

LOEWE Research Cluster Medical RNomics

RNA-regulated networks in human diseases



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What role do RNAs play in the incidence of diseases?

Ribonucleic acids – RNAs for short – assume a range of tasks in the human body: RNA molecules can, for example, transmit genetic information and regulate whether gene-encoded proteins are formed in cells as well as when this occurs and in what quantities. The discovery of new regulatory ribonucleic acids has resulted in recent years in the realisation that faulty RNA-dependent genetic regulation processes very often lead to disease. At the same time, new high-throughput sequencing technologies now make it possible to gather comprehensive data on regulatory RNA networks and their pathological changes. The LOEWE research cluster Medical RNomics wants to apply these new analytical methods to major commonly occurring diseases, particularly to tumour, infectious and cardiovascular diseases. This should not only give new insights into the disease-causing processes but, most of all, provide new diagnostic RNA biomarkers and pave the way for innovative therapeutic strategies.





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FUNDING PERIOD

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www.proloewe.de/en/medicalmomics

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SUBJECT AREAS

Medicine
Biology
Chemistry
Biochemistry

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, 11 LOEWE research centres and 35 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. The website www.proloewe.de/en provides an overview of the LOEWE research initiatives.