

Melody Cobleigh, MD

Brian Piccolo Professor of Cancer Research



Advancement of Medicine

I have served as principal or co-investigator for many clinical trials in breast cancer. These vital studies offer the latest advances in cancer therapy to our patients.

I have worked with basic science partners in the Department of Anatomy and Cell Biology at Rush, and with molecular diagnostic companies to further our understanding of breast cancers with pathogenic PIK3R1 mutations. The goal is to develop a treatment for women whose cancers harbor this harmful mutation. This year, I also lectured oncology fellows on treatment of breast cancer and served as an invited lecturer for the first annual RUSH MD Anderson Breast Cancer Symposium.

Research and Clinical Trials

These funds have afforded me the time to serve as principle or co-investigator for clinical trials.

The endowment has allowed me to continue pre-clinical research investigating tumors with a harmful mutation in a gene which can be mutated in human breast cancer and to evaluate activity of drugs, already approved by the FDA for other indications, and repurposing them for treatment of breast cancers with this mutation.

Mentorship

These funds afforded me the time to mentor a resident, **Allie Poles, MD**, in publishing her first report, which was accepted for presentation at San Antonio Breast Cancer Symposium in December 2024. Allie has submitted this work for publication. She will begin her oncology fellowship in 2026. I also supported her in presenting another paper in 2025 at San Antonio Breast Cancer Symposium.

Select Presentations

- Philippe L. Bedard, Seock-Ah Im, Elena Elimova, SY Rha, Rachel Goodwin, Cristiano Ferrario, Keun-Wook Lee, Anastasia Martynova, Funda Meric-Bernstam, Jose Mayordomo, Murali Beeram, Erika Hamilton, Jorge Chaves, Melody Cobleigh, Theresa Samuel Nached, Keerti



Sharma, Do-Youn Oh. Zanidatamab (Zani) + Chemotherapy (Chemo) for Patients (Pts) with HER2-Expressing Metastatic Breast Cancer (mBC): Final Results of a Phase 1 Trial. Accepted for oral presentation at ESMO 2025.

- Poles, Allie, **Cobleigh, MA**, Solmos, Gene. Extreme response to sacituzumab-govitecan in a patient with metastatic triple-negative breast cancer Presented at San Antonio Breast Cancer Conference, Dec 11, 2024. Abstract SESS-1028, Presentation ID #P1-12-29

Publication Highlights

- Abukhdeir, K. Cagin, J. Borgia, and M. Cobleigh. Mutations in PIK3R1 Activate Multiple Pathways in Triple Negative Breast Cancer. Abstract PS4-02-19. Presented at The San Antonio Breast Cancer Symposium, December 11, 2025. 2025. To be published in Clinical Cancer Research, Jan 2026.

The Year Ahead: 2025 and Beyond

I will continue to serve as principal investigator for clinical trials. I will expand on our PIK3R1 work to understand — using mass spectrometry — what proteins are phosphorylated and whether programmed cell death occurs when human tumor xenografts with PIK3R1 mutations are treated with inhibitors of the RAS/RAF/MED and PI3K/AKT/mTOR pathways. Finally, I will continue to teach oncology fellows.

With Gratitude

I am sincerely grateful to Joy Piccolo and the Piccolo Foundation for supporting my work. It is an honor to be recognized for my academic and scientific accomplishments through the Piccolo Foundation. These funds have brought me the joy and enthusiasm that comes from understanding the biology of cancer through translational research.