

EQUINE GUELPH

Research Update



Volume 20 - 2023

Welcome to Equine Guelph's digital newsletter
including researcher video interviews!

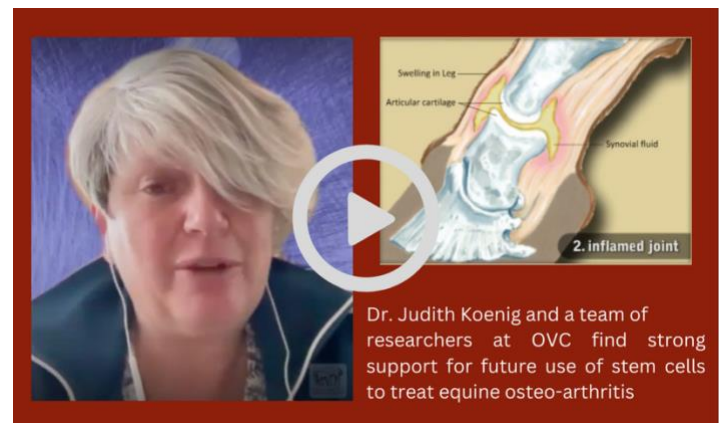
Stem Cell Research for Equine Osteoarthritis

Two studies led by Dr. Judith Koenig and her team at the Ontario Veterinary College have shown equine pooled cryopreserved umbilical cord blood, (eCB) MSC, to be safe and effective in treating joint pain and inflammation. Both studies received funding from Equine Guelph.

In the first study, the stem cells harvested from multiple donors of equine umbilical cord blood (eCB) MSC (kindly provided by eQcell), were compared to saline injections in research horses. *"This type of cells is much more practical if you have a cell bank,"* says Koenig. *"You can treat more horses with it and it's off the shelf."* With no systemic reactions, the green light was given for the second study to test stem cell therapy in horses with lameness due to fetlock osteoarthritis.



Horses in the MSC group had lower MRI Whole-Organ Magnetic Resonance Imaging Scores and lower radiographic osteoarthritis scores.



Dr. Judith Koenig and a team of researchers at OVC find strong support for future use of stem cells to treat equine osteo-arthritis

Effectiveness of treatment in the second study was conducted by a lameness evaluator that was blinded to whether the horses received stem cell treatment or the saline placebo. *"Being consistent in creating the same size chip surgically in the horses prior to treatment and exercise was a challenge,"* said Koenig. The four-month study necessitated considerable manpower, with six standardbreds receiving equal daily exercise on treadmills following up with MRI's.

MRI's, x-rays, ultrasounds, and weekly lameness evaluations revealed signs of osteoarthritis improved in the group treated with (eCB) MSC's. After six weeks of treatment, the arthroscopic score was also significantly lower in the MSC group compared to the control group.

Another trial with six horses is planned for Spring 2023. The initial findings are very exciting for the future possibilities of treating equine osteoarthritis with stem cell therapy.

-story by Jackie Bellamy Zions

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12-week courses at EquineStudiesOnline.ca

Future Research

Research Goals and Funding in our 20th year

Equine Guelph's research program promotes the health and welfare of horses in Ontario by conducting research into priority equine diseases and problems by effectively communicating the findings to the scientific communities and equine industry. Equine Guelph is pleased to support a number of high-quality projects at the University of Guelph, by virtue of funding provided largely by the racing industry (Standardbred, Thoroughbred and Quarter horse organizations): the Horse Improvement Program from the Horsemen's Benevolent and Protective Association, and the E.P. Taylor Foundation, started by veterinarians in the Thoroughbred industry, and now maintained in trust by the University and Equine Guelph.

The Equine Guelph Research Committee, consists of industry representatives and faculty members, overseeing the allocation of research funds, and is co-chaired by an industry and a faculty representative. Research project submissions are subject to peer review prior to funding allocation. Research findings are presented to veterinarians at conferences and meetings, and horse owners through communications and equine courses, focusing on the practical applications of the knowledge.

EVENTS

Mark your calendar

Equine Guelph [12-week online courses](#)

Summer Semester May 8

Fall Semester September 11

[TheHorsePortal.ca short online courses:](#)

Gut Health and Colic Prevention
Feb 13 - 24, 2023

Racehorse Gut Health & Ulcer/Colic Prevention
Feb 27 - Mar 10, 2023

Horse Trailer Safety Part 1
March 6 to 20, 2023

Racehorse Respiratory Health
Mar 20 - Mar 31, 2023

Sickness Prevention in Horses
Mar 20 - Mar 31, 2023

Sport Horse Injury/Lameness Prevention and Care
April 3 - 14, 2023

Business 101 – On Demand

Horse Behaviour & Safety for Youth – On Demand

*Visit [TheHorsePortal.ca](#) for free exclusive racing industry courses

Thank you for supporting research



124 equine research projects have been funded since 2004 and Equine Guelph would like to extend sincere thanks to our supporters in the racing industry and donors like you who have made it all possible.

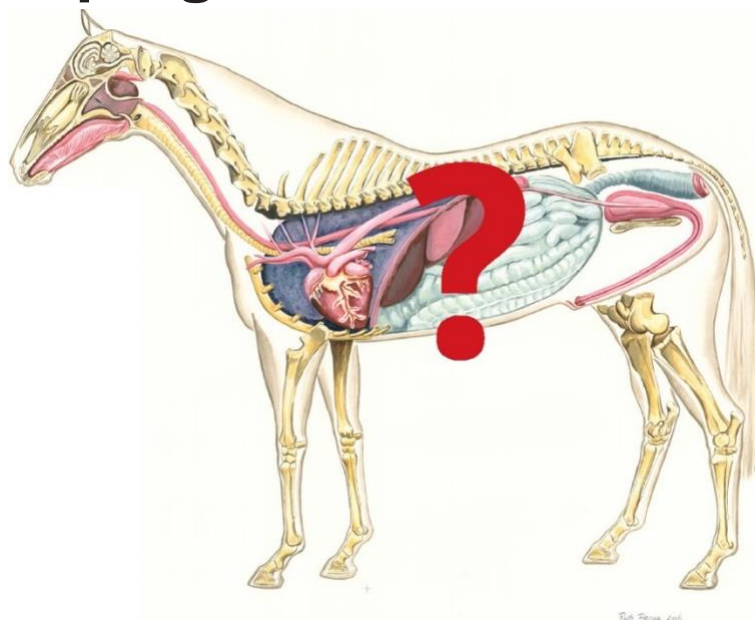
[Read the lay summaries](#) for past and present Equine Guelph funded research studies.

2022 Research Recap

See How Research is Helping YOU!

Check out these research story & video links:

- ✦ Encapsulating Stem Cells for Osteoarthritis Treatment
- ✦ Stem Cells Under Investigation as a Possible Future Treatment for Equine Asthma
- ✦ Potomac Horse Fever Webinar
- ✦ Antibiotics and the Equine Gut
- ✦ Research into Development of the Foal's Gut Could Advance Treatment of Critical Cases of Diarrhea
- ✦ Research on Equine Pregnancy
- ✦ OVC Chief of Infection Control Makes International Headlines
- ✦ Can Ponies Distinguish Human Facial Expressions?
- ✦ What's in a Whinny?
- ✦ New Equine Fecal Transplant Research



Sign up for Equine Guelph monthly E-News to stay up to date on all the latest in health studies for 2023!

Anyone wishing to excerpt Equine Guelph should contact jbellamy@uoguelph.ca

A promotional graphic for 'EQUINE GUELPH HEALTHflash'. It features a woman smiling next to a horse. The text includes 'SEASONAL HEALTHCARE REMINDERS+ SPECIAL ALERTS' and 'FREE sign up today at EquineGuelph.ca'.

A promotional graphic for 'TheHorsePortal.ca'. It shows three horses running in a field under a banner that says 'JOIN THE HERD'. The website name 'TheHorsePortal.ca' is displayed at the bottom.

**When you support EQUINE GUELPH you make a difference in horse health and well-being.
We can't do it without you.**



Please make a gift online at www.EquineGuelph.ca or call 1-888-266-3108

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