 our aim was to "strengthen research groups by increasing the number of research active staff to 25%" and currently 79 staff are members of a research group (40% of all staff). These provide opportunities for staff to develop research interests and abilities, develop research-informed teaching and to use their existing clinical links to reach and impact on health care service delivery. Alongside this, the research environment has grown with an increase in the numbers and achievements of our postgraduate research students (see section 2.5).

1.3.3. Improving quality

Alongside building an active and sustainable group of researchers, we have improved the quality of outputs through targeted mentoring and staff development (see section 2.3). In REF2014 the GPA for outputs was 2.72. The average field weighted citation (FWSCI) for the group of researchers in this submission is 1.31 compared to 1.22 for those in REF2014. According to CiteScore, 21.6% of the outputs of this Unit are in the top 10% of journals compared to 16.4% in REF2014. There are outstanding papers in prestigious journals e.g., "Arthritis and Rheumatology" and "Implementation Science" and highly accessed papers e.g., a paper by **Wills** on obesity in the nursing workforce has been cited 55 times, has a field citation of 13.32 and is in the top 5% of all papers scored by Altmetric (score 835). A rigorous process of internal (by two Professors independently) and external review of all the outputs from this group of 27 researchers (n=658) found that the average rating of the reviewed outputs since 2014 was >2.45*.

1.3.4 Ensuring there is patient and public involvement and engagement with our research In REF 2014 our aim was that "practice partners and service users would be engaged from conception, through to design and implementation". In 2015, the existing well-established processes for inviting and rewarding service user engagement were formalised into the establishment of the People's Academy. This group of over 40 patients and citizens have formal role descriptions and methods of payment. External regulating bodies e.g., Nursing and



Midwifery Council have commended the "robust service user voice" in education and coproduction in shaping research bids, research delivery and dissemination is evident, for example: "Pass it On", a peer learning programme for people with intellectual disabilities funded by the Mental Health Foundation (**Chaplin**); **Thomas**' work on developing the Kidney Patient Involvement Network; the development of utility scores in mental health (**Flood**); and the "Enhanced Environment" intervention for stroke survivors and carers (**Atwal**). Patient and Public Involvement and Engagement (PPIE) is part of our research training for doctoral students and ethical approval processes require individuals to provide details of the involvement of participants and partners in the research process.

1.3.5 Developing interdisciplinarity

Our research has always been multi-professional with strong professional and clinical links in all fields of Nursing, Midwifery and Allied Health. It also includes Social Work and Public Health with corresponding research activity in population and community health and wellbeing. With the moves towards the integration of health and social care, there is an even greater impetus towards cross and interdisciplinary working. As global priorities and challenges increasingly recognise the importance of addressing issues related to non-communicable diseases and ageing, we look towards other disciplines across the University in joint research projects and doctoral supervision, for example: with the Centre for Addictive Behaviours Research in the School of Applied Science in examining digital health literacy during the COVID-19 pandemic (Sykes, Wills); with the Sports and Exercise Science Research Centre investigating issues associated with active communities (Wills) and movement (Mansfield); and with the Centre for Global Justice and Social Responsibility in the investigations into domestic violence and coercive control (Havard). Two of those in this submission (Malby and Whittaker) have produced work that has made a significant impact in other disciplines and have impact case studies in other Units (UoA 17 and UoA 20 respectively). One outstanding example of success in fostering interdisciplinarity is the £1.5 million award from NIHR in July 2020 to develop a Public Health Intervention Responsive Studies (PHIRST) Team that draws from five of the university's research centres. Going forward, our strategy will be to model the example of PHIRST London and develop collaborative projects on health issues across the university.

1.3.6 Developing innovative and applied research solutions to health issues

Acknowledging our commitment to developing innovative solutions to health care problems and reflecting the University's commitment to entrepreneurship, the university set up SimDH, a programme to support health and tech start-ups to deliver and develop new products and services with a £3 million investment from the European Regional Development Fund. The Institute links innovators with researchers, testing new products and services such as: Virtual Reality for teaching health professionals (Francis, Bench); the use of wearables for both fetal monitoring (Church); and to affect calmness or focus of young adults living with ADHD using vibration technology based on heart rate (Chaplin). Digital apps have been developed to support people living with cancer, infertility and after critical illness (Sykes, Wills, Bench). **Thomas** has collaborated with a company to evaluate a home urine test kit and mobile app that empowers patients to self-test at home with clinical grade results. Simulation is used as part of the Institute's technology assisted learning strategy (Francis G) and the Institute has a joint appointment with Guys and St Thomas Trust to support knowledge transfer. Thomas, Leary and Flood were awarded in 2021 a £508,475 grant from the Accelerated Access Collaborative in partnership with NHSX and NIHR to evaluate the use of an artificial intelligence technology to improve hospital appointment attendance.

1.4 Impact:

Our impact strategy has centred on: (i) developing partnerships such that our research is informed by and delivers knowledge and insights that are of relevance and benefit to services and service users; (ii) training research staff to identify and document the changes associated with their research and use impact plans for each project; (iii) strengthening the capacity of research staff through, e.g., media training and the Industry and Parliament Trust to be advocates and amplify their research and exert influence on services and policymakers; (iv) advancing the understanding of how to facilitate the implementation of research findings into practice (e.g. in the joint roles with NHS Trusts of Baillie, Bench and the Facilitating Implementation of Research Evidence EU funded FIRE project (Crichton, now retired); (iv) embedding public engagement in our research to dialogue with communities and service users (see section 1.3.4); and (v) investing in gold access publications.

Impact is evidenced by research that:

- Informs new or amended policy (i) Havard's work has shown how mobile technology has increased surveillance of women experiencing domestic abuse and this has informed the Domestic Abuse Bill 2020 and led to her undertaking a Parliamentary Academic Fellowship; (ii) Wills and Crichton's work directly informed the development of Barking and Dagenham's adult obesity strategy; (iii) Whittaker whose work on reducing serious youth violence is reported in an impact case study for UoA20, has contributed to the All Party Parliamentary Group on Serious Violence and the London Mayor's Office on how to reduce the involvement of youth in gangs. The initial study in Waltham Forest led directly to an increase in the funding allocated to gang programmes, the establishment of an under-13 service and a financial investigation team to seize criminal assets under the Proceeds of Crime Act; and (iv) Research by Wills on the prevalence and attitudes to obesity in the nursing workforce was the first study in England to draw attention to obesity and its potential impact on an ageing nursing workforce. It led to the Healthy Weight Initiative for Nurses and an app "Nursing You" for nurses, the global Healthy Nurse Collaborative and the co-production of a social marketing campaign "First Impressions Count" which was chosen to be presented at the Global Public Health Film awards in Denver. It has been able to inform and influence a wider focus on working conditions and a Chief Nursing Officer reference group focussing on hydration and access to food and eating environments.
- Informs and changes clinical practice Atwal's work has enabled service users to conduct their own Home Environment Falls-Risk Assessment that better meets their needs and thereby reduces the number of unused and abandoned occupational therapy devices.
- Develops evidence based clinical guidelines (i) the research of Gibson (former member) on children's cancer contributed to the international Pain in Children with Cancer Guideline Development Panel; (ii) Another former member (Crichton), was part of a large European pragmatic cluster randomised controlled trial across 24 long-term nursing care sites. This work has informed how continence recommendations are implemented; (iii)The research work of Bench with patients in Intensive Care Units has led to patient discharge guidelines for clinical staff and subsequent quality standards for adults with rehabilitation needs as a result of critical illness (NICE quality standards QS 158); and(iv) Wills and Sykes have conducted several evaluations of the roll out of Making Every Contact Count (MECC) and then developed national guidance on the evaluation of MECC.
- Introduces changes to service delivery based on what works so resources are focused where they can be effective, (i) **Thomas'** work on the early identification of kidney



disease in primary care (impact case study 1 for UoA3) has pioneered new ways of educating people with kidney disease in primary care; (ii) **Chaplin**'s work has developed new care pathways between the Criminal Justice system (CJS) through to hospitals and onto community services for people with neurodevelopmental disorders (ND). The new service model includes court assessments to inform the judiciary and discharge tools to improve continuity of support and promote appropriate disposal in line with least secure provision; and (iii) The work of **Malby** (see impact case study for UoA 17) has led to new forms of networks such as the London Primary Care Quality Academies (PCQA).

- Develops new innovations in service delivery through working with industry (i) Thomas has worked with Cievert Ltd to co-develop with patients, a system for triaging out-patient appointments for people who have received kidney transplants; (ii) Bench has tested the usability and acceptability in peri-operative care of a wearable that monitors core body temperature using sensors; (iii) Mansfield and Thacker have developed a reliable low cost sensory assessment tool that can help clinicians assess pain experience; and (iv) The work of Benwell (now retired) on the ocular ultraviolet radiation experienced by airline pilots led to recommendations that aircraft windshields should have a standard for optical transmission and that sunglasses should meet international standards.
- Works with practice partners to improve patient care Baillie's work (now retired) which highlighted the challenges of recognising and supporting patients with dementia and through a grant from Guys and St Thomas' charity in 2016, an ethnodrama ("Barbara's Story") is now part of mandatory training for staff at the Trust.
- Works with practice partners to improve patient safety Through data mining large data sets (see Impact Case Study 2). Leary has developed a detailed understanding of nursing roles enabling the building of models around the impact of staffing levels on patient outcomes, workload activity in complex areas such as community nursing and the contribution of specialist roles. This work has changed service planning, e.g., following completion of a determination of optimum caseloads for multiple sclerosis specialist nurses, the Multiple Sclerosis Trust launched its FairMSCare campaign in November 2019 for more MS Specialist Nurses. It has led to staffing guidance in new national standards on Inflammatory Bowel Disease and guidelines for the investigation and management of pleural mesothelioma.
- Works with practice partners to develop new workforces (i) Stewart Lord's work on advanced clinical practice in the Allied Health workforce is contributing to NHS workforce transformation plans; (ii) Professional decision-making is vital in health and social care and how social workers make decisions in risk situations has been explored by Whittaker in a randomised controlled trial with a British Academy/Leverhulme grant. This led to Whittaker being invited as an expert witness in a child death inquiry in Queensland, Australia which accepted all his recommendations.
- Raises awareness of the needs of an underserved group (i) Flood's work on the befriending needs of people with aphasia following stroke; (ii) Moorley's work on the needs of Black stroke survivors; (iii) Sykes and Church's work on the information needs of the involuntarily childless; and (iv) Thomas B. on the premature deaths of people with learning disabilities.
- Informs the curricula that educate health and social care professionals (i) the inclusion of risk and decision making in curricula for those responsible for safeguarding (Whittaker); (ii) a new curriculum on reproductive ethics for midwives at Ataturk University, Izmir (Church); (iii) Education courses have been developed from our research e.g. renal nursing and working with people with autism are made widely available through our extensive CPPD portal used by all our partner Trusts; (iv) The Institute has long used simulation as part of its strategy for technology assisted learning and Francis G., as a



Florence Nightingale scholar in 2017, has been exploring how simulation is used in the preparation and training of pre-registration nurses. An HEE funded project with Great Ormond Street is investigating how simulation activities can support/replace placement hours and another project in the Sim DH programme (see section 1.2.5) has tested the use of mannikins for neonatal simulation training (**Church**).

1.5 Future strategic aims and goals for research:

The Unit vision is to deliver excellent user-informed research that generates new knowledge and improvements and a positive impact on the health and wellbeing of society.

To achieve this, the five-year strategic plan which reflects the University's strategy includes:

- Developing established and emergent areas of research excellence within the structure of the research centres, groups and themes through strategic appointments and internal promotions.
- Increasing the number of staff with significant responsibility for research to 15% of total staff and increasing the number of staff who are research-engaged through the research centre and groups.
- Increasing collaboration across the University in joint research projects, following the PHIRST London model (see section 1.2.4), to draw upon expertise to address national, international, industry and health priorities such as ageing and long term conditions and mental health which will ensure long-term sustainability.
- Growing our external partnerships with academia, industry and healthcare providers and international partnerships and the clinical academy.
- Undertaking collaborative projects which maximise the adoption and diffusion of innovation and commercial potential of research findings as in the new artificial intelligence accelerator project (see section 1.3.6);
- Strengthening our relationship with patients and the public to ensure their involvement in our research activities with a university wide PPIE strategy.
- Targeting investment in staff and infrastructure to support excellent research by enhancing the number of externally and internally funded postgraduate research students (currently 32 and 4 respectively). We will also make judicious visiting appointments at Professorial and Research Fellow levels to support collaborative grant applications, PhD supervision and publications. In addition, the research groups intend to expand and support the exchange of staff to enhance national and international research collaborations through university funded sabbaticals and the seed corn funding for ECRs (see section 2.3).
- Building research capacity through staff development and use of seed corn funding and sabbaticals to ensure our talented early career researchers are well placed to lead future research excellence (see section 2.3).
- Making a positive contribution to our student experience through the integration and dissemination of our research findings into undergraduate, postgraduate and professional curricula.
- Increasing the income obtained from research grants by 30% and the proportion from prestigious funding councils.
- Increasing the amount of quality research outputs so that the average GPA of all of those submitted to the next REF is >3*.
- Ensuring that all research projects have an impact plan from the outset.

2. People

2.1 Strategic Investment:

To build a research culture we needed to make research a visible and attractive opportunity. Through the strategic use of QR money we have a dedicated research centre, the Centre for Applied Research in Improvement and Innovation (CApRII) and four research groups to allow for



clear engagement of staff. We have increased the number of staff who are research active by using a workload model and appraisal objectives that provide dedicated time for research.

Our approach is to ensure the vitality and sustainability of our research through the recruitment and development of high calibre academic staff. Four staff included in this submission have retired since 2017 (**Baillie, Benwell, Crichton, Robinson**) enabling some strategic decisions to be made about new appointments to growing research areas. The Unit has worked to ensure succession planning, strengthening our clinical practice links (see section 2.2) and investing in joint appointments (**Bench, Church**) and clinically active staff. In allied health, we appointed **Mansfield** and **Sugarhood** as clinically active researchers in physiotherapy and occupational therapy and **Atwal** as an Associate Professor in Occupational Therapy from Brunel University and **Thacker** as Professor of Physiotherapy from Kings College, London. To strengthen the area of mental health and learning disabilities we appointed **Brimblecombe** and **Thomas B** from practice and **Flood** from City University.

The development of staff as researchers is enabled by a university-wide Academic Framework for promotion, a sabbatical scheme, support to gain a doctorate and mentoring for early career researchers. All staff can apply for internal staff development and promotion through an annual promotions process that recognises and rewards all elements of excellence including research, teaching, leadership, and engagement. In the REF period Leary, Thacker, Thomas N., and **Chaplin** have been promoted to professorships which has allowed them to successfully apply for, and lead, research projects, building a body of work (see Impact Case Studies in UoA3 Thomas and Leary). Francis, Sykes, and Whittaker have been promoted to an Associate Professorship which has led to major achievements respectively of: a wide number of research collaborations with tech start-ups, the establishment of the Public Health Intervention Responsive Studies Team (PHIRST London), and the building of a significant body of work and reputation on gangs and serious violence. Reflecting our development of ECRs and succession planning, six staff who were in the organisation in 2014 are now submitted making a significant contribution to this submission (Francis, Havard, Sykes, Stewart-Lord, Terry, Whittaker). Retiring staff with research profiles have been appointed to Emeritus positions and continue to work with our research active staff and doctoral students to develop a relevant research agenda e.g., Robinson who is also a Visiting Professor with Beijing University of Chinese Medicine.

The University has an annual competitive Sabbatical Scheme which was set up to provide the opportunity for staff to carry out research, work towards significant grants, undertake field study or consider and develop real-world impacts for one semester and to do so by providing funds for their home Schools to pay for replacement hours for their teaching. It has led to an increase in outputs e.g., in 2019/20 Whittaker had a sabbatical to write up research resulting in three papers. Malby and Whittaker both used sabbaticals to translate work into impact (Malby, see UoA 17; Whittaker, see UoA 20) and in 2020/21 Havard successfully bid to be a Parliamentary Academic Fellow briefing on the use of mobile phones in surveillance in domestic violence.

To develop the research culture, we support staff without a PhD to undertake doctoral studies with opportunities for support for fees and study leave. Thirteen staff have achieved PhDs, Professional Doctorates or EdD at LSBU in the REF period and fifteen staff are currently studying for PhD at LSBU, three staff are studying at other universities, four are studying for a Professional Doctorate at LSBU, and three are enrolled on an EdD programme at LSBU. The support has enabled several staff in the REF period to publish from their thesis and build their



academic profile, research-informed teaching and bring on postgraduates, apply for significant grants and they make a significant contribution to this submission (e.g., **Havard, Mansfield, Sugarhood, Sykes).**

Growth across the research groups is evidenced by an increase in grant applications, e.g., by 15% 2018-2019) and an improved capture rate of 64% (in 2019). Productivity has also risen: Our aim in REF 2014 was that staff equivalent to 25 FTE would have 4 or more outputs rated 2*. The 21 staff in this submission and six former members in their time at LSBU produced a total of 658 outputs in the REF period.

2.2 Clinical Academy:

Our aim in REF 2014 was for research that "through academic-practice partnerships addresses issues which practice partners prioritise". The clinical academy provides a formal vehicle for linking the unit to NHS Trusts maintaining research dialogue, mentorship, and partnership. Staff may hold joint appointments and NHS-employed staff may work as researchers developing their clinical academic careers.

There are several clinically linked Professors or Associate Professors who spend a proportion of their time in the Trust working with clinical staff developing research and assisting the organisation with research team and wider staff development. The Professor of Kidney Care (Thomas) is an honorary nurse consultant at Barts Health NHS Trust and has established a research programme in East London on chronic kidney disease; the Professor of Nursing (Bench) is a joint appointment with the Royal National Orthopaedic Hospital and is an NIHR 70@70 nursing research leader; the Professor of Physiotherapy (Thacker) works with Guys and St Thomas(GSTT) and Kingston and St Georges in research collaborations; and the research of Professor of Mental Health (Chaplin) in intellectual disability and criminal justice has included clinical staff from GSTT and South London and Maudsley (SLAM). Having senior researchers working closely with clinical organisations ensures alignment between health care and the research agendas. It provides excellent opportunities for developing joint research bids (e.g. Chaplin and the development of a nursing discharge tool for people with learning disability in secure systems is a collaboration with Oxleas NHS Trust) and ensures our research reaches and encourages engagement by frontline professionals, e.g. Bench's research exploring the barriers and facilitators associated with nurses' engagement with research led directly to the implementation of a nursing research strategy at Royal National Orthopaedic Hospital.

The clinical academy encourages NHS staff to engage with teaching as well as research as a career development opportunity and offers a chance for our students to benefit from their specialist knowledge. NHS-employed active researchers may spend time in the University and hold visiting positions or fractional appointments, e.g., **McCarthy** and **Marshall Tate** both work with SLAM, **Tsang** is a consultant radiographer with East and North Herts NHS Trust and **Thomas B.** is a learning disability nurse consultant at the Department of Health and Social Care. A post-doctoral bridging scheme starts later in 2021 to support early career post-doctoral clinical nurse, midwife, or allied health staff to become Clinical Lecturers along the HEE/NIHR Integrated Clinical Academic (ICA) pathway.



In addition to the University's support through the sabbatical scheme and the Academic Framework which identifies those suitable for internal promotion, we are investing in ECRs who are researching in original areas but do not yet have SRR in their workload. These staff have the opportunity to in relief from teaching through a competitive independent seedcorn research fund (up to £5000) to write up publications, seek grant funding or attend conference or network events, e.g. in 2019 **Sibley's** work on amputees that is informing physiotherapy teaching on rehabilitation used these funds to prepare a successful grant application to the Physiological Society to investigate cellular mechanisms of long term muscle disuse and **Almalkawi** won a grant to visit the University of Washington, Seattle in June/July 2020 (postponed due to the pandemic) to present his doctoral research on practice-based assessment in pre-registration nurse education and start developing collaborations in pre-registration nurse education and postregistration critical care teaching.

The principles of the Concordat for the Career Development of Researchers (see institutional statement) have been actively implemented by the Unit and we provide increased mentoring and support for those in the initial stages of their research career (both doctoral and post-doctoral). All ECRs are encouraged to take on the supervision of PhD students in partnership with more experienced supervisors and undergo supervisor training or online through Epigeum. A university-wide Researcher Development Group provides additional development opportunities which has been recognised by the EU HR Excellence in Research Award in 2014,2016,2018 and 2020.

A monthly capacity building programme has focused on writing for publication, writing to the REF criteria of rigour, originality, significance, preparation of grant applications, identifying a quality journal, and how to use a range of metrics that can be used to assess outputs including altmetric scores, citations, the quality of the destination journal and its influence using Scival. In accordance with LSBU's REF Code of Practice most outputs are internally and externally reviewed with the relaying of ratings to the authors. This has resulted in an increase in productivity (149 staff produced1100 peer-reviewed journal articles in the REF period) and greater quality as described above in section 2.1. The capability programme and mentoring through the research group leads encourages both early career researchers and doctoral students to take part in funded research calls and undertake research tasks as part of their development.

2.4 Equality and Diversity:

We recognise that equality of opportunity and recognition and promotion of diversity provide a supportive environment in which all research active staff can develop their careers. We encourage staff to apply for career development awards through charities or professional associations e.g., **Sugarhood** received an award in 2017 from the Royal College of Occupational Therapists to explore the use of digital care records, **Leary** received a Winston Churchill Trust award to explore the models adopted by other safety critical organisations and **Bench** has a NIHR Programme Development Grant to investigate the use of nursing staff in critical care. Half of those submitted in this REF are women reflecting our commitment to gender equality and the University's achievement in obtaining a Bronze Athena Swan award. We believe that visible female role models e.g., **Leary, Bench** are especially important in inspiring and guiding younger health and social care professionals towards research and scientific careers. We ensure that staff have an equal career trajectory, if through maternity or if they have family or caring commitments, with access to funding and development opportunities. Flexible



working is available for those with caring responsibilities and there are clear policies on career breaks and part-time working.

Our equality impact assessment reveals that two of those submitted (9.5%) identify as of Black, Asian, and Minority Ethnic (BAME) heritage. We recognise that we have been less successful in BAME staff becoming research active and into senior positions and we are developing a programme of actions, e.g., using a specialist recruitment agency for BAME senior appointments, mentoring and reverse mentoring and working with the LSBU Protected Characteristics Researcher Working Group to identify and remove barriers to progression for under-represented groups.

We are actively working towards a strategy for decolonising research alongside that for decolonising the education curriculum that will scrutinise the cultural appropriateness of the research with service users (see section 1.3.4). We will work to give back to the communities we study and seek improvement in the health outcomes of marginalised and under-served groups including those from BAME communities, e.g., **Atwal** and the social participation of BAME stroke survivors and **Chaplin** and people with learning disabilities.

2.5 Research students:

The recruitment, training, and supervision of postgraduate research (PGR) students is a high priority across the University with the London Doctoral Academy providing a supportive environment from application through to graduation, including a dedicated study space and a suite of research training modules.

We have a highly active PGR research community and offer opportunities for both full and parttime PGR study. Most research students are clinically employed in the NHS and study part-time supported by their employer and we use QR funds to offer up to two full time scholarships each year. Most students produce a conventional thesis, but there is also the opportunity for PhD through publications (two have been completed, both in radiography). A professional doctorate programme was established for experienced practitioners to study part-time and a collaboration with the Institute of Optometry started in 2008. In addition, in 2021 we will pilot a post-doctoral bridging scheme to support early career post-doctoral clinical nurse, midwife or allied health staff to become Clinical Lecturers along the HEE/NIHR Integrated Clinical Academic (ICA) pathway.

During the assessment period, there have been 37 student completions (29 PhD and 8 Professional Doctorate) with an average of 5.3 completions each year which is a significant increase on the previous REF period when there was an average of 1.98 per year. We currently have 36 PGRs registered, including 22 PhD, of whom four are on full time scholarships and 14 Professional Doctorate students.

We offer an exemplary training, support and learning environment. Every PGR student has a supervisory team of a Director of Studies and one or more supervisors. Each student undertakes regular progress review panels starting at 6 months to register their proposal which are monitored by the Institute and the University so that there can be early intervention if there is any student, supervision, or research study issue. All students have a mock viva to help students to focus their study and improve both their viva skills and their thesis before submission. Students formally record actions arising during regular supervision sessions and report these electronically on the University's student administration system (HAPLO), with comments from



the supervisors. Students present a "three-minute thesis" presentation and poster at an annual graduate summer school so they become accustomed to sharing and showcasing their research with the university PGR community. Full time PGRs who are not in clinical practice receive an annual contribution of £750 towards conference attendance, production of posters or external training or development. A monthly support programme focuses on issues of methodology, design and dissemination and peer review. Full time PGRs participate in one of the research groups and develop team working and other skills through an involvement in the development of research projects and receive support in the publication of literature reviews and data chapters.

Many research students have achieved significant promotions since the completion of their doctorate: e.g., **Parker** who completed her PhD on children's cancer pain in 2019 is now the NIHR Network Support Fellow the Musculoskeletal Oral Skin and Sensory Network. **Barratt** who completed his PhD on nurse practitioner consultation in primary care in 2016 is now Regional Faculty Lead for Advancing Practice, HEE Midlands. **Lesley Haig** who completed a Professional Doctorate in 2017 on motivational interviewing in physiotherapy is now head of the AECC university college and **Groene** who completed her PhD on health literacy education for GPs is now at the University of Hamburg as a scientific advisor and was a research associate on the German national health literacy action plan. Our programme of support has led to considerable success in student publications during and/or in the two years following thesis completion e.g., **Kelly** eleven publications 2015-2020; **Newton** 2014, 2016; **Parker** twelve publications 2015-2020; **Bichard** 2020.

3. Income, infrastructure and facilities

3.1 Research income:

Over the period of assessment, total research income through UoA3 has been £2,750,000 with £143,229 per FTE in this submission and an annual average income of £392,857 representing an increase compared to the period for REF 2014 when average annual research income was £276,000. Going forward, the PHIRST Centre (not included here) is funded to 1.5 million over three years and we expect to increase our overall research income as we increase our academic collaborations. We have been awarded 84 research grants from over 50 different funders of which 33.20% is from NHS and other bodies, 61.89% from UK charities through open competitive process, 4.44% from government and local government and 0.47% from research councils and professional bodies.

The size of awards varies with £700,000 awarded by Guys and St. Thomas charity to investigate the criminal justice system's response to people with an intellectual disability to much smaller awards (the average grant size in 2019 is £37,000). The diversity of funding sources reflects our close links with NHS practice partners and research end users, for example: £50,000 from Kidney Care UK awarded to **Thomas** to investigate peer support for people with chronic kidney disease; several awards from the Burdett Trust for Nursing including £175,000 to **Wills** to investigate obesity in the nursing workforce; and international collaborative links, e.g., mental health nursing workforce development in Mongolia (**Brimblecombe**).

3.2 Research Infrastructure:

The Institute of Health and Social Care is on three sites enabling close links with NHS partner Trusts: in Southwark, South East London, Havering in North East London; and a new campus in Croydon, South London. State of the art skills laboratories at the Southwark and the new



Croydon campuses provide the opportunity to develop new forms of simulated learning and a human movement lab at Croydon.

The Unit is led by the Director of Research and Enterprise (**Wills**) and the Director of Postgraduate Research (**Stewart Lord**). The annual budget allocation is based on the in-year QR income for the research area, overhead allocation and an allocation derived from new awards submitted for research funding in the previous year. This ensures that excellent resources support research activity.

We benefit from a shared research infrastructure, of which the central Research, Enterprise, and Innovation (REI) unit provides research co-ordination across the University, some administrative support, funding opportunity advice, assists with costing research bids, agrees research contracts, and assists with research governance issues. The Research Office supports staff and student researcher development, ensures we fulfil LSBU's commitments to the Researcher Development Concordat and drives the Impact agenda.

Research governance:

Staff can access well established policies and structures for ethical review of research. Researchers working in the health service can obtain advice on NHS sponsorship, honorary contracts, and NHS research approval from the Director of Postgraduate Research. The Research Ethics Panel scrutinises applications from staff and doctoral students in this UoA to ensure standards are maintained and reports to the University ethics committee. The Director of Postgraduate Research is the sponsor contact for all NHS ethics and governance applications from the Institute. These high standards for research conduct are upheld in the university's Research Integrity policy and policy on Safeguarding Good Scientific Practice.

4. Collaboration and contribution to the research base, economy and society

Our research strategy is to build collaborations to enable us to develop bigger programmes of work and address issues of major international importance by establishing enabling structures:

- drawing across the disciplines of the university as in the PHIRST London Centre,
- using an established network of visiting fellows whose skills can be drawn upon,
- setting up Memorandum of Understanding with international universities to conduct research e.g., University of West Indies and Southeast University, Nanjing.

4.1 International Collaborations:

The *Population Health and Prevention* research group has established international collaborations in health promotion including the establishment of a Sino-British Public Health Research Centre with Southeast University (SEU), Nanjing which is translating the expertise of LSBU in health literacy (**Wills, Sykes**) by research into the digital health information needs and usage in China. A collaboration with the University of the West Indies is progressing the policy priority of men's health in Trinidad and Tobago (**Moorley, Sykes, Wills**) and stroke rehabilitation in Jamaica (**Atwal, Moorley, Wills**). **Sykes** and **Wills** are part of several global health literacy consortia and led the England arm of the Global Health Literacy and COVID-19 Consortium investigating the information needs of university students. **Church** is part of a European Cooperation in Science and Technology (COST) project in maternity care for migrant women and professional bodies and charities. Members of the *Mental Health and Intellectual Disabilities* group are part of several international collaborations, e.g., with Mongolia, investigating nursing



staff development (**Brimblecombe**) and with several universities on suicide and perceptions of suicide among students (**Flood**) and **Chaplin** is Secretary of the European Association of Mental Health in Intellectual Disability. In the *Ageing, Acute and Long Term Conditions* research group, **Thacker** works with the University of South Australia Body in Mind international collaboration on the understanding, management, and prevention of persistent pain. **Robinson** [retired] led work on integrative health and complementary therapies reflecting the relationship of the university with its Confucius Institute of Traditional Chinese Medicine and has a collaboration with Beijing University of Chinese Medicine. A PhD student has obtained a prestigious China Scholarship for the final year of her doctoral study in the treatment of dysphagia following stroke. This wide range of international university collaborations is evidenced for example, in our publications of which 19.2% have joint authorship with one or more international partners.

4.2 National academic collaborations:

Staff are very well linked and work with national colleagues in networks and projects, e.g., the intensive care national audit and research centre (ICNARC)(**Bench**), and the ASSIST-CKD national kidney project (**Thomas**). In the *Ageing, Acute and Long Term Conditions* research group, several staff are part of national or international collaborations progressing research in specialised areas, e.g., **Sugarhood** was part of the Athene project (Queen Mary, London; Warwick University and Barts NHS Trust) funded by the Technology Strategy Board, (now Innovate UK), exploring older people's experience of assisted living technologies and developing new user-centred principles for design and delivery. Our collaborations are evidenced in 55.5% of outputs having joint authorship with a national HEI.

4.3 Visiting appointments:

Leary, Terry, and Wills held visiting appointments during this REF period at prestigious international institutions (Wills is visiting Professor in Public Health at Southeast University, Nanjing, China; Leary is Visiting Professor at University of South Eastern Norway and Terry is a visiting Fellow at University of Washington). Robinson, Emeritus Professor, has an appointment at the Centre for Evidence Based Chinese Medicine at Beijing Normal University. We also support international scholarship visits, e.g., a Fulbright scholar from Long Island University (Brian Gilchrist) worked with Havard, Whittaker and Wills during 2019 to develop work on girls in gangs, including a review of evidence.

4.4. Professional and civic engagement:

In keeping with the focus on applied research and engagement of LSBU, many of the staff submitted here have leading roles in advisory bodies and provide expertise to guide the development of policy or practice. For example, **Brimblecombe** is a non-executive director of an NHS Trust; **Baillie** and **Thomas B.** advise the Royal College of Nursing on dignity and mental health respectively; and **Leary** is on the RCN (Royal College of Nursing) professional nursing committee. **Bench, Chaplin, and Robinson** are on the executive committees of professional associations (UK Critical Care Nursing Association, European Association of Mental Health and Disability, British Acupuncture Council respectively). **Thomas N**. is a member of the NICE group setting quality standards and indicators for chronic kidney disease and **Wills** is on the national advisory group of Making Every Contact Count.

4.5. Measures of esteem and leadership:

Several staff are leaders in their field and have received personal indicators of esteem: **Thomas** won the Donna Lamping award from British Renal Society; **Leary** has been recognised as one



of the most influential people in nursing by the Nursing Times and received an MBE for services to sport safety; **Bench** has been recognised as one of the **70**@**70** NIHR Senior Nurse and Midwife Research Leaders; **Moorley** held a Mary Seacole award for leadership in nursing.

4.6. Contribution to academic field:

Many staff are journal editors or participate in editorial boards: Editor of European Journal of Integrated Medicine (**Robinson**); Editor of Journal of Renal Care (**Thomas**); Editor of Evidence Based Nursing (**Twycross**); Chinese Journal of Integrative Medicine (**Robinson**), Journal of Clinical Nursing (**Twycross**), Journal of Social Work Practice (**Whittaker**), Critical Public Health (**Wills**). Several also contribute their specialist expertise through widely adopted books: **Wills** (Foundations for Health Promotion, Elsevier 4e translated into German, Swedish, Korean and being prepared in Portuguese and Mandarin Chinese), **Twycross** (Managing Pain in Children, Wiley 2e), **Thomas** (Renal Nursing Care, Wiley, 5th e). This active involvement with the development and dissemination of research findings provides an "inside knowledge" to ECRs about how to publish.