History of the institute

Killing the dragon

A threatening scene can be pictured at the exterior wall of the Leibniz-Institute for Natural Product Research and Infection Biology e. V. – Hans Knöll Institute. It depicts the battle of two powers: Using all his strength, the arch angel Michael lifts a massive rock to kill a dragon. The institute has been devoting themselves to combat the dragon – a symbol representing infectious diseases and cancer. The encouragement for this mural designed by the artist Walter Herbert came from the Jena-based researcher Hans Knöll.

Hans Knöll – a pioneer of natural product research

In 1938, the Hessian physician Hans Knöll came to Jena to start his work as head of the bacterial lab of the Jenaer Glaswerk Schott & Genossen. Out of this evolved the pharmaceutical company VEB Jenapharm in 1950 with Hans Knöll being its Director. He strongly committed himself to the production of penicillin and other medicines (including Tuberculosis vaccine BCG) that were urgently needed after the war when cases of tuberculosis had been on the rise. The word of his commitment spread across the newly established GDR. The Ministry for Health assigned Hans Knöll to further concentrate on the research into drugs against tuberculosis – start of erecting the BCG-Building and birth of the Hans Knöll Institute.

The BCG-Institute in a minority of one

After laying the foundations in April 1950 and its completion one year later, the BCG-Institute had been the first building ever on the Beutenberg in Jena. Up until 1990, the whole of the GDR’s demand in BCG-vaccines was produced there. In 1951, a ditch for the foundations for the east wing of the Institute for Microbiology and Experimental Therapy (IMET) was dug, in 1953; Hans Knöll became its Director. At the IMET, however, scientists did not only research into new antibiotics but also produced them as drugs. This interdisciplinary link between chemistry, biology and pharmacy had an influence on the positive image of the institute. That was certainly one of the reasons why the institute was taken over by the Deutsche Akademie der Wissenschaften in Berlin in March 1956. Since it was renamed “Central Institute for Microbiology and Experimental Therapy” (ZIMET) in 1970, up until the German Reunification followed by the dissolution of academic institutes, the Beutenberg had developed into the largest life science research hub of the GDR.

The Hans Knöll Institute - a link between academic research and industry

The Thuringian Ministry for Science and Art established the Hans Knöll Institute for Natural Product Research (HKI) as a registered organisation (eingetragener Verein) on 21 November 1991. Even after the
changes that had followed the Fall of the Wall, the tradition of researching into microbiological natural products was – in accordance with Hans Knöll’s idea – maintained. The response to a discussion if the HKI should in future take up the position of being an industry-oriented limited company that is linked to pharmaceutical companies came from a first scientific concept. It earmarks the areas microbiology, natural products chemistry, bioprocessing and functional compounds characterisation without any involvement of personnel in companies. The link to industrial organisation was strengthened anyway: Research was meant to help finding, characterising, producing and verifying microbial compounds to make them available for use in medicine – like this, the institute formed the link between basic research and industries. In 1999, the German Council of Science and Humanities evaluated the HKI coming up with the result on 17 November 2000: „The HKI has been making continuous headway since its establishment in 1992 and achieved a nationally and internationally recognized position in its field of research.” On 1 January 2003, the HKI became a member of the Leibniz-Association.

**Research for the industry**


**New fields of research, new challenges**

Leibniz-Institute for Natural Product Research and Infection Biology e. V. – Hans Knöll Institute –

This has been the new name of the institute since 1 January 2005 and was meant to emphasise the new profile of the institute and its changes in task and research areas. In addition to the conventional natural product research, infection biology that focuses on human-pathogenic fungi in particular, has been integrated more strongly. From 1 July 2005, Prof. Axel A. Brakhage, formerly head of the department „Molecular and Applied Microbiology“, took over the function as the Scientific Director.