

# MEDIA RELEASE

## Thunder Bay Regional Research Institute and Lakehead University Scientist developing a new method for breast imaging

(November 21, 2013 - Thunder Bay, ON) - Dr. Alla Reznik, an Associate Professor of Physics at Lakehead University and Senior Scientist with the Thunder Bay Regional Research Institute (TBRRI), is developing a new cancer imaging technique with financial support from the Canadian Breast Cancer Foundation (CBCF).

The CBCF grant provides Dr. Reznik and her research team with \$450,000 over three years to develop a Portable Positron Emission Mammography (PEM) device as a new method for breast imaging.

The PEM will be more effective for detecting tumours in younger women who generally have denser breast tissue.

"Mammography remains a primary tool to significantly reduce mortality from breast cancer. It is still the most efficient way to detect breast cancer in women over 50 years of age," said Dr. Reznik, who was recently renewed as a Canada Research Chair in the Physics of Medical Imaging. "However, there is always room for improvement, especially in cases of younger high-risk women who have to be tested very often at early ages."

Women with a family history of breast cancer are susceptible to an increased risk of development. Breast cancer in high-risk women is known to have early onset, and those women must be screened yearly at a substantially younger age than women who are at an average risk.

Current mammography uses compression between two plates and low dose X-rays to image the breast, showing the dense mass of a tumor in contrast to the breast tissue. However in dense breasts, this can make the image more difficult to interpret.

PEM, on the other hand, is a molecular breast imaging method that distinguishes between cancerous cells and normal cells using a radiotracer to highlight areas of abnormality. This allows for detection of small masses, regardless of the breast density, and doesn't require compression of the breast.

"The work being done by Dr. Reznik and her research team is directly advancing one of TBRRI's main strategic goals – achieving excellence in imaging with a focus on patient care," said Dr. Roxanne Deslauriers, CEO, TBRRI, and VP Research, Thunder Bay Regional Health Sciences Centre (TBRHSC). "The financial support from the Canadian Breast Cancer Foundation will go a long way to ensuring that this new and innovative imaging technique becomes a reality for patients in the Region – and perhaps someday, internationally."

Dr. Rod Hanley, Lakehead University Provost and Vice-President (Academic), offered his congratulations to Dr. Reznik and her team.

"Dr. Reznik is one of Lakehead University's shining stars – she is part of the reason we were ranked #1 in Ontario and #2 in Canada in research for universities of our size. Dr. Reznik's innovation will save the lives of young women who can be more difficult to diagnose for breast cancer, and for that we are very proud," said Dr. Hanley.

Sandra Palmaro, CEO of the Canadian Breast Cancer Foundation – Ontario Region, echoed those sentiments and the benefits to patients.

“We are very proud to support Dr. Reznik’s innovative and promising work. We know that the sooner breast cancer is detected, the better the outcome for patients and this is especially true for young women at high risk where detection through traditional mammography can be challenging,” said Palmaro. “As the largest funder of breast cancer research in Canada, we are hopeful that by funding the best and brightest scientists across the country, like Dr. Reznik, we will create a future without breast cancer.”

-30-

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**About the Thunder Bay Regional Research Institute**

Thunder Bay Regional Research Institute (TBRI) – an independent, not-for-profit corporation – is the research arm of the Thunder Bay Regional Health Sciences Centre. Our scientists work closely with clinicians, medical professionals, and academic and industry partners to improve healthcare through excellence in patient-centred research focused on three molecular imaging-based platforms. Research is advanced through discovery and development of new technologies and processes that are brought to patients through clinical trials. With successful trial validation, discoveries proceed to commercialization for the benefit of patients everywhere. For more information, visit [www.tbrii.com](http://www.tbrii.com)

**About Lakehead University**

Lakehead University is a comprehensive university with a reputation for a multidisciplinary teaching approach that emphasizes collaborative learning and independent critical thinking. More than 8,700 students and 1,850 faculty and staff learn and work at campuses located in Orillia, and Thunder Bay, Ontario, which is home to the west campus of the Northern Ontario School of Medicine. Lakehead University promotes innovative research that supports local and regional socio-economic needs. In Orillia, development continues on building a campus that meets Leadership in Energy and Environmental Design (LEED®) standards. For more information about Lakehead University, visit [www.lakeheadu.ca](http://www.lakeheadu.ca)

**About the Canadian Breast Cancer Foundation**

Canadian Breast Cancer Foundation is the leading community-driven organization in Canada dedicated to creating a future without breast cancer. Our investments in innovative and relevant research and education have led to progress in breast cancer prevention, diagnosis, treatment and care. Since 1986, we have been at the forefront of a nationwide movement supporting and advocating for the breast cancer community. Join us at [www.cbcbf.org](http://www.cbcbf.org)