

MISSION AND GOALS:

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. The primary goal is to support, promote and fund scientific research that explores the claimed, yet unsubstantiated benefits of equine-assisted activities and therapies, leading to the discovery of the most effective methods and techniques for conducting thousands of existing and future programs. The secondary goal is to educate the public (including parents, donors, insurance companies and physicians) on research findings so that equine-assisted activities become more accessible to those in need.

FUNDING AREAS, PUBLICATION RECORDS:

HHRF has funded twelve equine-assisted activities projects in as many years. Ten projects have been completed. Three of the awarded projects studied Cerebral Palsy/movement/balance, three on post-traumatic stress disorder, three on autism, one regarding children with bonding issues, one on the horse's response to physical/cognitive disorders and one on evaluating the impact of the dynamic surface of the moving horse on its rider. Ten articles related to these projects have been published in scientific journals.



Image courtesy Texas A&M / Pilwon Hur: A graduate student from Texas A&M University is collecting data wirelessly.

Texas A&M Team Awarded Research Grant Funding:

HHRF awarded \$10,000 to Texas A&M University "Tracking Kinematic and Kinetic Data during Horse Riding for Optimizing Therapeutic Outcomes." Funded in late 2017, this study will investigate the impact the movement of a horse has on the rider by measuring both horse and rider simultaneously. This innovative project relies on new, technologically advanced sensors, to be placed on both rider and horse, to collect data on the movements experienced by the rider while on the dynamic surface of the horse.

FUNDED RESEARCH

1. "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
2. "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
3. "Hippotherapy to Improve Postural Control in Children with Cerebral Palsy", À Université de Sherbrooke - Quebec, Canada. Status: Submitted for publication.
4. "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
5. "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
6. "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.
7. "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.
8. "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.
9. "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.
10. "Can Horses Distinguish Between Neurotypical and Mentally Traumatized Humans?", University of Guelph, Guelph, ON, Canada. Status: Preparing for Submission
11. "The Effect of Therapeutic Riding on Stress Levels in Young Adults with Autism Spectrum Disorders", Slippery Rock University, Slippery Rock, PA. Status: Active.
12. "Tracking Kinematic and Kinetic Data During Horse Riding for Optimizing Therapeutic Outcomes", Texas A&M University, College Station, TX. Status: Active

[Details and updates at the HHRF website](#)

Highlights from 2017

- **Awarded \$10,000 research grant to Texas A&M University** to investigate "Tracking Kinematic and Kinetic Data During Horse Riding for Optimizing Therapeutic Outcomes."
- **February, 2017 - New research findings** - "Can Horses Distinguish Between Neurotypical and Mentally Traumatized Humans?" PI: Katrina Merkies, University of Guelph.
- **April 2017 - Published in Journal of Child and Family Studies** - "Effects of Equine-Facilitated Psychotherapy on Post-Traumatic Stress Symptoms in Youth." Link to abstract. Related to HHRF-funded project "Effects of Equine Facilitated Psychotherapy on Post-Traumatic Stress Symptoms in Male Youth" from P.I. Megan K. Mueller, Ph.D. in 2013.
- **June 2017 - Published in Occupational Therapy and Mental Health** - "Using Therapeutic Riding as an Intervention for Combat Veterans: An International Classification of Functioning, Disability, and Health Approach." Link to abstract. Related to HHRF-funded project "Examination of the Effects of Equine Assisted Activities on PTSD Symptoms, Quality of Life and Participation in Combat Veterans" from P.I. Beth A. Lanning in 2014.
- **August 2017 - Published in Applied Nursing Research** - "Equine-assisted Therapy Intervention Studies Targeting Physical Symptoms in Adults: A Systematic Review." Related to HHRF-funded study "Effects of Equine Assisted Activities on PTSD Symptoms, Coping Self-efficacy, Emotion Regulation and Social Engagement in Military Veterans" from P.I. Rebecca A. Johnson in 2012.
- **October 2017 - Published in Journal of Equine Veterinary Science** - "Horses Working in Therapeutic Riding Programs: Cortisol, Adrenocorticotropic Hormone, Glucose, and Behavior Stress Indicators." Conducted in tandem with HHRF-funded study "Effects of Therapeutic Horseback Riding on Post-Traumatic Stress Disorder in Military Veterans" from P.I. Rebecca A. Johnson in 2012.
- **Website overhaul completed.** The website now features easily searchable archives of all funded research, applicant information including several webinars, a news blog, and more.
- **New industry expert joins our scientific advisory council:** Dr Wendy Wood (Wood is a Professor of Occupational Therapy and the Director of Research of the Temple Grandin Equine Center (TGEC) at Colorado State University).
- **New member joins board of Trustees:** Sally Lehnhardt of Cockeysville, MD, is a VP at McCormick & Co., Inc.
- **Retiring board members** - Paul Haefner PhD, Lynn Shaw and Molly Sweeney. Each has not only lent great leadership in important areas but has served as president of our board!
- **Molly Sweeney became HHRF's first emeritus board member.** This honor was bestowed with tremendous gratitude to HHRF's founder and momentous supporter, leader and visionary.

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In honor of Kim & Chris Sutton from Rose Goldfine.

In honor of Molly Sweeney from Octavia Brown, Sherry Flores, Kathleen and Kent Harbaugh, William and Katherine O'Neill, Karen Schrepel, Sentinel Trust Company, Jose Szapocznik, Mark and Joan Williams.

In honor of Raymond & Carolyn Liverzani and Chapman Farrier Services from Dr. Kathi Heiber.

In honor of The Ray Graham Association and Therapeutic Horsemanship Program from Ross Braun.

In memory of Little Bear, from Lisa May.

In memory of Mrs. Haskel, from Rose Goldfine.

Finance Summary

	2017	2016
INCOME		
Grants & Contributions	\$178,922	\$147,315
Special events	\$0	\$4,090
In-kind	\$2,000	\$1,625
Interest & Dividends	\$2,922	\$2,722
Gains and Losses on Investments	\$8,569	\$1224
Total Income	\$192,413	\$156,976
EXPENDITURES		
Program - Grants Awarded	\$10,000	\$50,000
Program - Other	\$115,807	\$114,516
General & Administrative	\$33,106	\$31,559
Fundraising	\$15,523	\$16,394
Total Expenditures	\$174,436	\$212,469

Full financial reviews and 990's available at www.horsesandhumans.org

HHRF's financial position remains very stable. Contributions and grants increased in 2017 due to an increase in several foundation grants, which allowed us to rely less on individual contributions. Our second Innovative Grant was awarded in 2017. Other expenses increased by a modest 1.2% from their 2016 levels even after our strategic management changes. In 2017 our Endowment provided earnings for general use of over \$11,400. Overall, 2017 showed us building a solid base on which to grow Horses and Humans Research Foundation to a new level.



Research is to see what everybody has seen and think what nobody has thought. - Albert Szent-Gyorgyi

Image acknowledgements, left to right: Slippery Rock University, Caisson Platoon Equine Assisted Programs, MU CVM & ReCHAL, and Texas A&M / Pilwon Hur.

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