

Research and cooperation



Leibniz Association



Leibniz Institute for Zoo and Wildlife Research
Berlin, Germany

:: Evolutionary wildlife research for conservation ::



Research on plant natural products

Plants and higher fungi generate a huge diversity of chemical compounds that are of central importance for their interaction with their biotic and abiotic environments.

The Leibniz Institute of Plant Biochemistry aims at the functional analysis of metabolic diversity with interdisciplinary approaches. The four departments (Natural Product Biotechnology, Bioorganic Chemistry, Stress and Developmental Biology and Secondary Metabolism) complement each other in terms of chemical and molecular competence for the comprehensive analysis of complex systems. Research results open new possibilities for innovative and sustained exploitation in plant production, plant protection, biotechnology and development of bioactive compounds.

For further information please visit our homepage: <http://www.ipb-halle.de>

Leibniz Institute of Plant Biochemistry Halle



Rheumatology research - centering on the patients

At the Deutsches Rheuma-Forschungszentrum Berlin (DRFZ), researchers investigate the causes and courses of rheumatic diseases, their impact on society and health service provisions. We want to get to the roots of rheumatic diseases. What keeps up the chronic disease, which are the cells involved, and how can we reach those cells?

The DRFZ employs 23 research groups, 12 of which are liaison groups with the Charité University of Medicine Berlin and the Technical University Berlin.



Besides collaborations in a plethora of networks, including several Graduate Schools, the DRFZ is now involved in the Cluster of Excellence: "NeuroCure: Towards a Better Outcome of Neurological Disorders" of the Humboldt University Berlin."

Polymer Research. Fascination. Innovation.

Materials science meets the challenges of biology

Synthetic polymers represent the most important basis for biomimetic materials as they provide a wide variability in chemical and physical properties and options to create architectures with specific affinities for biomolecules. Through the Max Bergmann Center of Biomaterials, established in cooperation with the Technische Universität Dresden, the IPF has linked its competence in polymers and interfaces with the tremendous challenges and progress in life sciences and biology thus becoming one pillar of the Dresden Cluster of Excellence 'From cells to tissues to therapies: Engineering the cellular basis of regeneration'.



Leibniz Institute of Polymer Research Dresden (IPF)
www.ipfdd.de



Shining a light on the fabric of the world

ISAS – Institute for Analytical Sciences is an international research establishment for physical, chemical and biological analysis. It develops novel and advanced measuring principles, analytical techniques and equipment. Research is geared towards life and material science applications, with a strong emphasis on operations at the micro and nanoscale. Through internal and external interdisciplinary co-operation between scientists, engineers and physicians ISAS has earned the reputation as a world leader in the analytical sciences.

At its sites in Dortmund and Berlin ISAS operates as a regional node, cooperating within a cluster of commercial entities, institutions, organisations and universities. Directors and other professors are appointed jointly by ISAS and the Technical University of Dortmund, the Ruhr University in Bochum, and the Technical University of Berlin.

ISAS has extensive laboratory facilities, catering for analytical research across topics in biology, chemistry and physics. Key capabilities include a host of spectroscopy techniques such as hyphenated mass spectrometry techniques, AFM, TERS, NMR, and XPS. These physicochemical techniques are complemented by state of the art cell and molecular biology facilities as well as photolithography-based microfabrication and laser micromachining.

In addition, ISAS runs an X-ray beamline at the synchrotron DELTA in Dortmund, and also undertakes research with the beamlines at BESSY in Berlin.

www.isas.de



Institute for Analytical Sciences



Leibniz Institutes contribute to clusters of excellence on fields as Mathematics, Optic Technologies, Materials Research, Medicine, Climate and Environmental Research, Bio- and Nanotechnology as well as humanities, economics and social sciences. Leibniz Institutes foster close cooperations with universities, industry, and other research institutes, both in Germany and abroad. The Leibniz Association has developed a comprehensive system of quality management. In the unique peer review evaluation process, independent experts assess every institute at regular intervals.