

Research for tomorrow

The Technische Universität München (TUM) has accepted this challenge. In the search for solutions to these existential questions it has concentrated the requisite life science expertise in the Center for Life and Food Sciences Weihenstephan. Biologists, physicists, chemists and engineers work and teach on the modern campus in close collaboration with agricultural, forestry and environmental scientists, nutritionists and food technologists. Some 3,500 students are grooming themselves for careers with a bright and promising future.

Research at the Center for Life and Food Sciences focuses on:

- Biotechnology and genetic engineering
- Biogenic raw materials
- Food and nutrition
- Life science engineering
- Sustainable land use
- Ecology and ecosystems



Teaching and education

The Center for Life and Food Sciences Weihenstephan places special emphasis on the training of next-generation scientists. The close connection between teaching and research, as well as between theory and practice is very popular. Every year, applicants for the 30 subjects of study significantly outnumber the open places. Graduate study programs and graduate schools are available for scientific careers.

Graduates have many options on the job market. Whether in the nutrition and food industry, in biotechnology companies, in agriculture and forestry, or in science and research: they can choose from myriad fields of work.



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Life Sciences in research and education

Center for Life and Food Sciences Weihenstephan



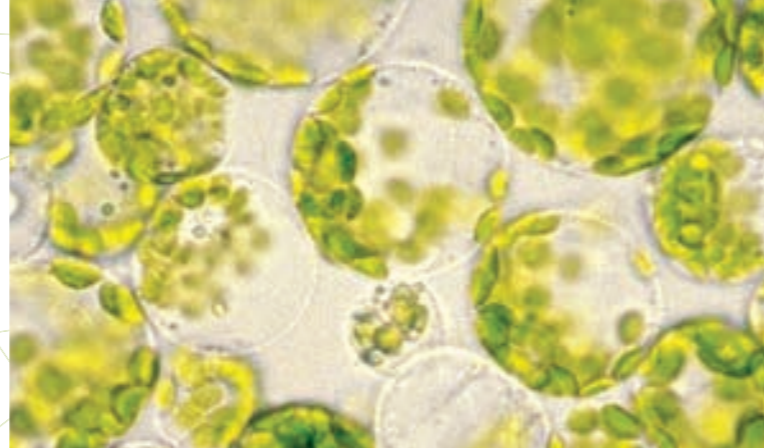
Today's challenges

With the advent of the 21st century we are facing major challenges: food production for the world's population, dwindling fossil fuel supplies and climate change. These are the issues of our time. Cutting-edge research – both fundamental and applied – is absolutely essential to meeting these challenges. In this context life sciences play a major role as they cover the full spectrum ranging from food production and the provision of biogenic raw materials to the preservation of an environment worth living in.



A unique location for scientific research

Research into the complete life cycle of foodstuffs and raw materials is possible only with a close interdisciplinary connection between the various life science disciplines. From genetic and biological basics to production, processing and consumption, the Weihenstephan researchers look at the entire value chain. This tightly knit network of research disciplines is unique to the Center for Life and Food Sciences Weihenstephan.



The cell as a starting point

Knowledge of biological fundamentals is the foundation of all research in life science. In a wide range of disciplines at Weihenstephan, cellular processes and mechanisms are investigated on a molecular level to gain insight on the function, effects and potential defects of organisms that build on these structures. The interaction of humans, animals and plants with their environment is then explored in ecosystems research. The departments involved at the Center for Life and Food Sciences range from genetics and molecular plant breeding to vegetation ecology, animal ecology and eco-climatology.



A healthy diet

Primary production, i.e. the production of plant and animal-based foodstuffs and raw materials, lies at the heart of tremendous scientific efforts. Unique to the Center for Life and Food Sciences are the interdisciplinary bridges it builds between agricultural science and food technology, nutritional science and medicine. This makes possible the scientific investigation of food at every stage: from its origin to processing and all the way to the effect it has on the human organism.

Custom-tailored substances

White biotechnology and protein research are two key domains at the Center for Life and Food Sciences Weihenstephan. By bundling competencies in the fields of chemistry, biotechnology and process engineering, the research center is able to provide first-rate protein and enzyme research: from the genetic basics, functions and interactions of individual substrates to knowledge transfer into product development and applications. Research results flow into the development of pharmaceuticals, the production of bio-synthetics and the fabrication of fine chemicals.

