Regenerating Tissues

Summary

"Regenerating Tissues" is a stand-alone interactive component of the *Nanomedicine* exhibition. A copy panel describes how nanomaterials are able to form tiny structures called nanoscaffolds that help the body repair damaged muscle, bone, and nerve tissues.

Nanoscaffold

Nanoscaffold is a mechanical interactive that demonstrates how nanotechnology can help the body repair a damaged nerve. When the visitor approaches this interactive, they see a severed nerve that no longer functions. Sensory messages, indicated by chasing LED lights, originate at the nerve cells on the left but cannot get through to the brain on the right. The visitor has two options: to leave the injury alone or to inject nanoparticles. When nanoparticles are injected, they self-assemble into a nanoscaffold. Visitors can watch as the nerve endings grow back together, and sensory messages are once again able to reach the brain.

This exhibit component consists of one copy panel, the tabletop Nanoscaffold interactive, and a flat-screen monitor slideshow that can be updated to keep the exhibit content current and relevant. Like all of the exhibit components in the *Nanomedicine* package, headphone listening stations with both English and Spanish audio description labels are included. These audio labels serve two functions—to explain the "Big Idea" content of the exhibit and to provide illustrative descriptions of the interactive experience.

Learning goals:

- Researchers are working on ways to repair tissues with nanotechnology.

Exhibit Details

Audience: 11 and up

Exhibit Format: Stand-Alone Exhibit Component
Part of *Nanomedicine* Exhibit package

Exhibit Dimensions: 65 ½"w x 32 ½"d x 78"h