



THE PHILLIP AND PATRICIA FROST MUSEUM OF SCIENCE RECEIVES TWO PRESTIGIOUS EDUCATION GRANTS

Museum Learning Program Grants Funded by National Science Foundation and W.K. Kellogg Foundation

MIAMI – April 17, 2017 – The Phillip and Patricia Frost Museum of Science has been awarded two innovative grants that will directly support the museum’s dynamic educational programming. In anticipation of Frost Science’s scheduled opening on Monday, May 8, the museum continues to further its mission to develop educational programming in the community. For almost 30 years, Frost Science has been at the forefront of efforts to change the profile of science and technology in the community, eliminating barriers to economic success, raising awareness of career opportunities, and providing a showcase and laboratory for innovative approaches. These grants will continue to catalyze the educational mission of Frost Science. Over the last ten years, Frost Science has received more than \$23 million from multiple national and international organizations in support of its educational programs.

“Grants from the prestigious National Science Foundation and the W. K. Kellogg Foundation help Frost Science pursue efforts to stimulate science learning among Miami’s youth—and will have consequences for educators and children everywhere,” said Richard Kurin, Acting Provost and Under Secretary for Museums and Research, Smithsonian Institution. “Frost Science, in its new, world-class facility, will be able to ramp up its educational activities and inspire millions. As a Smithsonian-affiliated museum, it is well-positioned to be a national leader.”

The **National Science Foundation’s Science Learning+ initiative** granted Frost Science a \$1.4 million award that will help launch ***Move2Learn: Embodied Learning for Preschool Scientists***, a three-year project led by Frost Science to study how thought and movement relate to embodied learning to accelerate science understanding among young audiences. The award to Frost Science resulted from an international competition supported by US and UK foundations to broaden participation in STEM by leveraging international experience, resources and research to better understand and strengthen science learning outside of school. Move2Learn will take advantage of a new Frost Science exhibition, *River of Grass*, to establish research aimed at improving STEM learning exhibits for young museum visitors. Located in the William R. Kenan, Jr. Charitable Trust Gallery, *River of Grass* takes young explorers through a sensory-filled journey inside one of the most precious ecosystems on the planet—the Everglades. Project outputs will include the creation of new tools and techniques for evaluating embodied learning in museum settings, guidelines for applying embodied learning to exhibit design and the formation of an international community of early learning educators and researchers working together to focus on embodied pre-K science learning. In addition to Frost Science, collaborators include the University of Illinois, The Children’s Museum of Indianapolis, and Sciencenter (Ithaca, New York) in the United States, and University of Edinburgh (Scotland), University College London, Glasgow Science Centre (Scotland), Learning Through Landscapes, and the Science Museum (London) in the United Kingdom. *Move2Learn* is funded by an international partnership between the US National Science Foundation and the UK Wellcome Trust and Economic and Social Research Council.

The **W.K. Kellogg Foundation** grant of over \$500K will launch ***ECHOS®: Science from the Start***. This project

will bring a comprehensive hands-on science curriculum to pre-K classrooms located in low-income, high-need communities throughout Miami-Dade County. The program, will coordinate science methodology, classroom environment, parent engagement and staff training across preschool programs. Beginning in 2006, the museum, with support from the U.S. Department of Education's Institute for Education Sciences, and in partnership with the University of Miami and Miami-Dade County Community Action Agency's Head Start program, developed the *ECHOS® (Early Childhood Hands-On Science)*, an interactive hands-on science curriculum for children ages three to five. A two-year, full-scale randomized controlled research study of 90 Head Start classrooms in Miami-Dade County found significant positive differences in teaching practices and learning outcomes in classrooms implementing ECHOS®. Educators in 15 states have adopted the ECHOS® curriculum, assessment tools and professional development programs to establish the building blocks of early science learning in their local preschools and centers. In 2014, with support from the W.K. Kellogg Foundation, the museum launched *ECHOS® Professional Development and Family Engagement* program, which provided opportunities for teachers, assistant teachers, and student teachers to teach science to preschoolers in Head Start classrooms and for parents to attend workshops where they learned how to teach ECHOS integration activities.

"We are very excited to support Frost Science's *ECHOS®: Science from the Start* project," said Jenefer O'Dell, program officer at the W.K. Kellogg Foundation. "At the Kellogg Foundation we believe that partnering with families, schools and communities can make a difference in young children's learning and development. By strengthening teacher professional development, enhancing alignment among early childhood and K-3 systems and implementing family engagement strategies, this innovative partnership can help children succeed in school."

"For decades, Frost Science has pioneered educational programs that promote excellence and equity in science, technology, engineering and math (STEM) for Miami's diverse community, reaching students from early childhood through high school," said Frank Steslow, President of Frost Science. "The educational capabilities in our new facility are limitless and we look forward to giving many children the chance to grow in the science community."

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About the Phillip and Patricia Frost Museum of Science (Frost Science)

Located in Downtown Miami's Museum Park, the Phillip and Patricia Frost Museum of Science is a leading science museum dedicated to sharing the power of science, sparking wonder and investigation, and fueling innovation for the future. Sitting on four acres, the 250,000 square foot museum divides into four buildings: the Frost Planetarium, Aquarium, and the North and West Wings. At Frost Science, visitors can explore the world of science, technology, engineering and math (STEM) in an experiential setting with interactive exhibitions and unique shows. Frost Science is supported by the Miami-Dade County Department of Cultural Affairs and the Cultural Affairs Council, the Miami-Dade County Mayor and Board of County Commissioners of Miami-Dade County. This project is supported by the Building Better Communities Bond Program and the City of Miami. It is sponsored, in part, by the State of Florida, Department of State, Division of Cultural Affairs and the Florida Council on Arts and Culture. The museum is accredited by the American

Alliance of Museums, is an affiliate of the Smithsonian Institution and a member of the Association of Science and Technology Centers. Learn more at frostsscience.org.