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## **Progress Published in Screening for New Cancer Compounds in Context of Radiation Therapy**

*Helmholtz' Institute of Radiation Biology, SIRION Biotech and In-Sphero publish novel cell-based phenotypic assay*

**Munich, 07 August 2015**, a recent publication by BMC Cancer discusses a comfortable 3D cell-based phenotypic assay enabling high throughput screening of compounds with radiation therapy modulating capacity, opening the field to drug discovery.

Radiation resistance presents a challenge to the effective treatment of cancer. If therapeutic compounds were capable of resensitizing resistant tumours then a concurrent chemo-radiation treatment could be used to overcome radiation resistance. To investigate the response in a model closer to the in vivo situation the team of researchers investigated the response of heterotypic 3D microtissues containing both fibroblasts and breast cancer cells. Drug treatment of these heterotypic 3D cultures confirmed treatment with radiation plus vinblastine to be additive in causing breast cancer growth inhibition.

The screen was validated comparing radiation sensitizing effects of known chemotherapeutic agents. In both monotypic and heterotypic models the concurrent treatment of vinblastine and radiation proved more effective inhibitors of mammary cancer cell growth.

Radiation therapy may be much improved in the near future with such comfortable screening method. SIRION Biotech contributed immortalization protocols for primary normal human dermal fibroblasts (NHDF) expressing GFP and protocols whereby breast cancer cells were stably transduced with red fluorescence protein (RFP) lentiviral expression vectors.

SIRION Biotech in Munich, Massachusetts and Tokyo stands ready to discuss similar approaches with drug discovery organizations worldwide.

[About SIRION Biotech www.SIRION-Biotech.com](http://www.SIRION-Biotech.com)

SIRION Biotech started in Munich in 2007 with the idea of developing next generation viral vectors for gene therapy and vaccines and of enabling novel cell models closer to reality than ever before. This required the assembly of an all-encompassing, novel viral vector plat-

form. Both, designing de novo viral vectors and the subsequent creation of custom cell models will pave the way for superior compound development in the life sciences. SIRION's technologies have been validated in over 500 single projects with more than 150 academic and industrial partners. As a result, cell models for drug discovery and development have become highly reliable, as have the use of new viral vectors in gene therapy and vaccine studies both for research and clinical studies.

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