



Faculty of Medicine

Researching, teaching, healing

FACULTY OF MEDICINE

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The Faculty of Medicine at Leipzig University is the largest training centre for students of human medicine and dentistry, and midwifery and the only one for pharmacy in the whole of Saxony. It was founded in 1415 in its own organisational form and today, with more than 100 professorships, is one of the largest of a total of 14 faculties at Leipzig University. With approximately 50 institutes, independent departments and clinics, Leipzig University Medicine is one of the largest institutions in Germany. "Researching, teaching, healing" is a motto that stands for the three pillars of first-class university medicine and its networked interaction. In this respect, Leipzig University Medicine benefits from cooperation with (inter)nationally renowned academic and non-university research institutions, the Heart Centre Leipzig and local biotechnology companies.





30 universities from 13 countries are cooperating with the Faculty of Medicine in the 2022/2023 academic year.

TEACHING AND STUDYING



The practical, patient-oriented and scientific training of future doctors, midwives and pharmacists is the central task of the Faculty of Medicine. LernKlinik provides a modern skills and simulation centre for this purpose. It opens up the possibility of interprofessional further training in clinical-practical and communicative skills on around 200 simulators and phantoms. Above all, teachers are supported methodically with innovative teaching, learning and examination formats. The Faculty developed various complementary initiatives that build on each other for comprehensive medical care in rural areas. The new country doctor class also aims to reinforce students' interest on a sector-wide basis. Since the summer semester of 2021, the Faculty of Medicine has enabled the academic training of prospective midwives with its first dual course of study in midwifery. The university affiliation professionalises this training and links it to findings from various scientific



About 240 doctoral students complete their doctorates each year and about 20 scientists habilitate. 9.8% of all students come to the Faculty of Medicine from abroad.

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disciplines. Drug research – from the development of active ingredients to formulation and application on patients – is at the centre of university research in the field of pharmacy. Thanks to continuously developed teaching methods, modern equipment and the direct connection to Leipzig University Hospital, the Medical Campus offers excellent conditions for studying – at the heart of a young and cosmopolitan city of culture.

RESEARCH



As one of the largest research institutions in Saxony, the Faculty of Medicine is involved in almost all scientific areas of medicine. Research focuses on molecular and cellular communication, diseases of the brain and mind, civilisation diseases such as diabetes, arteriosclerosis and obesity, as well as clinical regeneration. The Centre for Clinical Trials supports the planning, implementation and evaluation of science-initiated and clinical studies.

PUBLICATIONS IN TOP JOURNALS

(Impact factor > 15) in the past five years 2016-2021

26× New England Journal of Medicine / 20× Lancet / 10× JAMA / 10× Nature / 23× Nature Genetics / 21× Lancet Oncology / 5× Cell / 3× Cell Metabolism / 32× Circulation / 62× European Heart Journal / 4× JAMA Oncology / 11× Gastroenterology / 16× Blood



In recent years, third-party funding income has risen continuously and is now well above the national average.

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PROMOTION OF JUNIOR RESEARCHERS

A special programme provides annual support of 50,000 euros for peer-reviewed projects by young researchers in preparation for applications to public funding bodies. In addition, the Faculty of Medicine supports doctoral theses with a total of 80,000 euros each year. The "Clinician Scientist" funding programme in cooperation with Leipzig University Hospital and Herzzentrum Leipzig GmbH aims to provide long-term support for clinically active doctors with a clearly recognisable scientific profile during their specialist training.

RESEARCH



CIVILISATION DISEASES

Investigating the mechanisms of the development and treatment of obesity has been a focus of university research in Leipzig for many years. This includes genetic associations, metabolic disorders, mechanisms of fat accumulation, the role of the brain in eating, and therapeutic interventions for weight loss and maintenance.

DFG COLLABORATIVE RESEARCH CENTRE 1052

The "Mechanisms of Obesity" research project investigates three central foci: Overeating, fat storage and inflammation of adipose tissue, and altered adipokine secretion. Scientists are conducting research to better understand the multifactorial and socially relevant disease of obesity.



SAXOCELL CLUSTER OF THE FUTURE

SaxoCell stands for the development of new areas of application and production methods for gene and cell therapeutics, so-called "living drugs". This is aimed at producing cells with precisely defined functions and a high safety profile for safe, clinical application on an industrial scale and at socially acceptable costs.

SAXONIAN CHILD HEALTH INNOVATION LEIPZIG-DRESDEN (SAXOCHILD)

The overarching approach of SaxoChiLD is a comprehensive epidemiological surveillance of child health and development in a changing environmental context. In that respect, the interaction between psyche and soma plays a special role.

RESEARCH



HI-MAG

The Helmholtz Institute for Metabolic, Obesity and Vascular Research (HI-MAG), a joint institution of the Helmholtz Centre in Munich in conjunction with the Faculty of Medicine of Leipzig University and Leipzig University Hospital, adopts a clinical-translational approach to researching the causes of morbid obesity and obesity-related secondary diseases.



RESEARCH PROGRAMME LIFE ADULT AND LIFE CHILD

The Leipzig Research Centre for Civilisation Diseases (LIFE) analyses the causes and early detection of civilisation diseases using the Leipzig population as an example. To date, 10,000 adults, 5,000 children and 8,000 sufferers have been interviewed and examined – more than one million human samples and about ten million data sets are available for scientific evaluation. LIFE Child studies healthy child development from pregnancy to adulthood, unique in its breadth and depth of phenotyping. LIFE Adult is also a centre of the nationwide NAKO Health Study.

MOLECULAR AND CELLULAR COMMUNICATION



SIGNAL TRANSDUCTION AND RECEPTOR RESEARCH

Cells communicate with each other and with their environment via receptors. The GPCR receptors form the largest group. Their molecular function is being researched in Collaborative Research Centre 1423 "Structural dynamics of GPCR activation and signal transduction". Scientific findings are exchanged in the Europe-wide Adhesion GPCR Network under the leadership of the Faculty of Life Sciences. This network led by the Faculty, forms the international framework and brings together scientists from more than 24 countries. Research is also strengthened by the Alexander von Humboldt Professorship of Jens Meiler, the first professorship for pharmaceutical chemistry at a medical faculty in Germany. He brings together computeraided procedures and experimental methods in a targeted manner at the Institute for Drug Development.

CLINICAL REGENERATION



TOP ONCOLOGICAL RESEARCH

Leipzig University's Faculty of Medicine is making a name for itself as a location for a centre of excellence for oncological research. Under the umbrella of the Cancer Centre Central Germany (CCCG), the University Cancer Centre Leipzig (UCCL) and the University Tumour Centre Jena (UTC) are working together on the prevention, diagnosis, treatment, aftercare and research of cancer. One focus of the CCCG, which is funded by German Cancer Aid (Deutsche Krebshilfe), is to strengthen cancer medicine by way of innovative oncological research, in particular in the fields of digitally assisted precision surgery and immune and cell therapy.

DISEASES OF THE BRAIN AND MIND



CELLULAR AND CLINICAL NEUROSCIENCE

The research profile area investigates the fundamentals of nervous system performance, including movement control, language, attention, perception and memory and their variability. The scientists study specific aspects of the human brain, early childhood and evolutionary development, as well as neurological and psychiatric diseases such as depression, dementia, eating disorders, stroke, attention and behavioural disorders. The DFG Research Group SYNABS, which is geared towards transnational operations, is forward-looking and pursues the goal of developing new therapeutic approaches for autoimmune brain inflammations. This profile area is further strengthened by the ERC Grant research awards, one of Europe's most prestigious economic funding schemes, for Professor Stefan Hallermann, Professor Ruth Stassart and PD Dr. Zohreh Hosseinzadeh.

ADDITIONAL RESEARCH ASSOCIATIONS



Innovation Centre for Computer Assisted Surgery (ICCAS)

ICCAS develops computer-assisted technologies, intelligent assistance systems and image-guided interventions for clinical and economic applications.

Smart medical information technology for healthcare (SMITH)

The SMITH consortium integrates heterogeneous data sources from patient care into an interoperable structure. This is aimed at making patient data usable for medical research.

Centre for Research on Musculoskeletal Systems (ZESBO)

The competences of the ZESBO lie in biomechanical testing, FEM simulation and the implementation and evaluation of clinical studies.

LEIPZIG UNIVERSITY

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