Appendix 1 – BASES HPSA (Football Science) Portfolio Application Form

The form has been created for applicants to view and complete in Microsoft Word. Spaces are reserved for entering information. The spaces are a mixture of text fields, check boxes and drop-down lists. The tab button should be used to move the cursor between spaces.

SECTION 1 PERSONAL DETAILS

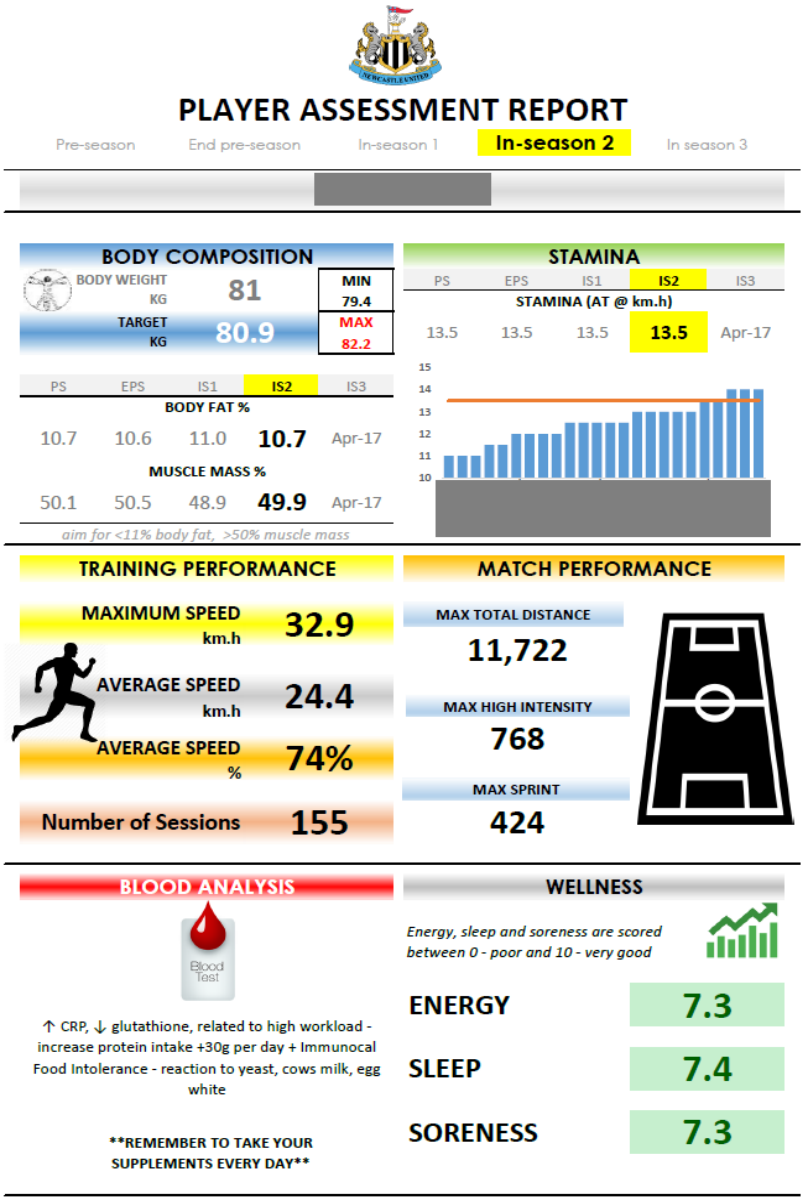
Full Name, including Title:	Mr Jamie Harley
Address:	NUFC Training Centre, Whitley Road, Benton, Newcastle-upon-Tyne
Postcode:	NE12 9SF
Tel No:	07557742809
Fax No:	
E-mail:	Jamie.harley@nufc.co.uk

Please tick or complete all appropriate boxes below:

I have read sections 1-6 of BASES HPSA (Football Science) Applicant Guidelines and Portfolio Application Form.	☒
I certify that I am a Professional Member of BASES.	☒
I currently hold BASES scientific support re-/accreditation.	☒ I held BASES support accreditation between 2010 and 2015 – this application is instead of an application for re-accreditation
I have held BASES scientific support re-/accreditation for	5 years.
What is your specialist scientific discipline?	Football Physiology
If other, please specify.	
SECTION 2 QUALIFICATIONS	
Academic Qualifications I enclose a photocopy of a relevant certificate showing that I hold a first degree at honours level in Sport and Exercise Science or a related discipline.	☒
I enclose a photocopy of a relevant certificate showing that I hold a higher degree in Sport and Exercise Science or a related discipline*.	☒

*If you do not hold a relevant postgraduate degree, then you must provide evidence of equivalent training or experience.	
Other Qualifications, Awards, and Training Please provide details of other relevant qualifications or awards you possess, as well as information on any additional academic or other training you have had.	Chartered Sports Scientist (2013) ISAK Level 2 Anthropometrist NSCA Strength & Conditioning Specialist ISPAS Accredited Performance Analyst (Level 6) FA Level 1 Certificate in Coaching Football FA Child Protection & Best Practice First Aid at Work Automated External Defibrillation
SECTION 3 EMPLOYMENT AND EXPERIENCE	
Please list, in reverse chronological order, your experience of providing science support services to elite standard football club(s). For each, provide a brief summary of the nature of your work and the impact this has had. Include only those clients with whom you have had a substantial involvement. Please include dates, and where work has been part-time, include the time spent. It is important to distinguish between direct contact time and indirect support time with clients. Please also detail to what extent this work has been multidisciplinary and/or interdisciplinary in nature.	*2017 – present* – **Head of Sports Science** at **Newcastle United Football Club** Leading the sports science department including the supervision of a full-time PhD student based full time at the football club. My promotion to Head of Sports Science was given following a successful season in which we won the league and were promoted back to the Premier League. *2010 – 2017* – **1st team Sports Scientist** at **Newcastle United Football Club** All aspects of physiological training, monitoring and analysis of 1st team players in preparation for, and recovery from competition. I have developed a performance philosophy in six key areas: (1) training, (2) match-day support, (3) recovery, (4) performance monitoring, (5) nutrition, (6) hydration. This involves working closely with the coaching, medical and fitness staff to deliver a high level of support for the players. *2008 – 2010* – **Research Assistant** at Teesside University, based full-time at **Middlesbrough Football Club** Assisting the Head of Sports Science with the day-to-day duties in the department, and conducting research in new areas of player monitoring in conjunction with Teesside University.
SECTION 4 WORK PHILOSOPHY	

Please provide an outline of your philosophy to science support work, including your approach to providing effective support and any specific goals and objectives.	My overarching approach to scientific support is to implement the basic physiological processes with the utmost effectiveness. The player is always at the centre of the support process, which is entirely interdisciplinary and facilitated by excellent communication channels between sports science, physiotherapy, medical and fitness staff. The aim is to deliver simple performance messages to the playing staff, enabling them to prepare properly for training sessions and train to their maximum ability. Key performance messages are then communicated to the relevant members of staff to assist in the management process. I encourage players to ask questions, to think for themselves and to understand why we use the methods we do. The objective is for the player to trust the judgements and advice of the sports science staff through sound professional relationships, open communication channels and honest advice.
SECTION 5 PROFESSIONAL RELATIONSHIPS	

Describe, and where possible provide evidence of how you have worked effectively with high performance athletes, coaches, peers and other support staff.	During the 2016/17 season it was felt that we were collecting a lot of good information, but that it wasn't being communicated effectively to the players. Following discussions with the Management and Medical staff, I produced a Player Assessment Report which summarised the 6 key areas of our player assessments: 1. Body Composition, 2. Stamina, 2. Training, 3. Match, 4. Blood Biomarkers, 6. Wellness. These reports were produced at 5 time-points throughout the season and given individually to the players. This instigated discussion amongst staff across disciplines regarding comparisons between players, and indeed between players when comparing their own performances. It also gave them some ownership and accountability of their work. It proved to be a successful intervention in helping players to find the areas in which they needed to improve and to focus their attention. An example is shown below: 

SECTION 6 PROBLEM SOLVING & INTERDISCIPLINARITY	
Provide examples of your critical and innovative thinking to provide solutions to problems. Where possible, include how you have worked with other support staff to provide interdisciplinary solutions.	During the 2016/17 season, our training methods changed to include a much higher proportion of aerobic based training than the players had undergone in previous seasons. As a consequence, training volume increased and specifically running at a metabolically selected tempo. In conjunction with playing 2 games per week for the majority of weeks, and an increase in metabolic work, it was important to listen to the self-evaluations of the players to manage them through intense periods of the season. As an extra measure, we decided to look into the measurement of antioxidant status, which is most commonly measured in endurance athletes who undergo a very high training volume. We began to measure capillary blood samples following games as part of our recovery process, which highlighted some important changes on an individual level. Increased levels of H_2O_2 were associated with an increased propensity for injury or illness, and therefore it became important to manage players on an individual level with regards to their metabolic stress levels. The results were communicated to the Club Doctor, medical staff and management to enable the correct management of the player. The preliminary results of this were presented at the Future of Football Medicine Strategies Conference, Barcelona, 2017.
SECTION 7 COMMUNICATIONS	

A) Written Communication Please list, in reverse chronological order, a maximum of 15 articles that have been published in the last 3 years on sport science and/or its application to performance. This list may include articles that have been published in peer-reviewed scientific journals and/or 'applied' articles that have been published in coaching, professional or sport-related magazines and journals. Please provide as much information as possible (e.g., authors, title of article, year of publication, name of journal or magazine, page numbers or Web address). Note that you may be asked to produce a copy of any of the articles listed.	Akenhead R, **Harley JA** et al**. Examining the external training load of an English Premier League football team with special reference to acceleration.** *J Strength Cond Res 30(9): 2424-2432 2016* Harley JA. **Training Loads, Hamstring Injury Risk & Occurrence**. Football Medic and Scientist Magazine, Summer 2016 Edition. Ade, J., **Harley, J.A**., Bradley, P. **The physiological response, time-motion characteristics and reproducibility of various speed endurance drills in elite youth soccer players: small sided games v generic running.** *British Journal of Sports Medicin*; 47:e4. 2014 Weston, M., Batterham, A.M., Castagna, C., Portas, M.D., Barnes, C., **Harley, J.A**., Lovell, R.J. **Reduction in physical match performance at the start of the second half in elite soccer**. *International Journal of Sports Physiology and Performance,* 2011; 6(2): 174-82. **Harley, J.A**., Lovell, R.J., Barnes, C.A., Portas, M.D., Weston, M. **The inter-changeability of GPS and semi-automated video based performance data during elite soccer match-play**. *Journal of Strength and Conditioning Research*, 2011; 25(8): 2334-6. **Harley, J.A**., Hind, K., O'Hara, J. **Three-compartment body composition changes in elite rugby league players during a Super League season, measured by dual-energy X-ray absorptiometry**. *Journal of Strength & Conditioning Research*, 2011; 25(4): 1024-9. **Harley, J.A**., Portas, M.D., Lovell, R.J., Barrett, S.J., Paul, D.J., Barnes, C.A., Weston, M. **Motion analysis of match-play in elite U12 to U16 age-group soccer players***. Journal of Sports Sciences*, 2010; 28(13): 1391-7. Portas, M.D., **Harley, J.A**., Barnes, C.A., Rush. **The validity and reliability of 1-Hz and 5-Hz global positioning systems for linear, multidirectional, and soccer-specific activities.** *Internatioanl Journal of Sports Physiology and Performance,* 2010; 5(4): 448-58 **Harley, J.A**., Hind, K., O'Hara, J, Gross, A. **Validation of the skin-fold thickness method and air-displacement plethysmography with dual energy X-ray absorptiometry, for the estimation of % body fat in professional male rugby football league players**. *International Journal of Body Composition Research,* 2009; 7(1): 7-14.

B) Oral Communication Please list, in reverse chronological order, a maximum of 15 oral presentations that have been given in the last 3 years. This list may include presentations given at scientific conferences and/or formal educational presentations made to groups of high performance athletes or coaches. Please provide as much information as possible e.g., title of presentation, date of presentation, venue and conference or sport organisation delivered to.	**Return to Training following match-play: implications of metabolic stress levels.** May 2017, The Future of Football Medicine, Nou Camp, Barcelona, Spain. **Preventing Injury Whilst Maximising Performance**. April 2017, Rehabilitation Workshop, Clínica do Dragão FIFA Medical Centre of Excellence, Porto, Portugal. **Sports Science: First Team Insight**. December 2016, Newcastle United Academy (NUFC Academy Coaching, Medical, Sports Science Staff), Newcastle, England. **Evolution of Physical Load in Premier League Soccer: A 6-year Study of Training Methods and Physical Outcomes in Relation to Performance and Injury**. May 2016, Seattle Sounders Sports Science Conference, Seattle, USA. **Working with Catapult Tracking Data in an Applied Environment**. May 2016, Catapult Workshop, Seattle, USA. **Bio-analytics in English Professional Football**. March 2014, Sports Analytics Innovation Summit, Emirates Stadium, London, England. **The Training Puzzle – managing training loads in soccer**. May 2014, Catapult Workshop, Cologne, Germany.

SECTION 8 SELF-EVALUATION Please provide an outline of the steps you take to evaluate the quality and impact of your science support work; in addition, outline the ways in which you seek and use feedback on your performance. If appropriate, then please provide specific examples.	Self-evaluation is an important part of the Medicine and Sports Science department at Newcastle United. I have a quarterly one-on-one appraisal with the Head of Medicine, during which I reflect on my practice, receive a critical appraisal from the Club Doctor, and hold a discussion about the aims going forward. This enables a constant state of best-practice and performance evaluation. On a professional level I have always obtained the highest attainable performance rating at the Club. At the start of the 2016/17 season I was asked to slightly change my role by the Manager, to expand my duties more as a fitness coach in addition to the traditional roles of a sports scientist. I had the chance to reflect on my previous roles, understand the critical appraisal being given with regards to my impact directly with the team, and to adjust my focus with regards to the new training methods. I feel I did this successfully and was subsequently promoted to Head of Sports Science at the end of a successful season. On a personal level, I am an ambitious person and I strive to keep developing myself, and for the past 2 years I have been proactive in my desire to support up and coming scientists. In 2015 I set up an Internship programme with Northumbria University, and supervised a 2-year Internship placement for a student completing the MRes programme in sports science. Following this successful programme, the student has been offered a PhD placement whilst working at the football club, which I will supervise for the next 3 years. The student was also awarded Best Presentation sponsored by Cranlea at the BASES Student Conference, 2017, using data he collected at the football club. Using self-reflection, discussions with the other members of staff, and in supervising staff in the sports science department, I believe we have a process of best practice which enables the highest standard of scientific support to the players.

SECTION 9 CONTINUING PROFESSIONAL DEVELOPMENT (CPD) Please list in reverse chronological order any relevant workshops, seminars, conferences, or training courses that you have attended in the last 3 years for the purpose of continuing professional development. Provide information on the organising body, the title of the workshop or other CPD activity, and the dates of attendance. Note that you may be asked to provide proof of attendance, where relevant.	The Future of Football Medicine Conference, May 2017, Barcelona, Spain. Rehabilitation Workshop, April 2017, Clínica do Dragão FIFA Medical Centre of Excellence, Porto, Portugal Newcastle United Sports Science & Medicine CPD Event, December 2016. Automated External Defibrillation, August 2016, Newcastle. International Sports Science and Sports Medicine Conference, Newcastle University, August 2016. Seattle Sounders Sports Science Conference, May 2016, Seattle, USA Catapult Workshop, May 2016, Seattle, USA Sports Analytics Innovation Summit, March 2014, Emirates Stadium, London, England. Catapult Workshop, May 2014, Cologne, Germany.

SECTION 11 PERSONAL STATEMENT (Please check boxes below)	
I enclose an application fee of **£500.**	☒ The application fee is being paid by the Premier League – original contact James Bunce, now Andy O'Boyle.
Please call the BASES Office with your card details or purchase order number for invoice	
I enclose **email copy** of the portfolio application form and relevant documentation such as photocopies of degree certificates.	☒
I hereby certify that the information I have supplied in this application is correct at the time of writing and that my nominated referees have agreed to provide a reference within a 3-week period.	☒
Date:	**28/06/2017**

Payment Details:

	Payment of £500 (HPSA only) **or** **Payment of £535 (to include Chartered Scientist status)** ☐ **Credit/Debit Card**. Please indicate type of card *Credit/Debit Card details will be destroyed as soon as payment is made*. **Credit/Debit Card Number:** *(Debit only)* ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ **Expiry Date:** M M Y Y ☐☐☐☐ **Security Code** ☐☐☐ **Valid from:** *(if applicable)* M M Y Y ☐☐☐☐ **Issue No:** *(Debit only)* ☐☐ ***CHEQUES CANNOT BE ACCEPTED***	□ □

Please **email** the completed portfolio application form and all other relevant documentation including certificates to:

education@bases.org.uk