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In the News

Working toward a cure

May 01, 2010

SRF

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Dr. Dmitri Lapotko, a former SRF scholar and physicist from Belarus, is leading a team of researchers at Rice University in cutting edge research on the potential use of lasers and gold nanoparticles to selectively diagnose and kill tumor cells. Specifically, the scientists use non-invasive techniques to destroy cancer cells by inserting nanoparticles into the unhealthy cells and creating tiny explosions inside of them.

SRF facilitated Dr. Lapotko's visiting research position at Rice University in 2007 with additional support from the Alliance for NanoHealth. Dr. Lapotko left Belarus, where for nearly five years he endured systematic restrictions on his research by state-sponsored bodies suspicious of scientific collaborations with the West. Fearing the seizure of his research facility and his possible arrest, he contacted SRF on a recommendation by a US-based colleague, and later began his work at the University's Center for Biological and Environmental Nanotechnology.

In recent years, the Soros Foundation, the U.S. National Institute for Health, the National Cancer Institute, and the U.S. Department of Defense have sponsored Dr. Lapotko's research. He remains at Rice today while leading science journals continue to publish his highly acclaimed work. One article published in the prominent Nanomedicine journal prompted over 1300 media releases and more than 300 downloads from the journal's website within just three months of its publication.

To read more about Dr. Lapotko's important work and his impact as a SRF scholar, please visit the following links:

[Rice physicists kill cancer with 'nanobubbles'](#)

[Rice University News](#)

[By Jade Boyd](#)

[Plasmonic nanobubbles combine diagnosis and treatment in one theranostic method](#)

[Nanowerk](#)

[By Michael Berger](#)

[Tunable plasmonic nanobubbles for cell theranostics](#)

Nanotechnology

By E Y Lukianova-Hleb, E Y Hanna, J H Hafner and D O Lapotko

[« Back](#)