

Newsletter 2018

IBERS Institute of Biological, Environmental and Rural Sciences



Equine Science

List of Courses

MSc

Equine Science
 Animal Science
 Livestock Science

BSc Honours

Equine Science
 Equine and Veterinary Bioscience
 Equine Studies - 1-year top-up

Foundation Degree

Equine Studies

Interested? Phone Debbie Nash on 01970 622575 or Email: dmm@aber.ac.uk

IBERS equine team strengthens and expands

The IBERS equine teaching team is delighted to welcome two new members of staff for 2018, both of whom are IBERS success stories. Dr Ruth Wonfor is both a former graduate and post-graduate student, having first joined us to complete her BSc Equine Science degree and continuing to her PhD which was completed in 2016. Her research investigated potential anti-inflammatory treatments for uterine diseases. Ruth will be joining us as a lecturer specialising in anatomy and physiology.

Jennifer Lawrence is our new yard assistant, who lends an essential helping hand following the expansion of our stables at our Lluest Equine Centre. Jen is also no stranger to IBERS as she successfully graduated from our BSc Equine Science programme and will be studying for an MSc Animal Science part-time with us alongside working. Look out for Jen in our on-site dressage and jumping competitions with her very talented grey horse, Tango.

Second year equine students enjoy a talk by Dr Colin Roberts

Dr Colin Roberts, Cambridge University, came to talk to our 2nd year equine students who are studying Equine Exercise Physiology. Dr Roberts is a member of the FEI Veterinary Committee and led the *Equine Anti-Doping and Controlled Medication Sampling Team* for the 2012 and 2016 Olympic Games. Our equine students spent an interesting afternoon hearing about welfare challenges that face our equine athletes and learning from Colin's wealth of experience in both research and the industry.

BHS Welsh National Chair

Dr Mina Davies Morel, who lectures on equine reproductive physiology and breeding has been appointed as Chair of the British Horse Society Welsh National Committee. As such she is responsible for representing the views of Welsh BHS members and volunteers on BHS national committees and in decision making processes.



Celebrating 70 Years

MSc students enjoy three days at Gregynog

The MSc Equine Science students enjoyed three snowy days of lectures from international experts at Gregynog Mansion near Newtown as well as a good snow ball fight! Speakers included Dr Colin Roberts, Cambridge University and Chief Vet for the Olympic Games (equine respiratory and cardiovascular function), Dr Andrew Waller Head of Bacteriology Animal Health Trust and Catriona Mitchell also Animal Health Trust (strangles and *Streptococcus equi*, diagnostic testing, global transport of strangles), Dr Julia Kydd, Nottingham Vet School (the



effect of obesity on equine immune function), Dr Andrew Hemmings Royal Agricultural University (equine behavioural neuroscience and behaviour), among others.



Over the summer of 2017, due to popular demand for our student livery, Lluest underwent a big expansion with the addition of ten stables along with a solarium, wash bay, feed room, tack room and a turnout pen. This allows more students to bring their horses with them and use the fantastic facilities on offer. See our Youtube video for a peek at our fantastic facilities. <https://www.youtube.com/watch?v=FvPdpJHRO84>

The yard has seen many successful clinics, open to students and visiting riders, held over the past year that will continue into 2018. Louise Harwood (4* eventer) returned and enjoyed a day of teaching show jumping to a variety of horse and rider combinations whilst William Blaine (FBHS) and Patrick Print (FBHS) concentrated more on the flatwork aspect.

On the 28th October, Lluest Equine Centre became a hive of activity in preparation for the arrival of Monty Roberts and Kelly Marks. The evening provided the audience with a lot of insight and a couple of laughs along the way. Overall, the demonstration and the trade stands were well supported and lucky members of the audience even got to meet and chat to the man himself.

Lluest Equine Centre has a busy year

The end of April 2017 brought a new arrival to the yard, a bay filly who has been named Lluest Courageous Rogue or Diva for short. Her mum, Minnow is also doing well and will be coming back into work early this year.

We have had another successful year of holding competitions on site, most weekends, for both students and members of the public. Points available from each unaffiliated dressage competition held monthly go towards the Lluest Winter Dressage League. This was won last April by student Jen Lawrence on her own ex-racehorse Iced Tango. Prizes were provided by Wynnstay Aberystwyth and Nettex Equine.



BSc Equine Science student wins prestigious bursary

Harriet Raymond, a final year Equine Science student won a prestigious and highly competitive British Equine Federation bursary to help support her dissertation research. Harriet's project measured the heat endured by the distal limb of the horse with different exercise boots, including air-vented boots. Harriet secured nearly £500 of funding to enable her to hire a thermographic camera near to where she was working during her year in industry. Many congratulations Harriet and huge thanks to the BEF for their support.

Aberystwyth led research papers published in 2017

The equine team have been especially busy this year conducting research and publishing the results in prestigious scientific journals.

Firstly, an equine nutrition paper was published in *Frontiers in Microbiology*. The lead author, Kirsty Dougal, was a PhD student and post-doctoral researcher within IBERS. The research entitled 'Changes in the Total Fecal Bacterial Population in Individual Horses Maintained on a Restricted Diet Over 6 Weeks' has begun to elucidate the stability of the microbes within the equine hindgut. The microbial populations present within the equine digestive tract are imperative for digestion but are also closely linked to many metabolic diseases. Thus, the research helps to provide a baseline to which fluctuations related to dietary change or disease can be compared.

Second, a group led by Dr Debbie Nash published a study which demonstrated that an equine supplement used to treat gastric ulcers does indeed have anti-inflammatory properties. The group worked alongside our commercial partner, Superfix Ltd, and used human digestive tract cells maintained in our laboratory (i.e. cultured) to demonstrate the anti-inflammatory properties. There is no equivalent digestive tract cell culture for horses, so this was a first step in understanding how the supplement may be acting. The work was published in the *Journal of Ethnopharmacology*.



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