Together, we are driving research forward, delivering new hope, and moving closer to a world without breast cancer. Join us in making this vision a reality.

Advancing AI-Driven Breast Cancer Research to Save Lives

Susan G. Komen is proud to support Dr. Christina Curtis, PhD, MSc, MS, a distinguished Komen Scholar and the 2024 Brinker Award for Scientific Distinction in Basic Science recipient, whose pioneering research is redefining breast cancer treatment and patient stratification. As a leader at Stanford University, Dr. Curtis is spearheading the Leadership Grant: Molecular Determinants of Breast Cancer Progression and Recurrence**,** which leverages advanced computational analysis to uncover the origins of metastatic breast cancer.

Dr. Curtis's research has demonstrated that metastatic seeding often occurs **2-4 years before the primary lesion is even detectable.** This critical finding underscores the need for earlier detection and more precise treatment strategies. We must invest in research that identifies breast cancer sooner, ensuring that patients are diagnosed before metastasis occurs.

Dr. Curtis's groundbreaking research, funded in part by Komen, has already led to the identification of distinct genomic subtypes that predict breast cancer relapse up to two decades after diagnosis. This breakthrough is enabling the development of biomarker-driven strategies for personalized treatment, ensuring that high-risk patients receive the most effective therapies while minimizing toxicity. By identifying patients at the greatest risk and optimizing their treatment early, Dr. Curtis's work has the power to prevent metastasis and save lives.

Christina Curtis, Ph.D., M.Sc., is a leading cancer researcher redefining breast tumor evolution, progression, and therapy resistance. Her work has identified novel biomarkers, genomic subtypes, and predictive signatures that guide personalized treatment and risk stratification. She pioneered the Big Bang model, showing that key mutations occur early, influencing disease trajectory and metastasis. Her research emphasizes early detection, health disparities, and inclusive genetic studies to improve treatment for all patients. A Susan G. Komen Scholar and NIH Pioneer Award recipient, Dr. Curtis leads AI and cancer genomics efforts at Stanford, shaping the future of precision oncology.

Ashley Fernandez's story exemplifies why this research is so vital. Diagnosed with metastatic breast cancer at just 31, Ashley was too young even to have had her first mammogram when she discovered a lump. Her devastating diagnosis highlights the urgent need for earlier detection and more personalized treatment strategies—exactly what Dr. Curtis' AI-driven research aims to achieve. Ashley's resilience and advocacy shine a light on the importance of continued investment in scientific breakthroughs that can extend and improve the lives of those living with metastatic breast cancer (MBC).

Ashley's powerful story and unwavering advocacy make her an ideal speaker to underscore the urgent need for this funding. By sharing her journey, she puts a human face to the impact of research, illustrating how advancements in precision medicine can offer real hope for patients like her. As Ashley shared in her recent *Real Pink* podcast, "I had tumors in my lungs that disappeared. I've witnessed so many miracles, and the research has gotten so much better since I first started in 2018. I just keep thinking, 'Let me hold on, because if something happens, there's more.'" Her experience underscores the importance of continued innovation, as new treatments are being approved at a rapid pace. Ashley was able to transition to a new FDA-approved treatment that became available just weeks after she developed sepsis, highlighting how research is changing lives in real time.

Now, we have the opportunity to fund the final two years of Dr. Curtis's groundbreaking grant, ensuring that her research can further integrate AI-based methods to refine risk prediction and therapeutic targeting. By investing in this work, we can accelerate the translation of computational discoveries into clinical applications that will directly improve patient survival rates and quality of life. This research will not only transform the standard of care but also provide a path to earlier detection, better treatment decisions, and ultimately, more lives saved. With your support, we can bring AI-driven innovations to the forefront of breast cancer care and move closer to a world where fewer lives are lost to this disease. Join us in making this critical research possible.

Redefining the Narrative

Ashley's perspective challenges traditional narratives about cancer. She rejects phrases like "fighting for your life" or "losing the battle." Instead, she reframes her journey with honesty and hope.

"People will say, 'You're fighting for your life.' Am I really fighting? Because it's not really a fair fight. Cancer is attacking me. I can't fight against cancer. Or when they say, 'She lost her battle.' Did I really, though? Because I didn't ever give up," Ashley said. "I am fighting every day for my life. It's true. But it's not a fight that I'm necessarily going to win because eventually, the cancer is going to get smart."

Ashley's hope lies in research and the continuous development of treatments that extend and improve the lives of those living with MBC. She is passionate about empowering others to advocate for research funding, education, and support.