

Partners of the Leibniz ScienceCampus InfectoOptics

Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (HKI)

Scientists at the HKI are studying the infection biology of human pathogenic fungi. They investigate the molecular mechanisms underlying infections and the interactions of pathogens with the human immune system. New natural products from microorganisms are tested for their biological activity and chemically modified for potential use as therapeutics.

Leibniz Institute of Photonic Technology (IPHT)

The IPHT investigates the scientific basis of photonic processes and systems of highest sensitivity, efficiency and resolution. According to the motto “Photonics for Life” custom-made solutions for questions from the life and environmental sciences and medicine are developed.

Friedrich Schiller University Jena (FSU)

The FSU is a classical university with a clear structure. Currently, it has 18,000 students, among them 2,200 international students. Research at FSU is a dynamic field which has always been guided by interdisciplinary principles. Photonics and optics as well as the dynamics of complex biological systems are two of the focus areas. The focus areas are also reflected in the two profile lines **Life** and **Light** of the university.

University Hospital Jena (UKJ)

The only university hospital in Thuringia has a longstanding tradition as medical and teaching hospital. Today, with more than 4900 employees the university hospital is one of the largest employers in the region. 2300 students are enrolled in studies of medicine and dentistry, and scientists from 25 nations are carrying out advanced medical research.

Fraunhofer Institute for Applied Optics and Precision Engineering (IOF)

The Fraunhofer IOF conducts application-oriented research in the field of optical systems engineering on behalf of its clients in industry and within publicly-funded collaborative projects. The field of optical systems engineering enables the step from specific optical, mechanical and electronic components to optical, opto-mechanical and opto-electronic modules and systems with complex functionalities. The objective is to control light, from its generation to its application.

Institute of Molecular Pathogenesis at the Friedrich-Loeffler-Institut - Federal Research Institute for Animal Health (FLI)

The FLI is an independent federal research institute. The focus of its work lies on farm animal health and welfare and on the protection of humans from zoonoses, i.e. infections which can be transmitted from animals to humans. Scientists at the Institute of Molecular Pathogenesis (IMP) in Jena characterize the interactions between pathogenic bacteria of animals and their host on the molecular level. They evaluate the results with regard to their relevance for the whole organism and develop methods for prevention and treatment of animal diseases.

University of Applied Sciences Jena (EAH)

The EAH offers interdisciplinary courses with practical orientation in nine different departments in engineering sciences, economics and social sciences. The profile of the young institution is shaped by interdisciplinary collaborations of all departments to make optimal use of synergies. Teaching and research are closely interlinked in cooperation with other research institutions.

Collaborations and Networks

The LSC InfectoOptics is embedded in the lively scientific community in Jena. Both participating Leibniz Institutes as well as the Fraunhofer IOF are located in close proximity at the [Beutenberg Campus](#). Numerous connections to local, national and international collaborative projects exist, among other:

- [SFB/TR FungiNet](#)
- [SFB ChemBioSys](#)
- [InfectControl 2020 – New Antiinfective Strategies Science • Economy • Society](#)

- [3D-Sensation](#)
- [InfectoGnostics](#) Research Campus
- [Integrated Research and Treatment Center Center for Sepsis Control and Care CSCC](#).

Particularly noteworthy is the integration into the Jena School for Microbial Communication (JSMC), funded by the excellence initiative of the German Research Foundation. All doctoral researchers of the LSC InfectoOptics will benefit from the structured PhD training and the interdisciplinary network of the JSMC scientific community.