

<b>Institution: Abertay University</b>	
<b>Unit of Assessment: 04</b>	
<b>a. Overview</b>	<p>Abertay is a small university with approximately 5500 students and 200 academic staff. Abertay's approach to research is defined in its two most recent Strategic Plans (2007-11, 2011-15) which outline an ambition to be a centre of excellence for interdisciplinary research focussing on the delivery of practical solutions to business, society and government. To this end, a number of focused, cross-university multi-disciplinary groups have been formed creating an innovative and sustainable environment for research. The groups that Psychology staff contribute most to include:</p> <ul style="list-style-type: none"> <li>• <b>Whitespace</b> – researchers from psychology, computer arts, computer science, sociology and environmental sciences are integrated in industry facing research activity.</li> <li>• <b>Investigation, Security, Police and Intelligence grouping (I-SPI)</b> - the disciplines of psychology, sociology, forensic science, computer security and law work together to deliver real-world impacts to the policing and security industries.</li> <li>• <b>The Dundee Academy of Sport (DAS - £2.7M, Scottish Funding Council (SFC))</b> - a recent venture developing knowledge exchange with key stakeholders across the region's sporting structures and local schools.</li> </ul> <p>In a planned centralisation of research support, in 2013 the University published a new 5-year research strategy, Research-Led Innovation Nodes for Contemporary Society (<b>R-LINCS</b> see below in section titled <i>Looking Forward</i>). <b>R-LINCS</b> integrates research activities into a single University-wide RKE initiative, underpinned by a nascent cross-University Graduate School with targeted internal support to stimulate new developments and partnerships.</p> <p>As well as playing a leading role in the multi-disciplinary groupings listed above, the Division has strength and critical mass in two internal research groupings; <b>The Evolutionary and Biological Basis of Behaviour (EBAB)</b> and <b>Cognition and Language</b> groups. All staff included in this submission are members of Abertay's Division of Psychology.</p>
<b>b. Research strategy</b>	<p>The Strategic Plan (2011-15) outlines a vision of Abertay being rooted in its community with research activities focused on practical solutions. In line with this, much of Psychology's research activity over the review period has had a translational focus. As predicted in the 2008 RAE environment statement, in the last 5 years the Division has expanded its experimental and applied research activity in areas relevant to: policing and security (in 2008 there were 3 researchers aligned with this activity, in 2013 there are 7); industry (2008:2, 2013:3); biological basis of behaviour (2008:4, 2013:5); and cognition and language (2008:2, 2013:4). As a result, a higher proportion of psychology staff are deemed research active than in the period covered by RAE 2008. Since 2008, psychology staff (18.4 FTE) have published over 150 peer-reviewed papers compared to less than 60 in the period covered by the RAE 2008. The Division is establishing a reputation for producing excellent quality applied psychological research and the aim within 5 years is to be one of the leading Scottish psychology departments engaged in translational research.</p> <p>The Division's strategy is focused on:</p> <ul style="list-style-type: none"> <li>• a leading contribution to the cross-University research groupings in policing and criminal justice related research (<b>I-SPI</b>), vision science and inter-disciplinary (<b>Whitespace</b>);</li> <li>• continuing to develop research strengths within the Division in areas not covered by multi-disciplinary groupings. e.g., <b>EBAB</b> and <b>Cognition and Language</b>.</li> </ul> <p><b>Contribution to the University's multi-disciplinary groupings.</b></p> <p><b>I-SPI</b> – The Division has arguably one of the most influential research groupings working in the field of investigative psychology in Scotland and, in the period 2008-14, has published in excess of 40 peer-reviewed empirical papers on this topic. The group's research activity has attracted funding from ESRC, EPSRC, The British Academy, Carnegie and the Scottish Institute for Policing Research (SIPR). Psychology staff contributing to <b>I-SPI</b> include:</p> <p><b>La Rooy</b> is the University Lead for <b>I-SPI</b>. His research into the forensic interviewing of children has been influential in shaping interviewing procedures for children in several jurisdictions (e.g., UK, Finland, Chile, Georgia (see Impact Statement) and has been referred to in formal government guidelines (Scottish Executive, 2011). Aspects of La Rooy's research have been incorporated into the training of Sheriffs, Judges, Solicitors, Justices of the Peace, Social Workers, and the Police.</p> <p><b>D Carson</b> and <b>Lindsay</b> have extensive experience of researching offenders with an</p>

intellectual disability. In particular, they have developed tools (e.g., Questionnaire on Attitudes Consistent with Sex Offending (See Impact Case Study 2: QACSO) and the Dynamic Risk Assessment Measurement Scale - DRAMS) used in the treatment and management of sex offenders in forensic setting throughout the world.

**Gabbert**<sup>1</sup> is a renowned expert in the field of social cognition particularly in the investigation of the effects of social interaction on eyewitness testimony. She has extensive experience of applying her work in the field of police investigation and with colleagues at Portsmouth and Florida International Universities has developed the Self-Administered Interview (See Impact Case Study 1: SAI) used by numerous police forces. In 2011 she was awarded an Academic Excellence Award by the International Investigative Interviewing Research Group (IIRG) in recognition of "outstanding achievements to the area of investigative interviewing."

**Scott-Brown** works closely with Close Circuit Television Operators (CCTV) applying his knowledge of the change blindness phenomenon to the security industry.

**Rusconi's** recent research interests involve translational research into the use of 3D X-ray and the predictive value of autism-related and other personality traits in the context of visual inspections at security checkpoints. While at UCL, the EPSRC funded her translational research with a scholarship and an Inclusion grant (£40000 as principal investigator). Work on both of these grants was completed at Abertay.

**L Carson**, a social psychologist, studies lay perceptions of expert witnesses in courts of law.

### **Whitespace Research Grouping**

This University-wide research grouping draws upon Abertay's significant expertise in the visualisation of complex data sets and working between domains. The contribution from psychology has been significant:

**Rusconi's** research activity focuses on the cognitive mechanisms and the neural basis of higher functions such as mathematical cognition, visuospatial attention, and body structure representation, as well as on the cross-talks between these domains. Her work in the areas of mathematical cognition and visuospatial attention, body structure in healthy participants and in patients is highly influential (receiving so far 470 citations). At UCL and Trento Italy prior to joining Abertay, her research received continuous funding from the European Commission (Experienced Researcher Marie Curie individual fellowship in the NUMBRA network: £150000; EC Reintegration grant: €40000 + individual research fellowship from University of Trento, Italy: €120000 as principal investigator) and Ministero dell'Istruzione, Università e Ricerca (Italy) for basic research (€396000 as principal investigator). In 2009 she was awarded the prestigious Burgen scholarship from Academia Europaea in recognition of excellent academic research.

**Lovell** works in visual perception, concentrating upon the perception of shape from shading and biological camouflage. Lovell's expertise in the characterisation and calibration of digital cameras has led to a number of successful collaborations with internationally renowned biologists keen to assess the visual properties of biological colouration patterns (e.g., Ruxton and Spencer, University of St Andrews; Cuthill, Bristol; Cassey, University of Adelaide).

**Scott-Brown's** research exploiting the use of motion cues with animated emotional expressions has led to an industry-facing research programme. A major strand of this work utilises knowledge about eye gaze to improve the next generation of self-service kiosks in supermarkets. In 2011 he was inducted into Scottish Crucible, a national academic leadership scheme for younger researchers engaged in inter-disciplinary research. He has been awarded two research grants as PI from this scheme.

### **Developing Divisional-based research groupings.**

**EBAB** - The group takes an evolutionary and biological approach to the study of a range of behaviours in humans and other animals with a unifying theme of examining the role hormones play in the expression of behaviour.

**Hardie** and **Wright's** research centres on areas of individual differences, laterality and biological psychology. They have developed a new approach to understanding the relationship between hand preference and both behaviour and personality. **McAra**, a lecturer in psychology is studying for a PhD in this area supervised by **Hardie and Wright**.

**C Cunningham's** research focuses on the evolution of problem-solving abilities, and the

<sup>1</sup> In Feb 2013 after a period of 8 years at Abertay, Gabbert left Abertay for a senior position at Goldsmith's in London.

underpinning of social skills in human and non-human primates. She recently received funds from the Carnegie Trust to continue projects looking at hormonal influences on cognition and social behaviour in gibbons.

**Watkins'** research focuses on the socio-cognitive responses that underpin efficient and potentially adaptive social interactions with potential mates and rivals. His research uses computer graphic techniques to manipulate physical characteristics in faces, voices, and bodies, and has already been cited by researchers in the US, EU, Japan and Australia. His recently completed PhD at Aberdeen University resulted in eighteen papers (ten first-authored), travel grants for international conferences and an honourable mention at HBES 2010 in the USA.

**L Carson** investigates lay perceptions of research activity conducted in zoological institutions.

#### **Cognition and Learning Group**

**Kempe's** research focuses on first and second language learning using methods such as artificial language learning. In collaboration with colleagues from CUNY she has developed a micro-genetic language learning methodology that allows researchers to trace the time course of second language syntax and vocabulary learning under strictly controlled laboratory conditions. Over the past 5 years, she has received funding from the British Academy, the journal Language Learning and the Leverhulme Trust (over £80,000 as Principal Investigator).

**McLean's** research focuses on language production, in both children and adults. While at Edinburgh her work with children, in collaboration with Brannigan, Messenger and Pickering (all Edinburgh), has been funded through ESRC research grants (over £400,000) and Scottish Enterprise (Edinburgh-Stanford Link project).

**MacAndrew's** research focuses on the cognitive neuropsychology of language and in particular language production in people with Parkinson's Disease. For over 10 years she has maintained a panel of over 65-year-old participants with, and without, Parkinson's. She holds an honorary Research Fellow position at Dundee University.

**S Cunningham** explores the mechanism and biases through which humans process information about the self and others. In particular, she has investigated the early development of self-processing biases and its implications for learning and education.

#### **Looking Forward**

Guided by its 2011-15 Strategic Plan objectives, the University has established **R-LINCS** (Research-Led Innovation Nodes for Contemporary Society). **R-LINCS** is driven by a University-wide Research Executive that manages internal research funds, interacts directly with the University Executive and the University Research and Knowledge Exchange Committee, and focuses on innovative solutions to societal problems through four cross-University themes: **Environment, Security, Society and Creative Industries.**

R-LINCS provides the following resources to the research community:

- Single, pan-University research leadership to drive our discipline strengths, multi-disciplinary research agenda, propose strategic research-focused appointments, and mentor ECRs.
- Intra- and inter-theme support for doctoral studentships housed in a single Graduate School, which offers a coherent, University-wide integrated training programme; a single centre serves to inculcate inter-disciplinary working in our next generation of researchers.
- Proof-of-concept funding for small-scale RKE projects.
- Targeted support for researcher training and for open-access publication.
- Facilitation with public engagement channels including the Dundee Science Centre, our local Café Science organisers and public exhibition spaces.

**R-LINCS** will prioritise its resource allocation to academic staff with a good track record and ECRs, and will seek to foster collaborative ventures including cross-institution (other universities and research institutes) programmes of research, and RKE projects with major industry partners. Abertay is transforming its ICT environment to support RKE activities together with teaching and learning provision, including better integration of IT systems and data storage across the University. To support R-LINCS the University is increasing its academic staffing by c.20% in 2013/14, reducing student numbers, and prioritising academic efficiencies by reducing the time academics spend on non-academic tasks such as the removal of invigilation duties.

Psychology's main contribution to this agenda will be through the research groups outlined

above. The major University theme of **Security** is led by Psychology's contribution to the **I-SPI** group. The Division will maintain a critical mass of experienced researchers working in this field and will aim to further improve our relationships with UK and international police forces and other agencies in the wider criminal justice system. Our existing roles in SIPR and other policing related research contacts such as SEBP will help in this respect. Psychology's role in the **Whitespace** Research Group will contribute to the Abertay agenda of becoming a centre of excellence in applied inter-disciplinary work especially in the **Creative Industry** theme. As we have done with NCR at a local level, we will continue to expand our collaborations with other national industrial partners and continue to utilise the findings from the best basic science in a translational way. Finally, the activities of the **EBAB** and **Cognition and Language** Groups will contribute to the University theme of **Society**. Staff from all Psychology groups will become involved in the **Dundee Academy of Sport (DAS)** lending experimental advice in the School-based interventions. For example, **Kempe** is developing a scientific programme of impact monitoring to see what, if any, the benefits of learning a second language (Russian) are for literacy acquisition and other aspects of learning in general. The programme will bring together **DAS**, the Dundee Russian School and the Scotland-Russia forum. Likewise **S Cunningham** will work with the **DAS** project to investigate the role of self in the learning of mathematics in local Dundee schools. In short, in the period 2008-13, by developing critical mass in 4 major research groups, psychology has positioned itself at the centre of the University's 5 year research plan. As a consequence, the Division expects to prosper and expand its research output in the next reporting period.

### c. People, including:

**i. Staffing strategy and staff development** Consisting of 2 Professors, 2 Readers, 1 Senior Lecturer, 11 lecturers, and 2 Teaching Fellows the faculty is a healthy mix of experienced and early career researchers (ECRs). The Division has established a reputation for attracting outstanding ECRs to our areas of research strength. Recent examples include the appointments of **Watkins, Lovell** and **McLean** to strengthen the **EBAB, Whitespace** and **Cognition and Learning** groups respectively. Recent work produced by these ECRs has been published in PNAS, Current Biology and Cognition and all have been included in the REF submission. With over 25% of the returned staff categorised as ECR it is evident that the Division is actively building excellence for the future.

The University's staff appraisal system and workload planning align personal objectives with University research objectives as it enables an appropriate balancing of teaching, research, administration and external engagement activities to develop personal careers and the strategic priorities of the unit. Thus, ECRs are given more opportunities to develop their research, and probationary lecturers have a lighter teaching and administration load to free up more time for research-intensive staff development. In December 2012 the University's human resources department conducted an audit of the University's recruitment and staff development policies to ensure that these were in line with the recommendations and guidance provided in the Concordat to Support the Career Development of Researchers (2008). To develop and enhance the University's capability to conduct excellent research with impact, appointments to lectureships are required to have a PhD. The University has also appointed new tranches of Chairs, Readers and Senior Lecturers within the review period. All promotions are based on research contribution, thus demonstrating the University's policy of rewarding key research staff. Over the review period 3 members of Psychology staff were promoted to Reader and 2 to Professor.

Staff have numerous support points available to them including their Head of School, Division Leader and the Research Development Manager (REIS). In addition, newly appointed staff have a Divisional mentor, and with the roll-out of R-LINCS potentially a mentor drawn from another School in the University, thereby inculcating ECRs into Abertay's ethos of the benefits of inter-disciplinary research.

The University supports Equality and Diversity through the implementation of Equality and Diversity policies for all staff and students, and the monitoring and evaluation of staff data through the Equality and Diversity Sub-Committee. All staff are required to complete an e-learning module on Diversity in the Workplace and senior staff, including academic staff responsible for recruiting researchers, are required to undertake specific Recruitment and Selection training. In line with our Public Sector Equality Duties, the University has published an Equality and Diversity Action Plan that maintains the process of Equality Impact Assessment for admissions policy, statements and procedures. The University has made a further commitment to enhancing equality through an

## Environment template (REF5)

objective to achieve initially Athena Swan Bronze Award status and progress to Silver. It should be noted that over the review period, of the 5 promotions to Reader and Professor in the Division of Psychology, 3 were female. The Concordat to Support the Career Development of Researchers has led to the development of an enhanced training package. Training has included annual workshops on grant writing, statistical methods, European Framework funding and Knowledge Transfer Partnerships. We have also offered courses provided by the University of Dundee, through membership of the inter-University research pools, and VITAE and Leadership Foundation courses targeting both experienced managers and young researchers trying to develop a research team.

**ii. Research students** The Division currently has 10 PhD students with a further 9 students being awarded the qualification over the review period. The funding for these studentships included grants from the Leverhulme Trust (n=1), personal donations (n=2), SIPR funding (n=1), secondment from NHS (n=1) and self-funding. The remaining studentships were internally funded as part of the University **Whitespace** research agenda. In 2012 the University introduced a Masters by Research programme, which can be transferred to represent the first year of study towards a MPhil or PhD if appropriate. Two students in Psychology gained the award in the first year and a further 4 are currently registered on the programme.

Support for postgraduate research students is extensive. Each student has a supervisory team consisting of at least 2 members of staff one of whom acts as Director of Studies (DoS). In addition to the formal induction organised by the University's central Research Degrees Sub-Committee (RDS), the DoS is responsible for conducting a skills audit and identifying the development needs at the start and throughout the programme of study. Regular fortnightly supervision meetings are required and a brief note of these meetings and agreed objectives are logged with the RDS. In addition, a 6 monthly progress report is agreed between DoS and student and logged with the same committee. Each PhD student is given a dedicated desk and PC in a shared office. The Division is a member of the Scottish Universities Psychology Postgraduate Research Training (SUPPORT) programme and through this scheme all students have the opportunity to attend external PhD workshops. Students are required to give at least give one internal conference presentation in their first year, an external conference paper in their second year and to submit at least one paper for publication in a peer reviewed journal in their third year. To facilitate this, there is an annual University-wide postgraduate research conference which all students and supervisors attend. Students, through their supervisor, can apply to School funds and/or the Robert's fund to cover conference costs. All students are offered the option of limited small group teaching by way of skills and career development. The School hosts a weekly research seminar series during both teaching semesters. Presenters include faculty members, PhD students and external speakers. All staff and postgraduate students are expected to attend these talks. The ELIR (2012) reported that Abertay's postgraduate research students were positive about what they described as a friendly, supportive and integrated academic community.

In the next REF period all postgraduate research students will benefit from the creation of the University Graduate School which will form a central component of the aforementioned **R-LINCS** development across the University. All research students will be based in the Graduate School and will benefit from centrally organised PhD training. In order to support the long-term vitality of the research culture at Abertay, the University is committed to providing fully funded batches of 6 MRes/MPhil/PhD studentships per year (at RCUK stipend levels with expenses) for three and a half years (PhD). As a result 18 new studentships will be offered over the next 3 years.

**d. Income, infrastructure and facilities** **Infrastructure** - The University Research Repository typically houses staff publications (taking into account any copyright issues). In addition, all staff research profiles are updated as an on-going practice for all staff. The University also has a fund to support the costs of publishing in open access journals.

In terms of governance, applications for external research funding are subjected to internal peer review by a School Ethics Committee and Finance for their contribution to full economic costs. Bids where the level of overhead recovery is low require a case to be submitted by the Head of School explaining how the bid is strategically important to the University.

The University's **Research Enterprise and Innovation Services (REIS)** office provides advice and support on research related matters, including costing and approvals of applications for external funding; management of the research degree students' process from their initial contact with the University to graduation; and management of IPR and contractual obligations with funders.

## Environment template (REF5)

Bringing these services together ensures that a consistent approach is taken across the University in relation to management of research projects and improves efficiency by providing a single point of contact for all research related matters.

The University has clear guidelines and has transparent procedures in place to ensure that it fully complies with the Concordat to Support Research Integrity; these are communicated regularly to all staff. A working party has been tasked with ensuring the University's data management policy meets the expectations of the funding councils and in particular that it outlines sufficiently the responsibilities of researchers and the institution.

**Facilities** – Psychology at Abertay is well resourced and the faculty has access to 9 dedicated staff research labs, a research presentation area and a suite of 11 experimental cubicles (added during the review period). The combined area of these research resources exceeds 240 square metres. Research labs are allocated on an annual basis by the Division Leader. Research students get access via their supervisors. The labs are equipped with High-end PCs and appropriate software (E-prime, Superlab, N-Vivo, SPSS, Observer NT etc). Hardware of note includes an anechoic chamber, wall mounted remote controlled CCTV cameras, SMI 3.0 Eye View Eye-movement recorder, SMI Eye View X HED Eye-Tracker, GSR Equipment and software, and BioHarness Telemetry System with LabChart and BioHarness.

In addition, staff have access to the HIVE (Human Intelligent Virtual Environment - a multipurpose and intelligent immersion studio environment). This University-wide resource aligned to the **Whitespace** research agenda contains state-of-the-art high resolution video projection equipment and sound systems. It provides an immersive environment where participants are surrounded by images on a 6m screen and sounds, and their behavioural and physiological responses can be recorded in real-time. In 2012 the School within which Psychology sits benefitted from a major investment of approximately £100K with the development of a biomechanics/human movement facility. This resource allows high- quality video capture and full kinematic analysis and offers an excellent opportunity for psychologists to work across disciplines with bio-mechanists in the Division of Sports and Exercise where the lab is situated. Psychology has appointed a new member of staff with an international reputation in dance and neuroscience research to help develop Psychology's use of this resource and to strengthen the Division's contribution to **Whitespace**. She joins the Division in Jan 2014 from the Neurospin Laboratory in Paris.

**Income** – The strategy for seeking external funding to support the Division's research activities has changed over the review period. In the period 2008-2010 researchers were actively encouraged to collaborate with more senior colleagues from external institutions even if it meant the funds from successful bids were awarded to the other institution. This approach was successful and contributed to kick starting the external funding of research activity at Abertay. There were a number of early examples of funded projects with Abertay staff named as joint investigators on collaborative bids. For example, the collaboration with colleagues based at University of Portsmouth and Flinders University led to a number of eyewitness testimony projects being funded by a variety of sources, ESRC – £100,000, Metropolitan Police - £114,000 and the Australian Research Council - £73,000. Latterly, as staff increased their international research reputations, the strategy changed to one of Principal Investigator in research proposals. Again this strategy achieved some success which we plan to build upon in the next review period. In total the Unit of Assessment has returned over £700,000 of research funding. Funders have included:– Leverhulme, Trust - £70,477 for a study into languages and dialects (**Kempe, Scott-Brown**); NCR Financial Solutions – funded 6 separate projects to a combined total of £70,000 (**Scott-Brown, Szymkowiak**); 2010/11 - Technology Strategy Board a Knowledge Transfer Partnership - £87,606 (**Hardie**); and the ESRC provided £28,453 to fund field trials of the SAI (**Gabbert**). There have been numerous examples of funding of small scale projects. These include: Higher Education Academy - £4,500 for a study into student learning (**MacAndrew**); the Journal of Language and Learning - £6,000 to investigate Individual differences in non-native phoneme perception (**Kempe**); Scottish Institute of Policing Research - £3000 to assess the quality of interviews with children alleging sexual abuse in Scotland (**La Rooy**). **EBAB** researchers successfully attracted funds to cover the costs of hosting workshops to plan future investigations into the influence of the ovulatory cycle on attraction within human relationships (Royal Society - £4000) and Future Directions of Evolutionary Psychology (Human Behaviour and Evolution Society - £2500). The multi-disciplinary agenda has also led to a number of significant funded programmes over the review period. **Scott-Brown** was a named researcher on a cross-University bid on iAge:e-inclusion for Sustainable

communities funded by the European Commission £1,281,963 (£97,955 was awarded to Abertay). **Scott-Brown** was also awarded £4,500 from the Royal Society to help develop a computer game to improve health and well-being, a good example of psychologists working with computer game developers. In addition, researchers have successfully bid for research related travel grants from numerous sources including Carnegie, Nuffield Foundation, Association for the Study of Animal Behaviour, British Academy, Dundee and Angus Convention Bureau. Travel awards have totalled circa £15,000.

#### e. Collaboration and contribution to the discipline or research base

As well as the key collaborations between researchers in Abertay's inter-disciplinary research groups, the Division has prioritised the establishment and maintenance of strong national and international research collaborations.

**I-SPI: Carson** and **Lindsay** are among the founding members of a successful UK wide consortium of senior researchers from the Universities of Cambridge and Northumbria who undertook the most extensive UK programmes of study into the criminal justice pathways of offenders with an intellectual disability. This programme funded by the Forensic Mental Health Research and Development Department in the Home Office has so far led to ten peer reviewed publications in the period 2008-13. **Carson** sits on the steering committee of the Evidence and Investigation network of the Scottish Institute of Policing Research (SIPR) and on the executive committee of the international research group, Society of Evidenced Based Policing (SEBP). **Lindsay** sits on the editorial boards of Journal of Applied Research in Intellectual Disabilities, British Journal of Clinical Psychology, Journal of Intellectual and Developmental Disabilities, Psychiatry, Psychology and Law and Criminal Behaviour and Mental Health. **La Rooy** was one of the inaugural SIPR lecturers based at Abertay, he collaborates with senior researchers from Cambridge (Lamb) and CUNY (Pipe) in child interviewing research. During the review period he sat on the committee of the International Investigative Interviewing Research Group (iIRG) and was the editor of its research bulletin. **Gabbert** is an external member of the International Centre for Research in Forensic Psychology based at Portsmouth University and publishes regularly with senior international colleagues from Flinders University (Brewer) and Florida International University (Fisher and Wright). She sits on the Scientific Committee of the International Investigative Interviewing Research Group (iIRG). **Rusconi** has been the guest editor for the journals Cortex and Frontiers in Human Neuroscience. She has given an invited presentation to the Department of Transport, the Home Office Science Development Branch (HOSDB) and has collaborated with the Centre for Applied Science and Technology (Home Office). She has longstanding collaborations with colleagues at UCL (Butterworth) and The University of Padova (Giordano and Umlita). She is a member of the British Neuropsychological Society, EPS and Centre for Crime and Justice Studies.

**Whitespace: Lovell** and **Scott-Brown** are members of the Tayside Vision Research Group which includes key members of the Scottish Vision Science Community. Scott-Brown has participated in the last two Scottish Crucibles focusing on inter disciplinary research. He has extensive experience of collaborating with industry partners (e.g., his work with NCR incorporating computer generated avatars into the next generation supermarket self-service kiosks).

**Cognition and Learning: Kempe** has a longstanding collaboration with researchers at CUNY (Brooks). She has contributed to a working party on bilingualism at the Scottish Parliament and is a member of the editorial board of the journal, Studies in Second Language Acquisition. **McLean** regularly publishes with a number of researchers at Edinburgh University (Pickering, Branigan and Messenger). During the review period **MacAndrew** was HEA Psychology Network Scotland Co-ordinator, and the Chair of the Psychology of Learning Lecturers Network (POLLEN). **Cunningham** is a member of the Person Perception lab at the University of Aberdeen.

**EBAB: Hardie** collaborates with colleagues from Lincoln, Cambridge and Rome when investigating the social behaviour of Wild Japanese Macaques on Yakushima Island, in Japan. He is also a founder member of the Living Links research consortium based at Edinburgh Zoo. **Cunningham** was the Editor for the journal Animal Behaviour (2009-2012) and is the current Treasurer and Membership Secretary for the Primate Society of Great Britain. Both Cunningham and Hardie are core members of the Scottish Primate Research Group (SPRG), a grouping of collaborating primatologists from St Andrews, Stirling, Edinburgh and Abertay. **Watkins** is a core member of the Faces Lab based at the Institute of Neuroscience and Psychology at the University of Glasgow and regularly publishes with its founders (Jones and DeBruine).