

Institution:

Sheffield Hallam University

Unit of Assessment:

UOA04 - Psychology, Psychiatry and Neuroscience

1. Unit context and structure, research and impact strategy**Overview and Context**

Our mission is to deliver excellent applied psychology research which makes a difference to the lives of individuals and communities. Through the creation of [The Centre for Behavioural Science and Applied Psychology](#) (CeBSAP), relocation within a new £27 million facility, and a strategy that prioritises researcher support and development, we have grown research in scale and quality and fostered an environment where research excellence flourishes.

Indicators of our significant achievements include (i) **growth in research income** - from £21k in 2015/16 to £336k in 2018/19; (ii) **growth in research active staff** - with more than double the number of Psychology staff returned in this submission compared to REF 2014; (iii) **growth in contribution** - securing our role as one of only six preferred partners able to provide behavioural insights research across local and national government in 2018-22, and our swift and effective response to Covid-19.

Structure

The Psychology subject group sits within the Department of Psychology, Sociology and Politics (PSP). It is the largest subject group, comprising 51 academic Psychology staff. This unit submission comprises 18 (17.6fte) staff. The institution did not make a submission to UoA 4 in REF 2014, however eight Psychology staff submitted to the following five units: UoA 3, UoA 5, UoA 24, UoA 32, UoA 34. Alignment with these units reflects our longstanding focus on interdisciplinarity and our established areas of applied research excellence connecting into Health, Biosciences, Education, Art & Design and Communication.

Research and Impact Strategy

Our areas of excellence underpinned our plan to establish and grow a new research centre that strategically harnessed our interdisciplinarity under core themes of Behavioural Science, Neuro-Cognitive Testing, and Applied Theory and Methods. Through the strategic growth of the centre, we significantly expanded our capacity for delivering excellent research in regional, national, and international contexts.

Our 2015-2020 strategy had three core objectives:

- (i) Create a strong, outward facing research culture, enabling us to foster external partnerships with an *applied focus*.
- (ii) Increase research active staff, enabling us to build capacity and undertake *research at scale*.
- (iii) Improve research quality and prioritise interdisciplinarity, enabling us to deliver *research with impact*.

Achievement of Strategic Aims During the Assessment Period

To meet our objectives, we **significantly expanded our research leadership capacity from a single Principal Lecturer for Research in 2015, to a Research Leadership Team (RLT) which comprises three Professors and seven Readers**. RLT growth has been facilitated by the creation of the SHU Reader promotion route, introduced under the [Academic Careers Framework](#). The RLT lead research across all three subject groups in the Department. All members of the RLT model research excellence in their own practice and contribute to research leadership.

This increased capacity enabled us to: (i) grow our research income, securing funding from national and international funding bodies, including MRC [Confidence in Concept, MR_PC_16058, £33,373, Barker] and Erasmus+ [incl. 603388-EPP-1-2018-1-UK-SPO-SCP, £379,015, Lazuras], and (ii) extend external local and regional government partnerships (e.g. Arden with Doncaster Borough Council and Sheffield City Council), and contribute to university research priorities (Ypsilanti chair of college ethics committee).

New Centre

In 2018, with start-up investment of £250,000 from the University, we launched [The Centre for Behavioural Science and Applied Psychology](#) (CeBSAP). Under the leadership of Arden, an internationally esteemed Professor of Health Psychology, CeBSAP now provides the infrastructure for all Psychology research in the Department, and it is our primary conduit for engagement with external partners, impact activities and knowledge exchange. All members of the Psychology staff are affiliated with CeBSAP and variously work on projects aligned with their expertise. CeBSAP has formed strong partnerships with the recently established [Research Institutes](#), it draws admin support directly from the [Social and Economic Research Institute](#), and it has established an agreement with the [Advanced Wellbeing Research Centre](#) (AWRC) to act as the lead contributor of Behavioural Science expertise.



Dr Tim Chadborn, Head of Behavioural Insights and Evaluation Lead for Public Health England delivers keynote lecture at the CeBSAP launch, attended by 120 delegates from local government, public health, healthcare, education, policing, business, and voluntary sector.

CeBSAP is organised around three intellectual themes which reflect our areas of strength: (i) Behavioural Science, Behaviour Change and Well-Being; (ii) Neuro-Cognitive Testing; (iii) Applied

Psychological Theory and Methods. Each theme is led by a member of the RLT and staff may link to one or more theme.

(i) Behavioural Science, Behaviour Change and Well-Being

We have significant expertise in the development of behaviour change interventions which are founded on psychological theory to improve health and well-being. Researchers for this theme include Arden [impact author and theme lead], Lazuras, Millings, Porritt [impact author], Thorneloe [ECR] along with wider members of the staff group.

Examples of our work under this theme reflect our commitment to lead in research which directly benefits the lives of individuals and communities. Projects include work commissioned by Doncaster Metropolitan Borough Council as one of 12 Sport England local delivery pilots seeking to improve levels of engagement with physical activity [DN355394, £118,910]. This research was led by Arden and co-delivered by Thorneloe, along with other members of the psychology staff group, including Kilby (whose interdisciplinary research is submitted under UoA34), collaborators in other areas of the university, and colleagues at the University of Manchester. The project, which developed behavioural interventions to combat low levels of physical activity in local communities, utilised co-design methodology, empowering people to contribute to research in their own communities and help design appropriate interventions.

Our two impact case studies also fall under this theme. One project is our work concerned with reducing Dental Anxiety amongst children [ICS1]. This NIHR funded work [PB-PG-1111-26029, total grant £230,662] is led by Porritt in collaboration with colleagues at the University of Sheffield. The impact of their cognitive behavioural therapy (CBT) toolkit to reduce dental anxiety in children and young people is now widely used across the UK and incorporated into the clinical care pathway for the management of anxious patients for dentists working in NHS England Central Midlands.

Another major project involves Arden's leading contribution to a multidisciplinary team of academics and clinicians working to improve and extend the lives of people with cystic fibrosis [ICS2]. Arden is the behaviour change lead for this NIHR funded research [RP-PG-1212-20015, £79,917], which has led the development of an intervention to increase adherence to medication in adults with cystic fibrosis. The [CFHealthHub](#) intervention is increasingly embedded within clinical practice, with 19 UK centres now using this intervention to change people's lives.

Our applied work is also impacting national and international policy in the context of anti-doping education. Funded by the European Commission's Erasmus+ Sport Programme, the award-winning project [SAFE YOU](#) [579828-EPP-1-2016-2-EL-SPO-SLP, £46,935], developed web-based anti-doping education resources for recreational and elite athletes. As a lead psychologist, Lazuras worked with academics, sport stakeholders, and anti-doping practitioners from UK, Greece, Cyprus, Italy, and Germany. SAFE YOU received additional funding from the World Anti-Doping Agency to test its effectiveness in elite athletes. It has informed the education programme of the Cyprus Anti-Doping Authority and been recognised as a Success Story by the European Commission for raising public awareness about the problem of doping in fitness and amateur sport.

(ii) Neuro-Cognitive Testing

Our expertise here underpins our objectives to: (i) bridge the gap between theory and practice in neurosciences and healthcare; (ii) develop new diagnostic tools and functional measures; and (iii) undertake cross-cutting work in areas of perception, cognition, sleep, language, brain injury, concussion and stroke. Researchers for this theme include Akram [ECR], Barker [theme lead], Daneyko, Taroyan, Thirkettle, Ypsilanti, and members of the wider department.

Examples include **Barker's CogLAB research developing computerised digital technology to diagnose cognitive impairment after stroke, brain injury or in early dementia patients using a single comprehensive assessment task** [output 554]. Barker, in collaboration with Sheffield Teaching Hospitals and Rotherham, Doncaster and South Humber NHS Foundation Trust, has led MRC portfolio-funded clinical research. The product is moving towards regulatory approvals as a type IIa diagnostic device. The research received additional industry funding from [Grow MedTech](#) and it was awarded first prize for in the Medipex Mental Health and Wellbeing category as a new electronic measure of cognitive function for use with neurological patients (2015-16).

Our focus on the applied benefits of technology and innovation is also evident in the work of Ypsilanti and Lazuras and their collaboration with regional industry partners [SleepCogni](#). Having secured £234k funding from Innovate UK's Biomedical Catalyst [31240, £51,340 to SHU], Ypsilanti and Lazuras are leading research to evaluate and enhance the patented biofeedback wearable device and optimise its effectiveness in treating insomnia symptoms.

Barker has also led a multidisciplinary team to investigate microbiome, symptoms and cognitive profile in Parkinson's Disease using RCT ([NCT04140760](#)). Initially involving partners from University of Sheffield, Sheffield Teaching Hospitals and the [Sheffield Institute of Translational Neuroscience](#) (SiTRAN), this developing work has extended to include partnerships with Gaisford (School of Pharmacy, UCL), Chaudhuri (Parkinson's Foundation Centre of Excellence, King's College London), McDermott (SiTRAN).

(iii) Applying Psychological Theories and Research Methods

Work under this theme is responsive to the diverse practical needs of external partners in commercial, technological, public and third-sector environments. We help clients by applying psychological methods and theories to address real world problems and arrive at solutions or interventions. Researchers in this theme include Aguado, Brown [ECR], Kilby [submitted to UoA34], Merry [ECR], Reidy, Soranzo [theme lead], Verrier, Whitfield and members of the wider department.

Brown [ECR] has collaborated with management consultancy firm Lane4 on research to improve support for athletes as they transition out of elite sports [output 592]. **Brown's research with former Olympians underpinned the development of a group-based intervention programme that was co-delivered by Brown and Lane4.** After successful pilot, the intervention was rolled out nationally with support from the British Athletes Commission. The programme has been attended by athletes from across the spectrum of Olympic sports.

Reidy has applied his expertise in quantitative methods in his collaboration with Age UK on the [LEAF-7](#) project. Leaf 7 is a quality of life and outcomes measurement tool for use with vulnerable older adults. Reidy led work to evaluate validity and extend the test. This robust measure has now been used in more than 3000 assessments.

Under the umbrella of the Applied theme, Whitfield leads a small group of forensic psychologists who undertake research designed to support crime reduction with a particular focus on young people. Whitfield and colleagues have secured funding from the Home Office to undertake research for the South Yorkshire Violence Reduction Unit, and HMI Probation funding to evaluate Youth Offending Teams. The team also secured N8 Policing Research Partnership funding to conduct research with young people, exploring the effects of knife crime imagery on perceptions and attitudes towards knife crime. This research is informing the design of knife crime intervention. In other work, Whitfield and Merry [ECR] secured NSPCC funding to investigate the risk of sexual harm to young people engaged in competitive online gaming and eSports. This work will contribute to the development of policy and industry safeguarding guidance.

Interdisciplinarity

We work closely with applied social and health researchers located across the University in research centres, including [Sport and Physical Activity Research Centre](#) (SPARC), [The Centre for Regional Economic Social Research](#) (CRESR), and [The Centre for Development and Research in Education](#) (CDARE). We also maintain an important relationship as the lead behavioural science provider for [The Advanced Wellbeing Research Centre](#) (AWRC), with a member of our staff seconded one day per week to work in the AWRC. Through these collaborative partnerships we apply our cross-cutting expertise to a wide variety of behavioural science projects and contribute to collaborative bids for external research funding.

Our commitment to interdisciplinarity is further reflected in our close affiliations with the [Sheffield Institute for Policy Studies](#), the [Sheffield Institute of Education](#), and the Cultural, Communication and Computing Research Institute. These affiliations support and reflect some of our interdisciplinary areas of strength. Our interdisciplinarity means that, alongside developing our submission to UoA 4, where appropriate Psychology staff are submitted to other units (Furness UoA 3, Kilby UoA 34, Reidy L UoA 23). The unit of assessment co-ordinator for UoA 4 acts as a link co-ordinator between the Department and other relevant unit of assessment co-ordinators. This ensures that we have a complete understanding of the work that our staff are engaged in and enables us to provide appropriate support. All Psychology staff have equal opportunities to access departmental QR funding initiatives, regardless of which UoA they are aligned with. We see our support for collaborative, interdisciplinary and cross-cutting research as a particular strength of our research culture and we are committed to continuing to provide full support for staff to undertake high quality research and for it to be judged as such wherever is most appropriate.

Open Research and Research Integrity

All research activity is subject to strict ethical scrutiny via the University ethics procedures and is compliant with the University commitment to the concordat to support research integrity. All staff are required to have ethical approval in place prior to commencing any planned research. Many of our staff also act as research ethics reviewers. We have also implemented measures to enable the tracking and quality assessment of funding proposals.

All external funding proposals are routed through the RLT for early peer review before being progressed to the formal University RKT/Research and Innovation Service review processes. This allows us to identify researcher support and development needs and enables us to monitor levels of grant application and bid-to-capture outcomes.

Staff are encouraged to apply for University funding to support gold open access publication of research where appropriate, and guidance is provided to ensure staff make informed choices about appropriate open access journals. All staff are systematically reminded to make all other publications available as green open access through the institutional repository.

Future Strategic Plans for Research and Impact

Our strategy for research and impact for the next five years will deliver against the following objectives:

- Continue our 'bottom up' approach to researcher development and increase our number of research active staff and our research quality. **Our current research intensity is 35% and we are aiming for 50% within this timeframe**, in line with institutional objectives.
- Grow staff capacity for bid generation activities and secure external income in line with university targets. To do this we will build on our funding successes with local and regional government authorities, pursue further NIHR, MRC and Innovate UK

opportunities, and increase our contract research and knowledge exchange activities.

We aim for 15% year-on-year increase.

- Invest in the capacity and capabilities of research staff to undertake and/or increase the impact of their research. In support of this we will **widen staff sabbatical/secondment opportunities**, providing greater scope to undertake impact work via CeBSAP or through partnerships with AWRC and CRESR. We will also seek secondment opportunities for staff to work with our external partners in local authority and/or commercial contexts.
- Pursue **additional opportunities for collaborative interdisciplinary research** with other research centres and research institutes, particularly through the AWRC behavioural science partnership and opportunities presented through the Research Institutes.

2. People

Staffing strategy and staff development

The increase in both scale and quality of our research is reflected in this submission. A total of 21 Psychology staff are submitted to REF 2021, compared to eight in 2014. 18 staff are submitted to UoA 4 and three are submitted to other units (UoA 3, UoA 23, UoA 34). This section sets out how we have placed a significant focus on researcher career support and development as the foundation for growth.

Research Career Development

Our strategy for research career development is informed by the [Academic Careers Framework \(ACF\)](#) (see Institutional Statement) which provides a University-wide recognition and reward structure for all academic staff.

Our strategy for research development has three central objectives:

- To support existing research active staff and enable them to pursue and grow their research excellence in a manner that is demonstrable via indicators such as high-quality outputs, external research income, impact, career progression.
- To support ECRs by fostering a culture of research excellence which prioritises quality not quantity, provides resources and support to begin producing high quality outputs, builds knowledge and confidence about external funding streams, and enables access to appropriate opportunities.
- To support staff that have been research active previously but have not produced high quality outputs in recent years and who wish to re-engage with research.

These objectives are well aligned with the wider University objectives for researcher development which are underpinned by the [Concordat to Support the Career Development of Researchers](#), and we link our researcher career development support up with the resources available through the Sheffield Hallam Researcher Development (SHaRD) programme. **To ensure we can achieve these Departmental objectives we have a member of the RLT who has a dedicated responsibility for researcher career development** and, aligned with our objectives, we have fostered a culture founded on three central values: (i) Inclusivity, (ii) Opportunity (iii) Quality.

(i) **Inclusivity** begins at day one. **New staff participate in an induction meeting with the designated Research Lead within the first month of joining**, to provide key information and help integrate them within our research culture. This meeting is also an opportunity for the RLT to become familiar with the research interests of new staff, be appraised of any ongoing research

activities/external funding that new staff are involved with, and identify potential fit with existing areas of research.

We host a vibrant programme of regular research events for all staff including ECRs and PGRs. This includes monthly **'Twilight Wednesday' events that are led by the RLT with input from external speakers.** The content of each session is driven by staff requests regarding their research needs (e.g. open science, external funding sources and bid writing, and working with industry and external partners). These sessions provide a site where staff can discuss a range of research related issues in an informal and collaborative environment.

We also host a **monthly Research Seminar series**, led by a staff member who has work planned time for this activity. The seminar series is carefully organised to ensure that all areas of research interest are covered and that both quantitative and qualitative psychology is showcased. PGRs are encouraged to attend.

In 2016 we revised our process to ensure that **all key research communications happen within subject group meetings.** The Psychology subject group meetings are attended by all Psychology staff, which includes those who may not be currently research active. Our objective here is to counter any potential divide between research active/non-active staff, ensuring all staff are valued for their research capability, remain aware of research developments and opportunities, and receive encouragement to pursue them.

(ii) **Opportunities** available to staff include a **Departmental sabbatical scheme** that enables staff to take a semester away from all teaching and administrative duties. The scheme was introduced in 2014/15 and supports 3-4 sabbaticals per semester across all three subject groups. **All staff are eligible including ECRs and staff returning to research.** Applicants submit a research plan for panel review and decisions are based on the appropriateness of the research plan for the individual staff member. Sabbaticals can be used to undertake a range of activities including impact activities and knowledge exchange. They can also be used by staff who wish to spend time on secondment to research centres in the University or to spend time elsewhere in the UK or overseas fostering collaborations. Staff can also request to take a sabbatical to spend time in external settings, researching with partners in industry, business or other environments. **Between 2014/15 - 2020/21 33 psychology staff were awarded a sabbatical.** Outcomes include the progression of Aguado's research on language development. During his sabbatical he was able to research overseas and complete a series of new data analyses, which built upon his prior work [output 553] and contributed to further outputs [output 589].

To support staff in dedicating time for writing, since 2014 we have invested QR funding to host an **annual writing retreat.** All staff including are invited to attend this event which is hosted off campus. We ensure the location is easily accessible and we have offered a residential option for any staff with a significant commute. Following staff feedback, in 2017 the event was extended from 3 to 5 days. In 2019, following staff requests, we introduced a second 5-day retreat, thus we now host a retreat each semester. **Approximately 12-15 staff attend each retreat.**

We invest QR funding to support specific research activities via a **Departmental small grants scheme.** This is a rolling scheme with calls being issued approximately three times per semester. It is open to staff who have demonstrated themselves to be research active and who have previously produced high quality research. **It provides seed-corn funding to support pilot work, prepare grant applications, undertake impact work or undertake additional work on papers following review.** Staff can also apply for funds to cover Research Assistant costs, ancillary research costs, participant incentives and travel expenses, and transcription costs. There is no absolute limit on the amount that can be requested but typically we fund bids up to £5,000. Whilst this funding is only accessible to established researchers, we encourage early career or returning researchers to bid collaboratively with experienced researchers.

Since 2016 we have also invested QR funds into targeted **Researcher Development events that are open to all staff including ECRs.** Staff can also invite external partners to attend. For each

3-day event we have retained the services of external funding experts to help develop and run the events. These events are designed to increase knowledge and confidence of the external funding landscape and to support staff in building collaborative research bids with external researchers, and with external partners based in industry, business or third sector environments. **These events have supported over 50 staff from across the Department. Outcomes have included the formation of new research alliances and the formation of a small Research Interest Group, who subsequently secured internal funding** and are demonstrating impact through broadcast interviews and sharing their work via [The Conversation](#) (20k reads).

All staff are financially supported to attend at least one national and/or international conference a year. Research active staff who are seeking to present at additional conferences or other events often receive additional funding to help them maximise their external engagement and to support impact and knowledge exchange. **Support for ECR staff is particularly important and includes Thorneloe's attendance at the Behavioural Science and Public Health Network conference (Jan 2020) where she presented research funded by Public Health England.**

In addition to career guidance that staff receive via the University process of annual Performance and Development Review, we introduced a **Departmental mentoring programme**, which is open to all staff. Mentees and mentors are matched based on the objectives of the mentee (e.g. requiring early career guidance, seeking promotion to Reader/Professor). We also take account of gender preferences, ensuring that female researchers have opportunities to receive mentorship from more senior female colleagues where appropriate. All mentors undertake training before they work with a mentee and all mentees undertake an introductory session to outline how mentoring works and to help ensure that they fully benefit from the process. **Since 2014, the scheme has attracted between 8-15 psychology staff each year. Uptake reflects staff at all career stages from ECR to Senior Staff Grade.**

(iii) **Driving up research quality** is integral to all the initiatives outlined above. The key message shared with staff in all communications is quality over quantity. Applications for small grants funding, sabbaticals and attendance to writing retreats are all reviewed by a panel from RLT against criteria which emphasise quality. **Our focus on quality is further supported by the implementation of an annual research plan, which aligns with wider University requirements for research planning. This process encourages staff to focus their objectives around increasing and maintaining research quality, and does not encourage individual staff to diversify too widely or reward staff based on quantity of outputs or volume of activities engaged with.** We work with early career staff to help them gradually build a research portfolio and scaffold their research career development with close support from peers and research leads.

We have further developed mechanisms for regularly assessing quality of outputs. All staff who are producing high quality research are encouraged to undertake peer-review training, led by the RLT, and equality and diversity training. They are then invited to contribute to reading panel away-days. Novice reviewers are partnered with experienced reviewers to review outputs and assess originality, significance and rigour. This activity supports staff to drive up quality in their own research and further embeds quality assessment activities within the Department. **Between 2014-2020 we have provided review feedback to 39 psychology staff.** Other research quality initiatives include providing internal review of draft papers for ECRs and hosting researcher development events to provide guidance on issues such as writing for publication, research data management and preparing funding applications.

Recruitment

Recruitment is undertaken in accordance with the University policies for equality, diversity and inclusion. Shortlisting is a transparent process which involves assessing whether applicants meet the requirements of the person specification. Interview panels, including those for PhD studentships, are required to include female and male panel members. All staff involved in

recruitment and selection are required to have undertaken training offered by the University, which includes training on equal opportunities legislation and gender and diversity. As well as contributing to interview panels, RLT review applications and to consider strategic alignment between applicants and our core research themes.

Postgraduate Research (PGR) Students

Presently, there are 39 full and part-time Psychology doctoral students, including Home and International students. Students are recruited by rigorous University policies of inclusion, diversity and equality. Recruitment, resourcing, training needs and pastoral care is overseen by the departmental Postgraduate Research Tutor (PGRT), who is a member of the RLT, and a deputy PGRT (senior lecturer).

PGRs are engaged in diverse PhD topics that align with CeBSAP core themes, including health behaviour, neuroscience, forensic, social, developmental and cognitive psychology. Research diversity is reflected in collaborative partnerships with local and regional NHS Trusts, the Home Office, Crown Prosecution Service and South Yorkshire Police, the Children's Hospital, local charities, local council, schools and other educational organisations encompassing various patient groups and stakeholders.

Student supervision is team-based comprising a Director of Studies, supported by one/two second supervisors and/or advisors, who may be external, fostering inter-university collaboration and knowledge exchange. Each supervision team meets requirements of two PhD completions and relevant good quality publications. Alongside University provision, Psychology offers bi-annual supervisor practice and process sessions within the department to disseminate new University regulations, share good practice, expertise and skills, and address - through shared experience - any issues arising within teams. PGRs select two student representatives each year to liaise with PGRT team and Head of Research Degrees on their behalf, attend University-wide student-staff liaison committees and engage in induction activities for new students.

Student progress is formally monitored at several points: (i) approval of research programme, (ii) confirmation of PhD, (iii) submission, and (iv) completion. Research approval is conducted by an independent rapporteur against quality, resource, rigour and feasibility criteria. Students complete multiple modules online (Epigeum) in their research training, to ensure that excellent academic integrity is maintained across the PhD period.

Confirmation takes place after the first year (two years for part-time), assessed by two independent rapporteurs, to ratify progression from masters to PhD level. PGRs submit a 6,000-word progress report, provide a 20-minute presentation and engage in a mini-viva type discussion with rapporteurs. Supervisors remain present to provide support to the student. **The student determines whether the presentation is open to peers and departmental staff or closed including only supervisors and rapporteurs.** The former option provides a learning outcome for PGR students, an opportunity to experience the assessment process, support their peers, and practice formulating and asking critical questions in a constructive and considered way. Presentations are typically vibrant, stimulating and interactive platforms for PGRs. The *closed* option accommodates students with anxiety and/or learning contracts, and ensures that these factors are sensitively incorporated into this assessment procedure.

In addition to formal assessment points, **Tracker Panel meetings occur across the academic calendar, scheduled between confirmation and submission.** Panels include rapporteurs, supervisors and PGRT team, who meet with the student to monitor progress, discuss research-based/supervision problems, and identify additional training needs or resources required for completion. A report with recommendations and action plan is generated post-panel for supervisors and student.

Students are encouraged to join and participate in Departmental research activities and to attend external research talks. They are invited to attend the Twilight Wednesday sessions to substantiate their research skills augmenting academic knowledge, and they have the option to attend a yearly departmentally-funded writing retreat, to progress an identified piece of research or develop a manuscript draft. Additionally, students set the agenda for monthly research breakfasts, attended by PGRT team and staff, chair quarterly *student-led* committee meetings with PGRT team, and engage in ongoing skills training to support academic development. **All PGR students receive a £500 annual bursary for conference/workshop/knowledge exchange activities to foster engagement with the wider academic community.** Additionally, a bi-annual award system exists within the department to incentivise students and encourage outstanding endeavours, either in research or as a collegial member of the PhD community.

A *Shine* award is presented to two PGRs who are judged to have made an outstanding contribution to departmental academic output. Similarly, the Best Developing Academic award (BDA) recognises the role of PGRs in promoting a respectful, supportive workplace environment, voted by their peers. *Shine* recipients have published book chapters and manuscripts in good-quality peer-reviewed journals and engaged in community-based interventions, for example establishing a perinatal mental health forum for new fathers, during the PhD period. Award winners receive an official University certificate to add to their portfolio and take with them as they progress and vouchers to spend.

PRES summary data for 2019 show SHU ranked 12th highest for research skills, 9th highest for research culture, and 22nd highest for supervision. **SHU was in the highest quartile for 7 out of 8 areas of doctoral provision.**

Each year, students host an annual *internal* PGR conference to disseminate their work. **In 2019, PGRs in Psychology succeeded in their bid to host the 34th annual [PsyPAG conference](#)** 'for postgraduates by postgraduates'. 72 speakers and approximately 150 delegates attended, with the conference achieving broad acclaim and [media interest](#). At the invitation of the conference organisers, **Professor Sir Chris Husbands, Vice-Chancellor of Sheffield Hallam University delivered one keynote lecture, and Professor Arden delivered another.**



PGR organising committee receiving appreciation at the National PsyPAG conference close.

Equality and Diversity

The gender breakdown of staff submitted to UoA 4 is 9w/9m. It includes 4 ECRs, (1w/3m) and 2 Senior Staff Grades (1w/1m). The additional three psychology staff submitted to other units are all women. Growth in our Department RLT reflects staff securing promotion to Professor and Reader positions. This includes six psychologists (4f/2m): Arden (promoted to Reader and then Professor); Barker, Kilby (submitted with UoA34), Lazuras, Soranzo and Ypsilanti promoted to Reader. We have paid careful attention to equality and diversity issues integral to the development of our research culture. This is reflected both in our methods of communication with staff, our commitment to supporting research activity across all staff, and how we have arrived at our submission corpus. All staff involved in research reviewing processes are required to complete the University equality and diversity training beforehand. We also monitor review panels to ensure they comprise female and male reviewers.

The Psychology subject group holds an **Athena Swan bronze award**, recognising that we have the systems and support in place within the Department to "recognise the advancement of gender equality: representation, progression and success for all" (Athena Swan charter). Whilst Athena Swan is primarily focused on gender, we seek to uphold these same values across all protected characteristics listed under the Equality Act (2010).

We have pursued opportunities to improve equality within recruitment and development processes. **We have worked with the University Equality and Diversity team and with external consultants to develop unconscious bias training**, which was offered to all staff with involvement in recruitment or people development. All interview panel chairs remind the panel of their responsibilities in relation to equality, diversity and inclusion, and we have reviewed and revised our recruitment material to ensure the wording promotes equality and diversity, and incorporates a link to University recruitment pages, which portray a mix of gender and other protected characteristics.

All our research initiatives (e.g. sabbaticals, PhD supervision) are managed through transparent, written application processes. Decisions are made following review by RLT. The panel always comprises female and male reviewers, all of whom have completed the SHU equality and diversity training. Our research mentoring system ensures that staff are supported in their research career development in the context of their own circumstances. Mentoring often involves exploring the challenges of work/life balance and/or working with staff to address issues of research confidence and developing an external research presence. We aim to recognise and support staff where traditional gender division can create inequality, and we ensure that our female colleagues have strong female role models. **The Psychology staff group includes one female Professor and three female Readers, as well as many other female research active staff, who are excelling in their areas of research.**

Most Psychology staff are full time permanent staff; however, we do have a small number of staff who are part time. We have been careful to ensure that part time staff are equally well supported to remain research active and to ensure that opportunities are accessible to them to support their development of high-quality research. **One of our leading researchers and impact case study author (Porritt, ICS1) is a part time colleague with a 0.6 FTE contract.** To ensure that her research and impact work is appropriately supported we have provided additional work planned hours above the threshold requirements for this individual and we have provided additional research assistant support.

All staff can make a formal request for flexible working, typically we do not receive such requests. To a large extent we believe this reflects the culture of the Department which allows staff to informally manage the timing of their day-to-day activities to fit around scheduled teaching commitments according to their own circumstances. This includes staff having the flexibility to work from home wherever possible. Such an ethos is something which we continue to protect.

Six out of 73 members of permanent academic staff, across all three subject groups in the department, are from a BAME background (8%), which is lower than our BAME student population (22%) and the Sheffield BAME population (16%). As part of our Athena Swan work, we have developed initiatives with an ambition to increase the diversity of our staff group. **The Department BAME project lead has worked closely with the Head of Equality and Community Engagement at SHU to create staff development workshops, which examine issues affecting BAME students and staff. This workshop has now been delivered to 59 staff, as well as PGRs.** To further support our ongoing work, a Research Lead has also established a Race and Ethnicity Reading Group, with membership from across the Department.

3. Income, infrastructure and facilities

Growth in Research Funding

We have substantially increased our external research income over the period, from £21k in 2015/16, £47k in 2016/17, £82k in 2017/18, £336k in 2018/19, to £200k in 2019/20. This growth reflects the strategic activities to increase of our research capacity, and the development of our mixed funding portfolio. The £250k start-up investment in CeBSAP co-funded the Director post for the first year of operation and supported the recruitment of two Senior Research Fellows (SRF), an administrator and research assistants. Our SRFs (Millings and Thorneloe), working alongside the wider staff group, have substantially increased our bid generation activities, helping secure new funds (e.g. Thorneloe and Arden, Blackpool Council).

An early CeBSAP achievement was securing the 'Behavioural Insights Framework Agreement' with the Crown Commercial Services in 2018. **The agreement positioned CeBSAP as one of only six preferred partners able to provide behavioural insights research across local and national government between 2018-2022, and the only University-led partner on the framework.** With a potential value of up to £16 million over 4 years, this success was a significant milestone in establishing CeBSAP as a nationally recognised provider of behavioural insights expertise. Under the Framework Agreement, CeBSAP quickly secured a contract with Doncaster Metropolitan Borough Council and then a further contract with Blackpool Council.

We have also won behavioural science-related contracts with: Public Health England to deliver an evidence review on Health Care Professional behaviour in relation to shared decision making for physical activity; Public Health Wales to deliver a project undertaking research and intervention co-design to address Influenza Vaccine Hesitancy within NHS Wales Staff (subsequently extended to include Covid-19 vaccination); and the Environment Agency to support an understanding of behavioural factors associated with flood resilience home interventions.

The development of a mixed model portfolio ensures we maximise both grant funding and contract research monies. **We have secured funding from a range of funders including: the MRC, NIHR, Erasmus+, Public Health England, Public Health Wales, Innovate UK and the NSPCC.**

QR Funding Strategy

Following REF 2014, QR funding was invested into the Department which enabled us to support the range of initiatives that have been outlined in earlier sections of this document. Our QR funded initiatives have been carefully structured to ensure that there is a good mix of support for staff across the Department. This includes support for ECRs and staff returning to research, as well as targeted support for highly research active staff, to enable them to continue to build on existing research excellence.

Through regular consultation with the whole Department, research development needs are annually reviewed by the RLT and initiatives are revised to ensure return on investment is maximised. We strongly encourage researchers who seek to engage in knowledge exchange and impact activities, and to build relationships with internal and external partners. For example, **Lamb, who is an ECR, is seconded to the AWRC one day a week to integrate CeBSAP and AWRC activities.** Our sabbatical scheme criteria, as well as our small funds scheme, are designed to ensure that impact activities and external engagement are eligible.

Research Facilities

Following a £27 million pound investment in a state-of-the-art 'Heart of the Campus' building, the Department settled into a new purpose-built facility in September 2014. The building provides outstanding facilities for research and teaching, as well as staff offices. All members of the Department are situated here, and all our doctoral research students are also based here, which ensures that they are fully integrated within the Department. **Our team of two dedicated psychology technicians are also based in the Department, which ensures that technical support is readily available.** The building also houses our laboratory facilities and research equipment. Investment in these facilities has again supported the growth in our research activities, aligned with our core themes. Facilities include:

- Video Recording Suite and Video Suite Classroom
- Food Testing and Food Preparation Laboratory
- Psychophysiology Laboratory - equipped with three Biopacs which enable the collection and recording of physiological data. These can be used in conjunction with PlayStations and exercise equipment.
- EEG Laboratory and EEG Recording Laboratory - housing a 128 channel EEG machine and a separate EEG analysis room.
- Psychophysics Laboratory - equipped with a VSG system for low level vision studies.
- Two Eye Tracking Laboratories - which house two Tobii PC eye-trackers and three Tobii mobile eye-trackers for use in fieldwork.
- Retinal Imaging Laboratory - equipped with a TopconTM, non-invasive, non-mydratic, swept source optical coherence tomography (OCT) system. The kit is portable so can be used in fieldwork.
- Speech Laboratory - a sound attenuated room has been created for conducting psycholinguistic experiments involving speech production, language comprehension and reading tasks.
- Interview/focus group suites.



Purpose built 'Heart of the Campus' building which houses the Department.

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

Collaborations, Networks and Partnerships

CeBSAP led the formation of the [Behavioural Science Consortium](#), which unites researchers based in other SHU centres: AWRC, CDARE, CRESR, and researchers at the University of Manchester. This partnership was pivotal for the development of the Centre and underpinned CeBSAP securing the Behavioural Insights Framework Agreement.

Partnership working is integral to delivering our commitment to undertake applied research that makes a difference to people's lives. **We have numerous national and international academic partnerships, leading to innovative research and outcomes with impact** (e.g. Akram's sleep research with partners at Northumbria University, and Lazuras' work on doping in sports undertaken with partners across Europe). We also enjoy diverse collaborations with colleagues at the University of Sheffield linked to a range of projects (Barker, Porritt, Lazuras, Taroyan, Ypsilanti).

We maintain mixed collaborations with academic and non-academic partners, including Barker's partnership with University of Sheffield and Sheffield Teaching Hospitals, and **Arden's multidisciplinary work with clinicians and academics at UCL, Bradford, Ulster and Queen's Belfast**. Collaboration is integral to Arden's Cystic Fibrosis research [ICS2] and ensures that patient's lives are directly benefitting from her research [output 783]. We also have formed strategic partnerships with South Yorkshire Police and Probation Services. The partnership work of Whitfield and members of the wider staff in areas of youth crime reduction has led to impacts that benefit young people and the wider communities of South Yorkshire.

Engagement with Research Users, Beneficiaries or Audiences

We have forged relationships with organisations that enable us to connect directly with research users. **For example, our connection with the [Yorkshire and Humber Behavioural Science in Public Health Hub](#) has helped us deliver behavioural science training and knowledge directly to local and regional partners**. We have delivered behavioural science training to c.80 employees of Sheffield City Council to improve their delivery of local resident services (Arden and members of the wider Department). We have trained members of Doncaster Public Health in areas of health behaviour change to support their work with residents (Arden and Thorneloe).

We have sought out partnerships with third sector and private organisations in order to maximise the impact of our work. Achievements include collaborations between Brown [ECR] and [Lane4](#) management consultants, Reidy's partnership with [Age UK](#), and Barker's collaboration with [Hive IT](#).

In ongoing work, we are also contributing our expertise in clinical and counselling psychology, along with our skills in test development to support the creation of a wearable device for managing and monitoring anxiety. We are working in collaboration with national and regional partners [Mind](#) and [Sheffield Wellness Centre](#), and with digital healthcare innovation company [Bethel Neurotech Ltd](#) (Reidy, Barker and members of the wider staff group).

We have also contributed to **global initiatives for the application of behavioural science**, supporting a member of the wider staff group to volunteer with the Behavioural Science [Change Exchange](#) project, undertaking work to promote antimicrobial resistance in Ghana.

We have pursued opportunities to directly engage members of the public in the development of our research. **Porritt [ICS1] secured a RDSYH Public Involvement Grant, which enabled her**

to undertake patient and public engagement work with adults experiencing dental anxiety. More broadly she has engaged patient and public user groups at every stage of her research.

Contribution to the Sustainability of the Discipline

Since the onset of the Covid-19 pandemic we have contributed to a range of projects and activities to disseminate behavioural science knowledge and support the development of behavioural interventions. This work is wide-ranging but includes:

Thorneloe's collaborative research with University of Manchester on contact tracing apps, which has been included in the papers of SAGE behavioural science subgroup [SPI-B](#) and shared at professional and public dissemination events.

Arden's role as a member of the British Psychological Society Covid-19 Behavioural Science Disease Prevention Taskforce. Arden has co-authored [guidance](#) designed to optimise policy (>5000 downloads), led a [policy briefing](#) highlighting key behaviours necessary for track and trace, and written for [The Conversation](#) (07/20, views 2.4k) to bring the role of behavioural science in tackling Covid-19 to a wider audience.

We have also [published guidance](#) to support safe use of face masks (Arden), and expanded work with Public Health Wales to examining barriers and facilitators to vaccination uptake (Thorneloe).

Indicators of Wider Influence, Contributions to and Recognition by the Research Base

Journal Editorships

Leading editorial contributions include Aguado's role on the inaugural Editorial Board for Language Development Research (2019-present), Arden's role as Co-editor of British Journal of Health Psychology (2018-present), and previously Associate Editor (2013-2017); Soranzo's role as Editor for Psihologija (2014-2018), and Guest Editor for Vision on the special issue: "Reflexive Shifts in Visual Attention" (2017-2018). Most of our staff undertake a wide range of supportive editorial duties including peer reviewing activities.

Advisory Boards and Committees

We contribute to a range of advisory boards and committees. These include **Arden's diverse contributions:** (i) invited membership of the Public Health Research Hub for Yorkshire and the Humber (2019); (ii) Member of the Public Health England Behavioural Science Advisory Group (BSAG) (2019); (iii) Co-chair of the Yorkshire and Humber Behavioural Science Hub; (v) Behaviour change lead for CFDigital Self-Care Behavioural Science Collaborative (2020); and (vi) Member of the Research Sub-Committee of the BPS Division of Health Psychology (2010-2016). **Porritt's role** as public engagement officer for BPS Division of Health Psychology (2013-2016) saw her lead dissemination of health research for a public and student audience. **Soranzo's contributions** as (i) Member of the Scientific Committee of the European Conference of Visual Perception (2006-present); and (ii) Member of the Scientific Committee of the Visual Science of Art Conference (2014-present) place him at the forefront of developments in his field. **Ypsilanti's contribution** as invited member of the advisory board of Hallam Diocesan Caring Services ensure her expertise on self-disgust and suicidality can contribute to local responses and support for people in crisis (output 715).

Keynotes and Invited Talks

Keynote and invited talks include **Arden:** Invited speaker Behavioural Science in Public Health Network in the North (2020), Invited speaker National Centre for Sports and Exercise Medicine conference (2019), Keynote PsyPAG conference (2019), Keynote Manchester Metropolitan

University annual conference (2018). **Soranzo**: Keynote The Millennium Museum Sheffield (2018) sharing his [highly regarded work](#) on Leonardo da Vinci's La Bella Principessa. **Thorneloe**: Invited speaker 6th Congress of the Skin Inflammation and Psoriasis International Network in Paris (2019), Invited speaker 'Psoriasis Stratification to Optimise Relevant Therapy' dissemination event at the Royal College of Physicians (2019), Invited speaker European Patient Innovation Summit (Italy) arranged by Novartis (2016). **Ypsilanti**: Invited speaker British Science Association Sheffield Branch (2019).

Public Dissemination

Our commitment to ensuring the impact of our research means that we also prioritise opportunities for widely communicating research to diverse audiences via accessible media platforms including:

- The Conversation - examples include Akram's article on mental health coping mechanisms (published 02/20, views over 57k), Barker's article on laughter and the brain (published 04/17, views over 190k), Soranzo's article on Leonardo da Vinci (published 05/19, views 84k).
- Local and National Radio and Television - examples include Arden's appearance on BBC Newsnight to discuss behavioural science and the easing of lockdown (June 2020), and Ypsilanti's appearance on Greek National TV to discuss loneliness amongst people in the Balkans (July 2019).
- We also engage with local and regional public engagement opportunities. This includes regularly disseminating our work via the annual Sheffield Festival of Social Science. For example, Lazuras shared his innovative work around Gaming for Clean Sport. This event was further [disseminated](#) via the ESRC media team, reaching an audience in excess of 150k (October 2019). Barker has also disseminated her research on cognitive function assessment technologies via the Medical Research Council Festival Sheffield (June 2019).