Visiting the “Nanotown” Exhibit . . . Interesting
Understanding Nanotechnology
. . . Priceless

by Kay Hagen

Something really small has gotten really big in science and Purdue is working to help people understand it.

Nanotechnology uses particles as small as atoms and molecules to create new materials, structures, devices and systems. “Nano In Your Neighborhood” is an interactive exhibit created at Purdue that relates this emerging science to everyday life.

“By walking through the ‘nanotown’ we’ve created for this exhibit, you can really get a feel for how nanotechnology can, and already does, improve products and help the environment,” said Jon Bricker, who coordinates the Department of Agricultural Communication exhibit design center, which created the exhibit.

“Nano In Your Neighborhood” opened at the Indiana State Museum on February 25 and will be in place until July 23.

It includes interactive elements like “Shine a Light on Cancer,” which uses black lights and special paint to emulate how nanotechnology can help detect cancer cells.

Not only does the exhibit introduce nanotechnology, but it also shows how it’s already used in videos that bring to life what you can’t see with the naked eye.

“Video animations throughout the display fly you into a human eye to see how a new glaucoma sensor works; stop a tennis ball in mid-flight to show how it’s built with nanotechnology; and even visualize an elevator to outer space made from nanotubes. It’s pretty amazing stuff,” said Steve Doyle, a Purdue video producer who worked on the exhibit.

Purdue Agriculture and Discovery Park’s Discovery Learning Center teamed up to build the display because of the opportunities that nanotechnology can provide.

“The better Hoosiers understand nanotechnology, the more Indiana will be able to take advantage of it,” said Randy Woodson, Glenn W. Sample Dean of Agriculture. “Today’s fourth-graders will graduate from college at a time when we will desperately need workers with knowledge of nanotechnology.”

Places like Purdue’s Discovery Learning Center are bringing science education to students and adults alike.

“At the learning center we’re interested in helping transfer scientific knowledge from the lab to the public. This helps people understand the risks and potential benefits of new science and technologies and guides decisions about how and when we use science,” said Willie Burgess, managing director of the Discovery Learning Center.

Even though nanotechnology researchers work with particles small in stature, their discoveries have big applications in products as wide ranging as crop production and combat gear.

For example, Purdue scientists have used nanotechnology to create sensors for food borne pathogens. Someday those sensors could be used on a larger scale to alert people of food bioterrorism, animal diseases or crop threats.

A super-sized, interactive replica of those sensors is part of “Nano In Your Neighborhood.”

While scientists and public policymakers are excited about nanotechnology’s potential, there’s still more to learn, Woodson said. He would like to see a wide range of educational efforts, such as the museum display, and a public discussion of the risks and benefits of nanotechnology.

Indiana State Museum hours are 9 a.m. to 5 p.m. Monday through Saturday and 11 a.m. to 5 p.m. Sunday.

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