

Metastatic Bone Models for Cancer Inhibitors Screening

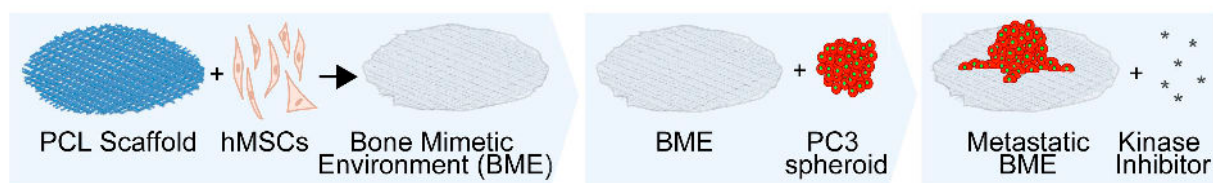


Bello T, Painedelli C, Diaz-Gomez LA, Melchiorri A, Mikos AG, Nelson PS, Dondossola E, Gujral TS. Computational modeling identifies multitargeted kinase inhibitors as effective therapies for metastatic, castration-resistant prostate cancer. Proceedings of the National Academy of Sciences Oct 2021, 118 (40) e2103623118.

Overview

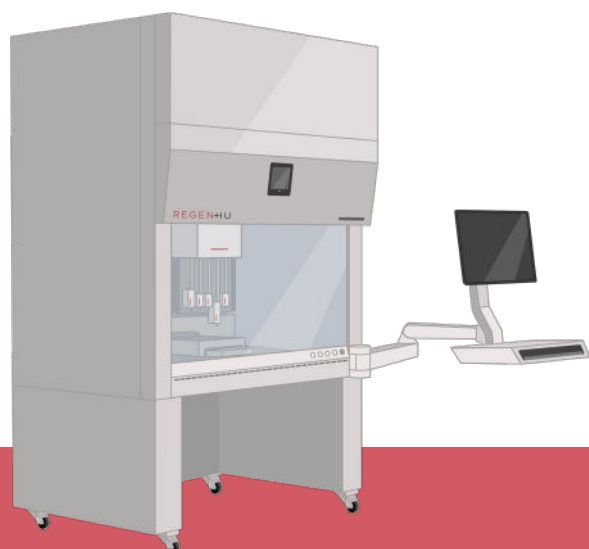
Metastatic, castration-resistant prostate cancer (mCRPC) is an advanced prostate cancer with limited therapeutic options and poor patient outcomes, with bone metastasis being the most frequent and lethal complication. To study the efficiency of different therapies, compound testing in polypharmacology approaches are used. Those methods seek organotypic models mimicking the complexity of the bone environment.

In this study, researchers exploited the possibilities offered by REGENHU's melt electrowriting technology to fabricate a bone mimetic environment.



Results

- ✓ Resistance to chemo- and molecular therapy in bone metastatic cancer accurately reproduced
- ✓ Models combined with machine-learning algorithms for high-throughput screening



REGENHU's melt electrowriting technology (PMD+ESK) enables:

Miniaturization

Scaffolds with fiber diameter of 35µm, pore size of 40µm, and final height of 320µm

High throughput

Miniaturized models in 96-well plates

Interested to know more ?

info@regenhu.com | regenhu.com