



Job title	Post-doctoral Research Associate (PDRA)	Job family and level	Research and Teaching Level 4
School/ Department	School of Veterinary Medicine and Science	Location	Sutton Bonington Campus

Purpose of role

This Postdoctoral Research Associate will join a three-year HBLB-funded research project using computer vision and machine learning to develop early warning indicators for musculoskeletal injury in stabled racehorses, based on continuous behavioural monitoring. The project is a collaboration between the University of Nottingham, Vet Vision AI and Johnston Racing, and will deliver one of the largest continuous behavioural datasets ever collected in working Thoroughbred horses.

At the core of the project is the use of computer vision and artificial intelligence to develop early warning indicators for musculoskeletal injuries, based on 24-hour time budgets and behaviours. The postholder will lead delivery of the research components of the project, working closely with the PI, co-investigators, and industry partners. The role combines clinical and behavioural data collection at a large racing yard, validation of computer vision models, co-ordination of stakeholder engagement throughout the project, and engagement within the wider industry including trainers, veterinary professionals and welfare bodies.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	Research activities To conduct research at the highest level in accordance with the aims and objectives of the project and produce outputs that lead to peer-reviewed publications of international quality and are considerate of all partners involved. To include; ▪ Lead design and implementation of the clinical and behavioural data collection at the partner yard. ▪ Co-ordination and implementation of data collection according to the project objectives and milestones, to include actively working with project partners/collaborators and stakeholders ▪ Validation of algorithms in collaboration with Vet Vision AI, including validation of final models for risk predictions ▪ Co-ordination of stakeholder engagement including; project partners/collaborators (Vet Vision AI and Johnston Racing) and the project stakeholder group	75%

	Co-ordination of knowledge exchange and dissemination activities including writing/submitting peer-review publications	
2	Administrative/general - Write and deliver seminars and conference papers at national and/or international conferences - Generate scientific publications working with all the project team and collaborators - Maintain excellent working relationships and communication with all project partners/collaborators - Contribute to the public facing profile of the project, considering the perspectives of all stakeholders, including the University of Nottingham, VetVisionAI, Johnston Racing and HBLB.	10%
3	Organisational responsibilities Operate as an effective team member within the Population Science Division at the School of Veterinary Medicine and Science, undertaking some organisational responsibilities and specifically integrating widely into School research teams, establishing research collaborations (internal and external) and contributing to research supervision and training of undergraduates and postgraduates.	10%
4	Other Undertake administrative and any other relevant tasks as reasonably requested by the PI/Head of Division. Update professional skills as appropriate and relevant in support of research excellence	5%

Person specification

	Essential	Desirable
Skills	▪ Knowledge and understanding of of equine behaviour assessments and disease ▪ Proven ability to collate and manipulate complex datasets / data analytic skills using R or Python ▪ Track record of undertaking day-to-day management of defined tasks/objectives/milestones of a large research project ▪ Drive, motivation and resilience to be successful in research ▪ Able to work to deadlines and prioritise tasks. ▪ Excellent written and verbal communication and presentation skills for research, lay and industry audiences. ▪ Experience of working effectively in multidisciplinary research teams.	▪ Proven experience in equine behaviour assessments ▪ Formal training in aspects of project management ▪ Previous experience of searching and retrieving data from clinical records ▪ Track record of leading day-to-day management of defined tasks/objectives/milestones of a large research project ▪ Previous experience of working collaboratively and leading components of work within a large research group ▪ Willingness to assist staff and students as required
Knowledge and experience	▪ Knowledge and understanding of the racing industry ▪ Track record of successful, timely delivery of research projects. ▪ Track record of publishing high quality publications for research and lay audiences ▪ Track record of knowledge exchange activities, including public and lay dissemination ▪ Comfortable with industry facing communication ▪ Comfortable with practical, hands-on data collection in operational animal facilities.	▪ Experience working within the racing industry ▪ Experience of leadership of research projects ▪ Track record of interactions with research collaborators ▪ Experience of working in a collaborative research team with project partners/collaborators ▪ Experience of Delphi / consensus methodology
Qualifications, certification and training (relevant to role)	▪ PhD (or submitted by start date) related to Veterinary or Equine science, animal behavioural or welfare science or a related area/discipline ▪ UK Driving license	▪ Further postgraduate qualifications relating to data science, epidemiology, behaviour or statistics



Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

Valuing people	Is friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
Taking ownership	Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
Forward thinking	Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
Professional pride	Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
Always inclusive	Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others



