



ROBIN MCDONALD SCHOLARSHIP



2012 Scholarship Winner

Winner of the 2012 Robin McDonald Memorial Regional Research Scholarship, **Aleona Swegen**, is researching horse fertility, in a project that has the potential to yield enormous benefits to the Hunter's equine industry.

Aleona, who is a qualified veterinarian, knew when she was growing up in the outskirts of Sydney that she wanted to work with animals and had a particular interest in horses. Her family kept and

bred Cleveland Bay horses, a calm, well-tempered English breed suited to eventing, driving and vaulting.

"I rode and trained horses as a child and was fascinated when we had horses that we bred," Aleona, who attended Kenthurst Hill Grammar School, said. "After finishing my vet science degree at the University of Sydney, I was keen to get work with horses, and particularly in the area of equine and reproduction, the perfect combination for me."

Aleona came to the Hunter to work with Jerry's Plains vet, Jim Rodger, who introduced her to John Aitken, Professor of Biological Sciences at the University of Newcastle. Professor Aitken asked her to join a University team working in the area of equine reproduction and she began a Master's of Philosophy in Biological Science in February this year.

"My study is in the area of stallion fertility and is seeking to form in-depth understanding of the processes sperm goes through for fertility," Aleona explains.

Under a grant funded by the Australian Racehorse Association and Australian Harness Racing, Aleona is part of a team of researchers, including her academic supervisor Zemira Gibb, looking into equine reproduction. Her studies got off to a great start with a self-funded overseas trip earlier this year that included a week working with a team of researchers studying an endangered population of Terceira ponies in the Azore Islands, as well as a four-day conference in Bremen, Germany with world leaders in artificial breeding in horses. She was also sponsored to attend an international Equine Veterinary Conference held in Brisbane in July, which included reproductive content.



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As Australia's horse-breeding capital, the Hunter hosts most of Australia's multi-billion dollar thoroughbred breeding industry, as well as a large proportion of the nation's standardbred and performance horse studs. It is the second largest concentration of horse studs in the world. Aleona's research project aims to:

- Enhance equine reproduction efficiency;
- Investigate factors influencing sub-fertility in stallions and predict its occurrence;
- Develop methods to accurately diagnose and alleviate sub-fertility in stallions.

“At the core of the Hunter equine industry are the horses and, in particular, the stallions at stud, whose ability to efficiently and consistently produce high quality offspring determines the success of the entire industry,” Aleona said. “My research project aims to benefit the horse breeding industry in the Hunter and the thousands of people employed in it. Improvements in stallion fertility will lead to greater efficiency and profitability across the horse breeding industry, fostering continued growth and increasing competitiveness.”

With her background in veterinary science, including hands-on experience in the Hunter, Aleona provides a valuable link between the theoretical and scientific researchers in the laboratory, practising vets and the equine industry. She hopes her involvement with the HRF, as the scholarship recipient, will enhance her ability to communicate the practical and useful applications of her research to the equine industry and the broader community.

“The HRF scholarship will be a tremendous help to me financially,” she said. “It is also an important collaboration to help us communicate the potential benefits of our research through the Foundation's functions and publications.”