University’s stable of distinguished scientists runs deep

NOVEMBER 30, 2010

Wirth said the lessons being learned in her lab are likely transferable to other types of cancers, too.

Vladimir Shalaev 'I'M NOT DOING SCI-FI. I'M DOING SCIENCE'

The world of technology doesn’t move fast enough, at least in the opinion of Vladimir Shalaev.

The Robert and Anne Burnett Professor of Electrical and Computer Engineering is one of the major players advancing a new field of science that focuses on photonics instead of electronics as the future basis of technology.

Using optical techniques, such as lasers, photonics would make everyday devices operate 10,000 times faster, he said.

Shalaev came to Purdue in 2001 and is thrilled with the equipment and students he’s worked with during his tenure in West Lafayette. The Russian-born scientist said he’s always had an interest in discovery.

He’s earned widespread attention this year for his work on materials that could someday be used to render objects invisible. A breakthrough in his work with metamaterials, or artificially structured materials, has made what he calls baby steps toward such a goal.

While a true cloak of invisibility may or may not realized someday, Shalaev said he sees many other applications for light-bending metamaterials, including making optical microscopes much more powerful.

"I'm not doing sci-fi," he said. "I'm doing science."