

Animal Science, Equine and Veterinary Bioscience, and Veterinary Biosciences

Newsletter 2025



List of Courses

BSc Animal Science; Equine and Veterinary Bioscience; and Veterinary Biosciences

MSc Animal Science; Equine Science; and Livestock Science

Interested?

- Phone Dr Debbie Nash on 01970 622575 or Email: dmn@aber.ac.uk
- Phone Dr Iain Chalmers on 01970 628505 or Email: iwc@aber.ac.uk

Undergraduate National-level Dissertation Successes

We were delighted that two dissertation students studying Veterinary Biosciences have received national recognition for their final year dissertations. Rifka Faithfull was a finalist in the prestigious British Equestrian trade Association (BETA) Thesis of the Year 2024 competition, with her very topical dissertation which established how behaviour or dressage horses in competitions are affected by double bridles compared to snaffle bits.

Maddy Knight's dissertation was also focused on factors affecting competition horse performance, in terms of the sensory capabilities of horses. Specifically, Maddy investigated whether red show jumps incur more jumping penalties than yellow jumps, because horses are red-green colour deficient dichromats. Maddy used spectrometry technology to confirm that the red poles fell out of horses' visible range unlike the yellow jumps. The work follows recent research-led changes to the colours of hurdle and steeple chase jump boards in racing to reduce injuries. Maddy's won second place in the British Society of Animal Science Undergraduate Thesis of the Year Award and is now studying Veterinary Medicine at Bristol University.

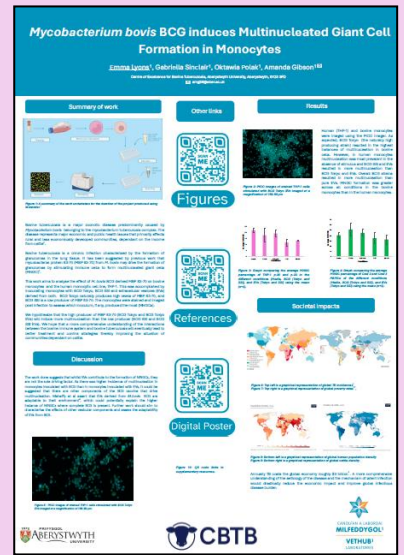


Animal and equine post-graduates secure prestigious PhD studentships

Claire Bailey and Maria da Costa have secured fascinating PhD studentships, hosted by the Department of Life Sciences. Claire studied her BSc Equine and Veterinary Bioscience and MRes Animal Science degrees here in Aberystwyth and has received prestigious FoodBiosystems Doctoral Training Partnership funding to study whether certain plant-derived compounds have anti-inflammatory effects on bovine blood cells. The work will be further explored by partnering with Dr Kirsty Klieme from the University of Reading to determine if the effect is also apparent in the blood cells of cows with specific inflammatory conditions that are common in dairy cows. In Aberystwyth, Claire is supervised by Dr Debbie Nash and Dr Ruth Wonfor. Maria, an international student from Portugal, completed her MSc Equine Science within the department and has now secured a Wooloff scholarship to study the effect of plant-derived cannabinoids and terpenes as a potential new treatment for equine wounds. The first stage of her study will determine which products have anti-bacterial effects on bacteria that commonly infect equine wounds, and the second stage will test whether these enhance the rate of wound closure and epidermal cell recovery using a laboratory-based model. Maria's supervisors are Dr Ruth Wonfor, Prof Dave Whitworth and Dr Debbie Nash.

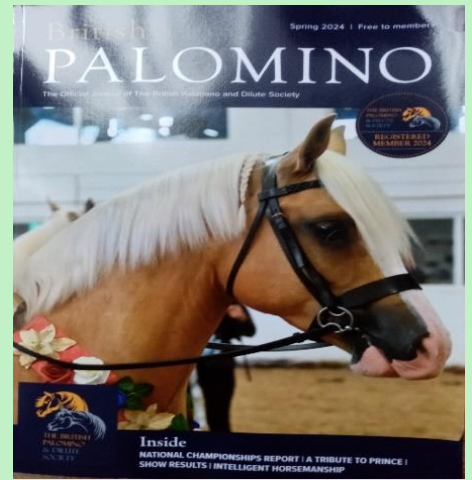
Undergraduate Conference Presentation and Vet School Admission Success!

Our Year in Industry student, Emma Lyons, studying Veterinary Biosciences was successful in presenting her research at the Microbiology Society Early Career Summer Conference 2024 in Glasgow. Emma presented a poster of her project investigating multinucleated giant cell formation in monocytes induced by *Mycobacterium bovis* BCG. Emma worked closely alongside Gabriella Sinclair, a Veterinary Biosciences student on this project. Gabriella studied the innate immune responses of human and bovine macrophages to *M. bovis* BCG for her dissertation. Since graduating in 2024, Gabriella has since commenced Veterinary Medicine at Budapest Vet School. Emma is currently continuing this research, comparing the ability of *M. bovis* BCG and its derived extracellular vesicles to induce multinucleated giant cells, through her dissertation.



Equine Article in Industry Publication

An article for the British Palomino Society, written by Department of Life Sciences lecturers from Aberystwyth University, was invited for publication in the society's magazine last year. Drs Liz Hart (Lecturer in Equine and Animal Science) and Cennydd Jones (Lecturer in Agricultural Grassland Management) discussed pasture management for horses, with focus on pasture management to minimise the risks of developing laminitis. The article provided a great opportunity to disseminate research and expertise to the wider public, helping to update the knowledge of those with an equine interest.



Bring your horse to Aberystwyth University

Lluest Equine Centre supports any Aberystwyth student (regardless of degree scheme or home department) during their studies, by offering livery for their horses. The opportunity to bring your best friend with you and make lifelong friendships with other like-minded students is a real bonus for enjoying your time at university. The yard offers training from BHS Qualified staff, as well as advisory support for you and your horse during your time at Lluest. We offer extensive facilities to keep your horse in tip top condition, from riding arenas to solariums! The yard hosts regular clinics from Tim Downes (FBHS, BD list 1 Judge) and dressage training from Angharad Harris (previous rider and groom for International GB Dressage rider Gareth Hughes). Horses Inside Out was an incredibly popular event with all students back when Gillian Higgins brought her ever-popular lecture demonstration in 2023. The functional physiology and anatomy knowledge that Gillian brings is extremely valuable to all students whether they are studying an equine related course or have a horse on livery. She brings horse movement to life by painting body systems on the horse which enhances learning via a live practical and visual demonstration. We also get students involved in the painting! We welcome her back in spring 2025 so all our students can benefit from this event during their studies with us.

