Institution: University of Roehampton

Unit of Assessment: Panel A, UoA A4 Psychology, Psychiatry and Neuroscience

a. Overview

Research undertaken in Psychology at Roehampton involves 15 academic staff working within three interconnecting areas: cognition and cognitive neuroscience, abnormal psychology and developmental psychopathology, and applied psychology.

b. Research strategy

The overarching strategy since 2008 and for the next five years is to maximise opportunities to develop our specialist fields, to support a collaborative research culture and to fully integrate research students into the research environment. The delivery of this strategy is illustrated for each of our three research areas.

Cognition and cognitive neuroscience (Aksentijevic, Brandt, Eysenck, Gibson, Holmes, Macdonald, McCormick, Norbury, Silas). The primary focus within this group is to develop research on cognition and emotion through the application of EEG (as well as behavioural) methods to a variety of current research problems. Eysenck is distinguished within the field of cognitive psychology for his *attentional control theory*, with many recent publications on anxiety and cognition. This work is very highly cited, for example, *Psychonomic Bulletin & Review*. Eysenck's theoretical breakthrough, now supported by a great deal of experimental evidence, was to argue that anxiety affects different aspects of cognitive performance and motivation by impairing the efficiency of distinct sub-processes of executive function (see *Personality & Individual Differences*). This work marks a major contribution to the theoretical landscape of the field.

Holmes' research using EEG has been supported by a range of collaborations, both internal and external. She has collaborated externally with Birkbeck and Southampton in the use of EEG to probe attentional biases in humans, and internally with colleagues in Anthropology (including a doctoral bursary) to look at attentional biases in non-human primates. This research programme has extended our understanding of how anxiety affects attention and the potential consequences for both human and animal wellbeing and has recently received funding from NC3Rs. Current PhD students include McDonnell (*Neurophysiological correlates of 'templates for rejection' and modulatory effects of emotion*), Bretherton (*Anxiety-related attentional control: Inhibition, disengagement and bias using event-related potential's)* and Pretorius (*The influence of transcranial direct current stimulation [TDCS] on attentional bias modification [ABM] in anxiety).* Working with Silas and others, Holmes has also applied EEG to research on action observation and putative mirror systems. This work was supported by a grant from the Bial Foundation, and two internally funded doctoral bursaries. Holmes has also collaborated with Brandt on the use of EEG to elucidate how emotionally negative words are remembered and forgotten, and with Gibson on research funded by DSM Nutrition Ltd on the physiological, cognitive and emotional effects of a tryptophan-rich protein hydrolysate (paper under review). In collaboration with the University of Surrey, she has also used EEG to examine the time course of the categorical perception of colour. Gibson and Brandt study the impact of diet on cognition, which is of key public health concern given the globally ageing population. Macdonald's work on the link between occipital alpha EEG and the maintenance of sensory representations has recently attracted funding from the British Academy. Illustrative outputs in: *Behaviour Research and Therapy*, *PLoS ONE*, *Neuropsychologia*, *Biological Psychology*, *Brain Research*, *Current Biology, Frontiers in Human Neuroscience*. Current PhD students in this area include Munro (*An exploration of the effects of social content and motivation on activity of the mirror neuron system*), Nielsen (*Neural and Behavioural Correlates of Perspective Taking in Adults*), and Raymond-Barker (*Constructing the Moral Compass: The Role of Emotions in Moral Orientation*).

Work in core topics of cognitive psychology, such as perception, memory and language, is well represented in this group by Aksentijevic, Brandt, Eysenck, Holmes and McCormick. Brandt's work on developmental amnesia has involved collaboration with researchers at Sussex, Keele, York, UCL and NIMH, USA. Aksentijevic's research spans auditory and visual psychophysics, including music and perceptual complexity, where he has collaborated with Birkbeck. McCormick has

published on the influence of morphological and orthographic structure on written and spoken word processing (in collaboration with RHUL). Norbury has a wide experience of the use of different MRI methodologies, and his work on functional imaging and depression has involved colleagues at Oxford. Several other members of the group are now producing work using this methodology, for example, developing our earlier EEG research on cognition and emotion (Holmes), and action perception (Silas) to include MRI. Illustrative outputs in: *Journal of Experimental Psychology: Human Perception and Performance*. Current PhD students include Thorpe (*The Cognition of Pitch Patterns and Cross-Modal Spatial Structure*), and Rackie (*Found in translation: The relationship between mode of learning and subjective experience*).

Abnormal psychology and developmental psychopathology (Brandt, Essau, Mayer, Norbury, Tsakanikos, Wright). This research cluster focuses on developing strengths in aspects of abnormal psychology, including child psychopathology. Highlights include Norbury's work on depression, the most common major mental disorder in adolescence and forerunner of recurrent adult depression and other markers of psychosocial disadvantage. Using FMRI, Norbury (*Biological Psychiatry*) has demonstrated that, as with depressed patients, adolescents at risk of depression show abnormalities in the neural circuitry supporting working memory. This finding highlights the possibility that measures designed to improve working memory (such as cognitive training) may have a key role to play in preventing the onset of depression in at-risk young people. Using FMRI, Norbury (*Psychological Medicine*) has shown that the clinical effects of antidepressant treatment may be mediated in part through early changes in emotional processing. Similar approaches could be applied to novel compounds to explore their clinical efficacy. Our MR imaging facilities (especially the ability of the upgraded scanner to perform spectroscopy) will allow this research to develop. Current PhD students include Haydon (*Exploring risk factors for depression and stimulation-induced neuroplasticity using multimodal imaging techniques*).

Essau explores childhood and adolescent psychopathology, specifically in the areas of anxiety, depression and cross-cultural comparisons of these conditions. She has collaborated in her work on gender differences in depression with Oregon Research Institute and Mejiro University, Tokyo and on anxiety disorders with Virginia Tech and several Japanese Universities. Her research is supported by diverse funders and her large research group includes several PGRs, for example two doctoral students are part of a three-year project on adolescent anxiety in Pakistan funded by the British Council and the Higher Education Commission in Pakistan; one internally funded doctoral student is part of a project funded by the London Borough of Richmond on anxiety prevention in primary schools, and another student worked on a project funded by the British Council on anxiety across two generations of the same families in Japan and the UK. Outputs include *Behavior Therapy*, *Journal of Affective Disorders*, *Journal of Anxiety Disorders*.

Brandt has wide expertise in memory research, including memory disorders. Our cognitive laboratories have enabled her to perform research on normal aspects of memory and she is also using our EEG and MRI facilities in her work, benefitting from internally funded PhD bursary students. Tsakanikos has collaborated with UCL on ADHD and with KCL on neurodevelopmental disorders and psychopathology. As well as employing clinical assessment methods, he has developed innovative computer-based experimental methods for measuring sub-clinical schizotypal traits. Mayer has research interests in the developmental psychopathology of autism and the experience of adults with autism (collaboration with Goldsmiths). This work is well supported by our developmental, experimental and cognitive neuroscience labs. Wright's work on childhood experience of depression and anxiety complements other work in the group on psychopathology and development, and he has worked with Sussex on child coping strategies. Outputs include *Neuropsychologia*, *Journal of Behavior Therapy & Experimental Psychiatry*, *Journal of Abnormal Child Psychology, Autism Research*.

Applied psychology (Gibson, Tsakanikos, Vos, Wadey). The core emphasis here is to develop high quality research in sport, health and counselling psychology. This group benefits from external collaboration with KCL and UCL (Tsakanikos) and University of Wales (Wadey). Vos is engaged in on-going collaborations with Vrije Universiteit Amsterdam, University of Twente and the New York Memorial Sloan Kettering Cancer Center. Gibson collaborates widely, e.g. with Bristol, Durham,

Imperial, Leeds. There have been important contributions from PGRs, including a bursary from the Salvation Army, internally funded bursaries and PsychD research.

Much of Tsakanikos's research in adult psychopathology is situated in clinical environments concerned with assessment, clinical management and other issues related to mental health services. This bridges some of our more theoretical research with applied issues. Tsakanikos has supervised six doctoral students during the assessment period on research spanning service provision and intervention programmes to more theoretical work in abnormal psychology. Wadey's research focuses on the psychology of injury, providing insights on how to prevent injury and attain rehabilitation outcomes. He has helped to refine theoretical models and generate evidence-based implications for practitioners. In particular, his research has provided an innovative approach to rehabilitation; rather than focusing solely on the negative cognitive, emotional and behavioural consequences that often follow injury, practitioners are now encouraged also to be mindful of, and account for, positive subjective experiences, positive individual traits, and positive resources in the environment. Gibson's work on eating behaviour, obesity and health psychology has led to his involvement in the EC Framework Programme-7 funded "ToyBox Study" project, which developed a novel evidence-based intervention aimed at preventing obesity in pre-school children in six EU countries (*Obesity Reviews*), as well as a collaboration with DSM Nutrition Ltd and hospital bariatric surgery departments. He also studies stress and comfort eating, which is a known risk for obesity, as well as the impact of diet on cognition and acts as an expert consultant for the food and drink industry. Illustrative outputs in *British Journal of Health Psychology, Journal of Applied Sport Psychology, Appetite*. Current PhD students include Hardaker (*Cognitive Biases as a Function of Narcissistic Traits*), Charabi (*Perceptual Biases in Positive Schizotypy*), Ainslee (*Exploring social support through the sport injury process*), Salim (*Examining the relationship between resilience and post-traumatic growth following sport injury*), Simister (*Personal and social factors in taking steps towards a healthier lifestyle*).

Vos works on the development of evidence-based counselling interventions for psychologically vulnerable populations such as cancer patients, palliative care patients and immigrants. He has developed screening and outcome instruments, both for the practice of psychological counselling and for communication between medical doctors and patients, e.g. concerning the genetic health risks of patients. In addition, he has developed psychological interventions to help cancer patients with existential questions about life such as 'why me?' and 'how can I live a meaningful life despite having cancer?' Clinicians are in need of concrete interventions to help cancer patients with the abstract questions about life which are not addressed in existing psychosocial care but which are important for individual clients. He has reported that existential interventions show large effect sizes: patients learn to cope much better with the existential questions, their wellbeing improves, and their psychological distress decreases significantly. Illustrative outputs in *Clinical Genetics, PLoS ONE*.

Collaboration between researchers is encouraged through regular research seminars, journal clubs, methods meetings, symposia and discussion groups. Weekly departmental seminars cover a full range of psychological research, encouraging us to transcend narrow disciplinary boundaries by focusing on overarching themes which include the interaction between cognition and emotion and its effects on psychological wellbeing and psychopathologies such as anxiety and depression, and the application of psychological science to important clinical and therapeutic issues. External academic speakers have included Jola (Surrey) on the neuroscience of dance, Weinreich (Ulster) on intercultural identity processes and Levita (Sheffield) on the nucleus accumbens. Presentations from practitioners, such as psychologists and therapists from the Royal Hospital for Neuro-disability, provide the opportunity to discuss potential impact opportunities, including knowledge transfer. More specialised events, such as the weekly meetings of the cognition and brain research group, allow focused consideration of research designs and theory (useful for both staff and PGRs). We also foster collaboration through symposia and conferences, e.g. our annual International Conference on Child and Adolescent Psychopathology organised by Essau for the last eight years, that brings together researchers from Europe, the Americas and Asia; and the 2008 workshop on 'Emotion-cognition interactions in humans and non-human animals' co-organised by Holmes and our Anthropology UoA, with participants from Birkbeck, Bristol,

Newcastle and Southampton. All staff and research students attend these well-supported events, which provide excellent opportunities for researcher interaction and expose research students and early career researchers in particular to a wide range of research approaches and influences.

c. People, including:

i. Staffing strategy and staff development

Focused and sustained university support for Psychology has resulted in a further strengthening of the staff base since 2008. In total 15 staff have been submitted to this UOA (2 Professors, 2 Readers and 10 Lecturer/Senior Lecturer/Principal Lecturers). Guided by a commitment to ensuring that we maintained or built on our specialist fields when staff retired or moved elsewhere, the arising vacancies have been filled by a combination of established academics and early career researchers. Our recruitment strategy has aimed to enhance existing strengths in key areas (e.g. cognitive neuroscience, child psychopathology) and to foster interactions within and between our research themes by employing staff whose work links different areas (e.g. Norbury's work on cognitive neuroscience and psychopathology and Brandt's work on the neuropsychology of both adult and childhood memory, as well as memory disorders). Longhi, Powell and Vögele, who left Roehampton during the assessment period to go to other universities, have continued to work collaboratively with colleagues at Roehampton. Psychologists at Roehampton also feature in submissions to Linguistics, Sociology, Allied Health and Education.

Staff development

A peer mentor is appointed for all new staff. Professors and Readers are responsible for supporting early and mid-career staff to establish their research at Roehampton. Individual research plans, coupled with annual review, ensure that all staff are supported in the development of their personal research profiles. Early career researchers benefit from a reduced 70% teaching and administrative workload during their first year and they are supported and guided in the early stages of research publishing by opportunities for peer review and constructive critique in a convivial atmosphere. All research active staff are allocated dedicated research time via a comprehensive workload model with research allowances of 20-40%. A sabbatical term is available for research every three years and all staff, bar recent appointments, have had one or two sabbaticals in the assessment period. Brandt recently used research leave to submit a grant application to the EPS to carry out pilot work on blood glucose levels and medial temporal lobe memory function and to prepare a £128,000 grant application. Holmes used research leave to complete and submit manuscripts on studies covering issues such as attentional selectivity for emotional faces (*Cognitive, Affective and Behavioral Neuroscience*, in press) and to submit a successful £74,433 grant to the NC3Rs (in collaboration with Anthropology UoA and Liverpool John Moores). Gibson used his research leave to apply for further contract research funding from DSM (£400,000), to initiate a multicentre collaboration to apply for BBSRC-DRINC funding, to submit several papers (e.g. *Obesity Reviews*) and present at several conferences. Further short term concentrated research time is arranged for specific activities such as research collaboration visits.

All research supervisors undergo mandatory training, comprising a SEDA-accredited course for new supervisors or a short course for experienced supervisors new to Roehampton, plus at least one session a year from the programme of the Supervisor's Forum. Each research student has two or three supervisors, at least one of whom has previously supervised to completion and who is responsible for mentoring inexperienced supervisors.

Staff research is supported through a programme of pump-priming grants of up to £3,000 each and internally funded full PhD bursaries (16 since 2008). Staff are also supported through training and mentoring to maintain the highest standards of research integrity as informed by the RCUK *Policy and Guidelines on Governance of Good Research Conduct* and *The concordat to support research integrity,* as well as relevant codes such as the BPS *Code of Ethics and Conduct* and research-related guidelines and policies.

ECRs are generally prioritised in the awarding of departmental funds to support them in establishing their own research programmes, for example through funding to purchase or enhance

equipment (e.g. Silas, £5,739 to purchase a Transcranial Direct Current Stimulation system; Macdonald, €4,320 to upgrade an EEG amplifier), as well as for consumables, and doctoral bursaries to support projects closely related to their research interests (e.g. Silas is supervising internally funded students doing projects on transcranial electrical stimulation and attention bias). More established members of staff also benefit from pump-priming research funds in regular internal research allocations (e.g. Aksentijevic, internal award of £2,347, which led directly to *Frontiers in Psychology*). Funding of approx. £6,000 per annum per person is available for staff to attend national and international conferences and for research-related training (e.g. MRI and EEG data processing software, multivariate statistical methods).

The department is fully committed to ensuring equal opportunities in all that we do. Holmes sits on a panel currently working on a University-wide application for the Athena SWAN Bronze Award, which recognises commitment to advancing women's careers in STEMM subjects in HE.

ii. Research students

Research student numbers have grown during this assessment period to 74 FTE (41 MPhil/PhD and 33 PsychD FTEs). We have taken decisive measures to develop a critical mass of doctoral students through the allocation of four departmental bursaries per annum, also securing a University bursary and individual bursaries from the Salvation Army, A.G. Leventis Foundation and a Roehampton-Sacred Heart Scholarship. We run several PsychD programmes where students perform professionally oriented research. Two departmental bursaries led to highly original cross-disciplinary collaborations between Dance Movement Psychotherapy and neuroscience (Silas) and anthropology and cognitive psychology (Holmes). Careful attention is paid to ensuring that doctoral students are well integrated into the research environment and that their topics closely match the range of our research expertise, which adds further depth to our areas of specialism.

In line with the Researcher Development Framework, the Graduate School co-ordinates the University's Research Student Development Programme, a clearly articulated 3-tier programme of training, combining generic and careers-related training, plus interdisciplinary events organised by the Graduate School including for impact, research methods training at major disciplinary level (arts & humanities, social sciences, sciences), and departmentally-based specialist subject provision, such as training in fMRI, EEG/ERP, brain stimulation and eye-tracking methodologies. The Graduate School also provides induction and a buddy system for new students, and supports student-led events such as the annual research student conference.

Every supervisory meeting is documented and students are encouraged to monitor their progress using the Graduate School's personal development plan. Advice and counselling outside the supervisory team is available to all students. Supervisors and students write annual progress reports.

All our research students attend and present at seminars within the Department, at University level and to the wider academic community. They are provided with a research budget (£600) to cover the costs of presenting their research at conferences and are encouraged to develop work for publication (e.g. Brandt, Eysenck and Holmes have co-authored papers with their students). Students are provided with dedicated computer-equipped desk space and full access to all our research facilities. Our postgraduates also have the opportunity to develop through participating in a carefully managed contribution to teaching. Among 38 completed research students, current positions include postdoctoral research at Imperial and lectureships at UCL, Canterbury Christ Church, Nottingham Trent, Liverpool John Moores and Roehampton (Silas, a past departmentally funded doctoral bursary student).

d. Income, infrastructure and facilities

Over the review period, our research income has included awards from a wide range of national and international charities, organisations and companies (e.g. The British Council, Leverhulme Trust, American Psychiatric Association, Salvation Army, Department for Business, Innovation and Skills, Society for Research in Child development, Daiwa Anglo-Japanese Foundation, Porticus, The GB Sasakawa Foundation, Santander, EC, e.g., FP-7, DSM Nutritional products Ltd.).

Infrastructure
The University Research Committee, chaired by the Vice-Chancellor, overseas institutional research strategy, fosters new initiatives, allocates strategic investment and monitors research quality. Ethics are co-ordinated by a University Ethics Committee with a representative from each department. Research activities are coordinated locally by the Department of Psychology's Research Advisory Group. The integration, planning and daily support of Psychology's research activities is enabled by the university Research Office and a full-time departmental Research Facilitator with a background in Psychology research, who supports bidding, facilitates the development of networks and partnerships, maintains mailing lists, organises web development and supports web organisation. A dedicated academic works to support the development of impact across the institution, and chairs an impact advisory group that coordinates this activity and encourages its strategic development.

Research facilities
Since 2008, we have made significant financial investment in new research infrastructure and in maintaining our excellent and extensive existing laboratory facilities with investment of £530,599.

We work in generously proportioned, custom-built, accessible laboratory spaces. As members of the CUBIC (Combined Universities Brain Imaging Centre) regional HEI consortium (Roehampton, Royal Holloway, Brunel and Surrey), we own and run a 20% share in the research-dedicated Siemens TIM Trio MR scanner sited at Royal Holloway University of London. This represents a significant contribution to our physical infrastructure and has recently gone through a complete upgrade (at an overall cost of £329K), now providing cutting-edge capabilities across the full spectrum of MR imaging modalities (anatomical, BOLD fMRI, DTI and MR spectroscopy). As a Siemens recognised research site, we are also able to access third-party specialist sequences (e.g. Norbury, in collaboration with Dr J Near, McGill University, installed a bespoke MRS sequence for GABA concentration estimation). We currently use the scanner to examine individual differences in the brain's resting state, interactions between cognition and emotion, action observation, word meaning and brain damage in patients with memory problems.

The main psychology laboratory spaces are designed to allow our wide range of equipment to be used by any of the research groups. The main experimental lab (155m^2) contains seven research rooms, a reception area, a computer area, a prep-room and a technician's office. It is set up to allow experiments to be controlled and observed remotely. Our developmental/social lab (61m^2) has two large research rooms with observation windows and a reception area suitable for children and caregivers. We also have seven further audio-visual rooms and smaller research cubicles (39m^2 total). These give us the facilities we require for experiments in cognition, psychophysiology, social observation, developmental psychology and interviews. We also make use of several of the Life Sciences labs (including a food lab) and technicians.

Equipment for psychological research includes four EEG amplifiers (40-128 channels), Polhemus electrode position digitiser, one TMS and two tDCS stimulators, a Tobii eye-tracker, auditory psychophysics equipment, eating behaviour equipment, psychophysiological equipment for instantaneous blood pressure and heart rate measurement, an infra-red camera for skin temperature and facilities for blood and saliva collection. We have excellent resources for computer-generated experiments using software such as ePrime, SuperLab and PsyScope X including Black Box recorder equipment to measure precise timing. We have licences for data analysis software such as BESA, MATLAB, Observer XT, FaceReader and BrainVoyager. The main lab hosts a bank of high-specification computers for data processing and the psychometric test library (300 tests including computerised CANTABeclipse). We have also purchased Qualtrics web-based questionnaire software and the ADOS Autism diagnostic kit which Mayer is qualified to use. We use SONA participant management software.

Technical support
Our research support team includes a technical manager, six technicians (two holding postgraduate degrees with one currently completing doctoral research with us) as well as the MRI

technician located at the CUBIC scanner.

e. Collaboration and contribution to the discipline or research base

1 Peer review We have reviewed articles for more than 70 different journals and also review grant applications, end of award reports and awards, e.g. MRC, Austrian Academy of Sciences, The Israel Science Foundation, BBSRC, British Academy, ESRC, Leverhulme Trust, Ontario Mental Health Foundation, Royal Society, NSF, Social Sciences and Humanities Research Council of Canada, Swiss National Science Foundation, BPS, Carnegie Trust of the Universities of Scotland, Tryg Foundation, Netherlands Organisation for Health Research and Development (ZonMw), Austrian Science Fund, Health Research Board, Ireland, Guy's and St Thomas Charity, UK.

2 Membership of editorial boards Essau: *Clinical Child and Family Psychology Review;* **Eysenck**: *European Psychologist*, *Anxiety, Stress, and Coping*, *Personality and Individual Differences*; **Holmes**: *Cognition and Emotion*; **Tsakanikos**: *International Journal of Brain and Cognitive Sciences, Journal of Behavior Therapy and Experimental Psychiatry, Psychology and Behavioral Sciences, Journal of Mental Health Research in Intellectual Disabilities, Research in Developmental Disabilities*; **Gibson:** *Frontiers in Eating Behaviour.*

3 Prizes and Fellowships Essau: Fellow of the BPS; **Eysenck**: Lifetime Career Achievement of Stress and Anxiety Research Society; **Tsakanikos**: Isaac Manasseh Meyer Fellowship. **Wadey:** Association of Applied Sport Psychology (AASP) international award for research of outstanding merit, 2011.

4 Membership of subject associations: In addition to a range of memberships, **Essau** is a Fellow of the BPS, Holmes, Brandt and Tsakanikos are Associate Fellows

5 Organisation of conferences, symposia and workshops Brandt: co-organiser (with Birkbeck) of Symposium in Honour of Prof. Michael W. Eysenck: Cognition, Emotion and Psychopathology, Roehampton University; **Essau**: Anxiety in children and adolescents: From epidemiology to prevention – symposium, Faculty of Clinical Sciences, College of Medicine, University of Ibadan, Nigeria; **Holmes:** organiser of fMRI Methods Workshop at Roehampton University**; Tsakanikos:** Technical Program Committee on the CPSH Conference, Beijing; **Gibson**: Scientific Committee, Inaugural Nutrition and Health conference 2012, Latvia.

6 Invited presentations International keynote and leading presentations have included: **Essau:** International Conference of Applied Psychology, University of the Punjab, Lahore, Pakistan; 2nd South East Asia Psychology Conference, Universiti Malaysia Sabah, Malaysia, International Congress of Community Life at School. Universidad de Almería**,** Almeria, Spain; **Eysenck**: Anxiety and Stress conference in Valencia; Biennial International Conference on Cognition, Emotion, and Personality in Warsaw; International conferences on Anxiety Disorders, Tenerife, Santander, Santiago de Compostela, Biennial International Conference on Personality and Control in Kazimertz-Dolny, World Congress of Behavioural and Cognitive Therapy, Lima, Peru. **Gibson**: Columbia University Appetitive Behaviour Seminars; EPBS Workshop on Eating Behaviour and Obesity, Lecce, Italy. Staff also regularly give invited research seminars to university departments nationally and internationally.

7 External examiners. Doctoral examining has included: Barcelona, Birkbeck, Bremen, Cardiff, Cambridge, Cluj-Napocka (Romania), East Anglia, Edinburgh, Essex, Glasgow, Hong Kong University, Imperial College, Institute of Psychiatry, Lausanne, Leeds, Loughborough, Manchester, Munster, Mysore, Quad-i-Azam, Queensland, Royal Holloway, Sussex, Swansea, UCL, University College Dublin, Western Australia.