

LOEWE Research Initiatives Network

### LOEWE RESEARCH CENTRE

# Frankfurt Cancer Institute

MOLECULAR MECHANISMS OF THERAPEUTIC RESPONSES IN TUMORS AND DEVELOPMENT OF INDIVIDUAL TUMOR THERAPIES

# CLINICAL OBSERVATIONS MECHANISTICALLY EXPLAINED TO ENABLE NOVEL THERAPEUTIC APPROACHES FOR PATIENTS

Cancer genomes can now be completely deciphered within a few days. However, genetic data is only partially sufficient to predict how well a particular patient will respond to the therapy, because it is necessary to know how the mutations affect the tumor cell and what effects this in turn has on the surrounding tissue and the immune system. It is the mission of the Frankfurt Cancer Institute (FCI) to investigate these complex processes. In addition, the FCI will develop individual therapeutic concepts based on a better understanding of the underlying molecular mechanisms. Interdisciplinary project teams work closely together to reach the next level of translation in iterative cycles between laboratory and patient. Here, a concept of translational cancer research is realized that covers the full spectrum from basic research on tumor mechanisms, drug development, to preclinical and clinical studies. Projects in the FCI are driven by interesting and challenging clinical observations and are supported by the continuous reciprocal exchange between clinical and basic research.

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#### COORDINATOR

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#### **SUBJECT AREAS**

Tumor biology, Clinical oncology Clinical proteomics, Tumor metabolism Preclinical models, Drug development Clinical trials

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## LOEWE and ProLOEWE

Since 2008 the German federal state of Hessen has been promoting outstanding research initiatives through its own excellence programme, **LOEWE**. To date, 14 **LOEWE** research centres and 54 **LOEWE** research clusters have been selected in a competitive process to receive funding.

**ProLOEWE** is the **LOEWE** research initiatives network: their common aim is to provide information about their activities, speed up access to their research and intensify their cooperation.

An overview of the **LOEWE** research initiatives is provided at **www.proloewe.de**.

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