Dev4All
HEALTH SCIENCE

Pharmaseed
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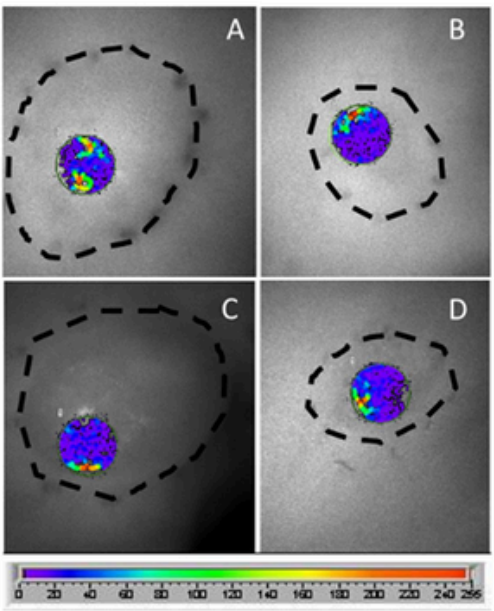
CASE STUDY

Preclinical Excellence: A Case Study in Breast Cancer Xenograft Models



A = 1F-Vehicle

B = 2F-Compound B Low dose

C = 3F-Compound B High dose

D = 4F-Bevacizumab

Black dot lines delineate tumor

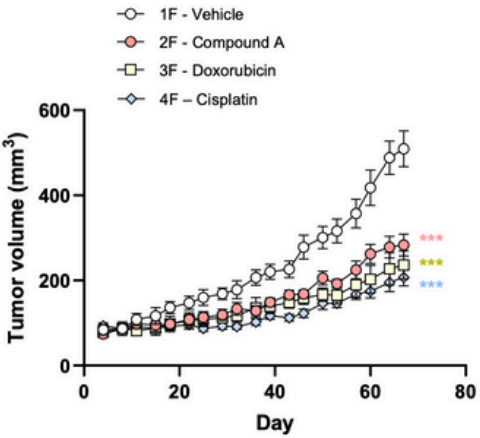
Blood flow scale

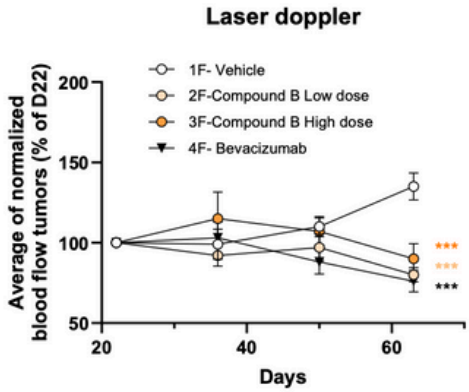
World Breast Cancer Research Day →

As CROs, we're dedicated to accelerating your oncology programs with precise and robust preclinical data. We understand that every project is unique, which is why we rigorously design and execute studies to provide clear insights into a compound's efficacy and safety.

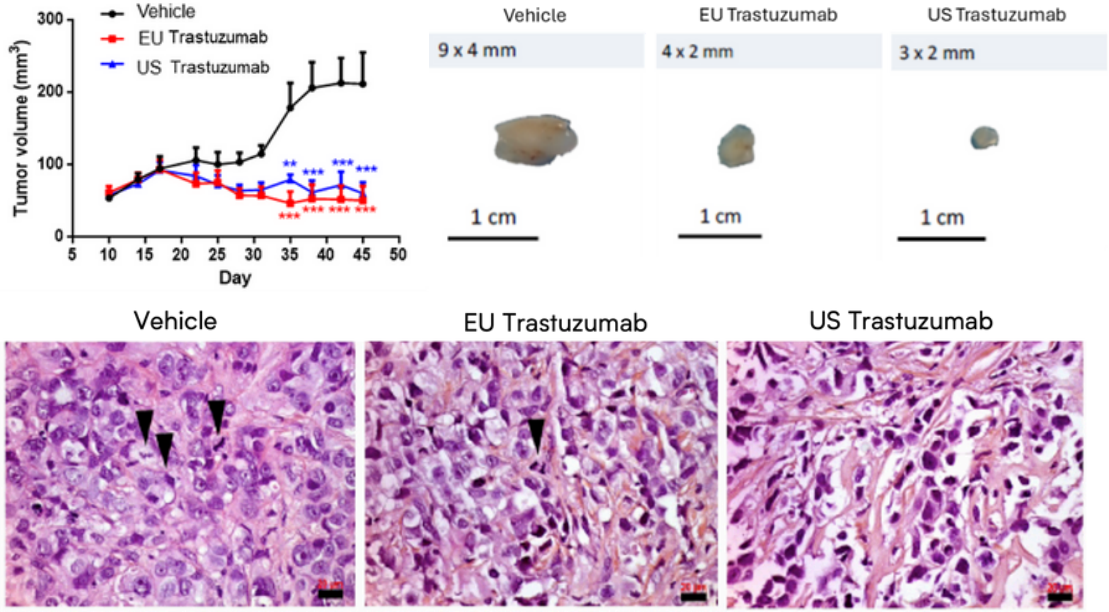
Here, we highlight three examples from our work in breast cancer xenograft models:

Triple-Negative Breast Cancer (TNBC): Using the **MDA-MB-231 cell line** subcutaneously injected in immunodeficient mice, we demonstrated how an anonymized test compound (Compound A) was effective in reducing tumor growth. Compound A was compared to two standard-of-care chemotherapies, doxorubicin and cisplatin. In another study using Laser Doppler measurements, we also demonstrated that Compound B exhibits anti-angiogenic properties, comparable to the positive control, angiogenic inhibitor Bevacizumab (**cf** Laser Doppler visual in front page).



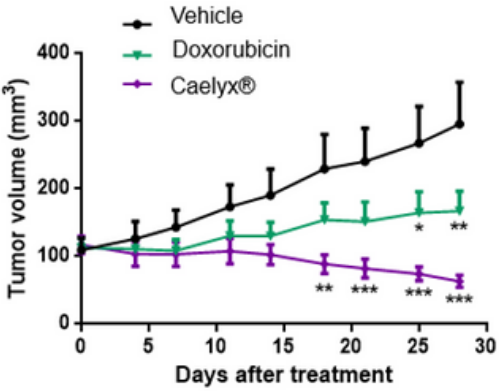


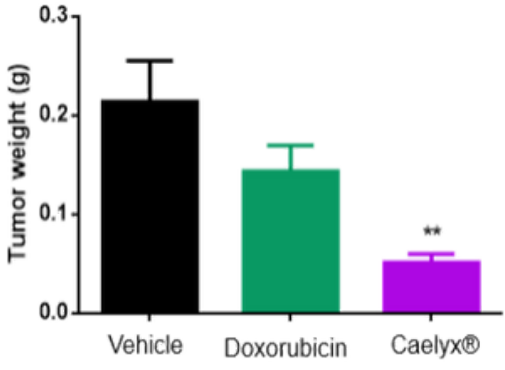
HER2-Positive Breast Cancer: In a separate study using the **BT-474 cell line**, we evaluated the efficacy of trastuzumab (EU and US batches). Our findings confirmed that trastuzumab treatment significantly reduced tumor volume and size compared to vehicle group. Beyond the standard metrics, our expertise extends to detailed histological and immunohistochemical analysis, providing a deeper understanding of the mechanism of action.



Mitotic scores are lower in the two trastuzumab groups compared to the vehicle group (arrowheads point mitotic figures).

Hormone-Positive Breast Cancer: Using the **MCF-7 cell line**, our data clearly showed that Caelyx® (a liposomal formulation of Doxorubicin) significantly inhibited tumor growth more effectively than standard Doxorubicin. This was evidenced by a substantial reduction in both tumor volume and weight. Additionally, Caelyx® demonstrated a better safety profile, without the severe adverse side effects observed with Doxorubicin. This study showcases our ability to differentiate the efficacy and safety of various drug formulations within the same disease subtype.





These case studies exemplify our commitment to delivering not just data, but a comprehensive understanding of your therapeutic candidates. Our goal is to provide the insights needed to confidently advance your oncology projects.

Want to learn how we can help you design a preclinical strategy tailored for your specific oncology program? Contact us today to start the conversation.

Are you developing novel therapies for breast cancer?
Let's connect to explore how our xenograft models and preclinical expertise can help de-risk and accelerate your oncology pipeline.

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Customer Account Manager

Let's collaborate!

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