



**CARNEGIE  
SCIENCE  
CENTER**

*One of the four Carnegie Museums of Pittsburgh*

**MEDIA ALERT**  
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Christine Line  
412.237.1537  
[LineC@CarnegieScienceCenter.org](mailto:LineC@CarnegieScienceCenter.org)

**CARNEGIE SCIENCE CENTER EXHIBIT EXPLORES**  
**THE SCIENCE OF TISSUE ENGINEERING AND REGENERATIVE MEDICINE**

PITTSBURGH, October 15, 2009 — For decades, Pittsburgh has been at the cutting-edge of biomedical research, from the development of the polio vaccine to some of the world's most important advances in organ transplantation. Visitors to Carnegie Science Center now can explore the next generation of medical technology underway in Pittsburgh through a new exhibit highlighting the amazing breakthroughs in tissue engineering and regenerative medicine.

Presented in partnership with the Pittsburgh Tissue Engineering Initiative (PTEI), ASSET Inc. (Achieving Student Success through Excellence in Teaching), the McGowan Institute for Regenerative Medicine of UPMC, and the University of Pittsburgh Learning Research and Development Center (LRDC), the new exhibition—"If a Starfish Can Grow a New Arm, Why Can't I?"—leads visitors through basic cell biology, explores the science of tissue engineering and regenerative medicine, explains the current application and future aspirations of these procedures, and addresses ethical issues involved in this ever-evolving science.

Visitors to the exhibit are guided through the complex science by Seamore, an animated Elvis look-alike starfish that gives information at each exhibit station while playing a key role in the discussion of natural tissue regeneration among a small selection of animals, ultimately moving along to humans, who because of evolution have largely—but, not entirely—lost this ability

Among many other activities, the exhibit includes a cell puzzle station, where visitors construct a nerve cell and a blood cell; a cell matrix station, which explores the role of the extracellular matrix in cellular function; a stem cell Q & A kiosk; and an area where visitors can learn about professionals in the field and register their opinion about various ethical questions related to tissue engineering.

"This exhibition makes the science behind the fields of tissue engineering and regenerative medicine accessible to students and visitors in ways that are understandable and fun, yet informational," said Ron Baillie, Co-Director of Carnegie Science Center. "Most people have at least heard about stem cell research and tissue engineering, but we're presenting the concepts in a way that makes visitors feel more in tune with complex medical technologies that sometimes may seem out of reach."

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“If a Starfish Can Grow a New Arm, Why Can’t I?” was conceptualized and created by the Starfish Partnership—a group of Pittsburgh-area organizations consisting of PTEI, Carnegie Science Center, ASSET, and the LRDC. The exhibition is made possible by a Science Education Partnership Award (SEPA) from the National Center for Research Resources, a component of the National Institutes of Health.

PTEI received initial funding from The Pittsburgh Foundation to develop an interactive, permanent exhibit showcasing the promise and applications of regenerative medicine and stem cell research featuring work that is being done in Pittsburgh. PTEI and ASSET formed the initial partnership to connect the concepts presented in the exhibit into to classroom learning, receiving the SEPA grant in 2007.

Through the grant, ASSET designed a 2-day teacher professional development course to help middle school teachers connect the exhibit and real world issues of tissue engineering and regenerative medicine to their science curriculum.

“National research shows that when teachers are learning, students are learning,” said Reeny Davison, ASSET Inc. Executive Director. “At ASSET, we are dedicated to providing teachers with the skills and resources necessary to teach with an approach that ignites student interest and improves their performance.”

“The Starfish Partnership has shown itself to be quite the dream team—Carnegie Science Center possesses the creative energy and world-renowned expertise in developing interactive science exhibits, ASSET has the skilled ability to translate those concepts into classroom experiences, and the LRDC provides evaluation expertise,” said Joan Schanck, Director of Education and Workforce Development at PTEI and Program Director of the SEPA grant. “It’s been a pleasure to work to share the wonders of regenerative medicine with the general public and to raise awareness of the cutting-edge research being done in our own city.”

In addition to the development of the exhibit, the Starfish Partnership has developed and made available on the Science Center’s website curricula materials for a variety of grade levels, and is offering educators professional development opportunities with a focus on tissue engineering and advanced medical research.

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“This exhibition is another example of the role Carnegie Science Center plays in helping to develop the future workforce and ensure we have a scientifically literate society,” said Ann Metzger, Co-Director of Carnegie Science Center. “There are more than 1,000 unfilled positions in research and technology in the region at any time, and exhibits like this one will hopefully inspire the children that visit the Science Center to explore these science and medical careers and create the next generation of researchers for this region. We’re excited to be presenting the rapidly changing science of tissue engineering in this exhibit and proud to have been a member of the Starfish Partnership.”

The Starfish exhibit will be on display in the Science Center Atrium for the next 3–5 years, with updated information as tissue engineering research continues to make breakthroughs.

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#### **About Carnegie Science Center**

Carnegie Science Center brings the world of science alive for visitors of all ages. One of the four Carnegie Museums of Pittsburgh, the Science Center features hundreds of hands-on exhibits, three live demonstration theaters, a four-story IMAX® Dome theater, an interactive full-dome digital planetarium, a Cold War-era submarine moored on Pittsburgh’s Ohio River, and a world-renowned model railroad display. Carnegie Science Center is located at One Allegheny Avenue on Pittsburgh’s North Shore next to Heinz Field. Visit [CarnegieScienceCenter.org](http://CarnegieScienceCenter.org), or call 412.237.3400 for more information.

#### **About Carnegie Museums of Pittsburgh**

Founded by Andrew Carnegie in 1895, Carnegie Museums of Pittsburgh is a collection of four distinctive museums dedicated to exploration through art and science: Carnegie Museum of Art, Carnegie Museum of Natural History, Carnegie Science Center, and The Andy Warhol Museum. In 2008, the museums reached more than 1.4 million people through exhibitions, educational programs, outreach activities, and special events.

#### **About the Pittsburgh Tissue Engineering Initiative**

When the Pittsburgh Tissue Engineering Initiative, Inc. (PTEI) was established in 1996, its mission was to support the growth of a regional industry through focused efforts to facilitate commercialization of university-derived technologies associated with engineered tissues. Today, the name PTEI is internationally recognized and synonymous for high-quality programming.

#### **About ASSET Inc.**

Established in 1994 by Bayer Corporation and several community partners, ASSET Inc. is an independent education nonprofit that provides teacher professional development and hands-on curriculum materials for grades K-8. In 2001, ASSET achieved sustainability as a fee-for-service organization and in 2006 was selected to design and manage Pennsylvania’s *Science: It’s Elementary (SIE)* initiative in partnership with the Pennsylvania Department of Education. ASSET currently impacts 164 school districts, 4,700 teachers and 183,000 students. For more information, visit [www.assetinc.org](http://www.assetinc.org).

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One Allegheny Avenue | Pittsburgh, PA 15212 | 412.237.3400 | [CarnegieScienceCenter.org](http://CarnegieScienceCenter.org)