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Breast cancer research homes in on development, treatment of disease

By Judy Benson

Waterford — By developing a more precise understanding of how and why breast cancer cells grow and develop, and how to help the body combat them when they do, three researchers supported by grants from the [Terri Brodeur Breast Cancer Foundation](#) are hoping to contribute to improving chances of prevention and survival from this disease that afflicts one in eight U.S. women.

The three researchers, recipients of some of the more than \$3 million in grants provided through the foundation's fundraising efforts since 2006, presented their work Thursday to an audience gathered at the Lawrence + Memorial Cancer Center.



The event was organized in recognition of the nonprofit New London-based organization's 10th anniversary and in preparation for its main annual fundraiser, the Walk Across Southeastern Connecticut next month.

John LaMattina, former president of Pfizer Global Research and Development and a member of the foundation's Scientific Advisory Committee, said the foundation receives about 25 applications each year for its grants, and chooses three or four.

First to present was Natalya Pavlova of the Memorial Sloan Kettering Cancer Center. Her research focuses on how cancer cells acquire an essential nutrient, glutamine, that enables them to proliferate and co-opt other cells to aid in that process.

"We're zeroing in on what happens at the level of protein production," she said.

Ultimately, she said, the research could lead to new treatments that would limit the availability to cancer cells of asparagine, an amino acid that seems to be crucial to development of glutamine.

Dr. Erin Hofstatter of the Smilow Cancer Hospital at Yale-New Haven Hospital next described her research, which focuses on whether there is a link between young women who develop breast cancer and premature aging.

The work involved studying samples of normal tissue and blood samples from young women with breast cancer, and older women with and without breast cancer.

"We're just starting to get results," she said. "We're starting to see some genes of interest. There's something going on in the tissue of young women with breast cancer that looks like what we find in older women. The whole point of what we're doing comes down to my passion for breast cancer prevention."

The research, she said, could lead to new ways to identify young women at risk of developing breast cancer and providing them with prevention strategies.

The funding from the Brodeur fund, she said, was critical in carrying out the early stage research that made it possible for her to get larger grants to continue the work.

The third presentation came from Dr. David Page of Providence Health & Services in Oregon and formerly of Sloan Kettering.

He is studying whether drugs that boost the immune system — including Tremelimumab, which was developed at Pfizer in Groton — can be used in combination with chemotherapy, cryoblation and radiation to treat cancer.

The drugs, he said, help turn on the body's immune cell response once it's activated by the other therapies.

Preliminary results, he said, are promising, and further research is being planned. "We'll open a new study in the next several months," he said



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