



The cover illustration shows a stylized view of erythrocytes and T cells as they flow inside a blood vessel. T cells are the main target of HIV, the retrovirus that causes AIDS. Since the discovery of HIV in 1983, about 35 million people have died of AIDS. But today, better treatments have made the disease more manageable. For more information see the article on page 8.

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FELLOWSHIPS The Board of Trustees of the Boehringer Ingelheim Fonds includes six renowned scientists, the Chairman of the Board of Managing Directors at the company Boehringer Ingelheim and, as a permanent guest, a representative of the German Research Foundation (DFG). Their expert judgment characterizes the work of our foundation. The trustees meet three times a year to decide on the allocation of fellowships. In March 2013, they met in Mainz, Germany, to discuss 47 applications selected from the 142 submissions originally sent to the secretariat in October 2012. In the end, 12 applications were approved and all 12 fellowships were taken up. In a separate section of this double issue, you will find the project descriptions decided upon at the Board of Trustees' meeting in July.

THERESA HENKEL	
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Metabolism and immunity in intestinal host–microbial interactions	31

FELLOWSHIPS In July 2013 the Board of Trustees met to discuss the applications submitted by the February deadline. BIF received a record 256 applications, of which 54 passed the preselection process. In the end, 18 fellowships were approved and 17 were taken up. The project descriptions are presented in the following.

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Role of methyltransferases in the response to telomere damage	35
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Single-cell analysis of regulatory T cell heterogeneity	45
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Structural dynamics of the ribosome during prokaryotic translation	46
ELINE VAN KAPPEL	
Tumorigenic mechanisms of Axin1 missense mutations	47
LISA VINCENZ	
Modelling protein aggregation in the secretory pathway	48
THOMAS WEGLEITER	
Dissecting the role of protein palmitoylation in neural stem cell proliferation	49

RESULTS The Boehringer Ingelheim Fonds funds excellent PhD students who are selected as much for their academic record as for their ambitious projects and the scientific quality of the laboratories in which they wish to work. Here they present a synopsis of their findings, which aim to push the boundaries of our knowledge of the fundamental phenomena of human life.

SERAP ERKEK	
Molecular determinants of nucleosome retention in mouse sperm	51
SEBASTIAN HOGL	
Analysis of regulated intramembrane proteolysis using mass spectrometry	51
ANNA-CARINA JUNGKAMP	
Identifying target sites of RNA-binding proteins in the nematode transcriptome	51
SUSANNE A. KASSUBE	
Transcription regulation by non-coding RNAs and the DNA helicase RECL5	52
THAIS LAVAGNOLLI	
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MICHAL LUBAS	
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JULIA LUDWIG	
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Activation of the Mcm2-7 helicase by ancillary replication factors GINS and Cdc45	54
INES PINHEIRO	
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AHMED RATTANI	
Regulation of anaphase in mammalian meiosis	54
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Structured connectivity in inhibitory cerebellar circuits	55
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Transdifferentiation of brown and white adipocytes	55
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THE FOUNDATION The Boehringer Ingelheim Fonds (BIF) is a public foundation – an independent, non-profit institution for the exclusive and direct promotion of basic research in biomedicine. The foundation pays particular attention to fostering junior scientists. From the start it has provided its fellowship holders with more than just monthly bank transfers: seminars, events and personal support have nurtured the development of a worldwide network of current and former fellows.

SCIENCE, NETWORKING AND FUN

On 16 March, BIF celebrated its 30th anniversary in Mainz

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A BIF GUIDE TO ... MAINZ

The BIF team presents its new home on the shores of the River Rhine

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A STIMULATING WEEKEND

The annual alumni meeting at Gracht castle was coloured by BIF's 30th anniversary

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A TRUE BIF SUCCESS STORY

Breakthrough paper by BIF fellows. Maria Hondele's paper on the histone chaperone

FACT was recently published in *Nature*

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NEW TEAM MEMBER

Kirsten Achenbach is now in charge of all press and public relations activities at BIF

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THREE BIF ALUMNI AMONG NEW EMBO MEMBERS

BIF alumni Anne Eichmann, Herwig Baier and Michael Boutros elected

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PROFILES

What are they doing now? In this issue: Prof. Michael Rape

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UPCOMING EVENTS

BIF Christmas party, 109th International Titisee Conference, meeting of BIF's Board of Trustees in Mainz, Germany

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