

# New models in largest breast cancer clinical trial in Oklahoma

June 12 2017

---

A University of Oklahoma and Mercy Hospital Oklahoma City research team is set to begin the largest breast cancer clinical trial ever performed in Oklahoma. The team has developed new breast cancer risk prediction models based on a computer-aided image feature analysis scheme to identify patients who might have cancers that are not visible on mammography. After review of 2,000 imaging studies performed at Mercy over the past two years and refinement of the image analysis system, the clinical trial begins July 1, 2017, at the Mercy Breast Center.

Bin Zheng and Hong Liu, professors in the Gallogly College of Engineering, affiliates of the Stephenson School of Biomedical Engineering and members of the Stephenson Cancer Center, teamed with Dr. Alan Hollingsworth, medical director of the Mercy Breast Center, to develop and validate this unique [breast cancer risk](#) model for identifying women who are excluded from current breast magnetic resonance imaging guidelines, but have a higher risk of developing mammography-occult or hidden cancers that can be detected by MRI. At the same time, the study will evaluate women with elevated lifetime [cancer](#) risk, but who are in no imminent risk of developing image-detectable cancers.

"The goal is to significantly increase [cancer detection](#) of breast MRI screenings based on the quantitative imaging markers rather than the existing epidemiology-based risk assessment approaches," said Zheng.

Over the next three years, the clinical trial will enroll 4,000 women with

mammograms interpreted as normal according to best practice guidelines. These mammograms will be de-identified and sent electronically to Zheng and Liu at the OU Advanced Cancer Imaging Laboratory for analysis. The women with higher scores predicted by the risk model will qualify for the additional breast screening. Hollingsworth anticipates between 200 and 400 patients of the original 4,000 will qualify for a breast MRI.

"If we can demonstrate cancer detection rates of even five percent in this population, then we will have achieved a higher yield than any other method of selecting patients for breast MRI screening. Five percent is 10-fold the cancer detection rate of screening mammography. At five percent or greater, we have the potential to alter how we screen for breast cancer. Unlike research projects that might take a decade or longer from 'bench-to-bedside,' if we're successful, this study will have practice-changing implications," said Hollingsworth.

Participants in this study will be those women who routinely have their mammograms performed at Mercy Breast Center. If you are interested in learning more about the clinical trial, call 405.936.5455.

Provided by University of Oklahoma

Citation: New models in largest breast cancer clinical trial in Oklahoma (2017, June 12) retrieved 19 April 2024 from

<https://medicalxpress.com/news/2017-06-largest-breast-cancer-clinical-trial.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.