



# Newsletter

Equine Assisted Activities Research News from Horses and Humans Research Foundation

**Mission:** Through investment in rigorous research, Horses and Humans Research Foundation will serve as a catalyst to advance knowledge of horses and their potential to impact on the health and wellness of people.

## New HHRF Funded Research Published

Research conducted at Department of Animal Biosciences, University of Guelph, Guelph, Canada was recently published in Applied Animal Behaviour Science. The study 'Behavioural and physiological responses of therapy horses to mentally traumatized humans' examined the effects of equine assisted therapy (EAT) on the horse. The principal investigator was Katrina Merkies, PhD and the project was funded by the Horses and Humans Research Foundation.

Subjects clinically diagnosed and under care of a psychotherapist for Post-Traumatic Stress Disorder (PTSD) were matched physically to four neurotypical control subjects and individually participated in sessions with each of 17 therapy horses loose in a round pen. A professional acting coach instructed the control humans in replicating the physical movements of their paired PTSD individual. Both horses and humans were equipped with a heart rate (HR) monitor recording HR every 5 secs. Saliva samples were collected from each horse 30 min before and 30 min after each trial to analyze cortisol concentrations.

Each trial consisted of 5 min of baseline observation of the horse alone in the round pen after which the human entered the round pen for 2 min, followed by an additional 5 min of the horse alone. Behavioural observations indicative of stress in the horse (gait, head height, ear orientation, body orientation, distance from the human, latency of approach to the human, vocalizations, and chewing) were retrospectively collected from video recordings of each trial.

The project indicated: 1) Horses respond more to physical cues from the human rather than emotional cues. 2) Therapy horses do not differentiate between humans with PTSD and

those without. 3) Therapy horses are more attentive to humans who are experienced around horses. 4) Therapy horses are calmer when with humans who are inexperienced around horses. 5) Therapy horses display more stress behaviours when they are alone in a round pen.

Dr Merkies commented that "There is a critical need to understand the mechanisms behind horse-human interactions in order to understand the motivations of the horse - are they engaged in a mutually beneficial or altruistic interaction, or simply responding to human physical characteristics. This is important in light of best practices attuned to equine welfare - we need to ensure that we are employing horses responsibly, not only reducing or eliminating poor welfare but also providing opportunity for positive welfare."



Image courtesy Dr. Merkies / University of Guelph

## 26 Proposals Received!

HHRF received 26 responses for our 2018 request for research grant applications. These proposals will take part in a four tier review process. The completed applications that have met and followed application deadlines and guidelines are reviewed by two members of our scientific advisory council (SAC). If the resulting scores show any discrepancies that may influence a clear decision then the proposal is reviewed by a 3rd member of the SAC team. The top scored proposals proceed and are reviewed (resulting in a facilitated discussion) by the grant cycle's lead team of advisors. This team is selected to reflect reviewers experience in HHRF's process and representative of professional

backgrounds needed to review finalists (may include mental health focus, physical therapists, etc). The final review is done by the board who is introduced to the finalist proposals by a lead SAC member. The board reviews the recommendation of the SAC team and reaches a final decision.

This stringent process is carefully thought out and ensures the highest standards for the proposals selected and the best investment of our donor's research contributions. Special thanks to all who make this exhaustive effort possible –and especially to our donors for your vision to lead the way to advancements and sustainability for EAA/T.

## Letter from the Executive Director

**To our many dedicated annual donors,** we say thank you for your invaluable, committed, and impactful support of the work and mission of HHRF. Since our founding over a decade ago, the important pursuit of independent research of the highest integrity concerning equine assisted therapy and activities has been our unyielding purpose. Annual donations are irreplaceable to our work. Yet, HHRF is also grateful to our supporters who consider other vehicles of giving, perhaps to make their giving easier while also making their impact even greater. In addition to asking you to renew your annual contribution for 2018, planned gifts (i.e. bequests, charitable gift annuities, the transfer of appreciated securities, the naming of HHRF as a beneficiary of your IRA or insurance policy, etc.) are also greatly appreciated and often provide an extraordinary effect on achieving a needed transformational research study in the field of EAA/T.

Another valuable example of such an impactful planned gift is a gift to HHRF of real estate. Consider the illustration that follows.

A vacant lot. A vacation home. A few acres of raw land. Many friends of HHRF have real estate of value like this. They have property and they don't quite know what to do with it. One possibility is to donate all or a portion of the property to HHRF, either as an outright gift or in exchange for a lifetime of income.

Consider Mr. and Mrs. Landowner. They had five acres of raw land that recently appraised for \$250,000. They purchased it years ago for \$25,000, thinking they might build a house on it someday. That plan never materialized, but they continued to hold the land.

They thought more than once of selling it, but the idea of paying capital gains tax on the sale slowed them down. Also, they were overwhelmed just thinking about the anticipated time and trouble it would likely take to market and sell the property. And so they just let it sit.

Then they learned that HHRF was happy to consider receiving the land as a charitable donation and to sell it, using the proceeds to create a research endowment fund in the Landowner's name. They were also pleased to discover that they would likely receive an income tax charitable deduction for the gift.

Another couple, the Beachcombers, gave a vacation home to HHRF in trust, and made arrangements to receive income from the trust for the rest of their lives. Like the Landowners, they avoided capital gains tax and obtained an immediate income tax charitable deduction.

HHRF is available to assist you in thinking through the opportunities and issues related to real estate gifts. I will be happy to come to your home or talk with you and your advisor by phone. As an experienced and knowledgeable gift planner, my goal is to always listen well and keep confidences while helping our donors achieve their wishes.

To schedule a discussion or a meeting regarding making gifts of real estate to HHRF, please contact me at [ken.boyden@horsesandhumans.org](mailto:ken.boyden@horsesandhumans.org) or visit our website at [www.HHRF.org](http://www.HHRF.org).

Thank you,

Ken Boyden, Esquire  
HHRF Executive Director

## HHRF Welcomes New Board Members



**Evelyn McKelvie**, Fort Langley, British Columbia (pictured below), is a certified Executive Coach, speaker, and author who specializes in working with teams and individuals who want to create better ways of relating in the workplace and overcoming barriers to performance effectiveness. Before devoting herself full time to her current role as Founder of Equine Coach, Evelyn worked for many years in leadership positions, most recently as a senior manager for IT at the University of British Columbia

**Leif Hallberg**, MA, LPC, LCPC, Bozeman, MT (pictured above), is an internationally recognized author, consultant, licensed mental health professional, educator, and avid lover of nature and animals. Leif's professional career and life's work have centered around researching the human-equine bond, and studying the industry of equine-assisted activities and therapies (EAAT). As a leading expert, innovator, and pioneer, she has developed a reputation over the past 20 years for her broad-reaching and objective study of the industry and dissemination of information. Her books are used by colleges and universities around the world as teaching texts, and professionals consider them essential resources for research and clinical practice.



**Meet the rest of the HHRF Board, staff and advisors at [horsesandhumans.org](http://horsesandhumans.org). HHRF is now considering nominations for the board of directors, interested candidates can send their CV or resume to [ken.boyden@horsesandhumans.org](mailto:ken.boyden@horsesandhumans.org).**

## Important Notices

- 2017 in review: Visit the newly updated [www.horsesandhumans.org](http://www.horsesandhumans.org) to view the details of last year's achievements, including completed research studies, four new research publications, retiring board members, new scientific advisors and more.
- Published/experienced research scientists with an interest in serving on the HHRF Scientific Advisory council can contact the office for an application. [info@horsesandhumans.org](mailto:info@horsesandhumans.org)



## FUNDED RESEARCH

"Improvement in Trunk/Head Stability and Upper Extremity Control after HPOT", Washington University School of Medicine, Program in Occupational Therapy - St. Louis, MO. USA. Status: Published in the Archives of Physical Medicine and Rehabilitation, 2009 Jul;90(7):1185-95

"The Effect of Equine Assisted Activities on the Social Functioning in Children with Autism", Good Hope Equestrian Training Center - Miami, FL, USA. Status: Submitted for publication. Pilot study results published in the Journal for Autism & Developmental Disorder

"Hippotherapy to Improve Postural Control in Children with Cerebral Palsy", À Université de Sherbrooke - Quebec, Canada. Status: Submitted for publication.

"Effects of Hippotherapy on Balance and Gait in Ambulatory Children with Spastic Cerebral Palsy", Central Michigan University, USA. Status: Active. Pilot study published in Physical Therapy, Journal of the American Physical Therapy Association May, 2012

"Basic Neurobiological and Psychological Mechanisms Underlying Therapeutic Effects of Equine Assisted Activities", University of Rostock, Germany. Published in the Journal of Occupational Therapy, Schools and Early Intervention, 2015

"Effects of Hippotherapy on Children with Autism Spectrum Disorders", Washington University School of Medicine, St. Louis, MO. USA. Status: Pilot study published in American Journal of Occupational Therapy, Nov/Dec 2013.

"Effects of Equine-Assisted Activities on PTSD Symptoms, Coping Self-Efficacy, Emotion Regulation, and Social Engagement in Military Veterans", University of Missouri, Columbia, MO, USA. Status: Published in Applied Nursing Research 2017, Military Medical Research Journal January 2018.

"Effects of Equine Facilitated Psychotherapy on Post-Traumatic Stress Symptoms in Male Youth", Cummings School of Veterinary Medicine at Tufts University, Medford, MA, USA. Published in the Journal of Child and Family Studies 2017.

"Examination of the Effects of Equine Assisted Activities on PTSD Symptoms, Quality of Life and Participation in Combat Veterans", Baylor University Waco, TX. Status: Published in Occupational Therapy and Mental Health 2017.

"Can Horses Distinguish Between Neurotypical and Mentally Traumatized Humans?", University of Guelph, Guelph, ON. Canada. Status: Published in Applied Animal Behaviour Science May 2018

"The Effect of Therapeutic Riding on Stress Levels in Young Adults with Autism Spectrum Disorders", Slippery Rock University, Slippery Rock, PA. Status: Active.

"Tracking Kinematic and Kinetic Data During Horse Riding for Optimizing Therapeutic Outcomes", Texas A&M University, College Station, TX. Status: Active



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ADDRESS SERVICE REQUESTED

*“Research is the process of going up alleys to see if they are blind.” - Marston Bates*

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**Please support advancements for equine assisted activities and therapies through your gift to scientific research, tomorrow’s knowledge. Send your check or donate online today. Thank you!**

**HHRF Board Meeting and Planning Session**

The Board of HHRF recently convened its May 2018 Board meeting in the Minneapolis/St. Paul, Minnesota metropolitan area to deliberate on its important mission and work, get to know the new board members who joined the board in recent months, and gain from the valuable wisdom of some of the region’s equine community during a traditional Jeffersonian Dinner.

In addition to board business, HHRF’s Board was also hosted

for a strategic planning session at the impressive “Hold Your Horses” facility in Greenfield, MN by its Executive Director, Janet Weisberg and staff psychologist, Molly DePrekel, who also practices at the Midwest Center for Trauma and Emotional Healing.

HHRF and its Board are grateful for the warm hospitality and professional input of all those who helped make the face-to-face board meeting a tremendous success.