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## BROOKLYN CAMPUS

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What's New

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Press Releases**ADAM Center of Long Island University's Brooklyn Campus Studies  
How Video Games Can Improve Health**

*Research, supported by the Robert Wood Johnson Foundation, explores whether dance video game training can reduce falling risks in people with Parkinson's Disease*

Brooklyn, N. Y. – Researchers at the ADAM Center at Long Island University's Brooklyn Campus announced today that they received a \$288,000 grant from the Robert Wood Johnson Foundation (RWJF), through the *Health Games Research* national program. The ADAM Center joins eight other research teams that were also awarded grants from Health Games Research to help explore how digital games can improve health.

The study, "Dance Video Game Training and Falling in Parkinson's Disease," compares the use of a commercially available dance video game, Dance Dance Revolution, to a more traditional and well-studied treatment option, treadmill training, and a second experimental control, rhythmic stepping to music. The researchers hypothesize that dance video game training will help people with Parkinson's Disease reduce their risk of falling more effectively by increasing their balance, strength, endurance, motor coordination, and visual-motor integration. At the beginning and end of the study, researchers will assess balance, motor function, reaction time, and self-confidence to evaluate the game in comparison to the other interventions. They will also use functional Magnetic Resonance Imaging (fMRI) to observe changes in participants' brain activity while they play the game.

The ADAM Center is a research laboratory dedicated to the study of human movement and dance, examining human movement from many perspectives including biomechanics, neuroscience, epidemiology, injury, and prevention and rehabilitation. Principal Investigator of the project, Shaw Bronner, Ph.D., P.T., O.C.S., is director of the ADAM Center and associate research professor at Long Island University's Brooklyn Campus School of Health Professions. She is internationally recognized for her research on the biomechanics and epidemiology of dance musculoskeletal injury. Investigator, Adam Noah, Ph.D., technical director of the ADAM Center, teaches animation and gaming at the Campus' Conolly College of Liberal Arts and Sciences, Division of Communication, Visual and Performing Arts. Both Bronner and Noah are interested in the neuroscience of how the human brain changes with training.

"Health video games offer the possibility of low cost interventions to improve or maintain both cognitive and physical function for improved well-being. And better yet, people have fun as they play," say Bronner and Noah. "This is a timely issue as our nation discusses access to effective health care and seeks to control costs."

*Health Games Research* is supported by an \$8.25 million grant from RWJF's Pioneer Portfolio, which funds innovative projects that may lead to breakthrough improvements in the future of health and health care. The national program, which provides scientific leadership and conducts, supports and disseminates research to improve the quality

and impact of health games, is headquartered at the University of California, Santa Barbara. It is directed by Debra Lieberman, Ph.D., communication researcher in the university's Institute for Social, Behavioral, and Economic Research and a leading expert in the research and design of interactive media for learning and health behavior change. The grants were awarded under the program's second funding round to develop and test principles of health game design, to help advance this emerging field.

"Digital games are interactive and experiential, and so they can engage people in powerful ways to enhance learning and health behavior change, especially when they are designed on the basis of well-researched strategies," said Lieberman. "The studies funded by *Health Games Research* will provide cutting-edge, evidence-based strategies that designers will be able to use in the future to make their health games more effective." *Health Games Research* investigates games that engage players in physical activity and/or improve players' healthy lifestyles and self-care, with an eye toward identifying game design elements that contribute to improved health behaviors and outcomes.

"How exciting it is to take an everyday activity like dance and study its beneficial effects on people with Parkinson's Disease," says Barry S. Eckert, dean of the School of Health Professions at the Brooklyn Campus.

For more information, contact the ADAM Center at (718) 246-6376 or visit [www.brooklyn.liu.edu/bbut04/adamcenter/index.html](http://www.brooklyn.liu.edu/bbut04/adamcenter/index.html) or [www.adamcenter.net](http://www.adamcenter.net). With more than 11,000 diverse students, Long Island University's Brooklyn Campus is located in downtown Brooklyn at DeKalb and Flatbush Avenues, central to public transportation and just 10 minutes from Wall Street.

**Press contact information:**

Helen Saffran

Associate Director of Public Relations, Brooklyn Campus

Phone: 718-488-1419

Fax: 718-780-4046

E-mail: [helen.saffran@liu.edu](mailto:helen.saffran@liu.edu)

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