Institution:	University of Northumbria at Newcastle
Unit of Assessment:	26 – Sport and Exercise Sciences, Leisure and Tourism

a. Overview

This submission describes research undertaken in the Department of Sport, Exercise and Rehabilitation which is in the Faculty of Health and Life Sciences at Northumbria. The Department has increased the breadth and volume of its research substantially since 2008, and has further strengthened research activities in three key areas:

1. **Physiological regulation, adaptation and recovery:** focusing on factors influencing the neuromuscular responses and adaptation to exercise and the facilitation of recovery from strenuous physical activity, led by **Howatson**.
2. **Exercise, nutrition and clinical physiology:** focusing on exercise-related nutritional strategies in human performance and metabolism; and the prevention, treatment and management of health conditions through lifestyle adaptations and exercise interventions, led by **Robson-Ansley** and **Stevenson**.
3. **Sport coach education and athletic performance:** focusing on the continued professional development of coaches and the influence of emotions and individual differences in the coach-athlete relationship, led by **Davis, P**.

The success of this strategy when measured against performance in RAE 2008 is exemplified by an increase in the number of staff submitted to the UoA, an increase in the production of high-quality research outputs in top quartile journals, the development of significant international collaborations and a growth in both research income and PGR activity. Research within this Unit of Assessment is complemented by additional interdisciplinary research in clinical biomechanics and rehabilitation conducted by staff in this Department, returned in UoA 3.

b. Research strategy

A five-year research strategy for the Department of Sport, Exercise and Rehabilitation was established in 2008. This entailed the formation of three research groups, each contributing to the following strategic goals:

1. Increase the number of research active staff by recruiting, developing and retaining high-calibre academic staff.
2. Grow a strong postgraduate researcher community with high completion rates.
3. Improve the physical environment for research and strengthen the research culture.
4. Forge strong strategic partnerships in order to widen and enhance the impact outside academia of our research and to promote knowledge transfer, business engagement and commercialisation.

<u>Progress during the assessment period</u>

In 2008, the University created an £18million Strategic Investment Fund to facilitate the recruitment and retention of high-quality research staff and students and improve research support. In sport and exercise sciences, this fund was used to drive progress towards the three strategic goals outlined above. Compared with RAE 2008, there has been a 75% increase in category A staff submitted; five staff promoted to more senior academic posts (four readers, one professor); a 138% rise in PGR enrolments (as measured by FTE) and a 350% rise in the number of doctoral awards made; a substantial and sustained improvement in the number of upper quartile journal outputs published; and a 162% increase in externally awarded research income.

Further, this UoA has had significant infrastructure investment, with the development of a £30million sports complex, housing six dedicated sport and exercise science laboratories, connected to a suite of new research laboratories in the adjoining building. These estates developments were coupled with an investment of £1.2million in sport science equipment. The number and quality of our strategic partnerships has grown rapidly, with new collaborations in place with major sporting bodies (e.g. English Institute of Sport, UK Athletics, GB Cycling) and industry (e.g. Formula 1, Nike, GlaxoSmithKline, Masterfoods, Beneo, European Space Agency).

Research groups, activities and achievements

1. Physiological regulation, adaptation and recovery

Research conducted by this group is focused on neuromuscular, biochemical and physiological responses to strenuous exercise (**St Clair Gibson** (Professor), **Robson-Ansley** (Professor), **Howatson** (Reader), **Stevenson** (Reader), **Barwood** (Research Fellow), **French** (ECR), **Goodall** (ECR), **Thomas** (ECR)). Specifically these areas examine: 1) physiological responses to, and molecular mechanisms underpinning, fatiguing and damaging exercise (**Goodall, Howatson, Robson-Ansley, Thomas**); 2) physiological factors influencing recovery from strenuous exercise and neuromuscular and endocrine adaptation to resistance exercise (**Goodall, French, Howatson, Stevenson)**; 3) integrative regulation of pacing and performance in exercise (**St Clair Gibson, Thomas**); and 4) physiological acute and adaptive responses to challenging environmental conditions (**Goodall, Barwood**). Progress in these areas is evidenced by internationally-recognised publications in peer-reviewed journals such as *PLoS ONE* (IF 3.7); *European Journal of Neuroscience* (IF 3.8); *Journal of Applied Physiology* (IF 3.5); *Journal of Physiology* (IF 4.4); *Medicine Science and Sports and Exercise* (IF 4.5); and strong theoretical papers published in *Frontiers in Neuroscience* (IF 2.9); and *Sports Medicine* (IF 5.2). This group receives funding from both RCUK research councils, and from industry, with commercial partners including GlaxoSmithKline and Sappari.

The group uses innovative methodologies to investigate underpinning molecular, endocrine, and neurophysiological mechanisms that explain responses and adaptations to training stimuli and recovery from exercise. The group undertakes original research in the use of transcranial magnetic brain stimulation in exercise paradigms that focus on contraction-specific resistance exercise tasks, fatigue and neuromuscular adaptation (**Goodall, Howatson, Thomas** and **St Clair Gibson**). Recent findings provide a novel mechanism for the enhanced neuromuscular gains from eccentric exercise in both the exercising and non-exercising limb which has wide-reaching clinical potential. Current work testing mirror training has generated growing interest in the scientific community and with NHS practitioners.

2. Exercise, nutrition and clinical physiology

Research within this group is focused on the role of lifestyle modification in the prevention, treatment and management of chronic health conditions, and on the influence of nutritional strategies on sports performance and metabolism (**Robson-Ansley**, **St Clair Gibson**, **Ansley** (Reader); **Stevenson**, **Howatson**, **Turner** (ECR), **Gonzalez** (ECR) and **West** (ECR)). Specifically, research is being conducted in: 1) nutrition and sport performance (**Stevenson**, **Howatson**); 2) paediatric nutrition (**Stevenson**; PhD studentship funded by Dairy Council); 3) appetite regulation (**Stevenson, Gonzalez**); 4) Ageing and enhancing quality of life (**St Clair Gibson**); 5) Type 1 diabetes (**West**; funded by Diabetes UK, Medtronic Diabetes Technology UK, Beneo); 6) exercise-induced asthma and allergy (**Ansley, Robson-Ansley**, **Turner**, funded by Phadia 2011); and 7) chronic fatigue syndrome (**Robson-Ansley**; funding from ME Research UK, Newcastle PCT, John Richardson Foundation). Research under this theme is published in highly-ranked, peer-reviewed journals such as *Allergy* (IF 6); *Diabetes Care* (IF 8.1); and *Medicine and Science in Sports and Exercise* (IF 4.5). The group conducts research in collaboration with international partners from the Karolinska Institute in Sweden, Stellenbosch University in South Africa, Maastricht University in the Netherlands and national partners from Manchester, Newcastle and Loughborough Universities.

Novel research outcomes from this group have informed the treatment and management of clinical populations and the development of new sport and exercise nutrition products. Examples of this include: 1) highlighting the misdiagnosis of exercise-induced asthma, which has resulted in professional national sports teams implementing screening programs for their athletes; 2) providing an ecologically-valid screening tool for assessing CFS/ME severity; 3) new insights into the recommended insulin dosage advised for individuals with Type 1 diabetes who are physically active, to prevent nocturnal hypoglycaemia, supported by funding from Diabetes UK; 4) the re-branding and re-launch of a commercially-available sports drink based on findings from a nutrition recovery study.

The group's use of novel methodologies or approaches can be seen in two examples: 1) **West** was recently lead field investigator during a clinical study in collaboration with Newcastle University, GSM Association, DexCom, and Orange Communications in which blood glucose

was continuously monitored using state-of-the-art technology during a 13-day cycle race from Brussels to Barcelona in Type 1 diabetic cyclists. This study was the first globally to capture live, online continuous glucose monitoring data in athletes and has played a major role in the demonstration of mobile health technology improving patient care. 2) **Robson-Ansley** explored the influence of exercise on gene regulation through exercise-induced epigenetic modifications in adipocytes, peripheral blood monocytes and myocytes. A key finding from this work is that a single bout of exercise can potentially switch on anti-inflammatory genes providing protective mechanisms against diseases associated with inactivity.

3. Sport coach education and athlete behaviour research

Research in this group is focused on two key areas: 1) the effectiveness of coaches, exploring training interventions to enhance appropriate components of fitness (**Hayes**); and 2) the influence of emotions and individual differences in the coach-athlete relationship (**Davis, P. Davis, L.**). Innovative research in both areas has resulted in significant changes to the approach to coach education and development programmes in a range of sports nationally, such as the Lawn Tennis Association, Professional Golf Association, Football League and English Netball. Research is being conducted in collaboration with international partners from the Swedish School of Sport and Health Sciences and Karlstad University in Sweden, Radboud University Nijmegen in the Netherlands, and national partners from Leeds, Bangor and Loughborough Universities.

The research outcomes within this theme are published in international peer-reviewed journals and are also actively translated to sporting situations by applied practitioners working in sporting bodies. Other research investigated the impact of coaches' practices on athletes' motivation, well-being, decision-making and talent development; and relationships between the student athletes and alcohol consumption (this work was supported by a grant from the Alcohol Education Research Council of £49,077). Results from this highlighted the excessive use of alcohol in this population, with over 60% of participants being classified as having alcohol use disorder. The researchers and practitioners are working collaboratively with international sport associations to enhance global coaching effectiveness, for example through the UK Sport Olympic Legacy Project for Africa. Research in this theme has resulted in the prestigious title '*UK Coach Educator of the Year*' being awarded to an applied practitioner (**Navin**). Progress in these areas is evidenced by publications in peer-reviewed journals that are highly rated in the context of sport coaching and sport psychology, such as *Journal of Sport and Exercise Psychology* (IF 2.5); *Personality and Individual Differences* (IF 1.8); and *Journal of Applied Sport Psychology* (IF 1.2).

Future Aims and Objectives

At the heart of our strategy for expanding the UoA's research base is investment in and development of our people, estate and external engagement. This aligns with the University's 'Vision 2025', which is guiding the transformation of Northumbria into a research-rich, business-focused, professional university. Inspiring, research-excellent and entrepreneurial staff are crucial to achieving this vision.

A cornerstone of the strategy will be the introduction of a default workload allocation of 40% of academic staff time dedicated for research. Senior academic staff will continue to work with their groups to identify discipline-specific challenges and opportunities for development, including targeting external funding opportunities, and other research investment. We will aim further to increase the volume, regularity and quality of applications for external research funding, supported by the Faculty Grant Working Group, providing mentoring support for ECR staff making their first RCUK bids. We will grow our collaborative ventures, building upon our expertise in attracting industry and charity funding.

We have prioritised two key research areas aligned with the UK Research Cross-Council Lifelong Health and Wellbeing Programmes and the UK Government Health agenda. These areas are:

1) **Neuroscience – exercise regulation and adaptation.** A new neuroscience laboratory has provided a bespoke area to conduct experiments where multiple instruments can be integrated to allow more advanced questions to be addressed. For example, magnetic brain stimulation can be used in conjunction with dynamometry and electric stimulation techniques used for brain-to-muscle experiments in a dedicated facility that provides the necessary space,

instruments and isolation (**Goodall, Howatson, St Clair Gibson**). The result is that we now investigate complex mechanistic systems to answer questions and ultimately produce high-quality research outputs.

2) **Clinical exercise physiology.** We will prioritise applied clinical exercise science and plans have recently been approved to develop a clinical exercise facility, which will act as a resource for future innovative and translational research. This key area is being developed by **Ansley, Robson-Ansley, Stevenson** and **West** and encompasses: prehabilitation prior to and rehabilitation following surgery; physical activity and nutrition interventions to reduce post-infection surgery rates in joint replacements; and prevention/management/treatment of chronic inflammatory-based diseases (asthma, obesity, diabetes) through exercise and nutritional intervention.

c. People

Staffing strategy and staff development

We have a clear strategy for recruiting and promoting academics with internationally excellent research profiles, targeting candidates that fit well into established research groups or strong emerging themes. Staff promotions arising from this strategy include four Readers and one Professor and Early Career Researchers (ECR) have been appointed to support specific research activity in the UoA. These appointments have been complemented by the appointment of an Anniversary Research Fellow (**Barwood**) in celebration of the University's 20th anniversary. All ECRs were appointed from a very competitive pool of applicants. Finally, we have appointed a cohort of internationally-significant researchers as visiting professors: Dr James Hull, The Brompton Hospital, London; Professor Tibor Hortobágyi, University of Groningen; Professor Deiary Kader, Gateshead Health NHS Trust; Professor Brad Wilkins, Nike; Professor Simon Evetts, European Astronaut Centre; Professor Jean Cote, Queens University, Canada; and Professor Ken van Someren, Director of Human Performance at GlaxoSmithKline.

Senior academics act as research group leaders, mentor ECRs, co-ordinate peer review of manuscripts and grant applications, oversee the organisation of weekly research presentations by staff and invited external speakers, manage the supervision, support and monitoring of PhD students and lead strategic and operational research initiatives in their research groups. Annual monitoring of research performance takes place through Personal Research and Innovation Plans (PRIPs). The annual PRIP process allows staff to document their research activity over the preceding 12 months and articulate their plans for the future. PRIPs are used by senior research staff to inform mentoring and appraisals and shape the allocation of internal research funds and workloads. The opportunity to apply for sabbatical leave is open to all staff and four staff in this UoA have benefitted from sabbaticals in this assessment period. Funding for travel and conference attendance, to disseminate work, develop researcher networks with international and national scholars and to make industry links with potential study sponsors, is provided through a competitive process.

At Faculty level, research activity is supported by a number of committees. These include the Early Career Researcher Committee - an interdisciplinary, cross-faculty group that has identified challenges facing new researchers in their first academic post and has developed a series of strategies and policies that have been implemented by the Faculty Executive Committee. Substantial support is provided to ECRs and includes: 1) a comprehensive induction to the Faculty and research centre and familiarisation with facilities and University processes; 2) provision of a mentor in a similar research field to help them integrate with colleagues in the research centre and also provide guidance on developing their research activity; and 3) a reduced teaching load to afford sufficient time to engage in research activity and make meaningful contributions under one (or more) of the research themes, ultimately moving towards becoming an independent, autonomous researcher in their own right.

The University runs dedicated training programmes for all levels of academic and support staff involved in research, covering essential research knowledge and skills, e.g. ethics and governance, commercialisation of research, applying for external funding of research, and measuring impact. These are well-attended with over 600 attendees in 2011/12 across 76 workshops and sessions. The University holds a two-day Research Conference for academics to present their work, raise their profile and foster collaboration across the institution.

Diversity and inclusion have always been very important to Northumbria; all staff are required to attend Equality and Diversity training as part of the core training requirements. This covers legislation, the University's policies, decision-making and behaviour. Since 2008, the University has developed and implemented an action plan compliant with the Vitae Concordat to support the development of research careers. This has recently been recognised with an HR Excellence in Research award, demonstrating our alignment with principles of the European Charter for Researchers and ensuring staff are part of a stimulating and supportive research environment.

Postgraduate Research (PGR) students

There is a strong and thriving research culture for PGR students in the faculty. During the REF period, we have initiated successful collaborative relationships for PGR student training with industry and international institutions. An example of this is the successful completion of a BBSRC CASE studentship award which enabled us to place a PGR student in the workplace at GlaxoSmithKline (GSK) for six months. The PGR student was involved with the organisation of a hydration project to raise awareness of hydration strategies during the Great North Run and the development of promotional materials. This has resulted in the development of a strong relationship with GSK and research funding for subsequent studies in the Department. All PGR students are required to present their research on an annual basis at one of the bi-monthly research meetings in the Department. These act as a peer-review process to maintain high-quality postgraduate research standards and provide further opportunities for developing the presentation skills of each student. PGR students present work at national and international conferences and subsequently submit for peer-reviewed publications. Examples include presentations at the American College of Sports Medicine with associated publications in *British Journal of Sports Medicine*, *European Journal of Neuroscience* and *PLoS ONE*. A large, newly-refurbished, open-plan shared space has been created to accommodate the PGR community. All full-time PGR students have their own desk workspace, computer and shared telephone and 'hot-desk' workspaces are available for all part-time PGR students.

Year	PGR Students enrolled on Doctoral Programmes (FTE)
2008/09	15.1
2009/10	17.7
2010/11	17.1
2011/12	20.4
2012/13	17.4
Total	**87.7**

In order to maintain high research and supervisory standards, all supervisors are enrolled on the mandatory University supervisor training scheme. Courses are regularly organised through the Graduate School for supervisors to attend and supervisory competencies are collated annually to ensure adequate training is being completed to enable successful supervision of PGR students. Monthly meeting records are kept by supervisors and signed by the PGR to ensure continued timely progression. Training needs analyses are completed annually and all annual milestones are closely monitored to ensure satisfactory progress is being made and relevant training provided. PGR students are required to attend a wide variety of postgraduate training courses organised through the Graduate School. PGR students are able to attend any modules from the MRes and other postgraduate taught programmes, as well as external training providers such as the BASES workshops programme. Northumbria's performance in the HEA's Postgraduate Research Experience Survey is improved in all areas and there has been an upward trend across all three surveys conducted in 2008, 2009 and 2011, including many areas that were already high-scoring, such as supervision and skills development. Some of the largest score improvements relate to intellectual climate, teaching opportunities, and professional development and career opportunities.

We enhance the PGR student experience by creating opportunities for academic exchange, industry visits or externally sourced training. Examples include: 1) a two-month student visit to East Carolina University, USA, to learn novel techniques using transcranial magnetic brain stimulation. These methods are now employed in the developing neurophysiology research area; 2) a partnership with The Royal Brompton Hospital, London where a PGR student is learning cutting-edge techniques in diagnostic continuous exercise laryngoscopy to determine differential

diagnoses in athletes with respiratory symptoms; and 3) a two-month visiting researcher post at Imperial College London working with Professor Stephen Bloom on appetite hormone studies; and 4) a partnership with the Crew Medical Support Office at the European Astronaut Centre where a PhD student will be conducting a 2014 study investigating the effect of a new exercise device in rehabilitating Luftwaffe pilots with low back pain.

d. Income, infrastructure and facilities

Income

Funding for research has been obtained from a wide range of sources, reflecting the breadth of our activities, including successful applications to UK, USA and European funding agencies, charities and businesses. Highlights for the *Physiological regulation, adaptation and recovery group* include grants from industry partners such as Sappari, CherryActive and the Cherry Marketing Institute 2009-2013 (>£300,000) and a BBSRC case studentship with GlaxoSmithKline (£140,000). Highlights for the *Exercise, nutrition and clinical physiology group* include a grant awarded by the European Commission FP7 (£164,000), industry partners: Dairy Council, Medtronic Diabetes Technology UK, Beneo, Bayer, Masterfoods and Phadia (>£240,000) and charities: ME Research UK, Newcastle PCT, John Richardson Foundation, Diabetes UK 2012 (£50,000). Highlights for the *Sport coach education and athletic performance group* include a HEFCE strategic development grant (£26,500) and grants from national coaching bodies, e.g. England Netball and British Gymnastics.

Infrastructure

The University has invested in centralised research support, increasing staff in the research support function, Research and Business Services (RBS), from 2.9 FTE in 2010 to 15.5 FTE in 2012 to meet the growth in research activity. Experienced bid-writers and contract specialists have been added to existing high-level support in the areas of funding sources, proposal development, monitoring project spend and assisting production of final reports. Business Development Managers in RBS support collaborations between academic staff and business, for example, through the development of applications for collaborative Technology Strategy Board research projects, Knowledge Transfer Partnerships and contract research.

Facilities

The new £30million sports complex - *Sport Central* - houses six purpose-built sport and exercise science laboratories and specialist equipment for research, teaching and consultancy. A further suite of specialist laboratories sits in the adjoining building and together these provide, *inter-alia,* a high specification environmental chamber (capable of simulating altitudes up to 8000m with a working temperature range of -20°C to +45°C and a relative humidity up to 95%); a 3-D motion capture system with integrated force platforms; transcranial magnetic brain stimulation; muscle biopsy and tissue-harvesting capabilities; online gas analysis; near-infrared spectroscopy; isokinetic dynamometers; a multiplex immunoassay platform for tissue analysis; imaging ultrasound for imaging tissue and blood flow; an impulse oscillometer for lung function; and a "BodPod" for body composition assessment using air displacement plethysmography. Research is supported by technicians with expertise in biochemical and immunological analyses, tissue sampling, and other specialist laboratory techniques.

The University also houses further research equipment, facilities and expertise to facilitate a wide range of scientific and technical testing and analysis. When necessary, collaborations with external organisations have also been successfully developed to gain access to particular facilities, such as fMRI and MRS at Newcastle University, or to specific subject populations such as professional football players (Chelsea, Sunderland, Middlesbrough and Newcastle United Football Clubs) and Olympic athletes (English Institute of Sport, UK Athletics and Team GB).

e. Collaboration and contribution to the discipline or research base

International and national collaborations

Successful research collaborations with academics at institutions both internationally and nationally are evidenced by over 40 co-authored publications accepted during the REF period. Collaborators include: University of Groningen; East Carolina University; University of Saskatchewan; Nicholas Institute of Sports Medicine and Athletic Trauma, New York, (neuromuscular physiology); English Institute of Sport (recovery and adaptation in sport); Davis Heart and Lung Research Institute at Ohio State University; University of Regina (brain and

muscle blood flow during exercise and cognitive tasks using techniques such as near-infrared spectrophotometry); Kings College, London; Leeds Metropolitan, Stirling and Loughborough Universities (nutrition and appetite); and UK Athletics (exercise-induced anaphylaxis and allergy in sport). **Howatson** and **Robson-Ansley** are visiting Professors at North West University and Stellenbosch University in South Africa, respectively.

International contribution to the discipline

Researchers in this UoA have been actively involved in contributing to the discipline at an international level. These include delivering research-focused presentations at international and national levels including hosting the International Sports Science and Sports Medicine Conference for the past four years, attracting over 300 delegates annually. Staff are active members of editorial boards of international and national journals and are frequently invited to deliver key presentations at national and international sport science and health related conferences such as the American College of Sports Medicine (ACSM), European College of Sport Science (ECSS) and the British Association of Sport and Exercise Sciences (BASES).

Howatson is an Editorial Board member for the *European Journal of Sport Sciences* and the *Journal of Sport Sciences*, **French** is an Editorial Board Member for both the *Journal of Strength and Conditioning Research* and the *International Journal of Sport Performance and Physiology*, **Davis, P.** is on the Editorial Board for the *American Journal of Sport Sciences and Medicine*, and **Barwood** is on the Editorial Board of *Extreme Physiology and Medicine*. **Robson-Ansley** is guest editor for the *International Journal of Inflammation* on a special issue on epigenetics, health and inflammation and was also invited to present a keynote talk on novel hypothesis of mechanisms leading to the potentially fatal condition exercise-induced anaphylaxis for the European Academy of Allergy and Clinical Immunology (EAACI, 2011) which has resulted in her chairing the development of a position statement from EAACI on this condition.

St Clair Gibson, Howatson, Ansley, Robson-Ansley and **Stevenson** were instrumental in the development and success of the International Sport Science and Sports Medicine Conference and the International Sport and Exercise Nutrition Conference, both of which are hosted annually by Northumbria University and attract international speakers and delegates. **Davis, P.** had an invited symposium presented at the World Congress on Stress and Anxiety Research, **West** and **Gonzalez** were invited to speak at the Rank Prize Symposium on Sports Nutrition in 2012 as promising early career academics. Finally, **Goodall** was awarded a young investigator award at the ECSS conference in 2010 and was invited to present at keynote symposiums in Japan (JSPFSM, 2010) and America (ACSM, 2011). He was also invited to join a multi-national project funded by the USA's Department of Defence ($2million) investigating how humans acclimatise to high altitude, with research conducted in the USA and Bolivia.

Contribution to professional associations

During the REF period, we have delivered structured CPD programmes in a variety of areas including professional coach education; allergy and asthma in sport for clinicians (Kings College, London and Royal College of Medicine); and sports nutrition (Dairy Council, Sport Dieticians UK, British Dietetics Association). We have an active relationship with BASES led by **Howatson** who chairs the BASES Laboratory Accreditation Committee and Laboratory Directors Group, which is responsible for the benchmarking of standards of BASES-accredited laboratories throughout the UK. This involves providing direction to laboratory directors on best practice and carrying out quality assurance assessment of applicant laboratories. **Howatson's** contribution to research in sport and exercise sciences (UK Sport, EIS, GB Track Cycling) was recognised by BASES through the award of Early Career Researcher's Medal in 2010 and the award of a Fellowship in 2011 by the American College of Sports Medicine (ACSM) and the BASES Fellowship in 2012.

Ansley and **Robson-Ansley** are elected board members on the EAACI special interest group for Lifestyle Interventions in Allergy and Asthma, contribute to the training of clinicians using evidence-based learning on the EAACI summer school programmes (Sardinia 2010, Estonia 2012) and sit on the European Task Force for Exercise-induced Anaphylaxis (2012-2014), which is chaired by **Robson-Ansley** and involves specialist clinicians from six European countries. **Robson-Ansley** is convening an EAACI "research methods" school for up to 120 European clinicians (March 2014). **French** sits on the Expert Advisory Panel to the GlaxoSmithKlein Human Performance Laboratory and is the current Chairman of the United Kingdom Strength and Conditioning Association.