

Institute of Biotechnology and Drug Research (IBWF)



The Institute of Biotechnology and Drug Research was founded in 1998 as a non-profit institution. The award of the Karl-Heinz Beckurts Prize for applied research to Prof. Timm Anke in 1996 was an impulse for the foundation of the Institute. Members of this organization are Professors Heidrun and Timm Anke, PD Dr. G. Erkel, PD Dr. E. Thines, the University of Kaiserslautern, the ministry of education, science, youth and culture of the federal state of Rhineland-Palatinate, the city of Kaiserslautern, BASF AG and Bayer CropScience. In the beginning of the year 2009 were by and large 30 employees working at the Institute of Biotechnology and Drug Research.

The Institute of Biotechnology and Drug Research closes the gap between academic basic research and the application of research, thereby focussing on fungal biotechnology. Our extensive and unique collection of fungal cultures with more than 10,000 strains represents a cross section of the genetic and metabolic fungal diversity. Related to the fungal collections is a collection of 5000 extracts and more than 400 pure compounds.

These metabolites, in combination with our own novel molecular biological test systems for pharmaceutical and agricultural applications, present excellent opportunities for collaboration with partners in industry and academia alike. The products also include enzymes for biotransformations, paper production and other purposes. Our expertise extends to the characterization of molecular targets of active compounds, as well as the biosynthesis of specific substances and the genetic characterization of biosynthetic pathways. The strobilurin-type fungicides are one example of a successful commercial application of a fungal product; they are currently in worldwide use and are marketed by the BASF Company and others. Natural nematocides are currently being developed on the basis of the omphalotins.

Our discovery of galiellalactone has provided the first inhibitor of the interleukin-6-mediated signal transduction pathway. This pathway plays an important role in diverse inflammatory processes and is thus of substantial pharmacological interest. Our successful work is reflected by over 400 publications and 20 patents thereby confirming the leading international position of the Institute of Biotechnology and Drug Research.



The facilities of the Institute of Biotechnology and Drug Research located in Building 56 on the University campus

Contact



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Research Areas

- application-oriented basic research in the field of natural products
- natural products from fungi for medical, agricultural and further application
- development of molecular test systems
- studies to mode of action and biosynthetic pathways
- isolation and characterisation of fungi
- enzymes from fungi
- fungi for environmental biology and pest control

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