



## Temple Grandin Equine Center

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GRANDIN EQUINE CENTER

# Integrating EAAT Education & Research

▲ Because the equine-assisted activities and therapies (EAAT) industry has predominantly seen practice lead research, Colorado State University (CSU) and CSU's Temple Grandin Equine Center (TGEC) are pursuing an integration of research and education.

**I**t is impossible to imagine humanity without horses. Horses are part of our landscape, part of our souls. But there is something deeper, a connection with these powerful, yet gentle creatures that is felt in the heart. Those who work, volunteer or participate in equine-assisted activities and therapies (EAAT) intuitively know that horses can help participants therapeutically. There are numerous cases where contact with and caring for horses calms and heals people, reaching beyond their disabilities and traumas to free them and improve their lives.

Many instructors, staff and volunteers at PATH Intl. Member Centers have witnessed impressive outcomes as participants in EAAT sessions have overcome significant physical, cognitive and psychological challenges. What they have learned has contributed much to the field and built on the education they receive from certification workshops, classes, conferences, mentoring, online courses and webinars from PATH Intl.; other associations within the EAAT field and affiliated organizations in the equine industry. Yet one important element is missing. Research based on rigorous scientific studies that would substantiate these improvements is often lacking.

The Temple Grandin Equine Center will focus on why EAAT works and how to duplicate beneficial results.



Meanwhile, healthcare providers, insurance companies and government agencies, such as Medicaid, have been slow to pay for EAAT in part because of the shortage of qualitative and quantitative evidence.

## How Research Can Guide Practice

To address this issue, Colorado State University (CSU) and CSU's Temple Grandin Equine Center (TGEC) are pursuing an integration of research and education to back current and future EAAT outcomes with solid data. Countless EAAT practitioners have been demonstrating for decades how EAAT has helped thousands of children and adults worldwide. TGEC is concentrating on "why" it works and how to duplicate beneficial results so EAAT research can:

- meet scientific standards of critical review
- widen the circle of knowledgeable professionals
- deepen the collective well of knowledge within the field
- legitimize the industry in the medical community
- guide and educate practitioners
- support the welfare of equines within the field

The EAAT industry has predominantly seen practice lead research; there are many reasons for this. Research is expensive, requires additional skills and resources and very often does not yield immediate tangible financial results or directly benefit participants. Individuals who provide EAAT and direct centers are busy people. They have neither the time nor capacities to access and search databases for relevant articles, let alone decipher each one for its implications for their particular programs and services. Because they must put maximum effort into providing services, higher education becomes the best place for this research to occur. CSU, in particular, is a perfect place to conduct equine research into EAAT as it has been a longstanding leader in the equine industry and veterinary research and is a PATH Intl. Higher Education Member.

## Mapping the Industry's Research

CSU's expertise coupled with TGEC's focus on advancing the EAAT industry uniquely positions these organizations to organize past research findings, conduct new research and report the results to EAAT centers and practitioners. The TGEC's first step in this process was assessing the current state of EAAT research. The center conducted a systematic mapping review of all refereed papers on EAAT published in English from 1980 through 2014. Systematic mapping reviews are the research method of choice when a body of scholarship (as

is true with EAAT) has been developing for some time but has yet to be comprehensively gathered, described, categorized and evaluated.

The overall goal of this study is to assemble and assess the information represented in peer-reviewed research reports and conceptual papers, making it accessible to the current state of knowledge, in order to advance the field. Based on extremely detailed analyses of a database comprised of over 300 refereed papers, the study is answering questions such as:

- What types of EAAT are represented and to what extent?
- Who has been served by various types of EAAT, using what interventions, and who has provided these services?
- What outcomes have been found and studied, and how have they been measured?
- What theories have been proposed or validated as supporting various types of EAAT?
- How are equines selected, trained and managed across various EAAT methods?
- What is the role of the equine and how does this role vary across different types of EAAT?

## Temple Grandin Equine Center Team

TGEC draws upon CSU's extensive expertise, experience and knowledgeable experts in the equine and EAAT industry to field the following team:

- **Adam Daurio**, Esq., Director of the Temple Grandin Equine Center, is a licensed attorney and former administrator of an EAAT center.
- **Wendy Wood**, PhD, OTR/L, FAOTA, the Director of Research for the TGEC, is an occupational therapist and was the former department head for CSU's Occupational Therapy Department.
- **Sharon Butler**, DVM, teacher at CSU and PATH Intl. Certified Registered Instructor, is a former program director for a PATH Intl. Premier Accredited Center.
- **Jerry Black**, DVM, the Wagonhound Land & Livestock Chair in Equine Sciences, the department head for the Equine Sciences undergraduate program and the Equine Reproduction Laboratory.
- **Jill Higham**, DVM, Director of Development, is an attorney and a development director for the College of Agricultural Sciences.

The following supporters who are committed to the TGEC project are professionals from the EAAT industry, the equestrian community, charitable organizations, the medical and health care industries, financial institutions, real estate and construction businesses and the oil and gas industry.

- Lori Bucholz, Rick Bucholz, Gary Carpenter, Theresa Chase, Chris Collins, Michaela Gallina, Eileen Greenberg, Neal Hansen, Doug Newton, Charles Scoggin and Billy Smith.

For more information about the Temple Grandin Equine Center, please visit [TempleGrandinEquineCenter.com](http://TempleGrandinEquineCenter.com) or contact [adam.daurio@colostate.edu](mailto:adam.daurio@colostate.edu).



**TOP:** One of the studies the Temple Grandin Equine Center will explore is whether the benefits of therapeutic riding for children with autism spectrum disorder (ASD) extend to their social functioning at home. **BOTTOM:** Front Range Exceptional Equestrians Therapeutic Riding Program (F.R.E.E.), a PATH Intl. Premier Accredited Center in Fort Collins, CO, holds some of its classes at CSU, which is a PATH Intl. Higher Education Member.



## Collaborative Research

The final phase of TGEC's systematic mapping review study involves developing papers for submission to peer-reviewed interdisciplinary journals. The center anticipates that the first papers resulting from the study will be published in 2017. These papers will address autism and EAAT, mental health and EAAT, therapeutic riding, hippotherapy and the role of the horse in EAAT.

Having conducted computer-based research for three years, TGEC now has plans for two studies. One of these studies will explore whether the benefits of therapeutic riding for children with autism spectrum disorder (ASD) extend to their social functioning at home. Another study will examine if structured activities involving horses favorably impact the quality of life of people with Alzheimer's disease and related dementias.

TGEC will be a convergence of disciplines, and CSU is a natural place for this to occur since its equine sciences, veterinary medicine and occupational therapy programs are consistently top-ranked in the country. These programs will serve as the core of the TGEC, which will also benefit from collaborative efforts from other CSU departments such as psychology, social work and animal science. TGEC's interdisciplinary concept is analogous to the EAAT's inclusive industry, which includes the animal sciences, medical and mental health professions, and participants and clients with special needs, military veterans and general equine enthusiasts. TGEC represents a powerful opportunity to show how a greater understanding of research can bring these fields together.

## Evidence-based Education

The Temple Grandin Equine Center is dedicated to conducting the research that will yield evidence-based education. This can help the EAAT industry develop best practices in appropriately providing beneficial services while leveraging the growth and popularity of the field. TGEC will be the hub in gathering information through observation, research, education, practice and community outreach. Through this collaboration, practitioners and administrators in EAAT will be able to learn more about the role and contribution of horses in providing activities and therapies that help participants heal and grow. In fact, horses were the salvation of the center's namesake, Dr. Temple Grandin. Dr. Grandin credits her experiences riding and caring for horses as the lifeline that eased the restrictions of ASD, helped her learn general life skills, provided vocational training and gave her an outlet for intellectual and social stimulation.

Diagnosed with autism in 1949 at the age of two, Dr. Grandin found it difficult to fit in; she was often bullied in her youth. But caring for horses taught her profound lessons in life. Meeting the horses' needs through regular

bathing, exercising, feeding and grooming taught Dr. Grandin how to take better care of herself. Seeing how horses needed to be fed and exercised on a schedule, she saw the need for a routine in her own life.

Knowing how she was so deeply impacted by hands-on learning, Dr. Grandin sees the critical importance of student involvement in all aspects of the program. “We need to teach students how to run things,” she said.

## Educating EAAT Instructors

TGEC is designed to provide the kind of hands-on education Dr. Grandin stresses. The Department of Equine Sciences offers curriculum that educates students on equestrian facility management and equine training and management, as well as specific EAAT curriculum. For instance, the instructor on the TGEC staff is Sharon Butler, DVM, a PATH Intl. Certified Registered Instructor. For more than 12 years, Butler was the head instructor and program director for Front Range Exceptional Equestrians Therapeutic Riding Program (F.R.E.E.), a PATH Intl. Premier Accredited Center in Fort Collins, CO. She currently teaches three therapeutic riding classes at CSU: Techniques in Therapeutic Riding, Principles of Teaching Therapeutic Riding and a Therapeutic Riding Instructor Practicum. The classes introduce students to EAAT and give those who want to pursue a career in the industry the opportunity to obtain teaching hours required for PATH Intl. certification. Students volunteer at the F.R.E.E. program, which holds some of its sessions at CSU.

As the industry looks to the future, these professionals who are academically trained have the potential to be outstanding leaders in innovation, better practices and cutting-edge research within all of the EAAT disciplines. To meet the growing demand for such curricula from students, PATH Intl. offers higher education membership to colleges and universities such as CSU to support them in making these career paths available.

“Students get interested in careers to which they are exposed,” said Dr. Grandin. “Equine-assisted activities and therapies are not only effective for individuals as a treatment, but they provide appropriate vocational training and ultimately jobs and careers. It is important for students to get hands-on experience running an equine facility and caring for animals.”

TGEC’s curriculum will also educate students for careers in equine training and care as well as equestrian facility management. CSU has worked with the American Quarter Horse Foundation to prepare skill set recommendations and an outline for educational curricula. Such skills, experiences and curriculum will be implemented through CSU’s Equine Sciences and Occupational Therapy departments.

## Making Horse Health a Priority

Another important part of the TGEC mission is to improve the well-being of horses who work in the EAAT field. To do this, the center will collaborate with the CSU College of Agricultural Sciences and College of Veterinarian Sciences on research efforts that will study the welfare of horses in EAAT programs.

EAAT is often a second career for program horses, many of whom were former competitive show animals. As with any job, some horses may find the different environment at a center and/or the new expectations on how to act with participants stressful or daunting. This is especially true if they are placed in a role and/or setting for which they are temperamentally and/or physically unsuited. For instance, the requirements for a horse to work with children with ASD, who may make sudden noises or movements, will be different than for a horse working in an unmounted equine-facilitated psychotherapy session or one in an interactive vaulting program. TGEC will educate individuals on how to choose the general type of horses suitable for these therapeutic roles and how to determine which particular horses are appropriate in each specific situation.

While TGEC’s main research and educational efforts will occur at CSU’s Fort Collins campus, the center will also host an EAAT facility in the heart of Denver. This facility will be located in the newly renovated National Western Center through CSU’s partnership with the Western Stock Show Association and the City of Denver. Programing and services have not been finalized, but CSU is currently exploring collaborative opportunities with PATH Intl. as well as other Denver-based organizations such as Children’s Hospital, Denver Health, Denver Public Schools and University of Colorado Health. This project is an outgrowth of TGEC’s role in bringing the benefits of EAAT to more children and adults facing challenges and to further expand the role of the horse in bringing hope and healing to those in need in our communities. Horses have helped civilize humanity, and today they continue to shape people’s lives through advancements in health and wellness, therapy and medicine.

Adam Daurio, director of the Temple Grandin Equine Center, is an accomplished executive director and attorney, with experience in, knowledge of and passion for the rodeo, equestrian and agricultural industries. Daurio has been part of the EAAT industry for the past 10 years, first as a consultant and board member, then as an executive director of an EAAT center from 2010 to 2014. Daurio is also a member of the American Quarter Horse Foundation’s EAAT Task Force. He can be reached at [Adam.Daurio@colostate.edu](mailto:Adam.Daurio@colostate.edu).