



DR. SUSAN LOVE FOUNDATION

— for breast cancer research —

FOR IMMEDIATE RELEASE

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Dr. Susan Love Foundation for Breast Cancer Research's CAD Study Years in the Making Published in Radiology

Years long study shows minimally trained clinicians can use the device to accurately identify malignancies. Moderate specificity, which could triage 38%–67% of women with benign masses without tertiary referral, should further improve with AI and observer training with portable US.

LOS ANGELES, California — Dr. Susan Love Foundation for Breast Cancer Research funded the multiyear study in Guadalajara, Mexico, led by Susan Love, Wendie A. Berg, Ana-Lilia López Aldrete, Linda Larsen et al.

Key takeaways from this study include: Artificial intelligence (AI) using standard-of-care ultrasound images of 758 masses accurately classified 95% of malignancies, and 79% of benign masses, with an area under the receiver operating characteristic curve of 0.95. With the use of low-cost portable ultrasound images obtained by a radiologist on 603 masses, AI correctly classified all 35 malignancies with 100% sensitivity but showed reduced specificity at 51.2% of benign masses versus benign masses at 80.5% with images from the standard-of-care ultrasound. AI performance was reduced with images obtained with low-cost portable US by an untrained observer.

The study signifies a momentous advance for treatment of patients in low resource environments everywhere in the world, as AI enabled imaging can be obtained with a handheld device by minimally trained clinical staff. Use of the device will mean an enormous expansion for the reach of screenings across rural and undeveloped communities, and countries.

Breast cancer is a global public health threat, and while mortality has decreased thanks to advances in early screening and diagnosis, over 600,000 women still die annually from breast cancer. Proportionally, a greater number of these deaths affect women in low- to middle- income countries. Low- to middle-income countries typically have lower resources and less access to care in a timely manner that would serve for better outcomes.

CEO Christopher Clinton Conway states, “the Foundation is thrilled to have been able to utilize AI and is excited for the potential to be able to provide timely care to patients, especially those in low resource environments. AI tools accurately classifying breast masses has the potential to change lives for the better going forward.”

To read the full abstract published in Radiology, [click here](#).

About Dr. Susan Love Foundation for Breast Cancer Research

Dr. Susan Love Foundation for Breast Cancer Research challenges the status quo to end breast cancer and improve the lives of people impacted by it now through education and advocacy. The Foundation



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drives collaborative, cutting-edge research with nontraditional partners, brings to light the collateral damage of treatment and seeks ways to diminish it, and interprets science to empower patients. Fast, flexible, and project-based, the Foundation actively engages the public in scientific research to ensure that it produces accurate and meaningful results.

For more information please visit: DrSusanLoveResearch.org

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