



By Mary Patrick Walker

GOTTA *Dance*

And since earning her bachelor's degree in 1996 in dance from USF, she's believed that collaboration between the university's different academic disciplines can lead to amazing breakthroughs.

Those ideas fused inside her on the night that Morris, now a dance instructor and academic adviser in USF's School of Visual and Performing Arts, saw a performance by Dancing Wheels of Cleveland, Ohio. The program featured disabled and able-bodied dancers onstage together.

SINCE CHILDHOOD, MERRY LYNN MORRIS HAS HARBORED A PASSION FOR THE WAYS IN WHICH TECHNOLOGY CAN HELP THE DISABLED LEAD BETTER LIVES.

"I was definitely inspired," says Morris, an elegant woman with copper-colored hair.

She thought the wheelchairs used by the troupe were somewhat limiting. So she began working on an idea that evolved into the Rolling Dance Chair, a new kind of wheelchair that Morris developed in collaboration with students and faculty in the USF College of Engineering.

Morris said she wants the project to "unite the community and university. It also addresses functional need and quality of life,



“I WANTED THE FOCUS TO BE ON THE DANCERS AND THEIR MOTION, AND LESS ON THE DEVICE WHICH WAS TRANSPORTING THEM.”

as well as supports artistic freedom, and expansion into unexplored dimensions of form and motion.”

The prototype looks like a motorized mobility device but does not require arms or hands to operate. The dancer controls the chair’s movement using torso muscles. A second prototype, a modified Segway, allows the dancer to stand while working the machine with the upper body. She’s seeking contributions to help fund progress on her prototypes.

“The chair is still early in its development, with many ideas yet to be developed,” she says.

The main goal of the project is to unite concepts from dance and engineering into the creation of a wheelchair that gives disabled dancers the widest possible range of motion, and allows them to perform onstage with able-bodied dancers. You can read more about the chair and its development at <http://rdc.arts.usf.edu/>.

Morris’ interest in issues involving the disabled began in her childhood. Her father was injured in a car accident and from the time she was 12 years old, she helped her mother with his care.

“The influence of caregiving for a disabled father for many years, as well as watching my mom’s challenges as the primary caregiver to him, certainly has been a formative force in my life,” Morris says.

Her lifelong interest in the “mechanics of human motion,” has spurred her to pursue a second bachelor’s degree in biomedical science.

“My ideas and interest in addressing functional considerations for how the human body is propelled in motion through space in dynamic, natural and therapeutic ways has been a constant and ever-present source of intrigue,” she says.

Morris decided to take her idea for the chair to people in the College of Engineering’s Department of Mechanical Engineering and the Rehabilitation Engineering and Technology

program. The chair project received an interdisciplinary research grant in July 2006.

The Rolling Dance Chair, designed by students and faculty from both departments, allows for a full range of body motion as the rider controls it with his or her torso muscles. It can move backward, forward or in loops.

Not having to use their hands to control the chair allows dancers to move their arms into different positions – something of a breakthrough for disabled dancers.

“I wanted the focus to be upon the dancer and their motion, and less on the device which was transporting them,” Morris said. “As a choreographer, I was interested in finding ways that the wheelchair dancer could move through the space with a sense of ease, and without reliance upon arm/hand operation to control the device.

“My intent is to enable all or most of the same choreographic options the standing dancer has through the technological innovations.”

Morris said the Rolling Dance Chair goes beyond just helping those who are disabled and want to work in dance or onstage. She said she hopes the chair can help advance how people think about disabled people in general.

“I felt that the wheelchair had certain stigma and perceptions associated with it which I wanted to change,” says Morris. “And in changing the appearance and action/motion of the device, my hope is to invigorate new ways of thinking about disability.”



ABOVE: Merry Lynn Morris dances with Dwayne Scheuneman seated in the rolling dance chair she created.