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Leibniz ScienceCampus "Integrative Analysis of pathogen-induced Compartments"(InterACt)

The Hamburg Leibniz ScienceCampus "Integrative Analysis of pathogen-induced Compartments" InterACt has set itself the goal of better understanding the role of compartments in the course of infection.

InterACt investigates the interaction between pathogens such as viruses, bacteria, and parasites and the affected host. During the cellular infection cycle, pathogens use the existing reaction spaces of the host or create new ones. These reaction spaces or compartments protect the pathogens from the host's defenses and concentrate factors that contribute to the pathogen's multiplication. The dynamics, structure, and function of these diverse reaction spaces are extremely complex and can only be analyzed and understood in situ.

InterACt provides the platform for combining Hamburg's expertise in the fields of infection, structural, and systems biology with state-of-the-art imaging and bioinformatics methods. The complex datasets emerging from complementary methods are integratively merged. The novel insights gained into pathogen compartments will ultimately foster innovative therapeutic approaches.

InterACt - one of 25 Leibniz ScienceCampi - is a strategic initiative. As an interdisciplinary infection research network, the ScienceCampus links existing research groups in the fields of infection research and structural biology in the Hamburg Metropolitan region even more closely. InterACt creates new structures and expertise for the integrative analysis of complex data sets. In the medium term, this research-driven network of Universität Hamburg and the Leibniz Institutes as well as other non-university research organizations, including EMBL and European XFEL, will provide a strong nucleus for further initiatives in the field of infection research.

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