

EBERHARD KARLS  
UNIVERSITÄT  
TÜBINGEN



2016

# ANNUAL REPORT

University of Tübingen





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UNIVERSITÄT



TÜBINGEN

## WELCOME TO TÜBINGEN

The University of Tübingen has been a cradle of innovative thought for more than 500 years, and today we are proud to still be promoting first-class research in medicine, the sciences, the humanities, and the social sciences.

We welcome students and researchers from around the world, and we enjoy partnerships with top research institutions both in Germany and abroad as well as with business in our economically strong region of southwest Germany.

Our infrastructure has been upgraded in recent years as a result of our 2012-2019 status as one of Germany's Universities of Excellence. We have invested in people, too, with programs to attract and promote good researchers and teachers from all backgrounds. We therefore look forward to a secure future as a place for discovering, applying, and passing on knowledge.



# RESEARCH

## REAPING THE BENEFITS

At the University of Tübingen we are seeing the results of years of planning and hard work; we have reinforced our areas of pioneering research with the help of Excellence Initiative funding to ensure their quality over the long term. Our Neuroscience excellence cluster and our excellence platform Environmental Systems Analysis have given rise to two groundbreaking new collaborative research centers. The humanities and social sciences have also benefited and with this new strength have obtained funding for research groups in key areas of History and Education. Across the University, the seeds which were planted and nurtured by the Excellence Initiative are bearing fruit, and will continue to do so in the future.

## MOVING AHEAD WITH THE EXCELLENCE INITIATIVE

The University's success in the 2012 Excellence Initiative placed Tübingen among Germany's eleven Universities of Excellence – and earned us around 90 million euros of special funding over five years. We invested in key new structures and worked to integrate them with existing ones. Our institutional strategy set out four platforms for interdisciplinary, applications-oriented basic research in core areas.

We also improved our research infrastructure with better cross-disciplinary networking and the establishment of Core Facilities to offer centralized technical support. Special grant schemes for postdocs and a central Graduate Academy now make Tübingen even more attractive to talented young re-

searchers. The Tübingen Research Campus, founded in 2015, helps us to coordinate our endeavors with the highly-respected non-university research institutions in Tübingen, raising our international profile. And we have a panel of international experts on our International Advisory Board to bring outside perspectives into our strategic planning.

The Center for Integrative Neuroscience Excellence Cluster has been sponsored since the first round of the Excellence Initiative in 2007. Its researchers investigate the brain's role in perception, memory, emotions, communication, and actions. The CIN's 25 independent working groups aim to understand these functions and to find better treatments

when they go wrong. In 2016 the German Research Foundation authorized funding for a CIN collaborative research center to develop biological and machine-assisted vision.

The Excellence Initiative-backed Graduate School of Learning, Educational Achievement, and Life Course Development incorporates an interdisciplinary research program into Education issues for up to 20 doctoral students. 130 scientists and academics from four faculties and the Leibniz Association-sponsored Knowledge Media Research Center (IWM), participate in the Graduate School.

## NEWS

### Well-placed in international rankings

The University of Tübingen came in at 89 in the Times Higher Education World University Ranking, and at number eight in Germany. The Times Higher Education Rankings by Subject, Tübingen's Life Sciences ranked 77th world-wide and Medicine at no. 76. The Humanities rose ten places to no. 38 in the world. The QS Rankings by Subject placed History, Modern Languages, Biological Sciences, and Anthropology at Tübingen among the world's top 100, and within the top five in Germany. Archaeology in Tübingen ranked particularly well, placing sixteenth globally and second in Germany.

### Two new collaborative research centers

The University of Tübingen has acquired two collaborative research centers, while the University of Tübingen's Mathematics department is involved in several subprojects in a transregional collaborative research center. In the DFG-sponsored collaborative research centers, researchers from different disciplines and faculties work together on a research topic or area common to all with funding for up to twelve years.

Neuroscience and machine learning researchers in the collaborative research center 1233 **Robust Vision** will investigate the principles of biological and machine vision. Biological systems can identify objects reliably in changing light and from various perspectives. This ability, which the researchers call "robust visual inference," requires complex calculations by visual systems nerve cells. Artificial vision systems, in turn – as used, for example, in self-driving cars – are making progress in reproducing the visual skills of humans. The sci-



*The collaborative research center CAMPOS is conducting field research in the catchment area of the Ammer, which flows into the Neckar River.*

entists of this new collaborative research center will combine neuroscience and machine vision approaches to achieve a better understanding of the principles and algorithms that enable robust visual inference both in humans and machines. The CIN excellence cluster and the Institute of Theoretical Physics are working with the Max Planck Institute for Intelligent Systems. Professor Matthias Bethge, director of the Bernstein Center for Computational Neuroscience, is the spokesman of the collaborative research center. The collaborative research center will receive a total of 8.5 million euros from the DFG over four years.

In the collaborative research center 1253 **Catchments as Reactors: Metabolism of Pollutants on the Landscape Scale** scientists are investigating new approaches to quantifying the transportation and conversion of pollutants in rivers, ground water, and in the soil. Human activity releases

pollutants which can have long-lasting effects on the environment. We often know little of how such compounds move around, what changes they undergo, or how they decompose. Making accurate long-term predictions of soil and water quality is a major challenge for Geoscience and Environmental Science.

Biologists, chemists, geologists and engineers will work together in the multi-disciplinary research network. They will examine the behavior of pollutants in surface water, groundwater and the soil using new approaches. The collaborative research center is headed by Professor Peter Grathwohl of the Center for Applied Geoscience. The Universities of Stuttgart and Hohenheim, the Helmholtz Centers for Environmental Health in Munich and for Environmental Research in Leipzig are also taking part. The collaborative research center will receive a total of 9.5 million euros from the DFG over four years.

### Collaborative research centers at the University of Tübingen

Title	Spokesperson	Duration
CAMPOS – Catchments as Reactors: Metabolism of Pollutants on the Landscape Scale (SFB 1253)	Professor Peter Grathwohl Center for Applied Geoscience (ZAG) – Hydrogeochemistry	1 Jan. 2017 - 31 Dec. 2020
Robust Vision – Inference Principles and Neural Mechanisms (SFB 1233)	Professor Matthias Bethge Werner Reichardt Center for Integrative Neuroscience/ Institute of Theoretical Physics	1 Jan. 2017 - 31 Dec. 2020
Molecular Coding of Specificity in Plant Processes (SFB 1101)	Professor Klaus Harter Center for Plant Molecular Biology	1 April 2014 - 31 Dec. 2017
Resource Cultures: Socio-cultural Dynamics in the Treatment of Resources (SFB 1070)	Professor Martin Bartelheim Institute of Prehistory and Medieval Archaeology	1 Oct. 2013 - 30 June 2017
Threatened Orders (SFB 923)	Professor Mischa Meier Institute of Ancient History	1 July 2011 - 30 June 2019
Construction of Meaning: The Dynamics and Adaptivity of Linguistic Structures (SFB 833)	Professor Sigrid Beck Institute of English Languages and Literatures	1 July 2009 - 30 June 2017
The Bacterial Cell Envelope: Structure, Function, and Infection Interface (SFB 766)	Professor Wolfgang Wohlleben Interfaculty Institute of Microbiology and Infection Medicine	1 July 2007 - 30 June 2019
Immunotherapy: Molecular Basis and Clinical Application (SFB 685)	Professor Hans-Georg Rammensee Interfaculty Institute for Cell Biology	1 July 2005 - 30 June 2017

### Tübingen coordinates the transregional collaborative research center

Title	Spokesperson	Duration
Plasticity and Sleep (SFB/TRR 654)	Professor Jan Born Institute of Medical Psychology and Behavioral Neurobiology	1 July 2005 - 30 June 2017

### Tübingen participates in these transregional collaborative research centers

Title	Tübingen spokesperson	Duration
The Skin as a Sensor and Effector Organ Orchestrating Local and Systemic Immune Responses (SFB-Transregio 156)	Professor Martin Röcken Department of Dermatology	1 July 2015 - 30 June 2019
Biological Design and Integrative Structures Analysis, Simulation and Implementation in Architecture (SFB-Transregio 141)	Professor Klaus G. Nickel Geoscience – Applied Mineralogy	1 Oct. 2014 - 30 June 2018
Pathophysiology of Staphylococci in the Post-genomic Era (SFB-Transregio 34)	Professor Andreas Peschel Interfaculty Institute of Microbiology and Infection Medicine	1 July 2006 - 30 June 2018
Control of Quantum Correlations in Tailored Matter (SFB-Transregio 21)	Professor Reinhold Kleiner Institute of Physics	1 July 2005 - 30 June 2017



### New center of advanced study

Also in 2016 the German Research Foundation approved funding for a second center of advanced study, Migration and Mobility in Late Antiquity and the Early Middle Ages. Centers of advanced study are a special DFG funding format tailored to the needs of humanities research. They are headed by distinguished academics who aim to examine open questions or whose work is strongly experimental. Centers of advanced study may be funded for up to eight years.

The latest center of advanced study in Tübingen has gained funding of around two million euros for an initial four years. Its speaker is Professor Mischa Meier of the Institute of Ancient History, who is running the project jointly with Professor Steffen Patzold at the Institute of Medieval History and Professor Sebastian Schmidt-Hofner, who heads the Institute of Ancient History.

Research into Late Antiquity and the early Middle Ages has in recent years been dominated by two major issues – the significance of ethnic identities and the nature of the transition from the Roman to the post-Roman world. This center of advanced study focuses on other questions, expanding its horizons up to the year 900 and looking at different forms of mobility, including that of clergy and of agricultural labor. The researchers are examining the effect of such mobility on local societies. They see migration and mobility as a spectrum without clear borders, which requires historical comparative analysis. They also apply theories from disciplines which examine contemporary societies, such as sociology.

*Lead medallion from Late Antiquity showing migrants entering the Roman Empire via the Rhine Bridge at Mainz.*

### Research units

Institute	Title	Spokesperson
Institute of Ancient History	Migration and Mobility in Late Antiquity and Early Middle Ages (FOR 2496)	Professor Mischa Meier
Interfaculty Institute of Biochemistry	Macromolecular Complexes in mRNA Localization (FOR 2333)	Professor Ralf-Peter Jansen
Interfaculty Institute of Biochemistry	VIROCARB: Glycans Controlling Non-Enveloped Virus Infections (FOR 2327)	Professor Thilo Stehle
Internal Medicine I	Targeting Therapeutic Windows in Essential Cellular Processes for Tumor Therapy (FOR 2314)	Professor Lars Zender
Institute of Linguistics and Institute of Prehistory and Medieval Archaeology	Words, Bones, Genes, Tools Tracking Linguistic, Cultural and Biological Trajectories of the Human Past (FOR 2237)	Professor Gerhard Jäger Professor Katerina Harvati
Interfaculty Institute of Biochemistry	cGMP Signaling in Cell Growth and Survival (FOR 2060)	Professor Robert Feil
Center of Neurology and Hertie Institute for Clinical Brain Research	The Physiology of Distributed Computing Underlying Higher Brain Functions in Non-Human Primates (FOR 1847)	Professor Hans-Peter Thier
Internal Medicine VI	Expectation and Conditioning as Basic Processes of the Placebo and Nocebo Response (FOR 1328)	Professor Paul Enck
Cardiology and Cardiovascular Medicine	Platelets – Molecular Mechanisms and Translational Applications (KFO 274)	Professor Meinrad Gawaz



Professor  
Katerina Harvati

### European research funding

European Research Council grants are made to individual researchers conducting outstanding new academic work. Advanced Grants of up to 2.5 million euros go to well-established top researchers, Consolidator Grants to those with seven to twelve years of experience, and Starting Grants are awarded to outstanding junior researchers.

The University of Tübingen’s Professor Katerina Harvati obtained an ERC Consolidator Grant in 2016. She works within both the Institute of Prehistory and Medieval Archaeology and the Senckenberg Center for Human Evolution and Palaeo-environment. Assistant Professor Cynthia Debono Spiteri, also of the Institute of Prehistory and Medieval Archaeology, is participating in a Starting Grant to Professor Philipp W. Stockhammer at LMU Munich. That project – Transformations of Food in the Eastern Mediterranean Late Bronze Age (Food-Transforms) – runs through 2020.

Professor Katerina Harvati followed up her ERC Starting Grant for Paleoanthropology at the Gates of Europe: Human

Evolution in the Southern Balkans (PaGE) with her Consolidator Grant for Human Evolution at the Crossroads (CROSSROADS). The goal is to obtain a better picture of very early human migration and behavior in the Balkans. Harvati’s project will receive nearly two million euros over five years.

Expeditions in her previous project PaGE led to the discovery of almost 40 new prehistoric sites in Greece. They included Marathousa 1, an early stone age butchering site dated as 500,000 years old, making it the earliest scientifically-dated indication of a human presence in southeastern Europe.

Katerina Harvati, born in Greece in 1970, studied Anthropology at Columbia University, New York. She completed her doctorate at the City University of New York and conducted research at the Max Planck Institute of Evolutionary Anthropology in Leipzig. She has been a professor of Paleoanthropology at the University of Tübingen and deputy head of the Senckenberg Center for Human Evolution and Palaeo-environment.

### Current European Research Council Grants

#### Advanced Grants

Name	Project	Duration
Professor Hans-Georg Rammensee Interfaculty Institute for Cell Biology	Mutation-driven Immunoediting of Human Cancer? (Mutaediting)	2013 - 2018
Professor Gerhard Jäger Institute of Linguistics	Language Evolution: The Empirical Turn (EVOLAEMP)	2012 - 2017
Professor Bernd Pichler Department of Radiology	Multiparametric Tumor Imaging and Beyond: Towards Understanding in vivo Signals (IMAGELINK)	2012 - 2017

#### Consolidator Grants

Name	Project	Duration
Professor Katerina Harvati Geoscience Department – Paleoanthropology	Human Evolution at the Crossroads (CROSSROADS)	2017 - 2022
Professor Lars Zender Translational Gastrointestinal Oncology	Functional in vivo Analysis of Cholangiocarcinoma Development, Progression and Metastasis (CholangioConcept)	2015 - 2020
Dr Thorsten Stafforst Interfaculty Institute of Biochemistry	Site-directed RNA Editing to Manipulate RNA and Protein Function (RNArepair)	2015 - 2020
Professor Todd Ehlers Geoscience Department – Geodynamics	Extreme Tectonics and Rapid Erosion in Mountain Environments (EXTREME)	2014 - 2019

## Starting Grants

Name	Projekt	Laufzeit
Assistant Professor Cynthianne Debono Spiteri Institute of Prehistory and Medieval Archaeology partnering Professor Philipp W. Stockhammer, LMU München	Transformations of Food in the Eastern Mediterranean Late Bronze Age (FoodTransforms)	2016 - 2020
Dr Stephan König Geoscience Department – Isotope Geochemistry	From the Origin of Earth's Volatiles to Atmospheric Oxygenation (O2RIGIN)	2015 - 2020
Professor Michael Kormann University Children's Hospital	Biochemically Modified Messenger RNA Encoding Nucleases for in Vivo Gene Correction of Severe Inherited Lung Diseases (BREATHE)	2015 - 2020
Dr Markus Siegel Werner Reichardt Center for Integrative Neuroscience	Spectral Fingerprints of Neuronal Interactions (SPECFIN)	2014 - 2019
Professor Ana García-Sáez Interfaculty Institute of Biochemistry	The Quantitative Bcl-2 Interactome in Apoptosis: Decoding How Cancer Cells Escape Death (APOQUANT)	2013 - 2019
Professorin Daniela Thorwarth Department of Radiation Oncology	Biologically Individualized, Model-based Radiotherapy on the Basis of Multi-parametric Molecular Tumor Profiling (BIO-IRT)	2013 - 2018
Professor Jan Wehkamp University Hospitals, Inner Medicine 1, Hepatology, Gastroenterology, Infectiology	The Influence of Environmental Factors on Antimicrobial Activity of Human Intestinal Defensins (DEFENSINACTIVITY)	2013 - 2018
Professor Andreas Kappler Geoscience Department	Microbial Formation of Minerals by Communities of Fe(II)-oxidizing Bacteria in Modern and Ancient Environments (MICROFOX)	2012 - 2017
Dr Hendrikje Nienborg Werner Reichardt Center for Integrative Neuroscience	Optogenetic Examination of the Role of Feedback on Visual Processing and Perception (NEUROPTOGEN)	2012 - 2017
Professor Katerina Harvati Geoscience Department	Paleoanthropology at the Gates of Europe: Human Evolution in the Southern Balkans (PaGE)	2011 - 2016
Dr Steffen Katzner Werner Reichardt Center for Integrative Neuroscience	Cortical Circuits of Visual Perception (Percept)	2011 - 2016

## German Consortium for Translational Cancer Research – Finding better treatments

As part of the German Consortium for Translational Cancer Research (DKTK), Tübingen scientists have obtained more than 2.6 million euros for cancer research projects. Tübingen is one of eight DKTK locations where the German government sponsors such groundbreaking research.

“Identifying and Understanding Non-coding Mutations in Cancer Genomes” is a project in which Professor Alfred Nordheim at the Interfaculty Institute of Cell Biology – together with researchers from the Heidelberg, Düsseldorf/Essex and Dresden locations – investigates hitherto little-regarded mutations in cancer cells. The researchers are hoping for new insights into the causes of gene mutations which lead to cancers. The focus to date has been on changes to coded genetic information, which affects proteins. The new project will examine the non-coded regions of genes, as they are known to influence the activities of cancer-specific genes. The researchers will investigate aggressive types of skin and brain cancer (melanoma and glioblastoma).

In a second project known as IVasALL, Professor Hans-Georg Rammensee of the Interfaculty Institute of Cell Biology and Professor Peter Lang of the University Children's Hospital are working with a colleague from Heidelberg to conduct a clinical trial of anti-tumor vaccines for young leukemia patients, whose condition often returns after chemotherapy or stem cell treatment. Tailor-made vaccines use special peptides to activate the patient's immune system to attack tumor cells. The researchers make a comprehensive analysis of the patient's healthy and cancerous cells in order to design the right mix of peptides. This data is also collated in the DKTK's INFORM study, which enables scientists to compare the genes in tumor cells from children across Germany with the



aim of developing new ways to combat them. The study is the first step towards a general treatment plan in personalized immunotherapy, which has become a viable possibility thanks to recent progress in genome sequencing.

Tübingen researchers are involved in two further DKTK-sponsored projects, involving treatments for rare cancers and better clinical imaging for diagnosing prostate cancer.

### Developing and testing new pharmaceuticals

The University of Tübingen has created new structures to help effective new medicines get from the laboratory to the patient. The Tübingen Center for Academic Drug Discovery & Development (TüCAD2) takes research into promising agents from the conceptual to the final phase of development, known as proof of concept. After exhaustive preclinical safety testing, TüCAD2 oversees clinical tests on real patients. TüCAD2 director is Stefan Laufer, Professor of Pharmaceutical Chemistry at the University of Tübingen's Pharmaceutical Institute. TüCAD2 works closely with the University Hospitals' Internal Medicine VIII department and its medical director, Professor Lars Zender.

Research projects can come from any of the wide spectrum of medical fields dealt with in Tübingen. TüCAD2 carries out quality assurance and offers consultation and support, as well as helping to find financing and partners in industry. It is currently overseeing ten projects – five in oncology, three in infectiology, and one each in regenerative and in cardiovascular medicine.

The Center is one of just three German members of the Academic Drug Discovery Consortium (AD2C), an association of international universities founded ten years ago in the United States in response to cuts in drug development by commercial pharmaceutical makers, who in turn have stepped up their collaboration with academic institutions.

### Putting conspiracy theories under the microscope

The Ukraine crisis, the first moon landing, the terrorist attack on the French satirical magazine Charlie Hebdo – all have one thing in common: they are surrounded by speculation and rumors.

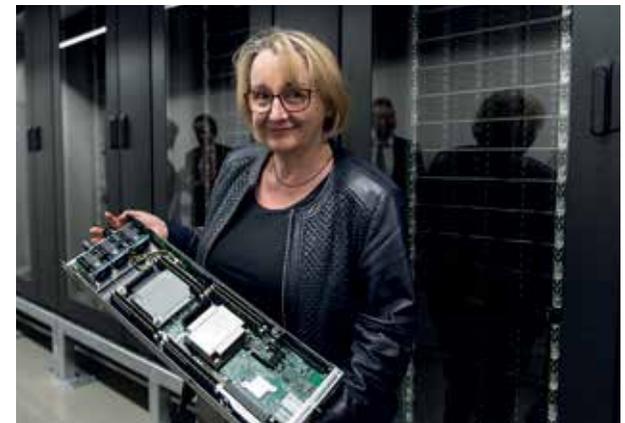
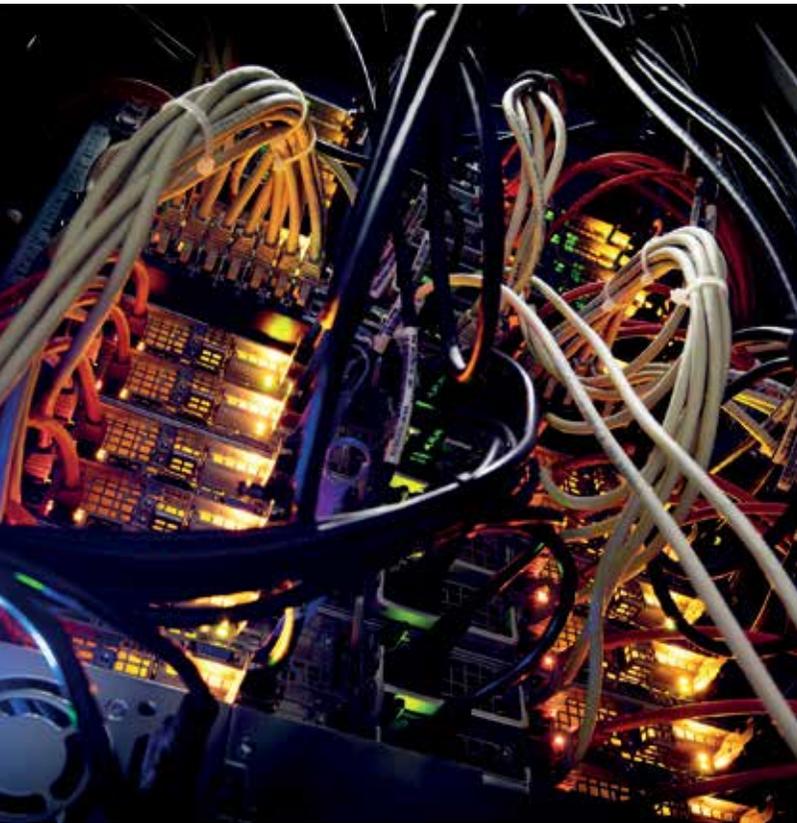
"Comparative Analysis of Conspiracy Theories," a new research network, is sponsored by the initiative European Cooperation in Science and Technology (COST). Some 60 researchers from the humanities, political science, sociology, anthropology, cultural studies and psychology in more than 30 countries are to take part in the COST initiative from 2016 to 2020. The network is coordinated by Professor Michael Butter of the University of Tübingen's Institute of English Language and Literatures.

Conspiracy theories can lead to the radicalization of extremists, inflame tensions between nations, and undermine trust in democratic institutions. The network will systematically analyze previous research into the topic and identify the general characteristics of conspiracy theories – not least to come up with better ways of responding to them. To this end, the researchers are working with all those involved in the area, who are the target of conspiracy theories, or who have to deal with them – such as politicians and journalists, as well as climate researchers and other scientists.

## Supercomputing for Bioinformatics and Astrophysics

The University of Tübingen received the high-performance computer BinAC as part of a strategy by the state government to provide Bioinformatics and Astrophysics institutes at its universities with outstanding infrastructure. Supercomputers at several locations across the state of Baden-Württemberg will provide services specially designed to meet the needs of selected disciplines. They include computing for Microsystems Technology, Neuroscience, and Elementary Particle Physics in Freiburg; for Economics and Social Sciences as well as Molecular Life Sciences in Mannheim and Heidelberg; and for Theoretical Chemistry in Ulm. Each location supports several hundred researchers in Baden-Württemberg, who can access the central services from their workplaces.

The supercomputer BinAC in Tübingen has more than 296 nodes, each with 28 cores, and four nodes, each with 40 cores. BinAC also uses 120 graphics cards with a total of nearly 300,000 cores which enable the system to carry out numerous complex operations in parallel. Astrophysics and Bioinformatics are important elements in the University of Tübingen's research profile. Among the areas in which bioinformatics plays a major role is medical research. The state of Baden-Württemberg and the German Research Foundation have invested more than three million euros in the supercomputers.

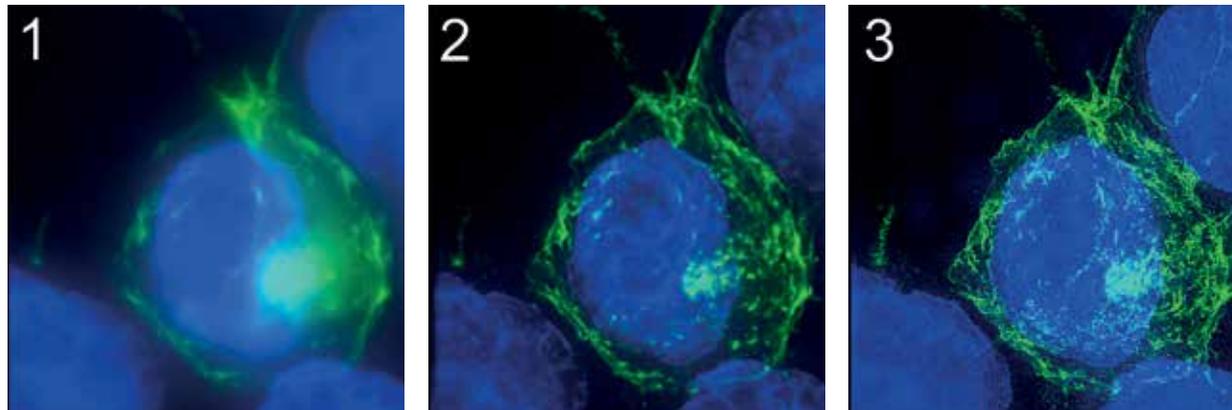


*Powerful calculations – Baden-Württemberg's Minister of Science, Theresia Bauer, at the supercomputer switching-on ceremony in July 2016*

### Superresolution live cell imaging

The Virology and Epidemiology secure laboratory received a General Electric Delta Vision OMX SR microscope, which is so fast it enables superresolution live cell imaging. It can produce images of structures below the physical resolution boundary of 250 to 300 nanometers. That means the scientists can closely observe the infection of living cells by viruses and other pathogens. This system is the first of its kind in Europe, and the first in the world to be deployed in a biosafety level 3 laboratory. For superresolution microscopy viruses must be fluores-

cence-marked without inhibiting their ability to reproduce. A team headed by Professor Michael Schindler is analyzing how viruses such as AIDS-HIV-1 and hepatitis C infect cells and spread. The researchers' focus is on cellular transport paths and molecular interactions, and on the search for new compounds to prevent viruses from developing within the cell. The effects of possible new antiviral drugs can now be observed live at the molecular level. The 500,000-euro superresolution microscope was financed equally by the German Research Foundation and the University Hospitals.



### Habilitations completed in 2016

Faculty	Habilitations 2016	
	female	male
Protestant Theology	0	5
Catholic Theology	0	1
Law	0	0
Faculty of Medicine	7	20
Humanities	3	6
Economics and Social Sciences	1	4
Faculty of Science	5	11
<b>Total</b>	<b>16</b>	<b>47</b>
	<b>63</b>	

As of: 12 January 2017

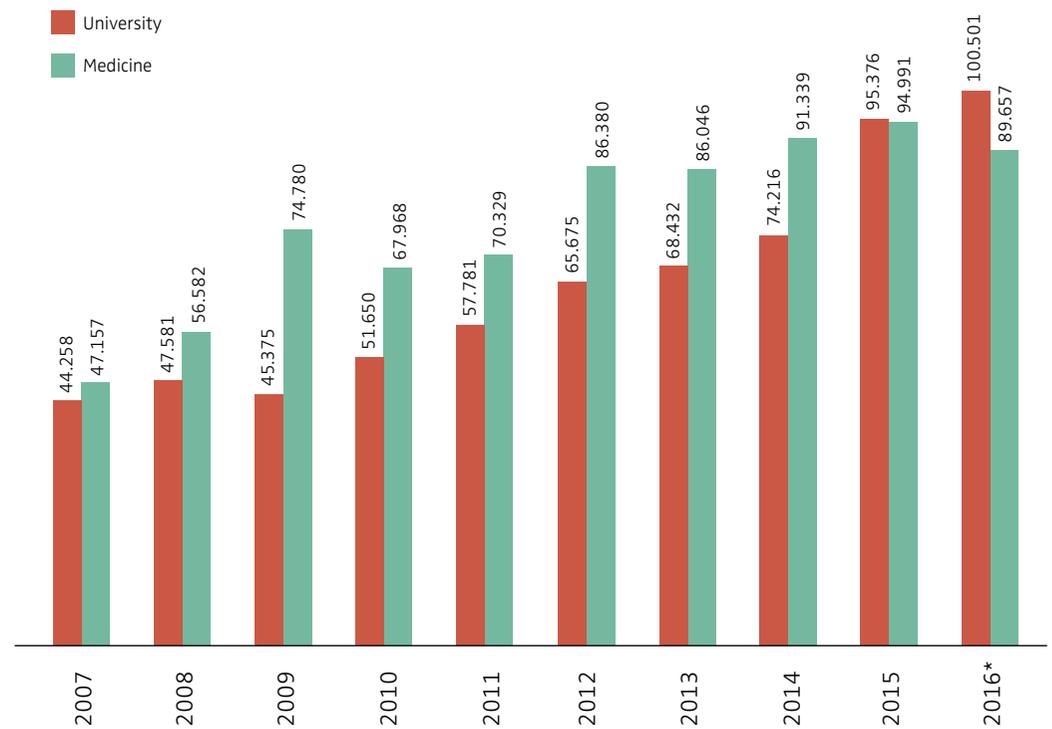
An image taken by the superresolution live cell imaging microscope. Image no. 3 shows the clarity now possible compared with other methods. Here: Human cells (nuclei shown in blue) producing a HIV-1 protein (nef, shown in green).

## THIRD-PARTY FUNDING

The University has been highly successful in attracting third-party funding. The Faculty of Medicine and the Hospitals brought in some 90 million euros in external funding, while the rest of the University attracted a record amount of nearly 100 million euros. We have supported quality research and made good use of national and international research funding sources, and generous private sponsorship.

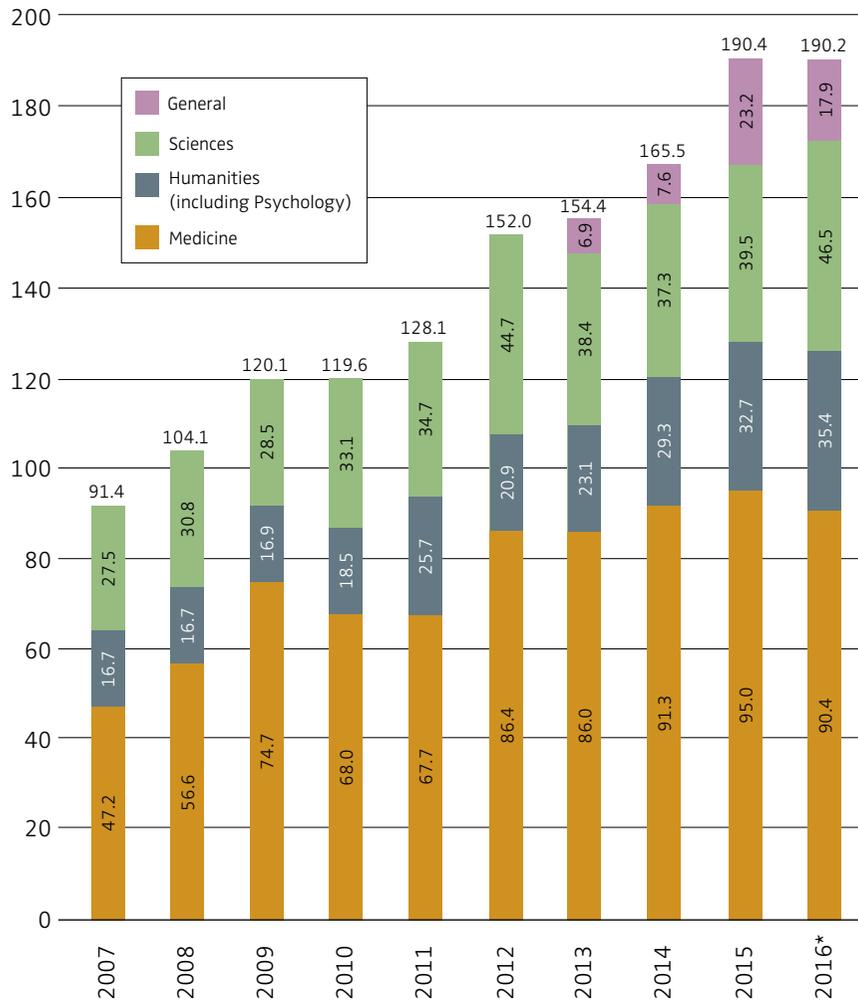


Third-party funding  
in millions of euros, 2007 - 2016

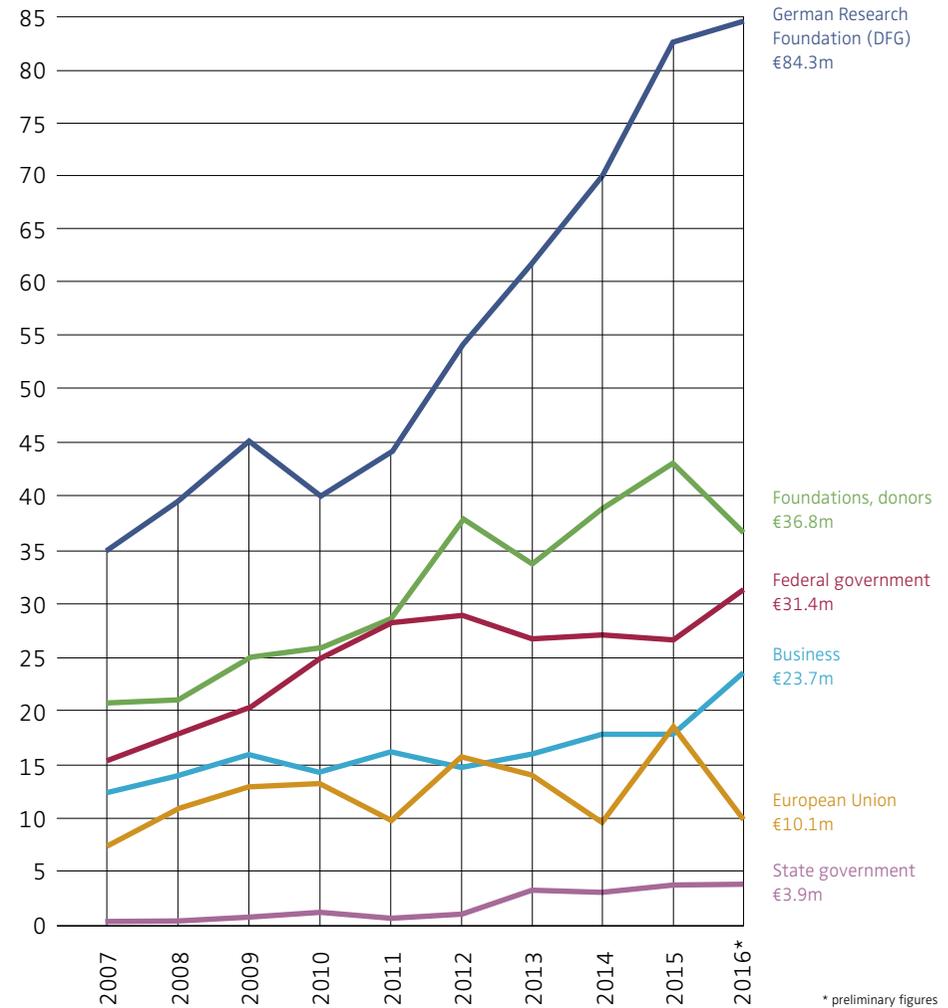


\* preliminary figures

Third-party funding attracted by the Sciences, Humanities, and Medicine  
in millions of euros, 2007 - 2016



Sources of third-party funding  
in millions of euros, 2007 - 2016



\* preliminary figures

## SUPPORT FOR JUNIOR RESEARCHERS

### Research training groups

In May 2016, the German Research Foundation (DFG) approved a new research training group, **Shaping Transitions Throughout Life**, in the field of Education. The DFG also voted to extend funding for the microbiology and infection medicine research training group, **Molecular Principles of Bacterial Survival Strategies** (GRK 1708), and **Integrated Hydrosystem Modelling** (GRK 1829) in applied geoscience. The DFG sponsors research training groups for a maximum of nine years to ensure junior researchers can work within a thematic research program with a clear structure.

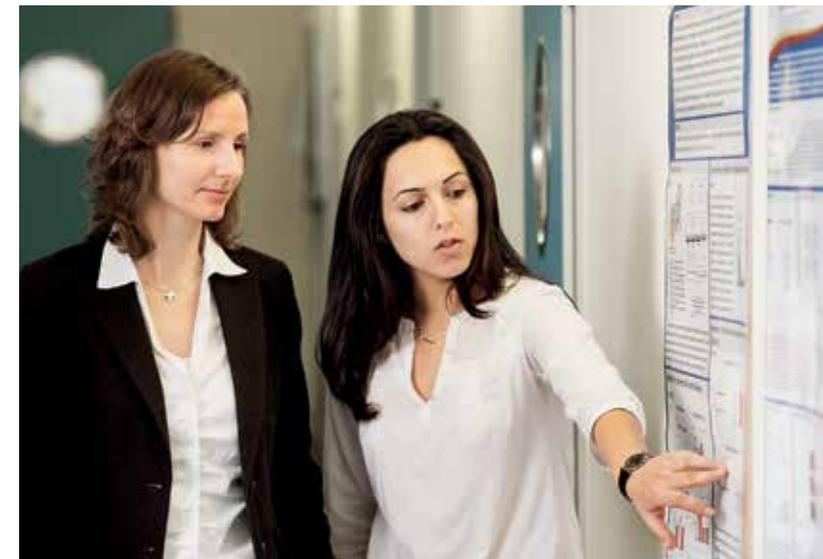
Shaping Transitions Throughout Life is run jointly by Professor Barbara Stauber of the University of Tübingen Institute of Education and Professor Andreas Walther of the Goethe University Frankfurt. The group involves researchers from areas of general and adult education, psychology and social pedagogy. The research training group will investigate how people manage transitions over the course of their lives – changes such as entering school, starting work or a family, starting a new partnership or entering care for the aged. The focus is on the interplay of social discourse, the institutional regulation of such transitions, the way they are dealt with from the education perspective, and the individual's processes of managing and learning from them.

*The “Doing Transitions” team (left to right):  
front row: Barbara Stauber, Birgit Becker,  
Christiane Hof; middle row: Andreas Walther,  
Barbara Friebertshäuser, Frank Oswald; back row:  
Sabine Andresen, Bernhard Schmidt-Hertha,  
Markus Rieger-Ladich, Petra Bauer*



## DFG-backed research training groups

Title	Spokesperson	Duration
<b>Social sciences</b>		
Doing Transitions – The Formation of Transitions over the Life Course (GRK 2105)	Professor Barbara Stauber Faculty of Economics and Social Sciences	1 January 2017 - 30 June 2021
<b>Humanities</b>		
Ambiguity – Production and Reception (GRK 1808)	Professor Matthias Bauer Faculty of Humanities	1 Oct. 2013 - 31 March 2018
Religious Knowledge in Pre-modern Europe (800-1800) Transfers und Transformations – Ways to the Modern Knowledge Society (GRK 1662)	Professor Annette Gerok-Reiter Faculty of Humanities Professor Volker Leppin Faculty of Protestant Theology	1 April 2011 - 31 March 2020
<b>Science</b>		
Research training group Stuttgart – Tübingen Spectral Theory and the Dynamics of Quantum Systems (GRK 1838)	Professor Marcel Griesemer University of Stuttgart Professor Stefan Teufel (deputy spokesman) University of Tübingen Faculty of Science	1 Oct. 2013 - 31 March 2018
International Research Training Group Tübingen – Hohenheim – Waterloo Integrated Hydrosystem Modelling (GRK 1829)	Professor Olaf Cirpka Faculty of Science	1 April 2012 - 31 March 2021
<b>Medicine – Science</b>		
Molecular Principles of Bacterial Survival Strategies (GRK 1708)	Professor Karl Forchhammer Interfaculty Institute of Microbiology and Infection Medicine	1 April 2012 - 31 March 2021
International research training group Tübingen – Dundee The PI3K Signal Pathway in Tumor Growth and Diabetes (GRK 1302)	Professor Bernd Nürnberg Department of Experimental and Clinical Pharmacology and Toxicology	1 April 2006 - 31 March 2016





### PhD networks

University of Tübingen PhD networks are generally formed by three to five professors from different disciplines whose doctoral students are examining one topic from different perspectives.

The PhD networks each provide up to seven grants for three years. Successful PhD networks can form the basis of bigger research projects and may lead to research training groups sponsored by the German Research Foundation.

Title	Spokesperson	Duration
Ecotoxicity of Particle-associated Compounds	Professor Stefan B. Haderlein Environmental Mineralogy	Since 1 Jan. 2014
The Influence of Tax Law on Multinational Corporations	Professor Frank Stähler/Professor Georg Wamser Economics – International Economics and Labor Markets	Since 1 May 2014
A Different Aesthetic – Figures of Reflection in the Arts	Professor Annette Gerok-Reiter Faculty of Humanities	Since 1 Feb. 2014
The Castle and the Nobility	Professor Sigrid Hirbodian Institute of Library Science for Historians	Since 1 Nov. 2013
Of Plants and Men: Principles of Chitin Recognition in Arabidopsis and Humans	Professor Dominik Hartl University Children's Hospital – Department of Paediatrics	Since 1 Oct. 2013
Vision-based Flying Robots	Professor Andreas Zell Wilhelm Schickard Institute of Computer Science	Since 1 Oct. 2013

### 2016 doctorates

Faculty	Doctorates completed in winter semester 2015/16 and summer semester 2016	
	female	male
Protestant Theology	4	6
Catholic Theology	2	4
Law	15	12
Faculty of Medicine	177	146
Humanities	34	29
Economics and Social Sciences	21	19
Faculty of Science	131	152
<b>Total</b>	<b>384</b>	<b>368</b>
	<b>752</b>	



# SPONSORSHIP

## EXTERNAL SUPPORT FOR THE UNIVERSITY

The University of Tübingen offers its heartfelt thanks to a variety of sponsors whose generosity enables our researchers to carry out a broad span of projects, such as getting faster diagnoses and better treatment for patients with complex diseases. In 2015 we founded our School of Education to specialize in giving teachers the best training in their subject and its didactics so that they will be able to bring out the best in school students – the researchers of tomorrow. A number of sponsors are helping us with endowed professorships in this area.

### NEW ENDOWED PROFESSORSHIPS

#### Dieter von Holtzbrinck Foundation – Supporting didactics and teacher training

The Dieter von Holtzbrinck Foundation is financing a Professorship of Economics Education at the University of Tübingen's Faculty of Economics and Social Sciences. The new professor is Taiga Brahm from the University of St. Gallen.

She will add a new dimension to our teacher training for the new subject in Baden-Württemberg's schools, Economics/ Professional and Study Orientation. It teaches teenagers practical understanding of economic processes and develops awareness of the economic role they themselves will play. It also explores ethical questions arising from the global economy.

Taiga Brahm studied Didactics of Economics at the University of Mainz and at Ghent University in Belgium. She completed her Master's degree in Adult Education at the Technical University of Kaiserslautern and subsequently worked at its Distance Learning and Independent Studies Center before heading a project at the Swiss Centre for Innovations in Learning in St. Gallen. She completed her doctorate there in 2010 and went to Oxford University in the UK for research until 2015. Her research focuses on developing students' skills in various education contexts, particularly interdisciplinary skills, and designing effective curricula.

Professor  
Taiga Brahm



### Klaus Tschira Foundation sponsors professorship of Rhetoric and Science Communication

The Klaus Tschira Foundation provided financing for a professorship focusing on the communication of science knowledge and the effects of digitization and diversity on contemporary communications. Tübingen Rhetoric professor Olaf Kramer was appointed to the post, which includes 2.5 million euros funding to 2021 for five research assistants.

In recent years the Klaus Tschira Foundation promoted Kramer's "Youth Presents" research project. This latest sponsorship underscores its commitment to rhetoric research in the modern information society.

Olaf Kramer studied Rhetoric, Philosophy, and Psychology in Tübingen, Frankfurt am Main, and at the University of North Carolina. In his new position, he will investigate contemporary forms of discourse, including the presentation, which has largely replaced the traditional lecture, and international forums like science slams and TED talks. A member of the Excellence Initiative-backed LEAD Graduate School, Kramer plans to make Rhetoric a standard element in Education research in Tübingen.

### Gips-Schule and Vector Foundations sponsor subject didactics

Two foundations showed their support for the new School of Education founded in October 2015, underlining Tübingen's commitment to Education Science. The Gips-Schule Foundation endowed professorships in the didactics of Biology and of Chemistry as well as an assistant professorship in Education research focusing on science and technology in

schools. The Vector Foundation sponsored a Professor of Physics Didactics, as well as funding the equipping of a special classroom for teacher training in Biology, Chemistry, Geography, Informatics, Mathematics, Science and Technology, and Physics. This will enable teachers-in-training to practice their skills in a classroom environment.



*Professor Olaf Kramer in the spotlight at Science Notes, where outstanding researchers summarize their work for a wide audience.*

## Endowed professorships

Field	Name	Sponsor
<b>Humanities</b>		
Chinese Studies: Financial Ethics	Professor Matthias Niedenführ	Karl Schlecht Foundation
General Rhetoric and Science Communication	Professor Olaf Kramer	Klaus Tschira Foundation
<b>Economics and Social Sciences</b>		
Intergenerationally Just Policies	Professor Jörg Tremmel	Foundation for the Rights of Future Generations
Science and Technology in Schools	Professor Kerstin Oschatz	Gips-Schüle Foundation
Economics Education and the Didactics of Economics (Tübingen School of Education)	Professor Taiga Brahm	Dieter von Holtzbrinck Foundation
<b>Medicine</b>		
Neurodegenerative Diseases	Professor Thomas Gasser	Hertie Foundation
Cell Biology: Foundations of Neurological Diseases	Professor Matthias Jucker	Hertie Foundation
Clinical Neurogenetics	Professor Ludger Schöls	Hertie Foundation
Functional Neurogenetics	Professor Philipp Kahle	Hertie Foundation
Neurology/Epileptology	Professor Holger Lerche	Hertie Foundation
Preclinical Imaging and Imaging Technology	Professor Bernd Pichler	Werner Siemens Foundation
Occupational and Social Medicine	Professor Monika Rieger	Südwestmetall Employers' Federation (Südwestmetall)
Clinical Pharmacology	Professor Matthias Schwab	Robert Bosch Foundation
Infectious Diseases of the Circulatory System	Professor Harald Langer	Lichtenberg Professorship (VW Foundation)
Neuroplasticity of the Developing Brain	Professor Martin Staudt	Schön Kliniken GmbH, Behandlungszentrum Vogtareuth
Molecular Biology of Degenerative Retinal Disorders	Professor Marius Ueffing	Tistou und Charlotte Kerstan Stiftung Vision 2000 – Sehen – Kunst – Sinnesfunktion
Molecular Diabetology	Professor Cora Weigert	Sanofi-Aventis Deutschland GmbH
Personalized Diabetes Therapy	Professor Andreas Peter	Böhringer-Ingelheim
Functional and Metabolic Brain Imaging	Professor Hans Wehrl	Carl Zeiss Foundation
<b>Faculty of Science</b>		
Geoarchaeology	Professor Christopher Miller	Carl Zeiss Foundation
Didactics of Biology (Tübingen School of Education)	Professor Christoph Randler	Gips-Schüle Foundation
Didactics of Chemistry (Tübingen School of Education)	Professor Claudia Bohrmann-Linde	Gips-Schüle Foundation
Didactics of Physics (Tübingen School of Education)	position not yet filled	Vector Foundation

## SPECIAL AWARDS IN 2016



*Award ceremony at the Alte Aula – President Professor Bernd Engler (left) awards the University Prize to Dr Hubert Keiber of the Werner Siemens Foundation.*

### University Prize for Werner Siemens Foundation

In recognition of its outstanding efforts to support excellence and innovation at the Werner Siemens Imaging Center (WSIC), the University of Tübingen presented its 2016 University Prize to the Werner Siemens Foundation. The Foundation has donated 12.3 million euros since 2006 – endowing a professorship and a doctoral research training center, and funding the construction and equipping of the new Werner Siemens Imaging Center. In the coming years, the Foundation will invest a further 15.7 million in the development of new imaging techniques.

The Center employs 55 researchers headed by Professor Bernd Pichler. They will use the 15.7 million euros to investigate cutting-edge biological and medical methods in preclinical imaging. Imaging procedures are becoming increasingly important in diagnostics and treatment, as well as in basic

research in biomedicine. A new combination of magnetic resonance imaging (MRI) and positron emission tomography (PET) technologies is yielding encouraging results. Professor Pichler's working group developed the world's first preclinical combined PET-MRI system. Working in collaboration with Siemens, the group followed that with the first clinical combined system, allowing better diagnosis of neurodegenerative disorders like Alzheimer's. Successful basic research in the area is currently being translated into clinical studies.

The big issue in the coming years will be the linking of the quantitative parameters of multi-modal imaging with high-throughput technologies such as genomic, proteomic and metabolic analyses. Close cooperation with the Max Planck Institutes located in Tübingen enables the researchers to use

the latest machine learning techniques to process and mine the often very large multi-parametric data sets. The goal is a very precise definition of any disease in question – enabling a search for a tailor-made treatment. Potential applications include diagnosing and treating a broad sweep of oncological and neurodegenerative diseases. The Center plays an internationally pioneering role in diagnostics using imaging in the field of infectious diseases and in immunological questions and immunotherapy.

Werner von Siemens (1816-1892) was an inventor and entrepreneur who brought vision and impetus to the fledgling electroindustry in the second half of the nineteenth century. The Werner Siemens Foundation supports projects in the areas of education, training, and youth sponsorship; in the sciences, particularly in technology and the natural sciences.

### Deutsche Krebshilfe backs Comprehensive Cancer Center Tübingen-Stuttgart

German cancer aid organization Deutsche Krebshilfe pledged three million euros over four years to the Comprehensive Cancer Center CCC Tübingen-Stuttgart for its outstanding cancer research. The Center is run jointly by the University Hospitals and the Faculty of Medicine with the Robert Bosch Hospital in Stuttgart.

It has expanded its established interdisciplinary structures such as organ cancer centers and tumor conferences, and in the past three years has nearly doubled the number of patients taking part in clinical studies.

The Deutsche Krebshilfe sponsors cutting-edge cancer research aimed at improving treatment for cancer patients across Germany; at these cancer research centers, tumor patients are given the latest therapies. The centers are pledged to promote innovative research to continually improve cancer treatment and to form networks in cancer research.

### Else Kröner-Fresenius Foundation funds research training group for oncologists

The Else Kröner-Fresenius Foundation has put up one million euros to support joint training for doctors specializing in cancer treatment at the Tübingen University Hospitals. The research training group gives highly-qualified young doctors the chance to become clinician scientists, conducting research parallel to working as doctors. This enables them to better connect basic research with clinical application to develop better treatments.

Doctors' specialist training usually leaves them with little time for research. The research training group gives participants 18 months relief of clinic commitments over three years in order to concentrate on research projects.

The focus is on the resistance to treatment which develops in solid tumors in the brain and the gut. The group is supervised by eleven professors active in top international research. The research training group's spokeswoman is Professor Ghazaleh Tabatabai, head of the Interdisciplinary Section for Neurooncology at the University Hospitals and the Hertie Institute for Clinical Brain research.

### Karl and Anna Buck Foundation sponsors chemistry research

The Karl and Anna Buck Foundation backs projects in the sciences. In 2016, the foundation made its fifth grant to create doctoral research positions and to enable the purchase of instrumentation for chemistry research.

This enables a project addressing new compounds which can be used to develop organic solar cells. A second project takes the first steps in the search for new protein biomarkers to help catch cancer in its early stages. The Karl and Anna Buck foundation is also backing a project in solid-state chemistry and theoretical inorganic chemistry which seeks to synthesize molybdenum-halogen compounds and investigates their photophysical properties.

The Stuttgart-based foundation has been sponsoring projects in medicine, medical technologies, chemistry, biotechnology, and other life sciences since 2000. It was established by Karl Buck, founder of the Buck Chemie chemicals company in Herrenberg.

### Ludwig Hiermaier Foundation project successfully completed

The Ludwig Hiermaier Foundation for applied cancer research sponsored a project by Tübingen radiologist Dr Georg Bier, who sought better imaging of ribs. Finding lesions in the ribs is particularly important for patients with the plasma cell cancer multiple myeloma – because their number decides the type of treatment doctors choose. Bier developed new software to identify damage in the ribs much faster and more reliably than before. The program is able to virtually “open up” the computer tomography images of damaged ribs.

### Gift of manuscript reproductions

In March 2016 the University Library received an endowment of valuable facsimiles of manuscripts from Lydia Stilz, following on her 2013 donation of a collection of facsimiles of the illuminated Codex Egberti from the tenth century. Ms Stilz' latest gift includes reproductions of parts of the Golden Evangelienbuch of Echternach, prayer books belonging to Otto III and James IV of Scotland, the Wolfenbüttel Sachsenspiegel, the Utrecht Psalter, the Reichenau Perikopenbuch, and the Werden Psalter. This greatly expands the University Library's collection in this area and makes valuable historical works accessible to researchers and the general public.



Pages of the Wolfenbüttel Sachsenspiegel facsimile



# NETWORKS

## PARTNERS AT HOME AND ABROAD

Here in Tübingen we are working to ensure that the latest technology is harnessed to improve lives and strengthen society – today and in the future. We know that technological progress must go hand-in-hand with ethical reflection and dialogue between cultures, so we promote these in many different ways. Tübingen has joined with other universities to play a greater role in evidence-based policymaking to make the European Union stronger and smarter. To that end, we work closely with partners around the world, and invite international students and researchers to join us.

### CYBER VALLEY ARTIFICIAL INTELLIGENCE COOPERATION LAUNCHED IN SOUTHWEST GERMANY

Intelligent systems may be set to radically change the way we live and work. Research institutions in southwest Germany seeking to shape this process have launched a collaborative effort called Cyber Valley. With the aim of making the Stuttgart area one of the top locations for artificial intelligence, the Universities of Tübingen and Stuttgart, the state of Baden-Württemberg, the Max Planck Institute for Intelligent Systems, and the companies Bosch, Daimler, Porsche, BMW, ZF Friedrichshafen and Facebook joined forces in December 2016 to turn results of basic research into commercial applications.

Artificial systems are able to perceive, understand, act, and learn from experience before carrying out subsequent actions. They are able to work independently in a complex and dynamic environment – something people and even animals do all the time. Researchers aim to understand the underlying mechanisms which drive and regulate living organisms and to recreate them in artificial systems for applications in both the real and the virtual worlds. Intelligent systems are used in self-driving cars and industrial production and can be used in the diagnostics and treatment of diseases, to evaluate very large data sets, or for tasks too dangerous for humans in rescue or disaster situations.





Combining local expertise in this way is expected to make the region more attractive to highly-qualified junior researchers and company founders. Nine research groups are being set up with financing from the state government, industry, and regional foundations. Working with the Max Planck Institute for Intelligent Systems, the Universities of Tübingen and Stuttgart are setting up ten new professorships. Bosch and Daimler are sponsoring two professorships; and a Graduate School for up to 100 doctoral researchers is to follow mid-2017 under the auspices of the Max Planck

Institute for Intelligent Systems and the Universities of Stuttgart and Tübingen.

The ten-year, 5.4 million euro professorship sponsored by Bosch at the University of Tübingen will focus on machine learning, one of the core research areas in the joint work on artificial intelligence, robotics, and computer vision.

It is hoped that this major collaborative effort will encourage world-class research and new commercial enterprises in these future technologies. The Cyber Valley initiative is backed by a consortium of foundations including the Carl Zeiss Foundation, the Christian Bürkert Foundation, the

Gips Schüle Foundation and the Vector Foundation – who are funding four junior research groups. This contribution to research helps to bring together university and non-university specialists.

*Far left: President Engler signs the artificial intelligence cooperation agreement in the presence of State Minister of Science, Research and the Arts Theresia Bauer, and State Premier Winfried Kretschmann.*

*Above: Intelligent systems can learn from experience and may soon take on tasks which are highly complex or dangerous – or which humans simply find dull.*

## ETHICS IN ACADEMIA

### Global Ethics Institute – Promoting international responsibility

World peace depends on world economic conditions. And just economic conditions depend on global ethics. To ensure basic research into global ethics, the renowned theologian Professor Hans Küng founded the Global Ethics Institute in 2012. The Institute's researchers work to define the theoretical legitimation of a global ethic and seek dialogue between cultures. The Global Ethics Institute is associated with the University of Tübingen. It provides a forum for smarter management and leadership ideas. The institute is sponsored by the Karl Schlecht Foundation and has seven full-time staff headed by Professor Claus Dierksmeier and Dr Bernd Villhauer. It works with academic, business, and civil institutions and is based on decades of interreligious research by the Global Ethic Foundation.

Among its projects is the World Citizen School, an innovative training program for more than 200 volunteer students who carry out joint projects and initiate projects based on their own ideas. The Global Ethics Institute also offers teaching units for University of Tübingen students and public events.



*Director Professor Claus Dierksmeier (fourth from right)  
with staff of the Global Ethics Institute*

## Key research partners in Germany

- BCCN – Bernstein Center for Computational Neuroscience
- Dr Margarete Fischer-Bosch Institute for Clinical Pharmacology (Stuttgart)
- Forschungsinstitut für Arbeit, Technik und Kultur e.V. (Tübingen)
- Forschungszentrum Jülich (Helmholtz Association)
- Fraunhofer Institute for Interfacial Engineering and Biotechnology (IGB, Stuttgart)
- Friedrich-Miescher-Laboratorium of the Max Planck Society (Tübingen)
- Global Ethics Institute (associated institute)
- Heidelberg Academy of Sciences and Humanities
- German Center for Diabetes Research (DZD; Helmholtz Association)
- German Center for Infection Research (DZIF; Helmholtz Association)
- German Center for Neurodegenerative Diseases (DZNE; Helmholtz Association)
- German Consortium for Translational Cancer Research (DKTK; Helmholtz Association)
- Helmholtz Centre for Environmental Research (Leipzig-Halle)
- Hertie Institute for Clinical Brain Research (Tübingen)
- Institut für donauschwäbische Geschichte und Landeskunde (Tübingen)
- Institut für Rehabilitationsforschung, Qualitätsentwicklung und Strukturanalyse in der Behindertenhilfe (REQUEST) e. V. (Tübingen)
- Institute for Applied Economic Research (associated institute)
- Knowledge Media Research Center (Tübingen; Leibniz Association)
- Max Planck Institute for Biological Cybernetics (Tübingen)
- Max Planck Institute for Developmental Biology (Tübingen)
- Max Planck Institute for Intelligent Systems (Stuttgart/Tübingen)
- MFO mathematics research institute (Oberwolfach; Leibniz Association)
- NMI – Natural and Medical Sciences Institute (associated institute)
- Senckenberg Research Institute (Frankfurt am Main)
- Staatliches Seminar für Didaktik und Lehrerbildung (Gymnasien) Tübingen
- Universität Hohenheim – Center for Nutritional Medicine (ZEM) Tübingen – Hohenheim
- University of Applied Forest Sciences – Rottenburg
- University of Stuttgart – Inter-University Center for Medical Technology (IZST)
- Werner Siemens Foundation

## In collaborative research centers/ transregional collaborative research centers

### *Plasticity and Sleep (SFB/TRR 654)*

- Kiel University
- Lübeck University

### *The Skin as a Sensor and Effector Organ Orchestrating Local and Systemic Immune Responses (SFB-Transregio 156)*

- University of Heidelberg
- University of Mainz

### *Biological Design and Integrative Structures Analysis, Simulation and Implementation in Architecture (SFB-Transregio 141)*

- University of Stuttgart
- University of Freiburg
- Fraunhofer Institute for Building Physics (Stuttgart)
- Stuttgart State Museum of Natural History

### *Pathophysiology of Staphylococci in the Post-genomic Era (SFB-Transregio 34)*

- University of Greifswald
- University of Würzburg

### *Control of Quantum Correlations in Tailored Matter (SFB-Transregio 21)*

- Max Planck Institute for Solid State Research (Stuttgart)
- University of Stuttgart
- University of Ulm

## Tübingen hosts new Center for Archaeometry and Materials Sciences

University of Tübingen is now home to a new center specializing in archaeometry. The Competence Center Archaeometry – Baden-Wuerttemberg (CCA-BW) is jointly sponsored by the Baden-Württemberg Ministry of Science, Research, and the Arts, Helmut Fischer GmbH Institut für Elektronik und Messtechnik and University of Tübingen funding from the government's Excellence Initiative, who together will provide 800,000 euros over three years. The new center arose from the Archaeometry section of Applied Mineralogy and will be headed by Tübingen mineralogists Dr Christoph Berthold, Professor Klaus G. Nickel and Senior Professor Klaus Bente.

The researchers will be able to obtain detailed information about the materials used primarily in ceramics – such as chemical and mineralogical composition, structure and texture. They will examine prehistoric sherds as an expression of neolithic evolution, as well as glazed ceramics of classical civilizations and the biomineral decorations of Celtic jewelry; they will also be able to certify whether items from historical times are genuine or not. The archaeometrists are able to identify the raw materials used in an object in order to trace the route along which it may have been traded, as well as the techniques used to make it, which may help us to better understand the deterioration of archaeological finds and perhaps to improve on current restoration techniques.

The center will work with its industrial partner, Helmut Fischer GmbH Institut für Elektronik und Messtechnik, to develop a mobile analysis unit which will enable the high-resolution, non-destructive, multi-method analysis of finds even in remote places.

*Using materials science methods – here a combination of X-ray microdiffraction and Raman spectroscopy – the researchers at the Center can obtain detailed data about the composition of archaeological finds.*



### Elie Wiesel research in cooperation with Heidelberg

The University of Tübingen Faculty of Catholic Theology is working with Heidelberg's Jewish Studies Center, the Hochschule für Jüdische Studien, on research into Elie Wiesel. The aim is to consolidate international and interdisciplinary research into the Holocaust survivor, author, and Nobel Peace Prize laureate Elie Wiesel.

Elie Wiesel was born into a Jewish Orthodox family in Sighet, Romania, in 1928. In May 1944 at the age of 15, he and his family were deported to Auschwitz concentration camp. He was later transferred to Buchenwald. Wiesel survived the mass murder of Jews by the Nazis. After WWII he was taken to France. He later emigrated to America. He spent the rest of his life working for remembrance of the Holocaust and against political and religious persecution. He received the Nobel Peace Prize in 1986. Elie Wiesel died in New York in 2016 aged 87.



*Elie Wiesel (center) with the coordinators of the research office named after him, Professor Reinhold Boschki of the University of Tübingen (left) and Professor Daniel Krochmalnik of the Hochschule für Jüdische Studien Heidelberg (right)*

The research institute named after Wiesel was established in 2013 by Professor Reinhold Boschki in Tübingen and Professor Daniel Krochmalnik at the Hochschule für Jüdische Studien Heidelberg. Boschki has edited a number of volumes of essays and interviews, authored many academic publica-

tions, and translated various works by Wiesel into German. The two researchers are preparing a German-language edition of Wiesel's full works. They also work for education about the Holocaust, a culture of critical remembrance, and for Jewish-Christian dialogue.

## NEWS

### Tübingen joins Guild of European universities

A group of world leading universities met in June 2016 in Brussels to found the Guild of European Research Intensive Universities. The University of Tübingen is one of the founding members. Other members include the Universities of Bologna, Glasgow, Göttingen, Groningen, the Jagiellonian University in Krakow, and the Universities of Oslo, Uppsala, and Warwick.

The aim is to harness the expertise to collaborate on innovative solutions to some of Europe's most intractable scientific and social challenges, via dialogue and cooperation with the European Commission, MEPs, national parliaments, and other state bodies. The Guild is headed by Professor Ole Petter Ottersen (Oslo).

Guild members appealed to policymakers to act to prevent social divisions in Europe, and to work with institutions of higher education to promote dialogue and equality regardless of cultural and social borders.



### China Center opened

In April 2016 the University of Tübingen opened the China Center Tübingen (CCT). It was initiated and sponsored by the Karl Schlecht Foundation and will support research into the manifold aspects of economic, political, social and cultural life in China.

A core area of research is the transmission of values in the Chinese world. The CCT will investigate the approaches to sustainability and ethics in Chinese economy. Sinologist Professor Helwig Schmidt-Glintzer is the CCT's director. Deputy director Matthias Niedenführ has been an assistant professor in Sinology and Economic Ethics at the University of Tübingen since 2014. The professorship is sponsored by the Karl Schlecht Foundation.

The new institute sees itself as a platform for researchers and those with practical experience in China. It provides the opportunity for exchange and communication with Chinese academics, and plans to develop programs to improve know-

ledge transfer with today's China. The CCT will share some research areas with the Global Ethics Institute, which is also sponsored by the Karl Schlecht Foundation. The two institutes are located near to each other in Tübingen. The CCT will integrate the Erich Paulun Institute, which was founded in 2013 at the TU Munich by the German-Chinese Bureau of Economic Research. It supports Sino-German student clubs and the teaching of Chinese. ([www.erich-paulun-institut.de](http://www.erich-paulun-institut.de))

*At the opening of the China Center Tübingen (from left): Doctoral candidate Wang Jianbao, the head of the Karl Schlecht Foundation Professor Karl Schlecht, CCT Deputy Director Professor Matthias Niedenführ, University President Bernd Engler, CCT Director Professor Helwig Schmidt-Glintzer and doctoral candidate Bai Rongzang*

*The banner reads: "China Center of the University of Tübingen – commissioned by Professor Tu Wei-ming, written by Fan Zeng."*

## Jean Monnet Centre of Excellence researches regionalization in the EU

The Jean Monnet Centre of Excellence PRRIDE opened its doors at the University of Tübingen in June. PRRIDE is an acronym for "Positioning Regions and Regionalism in a Democratic Europe." The focus is on the European Union's regions and the tendency toward regionalism. The aim is to bring together researchers from various disciplines working in this area and to link them up at the regional, national, and international levels. The center is sponsored by the European Commission's Erasmus plus program to 2018. Director of the PRRIDE center is Professor Gabriele Abels of the Institute of Political Science.

## Professorship in Gabon

The University of Tübingen set up its first professorship in an African country. The post is sponsored by the German government-financed German Center for Infection Research (DZIF) and the government of Gabon. The new professor is based at the Centre de Recherches Médicales de Lambaréné (CERMEL) in Gabon and focuses on immuno-epidemiology and clinical infection research in the tropics. Dr Ayola Akim Adegnikia has been appointed to the post for an initial five year period. Dr Adegnikia is currently co-director at CERMEL in the Gabonese town of Lambaréné, some 270km south-east of the capital Libreville.

The new research professorship reinforces co-operation between the University of Tübingen and both the DZIF and its partners in Gabon. Professor Peter Kremsner of the Tübingen Institute of Tropical Medicine has worked with CERMEL and the Albert Schweizer Hospital in Lambaréné for



*Professor Ayola Akim Adegnikia*



*Professor Lars Angenent*

many years, and is currently their scientific director. The new professorship provides an opportunity to step up collaboration in developing new vaccines and treatments. 42 year old Adegnikia will conduct most of his research and teaching in Gabon, interspersed with lecturing and heading research in Tübingen.

## Humboldt Professorship

Humboldt Professorships bring top international researchers to Germany. Candidates are nominated by the universities and the winners are selected by the Humboldt Foundation. The Foundation has selected three candidates for the Humboldt Professorship in the current round 2017.

The University of Tübingen is hosting its third Humboldt Professorship. Germany's largest monetary international research prize brings applied microbiologist Professor Lars

Angenent to the university's Geoscience Department. Previously he conducted his research at the Department of Biological and Environmental Engineering at Cornell University, New York. The Humboldt Professorship is sponsored with 5 million euros over five years.

Angenent will build bridges in two different ways. On the one hand, he creates a connection between environmental and medical microbiology; on the other hand, he links up basic research with a problem-oriented, applications-based discipline. 46-year old Angenent was born in the Netherlands. He studied environmental science and microbiology and has worked as a researcher in the US for many years, most recently at Cornell University, New York.

He has worked on microbiome characterization in air, bioreactors, and lungs. For example, he developed a method with which all microbes in the air of a building could be logged – for instance, to track down the source of airborne disease in a hospital. In the area of environmental technology he was one of the first scientists to work on storing energy from renewables with the help of microbes. In this process, solar and wind power are used to produce hydrogen gas, which microbes convert into methane – a gas that can be stored. Professor Angenent is also interested in the production of soluble biochemicals from wasted materials and the capture of carbon produced by industry. Yet, he is also involved in basic research, which helps us to better understand the biochemistry and energetics of microbial metabolic pathways.

Angenent is the University of Tübingen's third Humboldt Professor. Before, the Professorship was awarded to the linguist Rolf Harald Baayen, who came from the University of Alberta in 2012, and last year the plant geneticist Marja Timmermans came to Tübingen from Cold Spring Harbor Laboratories, New York.

## Distinguished Guest Professors in Tübingen

The Distinguished Guest Professorship enables Tübingen professors to invite outstanding academics to work on specific joint projects at the University. The Distinguished Guest Professorship is funded by the Excellence Initiative and the state Ministry of Science, Research, and the Arts.

Mathematician **Professor Simon Brendle** of Columbia University launched his three-year Distinguished Guest Professorship in 2016. Professor Brendle, a Tübingen alumnus, is one of the leading mathematicians in the field of geometric analysis. He is spending three-month periods in Tübingen to conduct research and teach Tübingen students. His research intersects with many of the fields of core research at the University of Tübingen's Mathematical Institute. He will cooperate closely with Professor Gerhard Huisken on geometric analysis and mathematical relativity theory.

Simon Brendle was born in Tübingen in 1981. He commenced university studies here while still at school. He won Germany's national math competition three times from 1995 to 1997. In 2001, at the age of 19, he completed his

doctorate. In 2003 he became an assistant professor at Princeton and in 2005 at Stanford, where he received a full professorship in 2008. In 2015 he went to Columbia University. Brendle has obtained numerous prizes, including the European Mathematical Society Prize in 2012 and the American Mathematical Society's Bôcher Memorial Prize in 2014.

Brendle's special field is geometric partial differential equations, which describe the deformation of geometric bodies. He has found solutions to a number of longstanding mathematical problems and has constructed counterexamples to what were believed to be solutions to others. Brendle has also made substantial contributions to mathematical finance, for instance in the area of portfolio optimization.

The University of Tübingen's latest Distinguished Guest Professor is the Finnish professor of drug design, **Professor Antti Poso** of the University of Eastern Finland in Kuopio. Poso works with Professor Lars Zender of Tübingen's Department of Internal Medicine VIII at the University Hospital and is involved in the DFG-sponsored research unit 2314:

Targeting Therapeutic Windows in Essential Cellular Processes for Tumor Therapy. Professor Poso will be visiting Tübingen for research and consultation over the next three years as part of the Tübingen Center for Academic Drug Discovery & Development (TüCAD2).

Antti Poso has been the Professor of Drug Design in Kuopio since 2003. He is also working on a number of cancer research projects at the Institute of Molecular Medicine Finland in Helsinki. He was a postdoc and Humboldt Fellow at the University of Düsseldorf from 1997 to 1998 and at the University of Hannover in 2011. He has been a guest in Tübingen a number of times since 2012, collaborating on highly successful projects in the field of cancer research and anti-infectives. Poso works with Professor Lars Zender of Tübingen's DFG-sponsored research unit 2314: Targeting Therapeutic Windows in Essential Cellular Processes for Tumor Therapy.

The latest methods of computer-assisted drug design enable researchers to predict the interaction between a target in the body and a potential new drug at the molecular level. Targets for the development of new medications are, for instance, substances and receptors which appear different in cancer cells and in healthy cells. Professor Poso uses 3D models of the targets to search substance databases for ideal constituents which would dock onto the target and attack the cancer cells. Promising pharmaceuticals are passed on to Poso's partners in Tübingen, who subject them to further laboratory and clinical testing. If a substance passes these tests, it is often sent back to Professor Poso, who seeks to optimize the drug in a further round of theoretical examination.



Professor Simon Brendle



Professor Antti Poso

## The University joins “Scholars at Risk”

In 2016 the University of Tübingen joined the Scholars at Risk (SAR) network, which supports researchers around the world who are persecuted or restricted in their work. Tübingen is the eighth member of the network’s German section. Our Tübingen Refugee Coordination Office receives information from SAR about academics in danger around the world who could continue their careers at the University of Tübingen.

Syrian archaeologist Professor Ammar Abdulrahman is an internationally-recognized researcher and was director of Archaeology at the University of Damascus. He had to leave because of the civil war in Syria. He will be continuing to teach and conduct research – now at the University of Tübingen, thanks to a two-year fellowship from the Philipp Schwartz Initiative of the Humboldt Foundation

There he will work at the Institute for Ancient Near Eastern Archaeology with Professor Peter Pfälzner on the evolution of Bronze Age settlements in Syria and northern Iraq. Their research project involves mapping ancient sites using the latest geo-information systems. The project will make an important contribution to the preservation of the historical

record. The two men previously worked together on excavations in Syria for a number of years.

The Philipp Schwartz Initiative was founded by the Humboldt Foundation in conjunction with the German Foreign Office.

*Professor Ammar Abdulrahman*



## MOBILIZING STUDENTS AND RESEARCHERS

### Baden-Württemberg Foundation – Promoting exchanges

The Baden-Württemberg-Stipendium is a program run by the Baden-Württemberg Foundation, under which several hundred scholarships are awarded annually to promising students seeking to study abroad. The University of Tübingen made use of the scheme to help finance some 1,600 international and Tübingen students since 2001. In the academic year 2015-16, the scheme provided 262,900 euros, adding another 88 scholarship holders.

The Baden-Württemberg Foundation’s BWS Plus scheme promotes innovative international joint projects. In 2016 Tübingen received funding for law professor Bernd Heinrich’s “Cooperation Eastern Europe” project. Running for three years, the project oversees the exchange of law students between Tübingen and universities in Lviv, Ukraine, and Szeged, Hungary. The project aims to reinforce the concept of the rule of law, initiate dialogue on political and social issues and thereby raise understanding between Germany and Eastern Europe. It runs from January 2017 to the end of 2020.

### Strong support from the German Academic Exchange Service

The University of Tübingen received 5.2 million euros from the internationalization funds of the German Academic Exchange Service (DAAD) in 2015 – an increase of more than one million over the previous year (2014: 4.14m euros). In 2015, 216 international students, doctoral candidates, and visiting academics received DAAD sponsorship to come to Tübingen – up from 199 in 2014. The University received some 3.02 million euros in funding for projects and for group programs such as ERASMUS, Bachelor-Plus, PROMOS, and ISAP, about one million more than the previous year.



## Our partners around the world

The University of Tübingen has three branches in Asia and maintains regular exchange programs with some 150 institutions of higher education across many different countries, as well as with our six partners in the Matariki Network of Research Universities. We are highly active in the European Union's Erasmus Program, involving partnership deals with more than 300 European institutions. Our seven Faculties also have around 150 cooperation agreements with institutions around the globe.

More than 800 students annually take advantage of the many exchange schemes we offer. Numbers on the map indicate how many Tübingen students studied in which continents in 2016.

### University of Tübingen branches

European Center for Chinese Studies,  
Peking University - **BEIJING**  
Tübingen Center for Japanese Studies,  
Dōshisha University - **KYOTO**  
Tübingen Center for Korean Studies,  
Korea University - **SEOUL**

#### North America

##### Canada

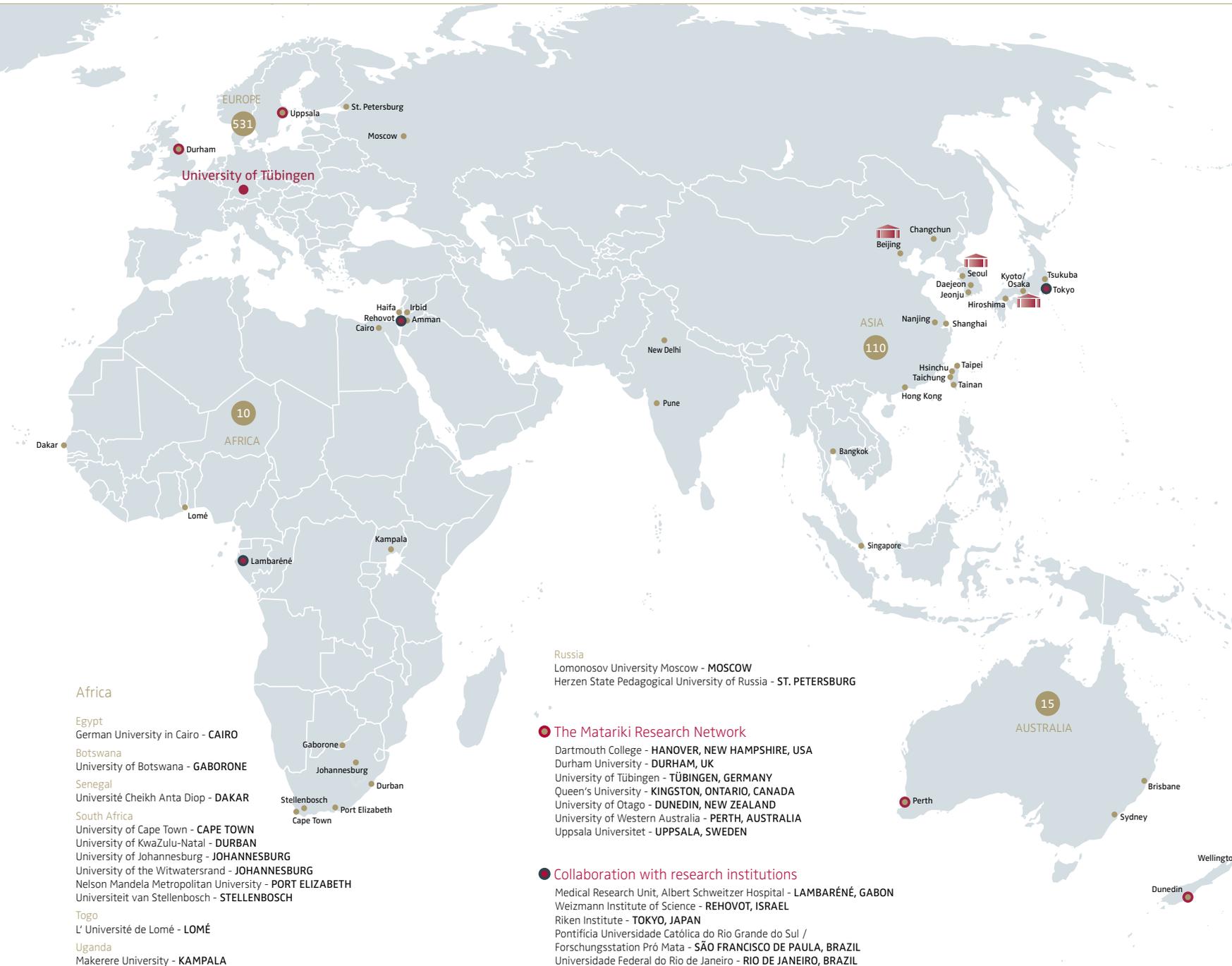
University of Alberta - **EDMONTON, ALBERTA**  
McGill University - **MONTRÉAL, QUÉBEC**  
McMaster University - **HAMILTON, ONTARIO**  
Ontario Colleges and Universities - **ONTARIO\***  
Université Laval - **QUÉBEC, QUÉBEC**  
Mount Allison University - **SACKVILLE, NEW BRUNSWICK**

##### United States of America

University of Alaska - **FAIRBANKS, AK**  
Northern Arizona University - **FLAGSTAFF, AZ**  
Arizona State University - **TEMPE, AZ**  
University of Arizona - **TUCSON, AZ**  
California State Universities - **CA\***  
University of Denver - **DENVER, CO**  
Connecticut State Universities and Colleges - **CT\***  
Yale University - **NEW HAVEN, CT**  
Georgetown University - **WASHINGTON, D.C.**  
University of Hawai'i at Mānoa - **HONOLULU, HI**  
Drake University - **DES MOINES, IA**  
Roosevelt University - **CHICAGO, IL**  
Butler University - **INDIANAPOLIS, IN**  
Valparaiso University - **VALPARAISO, IN**  
Bellarmine University - **LOUISVILLE, KY**  
Louisiana State University - **BATON ROUGE, LA**  
University of Massachusetts - **BOSTON, AMHERST, MA\***  
Tufts University - **MEDFORD, MA**  
Washington College - **CHESTERTOWN, MD**  
University of Maryland - **COLLEGE PARK, MD**  
University of Michigan - **ANN ARBOR, MI**  
Western Michigan University - **KALAMAZOO, MI**  
University of Missouri - **COLUMBIA, MO**  
Washington University - **ST. LOUIS, MO**  
Montana State University - **BOZEMAN, MT**  
Princeton Theological Seminary - **PRINCETON, NJ**  
State University of New York - **STONY BROOK, NY**  
Hobart and William Smith Colleges - **GENEVA, NY**  
North Carolina State Universities - **NC\***  
University of North Carolina at Chapel Hill - **CHAPEL HILL, NC**  
Oregon University System - **OR\***  
Reed College - **PORTLAND, OR**  
Temple University - **PHILADELPHIA, PA**  
College of Charleston - **CHARLESTON, SC**  
University of Tennessee - **KNOXVILLE, TN**  
Rhodes College - **MEMPHIS, TN**  
Texas A & M University - **COLLEGE STATION, TX**  
University of North Texas - **DENTON, TX**  
University of Washington - **SEATTLE, WA**

\* national exchanges





Asia

- China  
 Jilin University - CHANGCHUN  
 Nanjing University - NANJING  
 Renmin University of China - BEIJING  
 Peking University - BEIJING  
 Fudan University - SHANGHAI  
 Tongji University - SHANGHAI  
 Shanghai Institutes for Biological Sciences - SHANGHAI  
 City University of Hong Kong - HONG KONG  
 University of Hong Kong - HONG KONG

- India  
 University of Pune - PUNE  
 Jawaharlal Nehru University - NEW DELHI

- Israel  
 University of Haifa - HAIFA

- Japan  
 Hiroshima University - HIROSHIMA  
 Dōshisha University - KYOTO  
 Ritsumeikan University - KYOTO  
 Kansai Gaidai University - OSAKA  
 Chuo University - TOKYO  
 Rikkyo University - TOKYO  
 Sophia University - TOKYO  
 Waseda University - TOKYO  
 Tsukuba University - TSUKUBA

- Jordan  
 University of Jordan - AMMAN  
 Yarmouk University - IRBID

- Singapore  
 National University of Singapore - SINGAPUR  
 Singapore Management University - SINGAPUR  
 Nanyang Technological University - SINGAPUR

- South Korea  
 Chungnam National University - DAEJEON  
 Chonbuk National University - JEONJU  
 Seoul National University - SEOUL  
 Ewha Womans University - SEOUL  
 Hanyang University - SEOUL  
 Korea University - SEOUL  
 Yonsei University - SEOUL  
 Sookmyung Women's University - SEOUL  
 Sogang University - SEOUL  
 Sungkyunkwan University - SEOUL

- Taiwan  
 National Tsing Hua University - HSINCHU  
 National Chung Hsing University - TAICHUNG  
 National Taiwan University - TAIPEI  
 National Chengchi University - TAIPEI  
 National Cheng Kung University - TAINAN

- Thailand  
 Chulalongkorn University - BANGKOK  
 Mahidol University - BANGKOK

Oceania

- Australia  
 Griffith University - BRISBANE  
 University of Queensland - BRISBANE  
 Queensland University of Technology - BRISBANE  
 University of Technology Sydney - SYDNEY  
 University of New South Wales - SYDNEY
- New Zealand  
 Victoria University of Wellington - WELLINGTON

- Russia  
 Lomonosov University Moscow - MOSCOW  
 Herzen State Pedagogical University of Russia - ST. PETERSBURG

- The Matariki Research Network**  
 Dartmouth College - HANOVER, NEW HAMPSHIRE, USA  
 Durham University - DURHAM, UK  
 University of Tübingen - TÜBINGEN, GERMANY  
 Queen's University - KINGSTON, ONTARIO, CANADA  
 University of Otago - DUNEDIN, NEW ZEALAND  
 University of Western Australia - PERTH, AUSTRALIA  
 Uppsala Universitet - UPPSALA, SWEDEN

- Collaboration with research institutions**  
 Medical Research Unit, Albert Schweitzer Hospital - LAMBARÉNÉ, GABON  
 Weizmann Institute of Science - REHOVOT, ISRAEL  
 Riken Institute - TOKYO, JAPAN  
 Pontificia Universidade Católica do Rio Grande do Sul /  
 Forschungsstation Pró Mata - SÃO FRANCISCO DE PAULA, BRAZIL  
 Universidade Federal do Rio de Janeiro - RIO DE JANEIRO, BRAZIL

Africa

- Egypt  
 German University in Cairo - CAIRO
- Botswana  
 University of Botswana - GABORONE
- Senegal  
 Université Cheikh Anta Diop - DAKAR
- South Africa  
 University of Cape Town - CAPE TOWN  
 University of KwaZulu-Natal - DURBAN  
 University of Johannesburg - JOHANNESBURG  
 University of the Witwatersrand - JOHANNESBURG  
 Nelson Mandela Metropolitan University - PORT ELIZABETH  
 Universiteit van Stellenbosch - STELLENBOSCH
- Togo  
 L' Université de Lomé - LOMÉ
- Uganda  
 Makerere University - KAMPALA



# ACADEMIC AFFAIRS

## VARIETY AND INNOVATION

At the University of Tübingen we are aware of the broad span of our students' interests and seek to support them as they take new academic paths into previously undreamed-of fields of study and into new professions now needed in society. Our recently-established School of Education helps future teachers to become highly specialized and effective while being keenly aware of the part they will play in shaping the next generations of students and workers. We are helping to train specialists in areas as diverse as Medical Informatics and Muslim Pastoral Care, while also helping to prepare young people – including refugees – for university studies.



### TÜBINGEN'S POPULARITY WITH INTERNATIONAL STUDENTS STRONGER THAN EVER

#### Overall numbers remain stable

In the winter semester of 2016-17 the University of Tübingen had a total of 28,394 enrolled students, almost the same number as in the previous year. The proportion of women students has remained at around 58 percent for the past six years; and the proportion of international students has continued its gentle rise. At the start of the 2016-17 academic year it stood at 13.7 percent, up from 13.1 percent in 2015.

## LEIBNIZ KOLLEG JOINS UNIVERSITY OF TÜBINGEN

### Student numbers at a glance

#### Enrollments

Winter semester 2016-17	Total	Female	International students
Overall enrollments	28,394	16,536	58.2%
New enrollments	5,720	3,452	60.3%

#### By Faculty

Faculty	Winter semester 2016-17
Protestant Theology	539
Catholic Theology	229
Law	2,361
Medicine	3,874
Humanities	8,506
Economics and Social Sciences	4,583
Faculty of Science	8,088
Center of Islamic Theology	178
Leibniz Kolleg	36

The Leibniz Kolleg – which helps young people with diverse interests prepare for formal studies – became part of the University of Tübingen on 1 October 2016. It was previously run by a foundation.

The Leibniz Kolleg seeks to develop character as well as passing on knowledge via its Studium generale and Studium sociale programs. Kolleg members automatically join the University and can use its services as well as having their work accredited in a subsequent degree program.

The Leibniz Kolleg charges tuition fees; subsidies and grants are available to needy students. The Udo Keller Stiftung Forum Humanum is one of its main sponsors.

The Leibniz Kolleg was founded on the initiative of the occupying French military government in 1948.

*The Leibniz Kolleg provides access to higher education for those who do not have the usual entrance requirements.*



## MAKING NEW ROADS IN EDUCATION

### Tübingen School of Education established

The University launched the Tübingen School of Education (TüSE) in February 2016. It is a new institution to develop new concepts for educating and training high school teachers. The School of Education will help future teachers to meet the growing challenges of their profession – such as diversity and inclusion, and how to integrate new technical options into lessons. TüSE will have 15 new professors, with no less than ten research-oriented professors of specialist subject didactics.

The School will bring together subject expertise with cutting-edge Education research. Findings based on solid empirical research will be able to flow on into the education of new teachers. The School of Education works with the Hector Institute of Education Science, the University's school psychology unit, the Institute of Education and the Leibniz Association's Knowledge Media Research Center. TüSE director is Professor Thorsten Bohl. The University has invested 5.2 million euros from state government funds to found the School of Education.

### Practical teacher training in the digital classroom

Complementing the Tübingen School of Education, the University of Tübingen opened a digital teaching lab in mid-2016 to help train new teachers. The Tübingen Digital Teaching Lab is located within the Knowledge Media Research Center, one of the University's close external partners. Students can learn how to design media-based lessons in realistic surroundings and conduct research into the ramifications of using electronic media in the classroom. The state ministry of Science, Research, and the Arts is sponsoring about one million euros for the lab over five years.



## NEWS

### New Master's programs in Medical Informatics and Islamic Pastoral Care

The University of Tübingen is offering a wider and more innovative range of Master's degrees thanks to the state of Baden-Württemberg's "Master 2016" program, which provides more than one million euros in funding annually. This has enabled us to create 148 new places in Master's programs and up to six new professors.

Two new programs were launched in winter semester 2016-17. The Master of Medical Informatics builds upon the Bachelor's degree in the same subject. And the Center of Islamic Theology began a new Master's in Practical Islamic Theology – Pastoral Care and Social Work. The four-semester program will prepare its graduates to work with members of the Muslim faith in Germany's hospitals, refugee shelters, schools, prisons, facilities for the aged, in the armed forces and in Muslim congregations. Participants in the program study the pedagogical and legal foundations of pastoral care and social work, the theory and practice of rituals in Islam, as well as debating Islam in the context of other religions. These new programs help us to produce graduates who will play a practical role in current developments in society.



*Professor Lutz Heide training pharmacists to work under the challenging conditions of aid programs and disaster relief.*

### Training for pharmacists in aid and crisis situations

The Institute of Pharmaceuticals Science has introduced a further-training program unique in Germany – Pharmacy in Development Aid and Disaster Relief. Thirteen qualified pharmacists and 14 Tübingen students were selected to take part in the eight days of training between August and October 2016; this was followed by two-week projects and a final presentation. Two pharmacists from Cameroon took part. The program, directed by Professor Lutz Heide of the Institute of Pharmaceuticals Science is intended to enable

pharmacists to use their skills in development aid. It is sponsored by the German Ministry of Education and Research as part of its "Innovative curricula and practical teaching" program.

Pharmaceutical development aid seeks to provide the right medications to people in poor countries and to ensure that the medicine is used properly – this also means organization, specialist consultation, and training of local staff.

## Preparatory course for refugees launched

The University of Tübingen has developed its own nine month course to prepare refugees for formal studies in Germany. The largest part of the 26 to 36 hours of weekly lessons comprises intensive language teaching, leading to the German language certificate required for higher education studies. The first semester outlined German history, politics and society, cultural values and intercultural training. In the second semester, specialist tutors prepare participants for studies in areas such as medicine or mathematics. Participants are guided by local students as part of a buddy program. Non-academic activities, such as excursions and cooking together, are planned both as group and one-to-one exercises.

Participation is free for the 45 refugees in the course in its inaugural year. The participants must meet university entrance requirements for Germany, have a level B1 certificate in German as a foreign language, and have refugee status. Applicants must include a cover letter describing their motivation for taking the course as well as their personal back-

ground and academic plans for the future. While taking the course, participants may apply for a regular study place in their chosen subject for the following winter semester of 2017-18. Fifteen of the participants are women. Most of the participants are from Syria; others are from Iraq, Eritrea, Togo, and Egypt. The majority hopes to study medicine, pharmacy, or economics.

Generally speaking, refugees and asylum-seekers in Tübingen may register as guest students, join a mentoring program, and/or take part in a language tandem exchange with German students.



*Assistant professor Johannes Grossmann*

## Awards

Historian Johannes Grossmann took the University's 2016 **Teaching Prize**, which comes with €2,500 in prize money, for methods which encourage students to work independently and practically. In 2015 he worked with Tübingen's Institut Française to hold the intermediary seminar "The French in Tübingen 1945 – 1949/92," which led to a virtual city tour and audio guide to parts of Tübingen important to its postwar occupation. Grossmann also designed an accompanying exhibition at the Institut Française. He received the Teaching Prize for this work which enabled students to test out a historian's role as a guide, archivist, journalist, or curator.

The University of Tübingen's annual **Student Commitment Prize** went to the organizers of the 5th Student Sociology Congress. Students Jochen Geiselhart, Thomas Lauterwasser, Max Leckert, Chaim Schenk, Maira Schobert, and Maja Urbanczyk received their award at the Dies Universitatis event in October 2016.

The congress is considered a key event for new sociologists; it was held in Tübingen for the first time in October 2015 under the title Rethinking Thinking. It gave students in the discipline a forum to present and discuss their research projects to other sociologists as well as to students from related subjects among the 250 attendees.

Tübingen law students Sima Samari, Susanne Renz, Karolin Dirscherl and Adrian König won the **Roman Law Moot Court** at the University of Vienna in April 2016, competing against teams from Athens, Cambridge, Liege, Naples, Oxford, and Trier. It was the first time Tübingen had taken the title. Professor Thomas Finkenauer and Sebastian Schneider coached the team in the case, which involved tort and administrative law. Tübingen beat Cambridge at the final, held at Austria's constitutional court. Sima Samari and Karolin Dirscherl took the first and third prizes for their performances.

No less than six **Sustainability Prizes** were awarded for Bachelor's theses in November 2016. Behrend Dellwisch and Sarah Koch made special contributions in the area of sustainability in their Bachelor's theses in Geoecology and Education respectively. Master's graduates Johanna Conrad and Carla Herth received their prizes for their work in Human Geography and Geoecology. Teaching degree students Josua Föttinger and Andri König earned their prizes in the fields of Physics and Philosophy/Ethics. The awards were made at the annual Sustainability Lecture, in 2016 held by energy expert Ursula Sladek on the challenges of introducing large-scale renewable energies in Germany.



*Sustainability Prize winner Carla Herth, Andri König, Johanna Conrad and Josua Föttinger, special guest speaker Ursula Sladek, prizewinners Behrend Dellwisch and Sarah Koch, the Executive Vice-President Dr Andreas Rothfuss and Professor Thomas Potthast of the International Center for Ethics in the Sciences and Humanities (left to right)*



# UNIVERSITY STRUCTURES

## FOLLOWING THROUGH ON STRATEGY

2016 saw the completion of a major building project and the launch of two more at our Morgenstelle science campus. Our efforts to support equal opportunities are reflected in some key indicators. And the President's Office welcomed Professor Monique Scheer to reinforce and further develop our international strategies.

### NEWS



*The President and his team: Professors Peter Grathwohl, Monique Scheer, Bernd Engler, Karin Amos and Dr Andreas Rothfuss*

#### The President's Office

President	Professor Bernd Engler	Institute of English Languages and Literatures
Executive Vice-President	Dr Andreas Rothfuss	
Vice-President of Academic Affairs	Professor Karin Amos	Institute of Education
Vice-President of Research	Professor Peter Grathwohl	Applied Geoscience
Vice-President of International Affairs	Professor Monique Scheer	Ludwig Uhland Institute of Historical and Cultural Anthropology



Professor Monique Scheer

### New Vice-President of International Affairs

US-born cultural anthropologist Monique Scheer became the University's Vice-President of International Affairs in October 2016, when Professor Heinz-Dieter Assmann retired. As an American, Professor Scheer maintains close contacts with top universities in North America, as well as with many other partner institutions around the world.

She plans to spend her four-year term promoting the University of Tübingen's long-term international goals, focusing on cooperation with outstanding universities in Europe and North America in the areas of student exchanges and in research. She stresses the importance of maintaining contacts with international researchers as part of making networks sustainable. She aims to ensure that contacts made can be kept up, particularly via the Tübingen researchers' alumni network.

Monique Scheer has been a professor of Historical and Cultural Anthropology at the University of Tübingen since 2014, focusing on cultural variety.

### Women climbing the career ladder

The proportion of women holding full professorships at the University of Tübingen rose from 7.2 percent in 2005 to 21.3 percent in 2016. We have taken a number of steps in recent years to encourage top female researchers to pursue their academic careers with us; in this way the University benefits from their talent and reduces the gap between the numbers of male and female professors.

Several indicators show positive trends. The measures include participation in the German government's Women Professors Program, which provided funding in 2007 and 2012 for professorships going to qualified women. We were also able to appoint a number of outstanding women researchers to professorships under our Excellence Initiative programs. We hope that the growing number of women in senior positions will motivate female students to choose academic and scientific careers.

Women represent a growing proportion of successfully completed doctorates and postdoctoral qualifications at the University of Tübingen – 51 percent of doctorates in 2016. The proportion of women completing the postdoctoral habilitation has risen to 26 percent, a result partly due to our programs to support female researchers at the University of Tübingen.

### Professors at the University of Tübingen

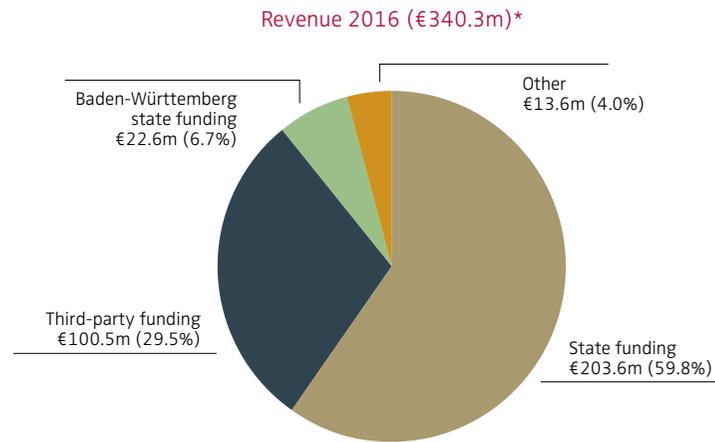
including junior and assistant professors

	2016		
	Total	Male	Female
Protestant Theology	14	12	2
Catholic Theology	12	10	2
Center of Islamic Theology	4	3	1
Law	23	21	2
Faculty of Medicine	113	93	20
Humanities	96	63	33
Economics and Social Sciences	62	44	18
Science	183	145	38
Knowledge Media Research Center	7	4	3
Central institutions	3	3	0
<b>Total</b>	<b>517</b>	<b>398</b>	<b>119</b>

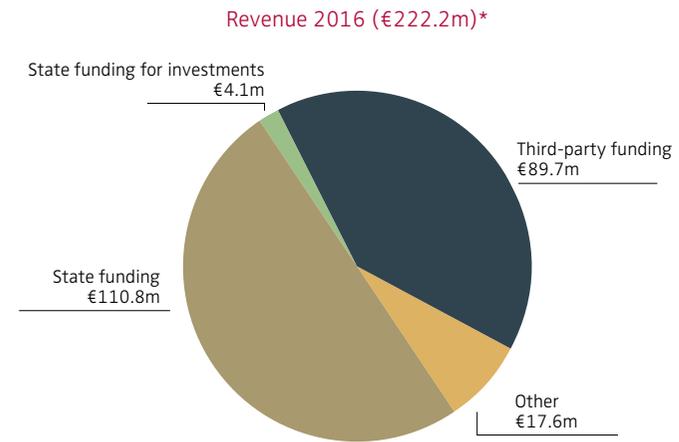
As of: 30 June 2016

## UNIVERSITY FINANCES

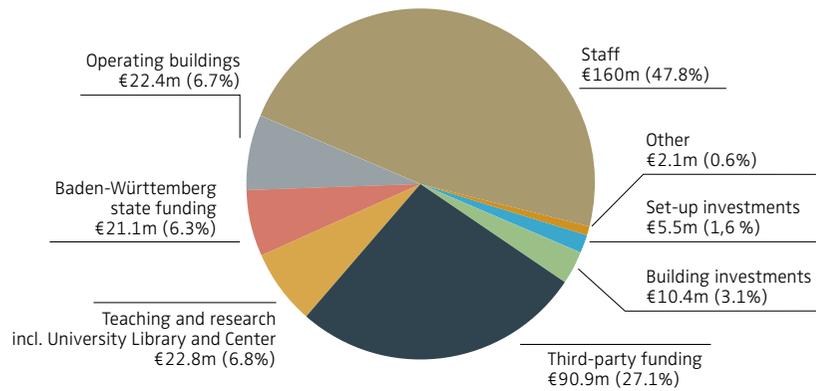
University budget (excluding Medicine)



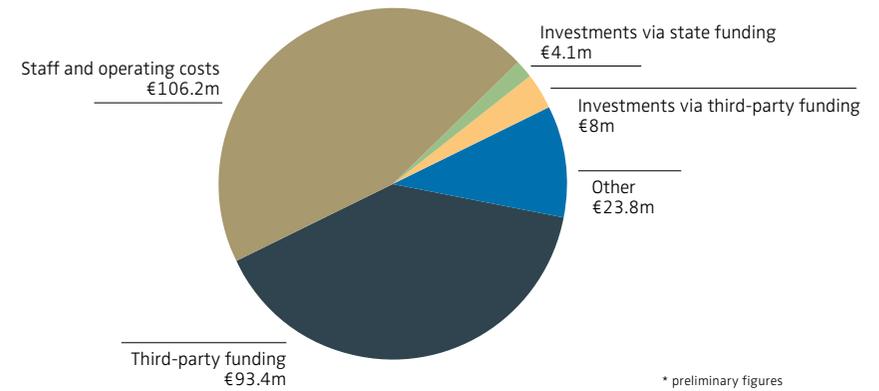
Faculty of Medicine



Expenditure 2016 (€335.2m)\*



Expenditure 2016 (€235.5m)\*



\* preliminary figures

## BUILDING PROJECTS



### Work begins on new Environmental and Geoscience Center

The cornerstone for a new Environmental and Geoscience Center (GUZ) building was laid at the Morgenstelle Campus in March 2016. The energy-efficient building will have 10,000m<sup>2</sup> of floor space for labs, workshops, offices, lecture halls, and classrooms. It will cost around 64 million euros and is slated for completion in mid-2018.

Geoscience in Tübingen focuses on issues of climate change, soil and water pollution, harnessing new sources of energy and raw materials, and the development of new technologies to protect the environment. This building will bring together disciplines which have been at separate locations until now, including Mineralogy and Geodynamics, parts of Palaeobiology and Applied Geoscience. The new location among our natural sciences institutes will promote exchange with the disciplines of Biology, Physics, and Chemistry.

Tübingen's Geoscience Department's strong networks and good reputation have made it an attractive partner for colleagues in Germany and abroad.

*The new Geosciences complex under construction at the Morgenstelle Campus*



*The new building for the Tübingen location of the German Center for Neurodegenerative Diseases at the Schnarrenberg Campus*

### Opening ceremony for German Center for Neurodegenerative Diseases

The Tübingen location of the German Center for Neurodegenerative Diseases (DZNE) opened its doors in January 2016. Close by the Tübingen University Hospitals, its 150 researchers will seek new strategies for dealing with neurodegenerative disorders such as Alzheimer's and Parkinson's disease – including better prevention, diagnostics, and treatment.

The building costs of 15.9 million euros were borne jointly by the DZNE, the Faculty of Medicine, and University Hospitals under the auspices of the state government. The Baden-Württemberg Ministry of Science, Research and the Arts contributed 3.25 million euros to plan and equip the Center. Tübingen is home to one of the German Centers for Neurodegenerative Diseases

The German Center for Neurodegenerative Diseases (DZNE) formed the third and final part of the Neuroscience Campus ensemble, which also includes the Hertie Institute for Clinical Brain Research and the Center for Integrative Neuroscience (CIN). The new building comprises 2,700m<sup>2</sup> of floor space over eight levels, including laboratories, offices, and classrooms used by the 70 employees.

## Interfaculty Institute of Biochemistry – Building phase II launched

The ground was broken on a new research building for the Interfaculty Institute of Biochemistry (IFIB) in October 2016. It is the second phase of the Center for Plant Molecular Biology complex. The first was completed in 2013. The new building will comprise some 5,300m<sup>2</sup> of floor space, including labs, computer rooms, classrooms, offices, and meeting rooms and is due for completion in 2019. The 41 million euro construction is funded by the state of Baden-Württemberg.

IFIB researchers investigate biochemical processes from the organism and cell level, right down to the molecular level. Research often focuses on communications within the cell and between cells, and on the fate of individual cells. Biochemistry findings frequently lead to a better understanding of the causes of disease – thereby offering approaches for new treatments. The Interfaculty Institute of Biochemistry forms a bridge between biological, chemical and medical research. It works closely with the Center for Plant Molecular Biology. The new physical proximity of the institutions will provide optimal conditions for research and teaching at IFIB.



*Laying the foundation stone for the new Interfaculty Institute of Biochemistry – Vice-President Peter Grathwohl, state finance ministry official Gisela Splett, and the director of the state building authority Annette Ipach-Öhmann*



# CELEBRATING KNOWLEDGE

## HOW THE ARTS AND SCIENCES UNITE US

A range of exciting events at the University of Tübingen in 2016 showed how ideas bring people together. A musical highlight and a number of prominent speakers underlined how interconnected today's world is; and two institutes working internationally celebrated five decades of discovery in their fields.

### PROMINENT EVENTS



### A fictional detective becomes an opera hero

In July 2016 the University's Musical Director, Philipp Amelung, took Tübingen into new artistic territory when he put Kurt Wallander, the detective from the Swedish crime novels by Henning Mankell, onto the opera stage. The opera "W – The Truth Beyond" premiered July 15. It was composed by Fredrik Sixten and the libretto was by Klas Abrahamsson, both from Sweden.

The opera took up the theme of Mankell's final Wallander novel. Shortly before his retirement, Wallander returns to an old, unsolved case, uncovering dark secrets and the long hidden "truth beyond" of the title. The opera in two acts told the story of remembrance and forgetting, love and identity. After three shows in Tübingen, the production moved to the Swedish town of Ystad, setting of the Wallander novels, where it ran seven times in August with the La Banda Modern Orchestra. "W – The Truth Beyond" received good reviews for both the originality of the idea and the quality of the production.

*The opera choir and singers (from left):  
Gustavo Martín Sánchez (Tobias Jonsson),  
Matias Bocchio (Kurt Wallander),  
and Lisbeth Rasmussen Juel (Linda Wallander)*

### Lucas Prize for Polish writer Adam Zagajewski

Polish writer and essayist Adam Zagajewski received the University of Tübingen's 2016 Dr Leopold Lucas Prize. The Faculty of Protestant Theology paid tribute to his literary work, as well as to his political and social activities as a critic of dictatorship and totalitarianism, and his promotion of unity and freedom in Europe.

Adam Zagajewski was born in 1945 in Lwów, studied Psychology and Philosophy at the Jagiellonian University of Krakow, where he subsequently worked. He was a member of the Workers' Defense Committee; his works were banned in Poland in 1976. He lived in West Berlin on a DAAD artists' program from 1979 to 1981. From 1982 he lived as an exile in Paris and taught at the University of Houston in Texas, then at the University of Chicago. In 2002, Zagajewski returned to Krakow.

His best known works include *Mysticism for Beginners* (1997); *Eternal Enemies: Poems* (2008); and *Unseen Hand: Poems* (2011). His works have been translated into a number of languages, including English and German. He has received widespread international recognition, most recently the Jean Améry Prize for European essay writing.



*Lucas Prize recipient, Adam Zagajewski*

The €50,000 Dr Leopold Lucas Prize honors outstanding achievements in the fields of theology, intellectual history, historical research, and philosophy. It goes to individuals who have promoted tolerance and better relations between people and nations. The Prize is a tribute to the memory of the Jewish rabbi and scholar, Dr Leopold Lucas, murdered at Theresienstadt concentration camp in 1943. The Prize was endowed by his son, Franz D. Lucas, in 1972.

At the suggestion of the Faculty of Catholic Theology, the Lucas Prize for Junior Researchers went to theologian Dr Daniela Blum for her outstanding 2014 doctoral thesis, "Confessional coexistence, conflicts and cooperation in Speyer in the second half of the 16th century."



Sascha Lobo



Colin Crouch

### “Spiegel” blogger gives Media Lecture

Spiegel Online journalist and blogger Sascha Lobo was the guest at the 2016 Media Lecture. He spoke about the social effects of digital communications and the self-radicalization which may happen when people create their own media echo chambers. Lobo outlined how the internet once seemed to promise transparency and greater democracy by making possible discussion by the many; yet has become a tool for surveillance and misinformation.

Lobo has written extensively on digital technologies and the companies which promote them, as well as the nature of work in the digital age. He has analyzed the “comment culture” of the internet and how it frequently leads to hate speech; he has criticized social and political apathy towards the internet surveillance revealed by US secret service contractor Edward Snowden in 2013. The Media Lecture is sponsored by regional broadcaster SWR and is intended to inspire future journalists.

### Unsel Lecture – British sociologist Colin Crouch on postdemocracy

The 2016 Unsel Lecture was held by sociologist and political scientist Colin Crouch. He believes that citizens today play a merely passive role in policymaking – and that business lobbyists have taken the reins. This is the heart of “postdemocracy,” a term Crouch coined in 2000 and which has been the focus of debate ever since. Speaking in German, Crouch explained why we should be concerned at citizens’ waning participation in politics – while the influence of business waxes. He also described how revived xenophobic movements in many European countries hurt democracy with their misleading appearance of political participation. A panel discussion with Colin Crouch on the deficiencies of European democracy now seems prophetic, as it took place on the eve of the United Kingdom’s referendum to leave the European Union. The distinguished academic also held a week-long master class with 15 international doctoral and postdoctoral students.

Colin Crouch is a professor emeritus of the University of Warwick and external scientific member of the Max Planck Institute for the Study of Societies at Cologne, and advises the OECD’s Directorate for Public Governance and Territorial Development. The University’s Forum Scientiarum holds the Unsel Lectures in cooperation with the Udo Keller Foundation Forum Humanum and Suhrkamp publishers.

*Birthday celebration: Writers’ Lectureship director Dorothee Kimmich, keynote speaker Raoul Schrott, the 2016 guest writers Vittorio Gallese and Siri Hustvedt, state Ministry of Science, Research and the Arts official Petra Olschowski, the patron and honorary senator Reinhold Würth, and President Bernd Engler (from left)*



Siri Hustvedt



Vittorio Gallese

### Writers' Lectureship celebrates 20th anniversary

The writer Siri Hustvedt and the neuroscientist Professor Vittorio Gallese were the guests at the 20th Writers' Lectureship in November 2016.

They reflected on literature and its ties to academic, political, and ideological issues as well as questions of perception and aesthetics. Siri Hustvedt is one of America's foremost writers; some of her notable works are *The Blindfold* (1992), *The Enchantment of Lily Dahl* (1996), and *What I Loved* (2003), which brought her international fame.

Vittorio Gallese is professor of human physiology at the University of Parma, Italy, professor in Experimental Aesthetics at the University of London, and Adjunct Senior Research Scholar at the Department of Art History and Archaeology at Columbia University in New York. His research seeks to explain the neural mechanisms behind empathy, language, and aesthetic experience – this forms a link to the works of Siri Hustvedt.

Gallese is probably best well known for two interconnecting areas of research – mirror neurons and embodied simulation

theory. Embodied simulation theory is, amongst other things, a theory of social cognition – a theory of how it is we understand others' actions, basic intentions, emotions and sensations. Gallese's work not only provides a model for explaining human interaction and learning processes, it also helps us to understand why people need fictional narratives.

The Tübinger Writers' Lectureship is organized by the Institute of German Language and Literature and sponsored by the Würth Foundation and Adolf Würth GmbH & Co. KG. Previous guests include Günter Grass, Herta Müller, Amos Oz, Susan Sontag, Ruth Klüger, Lars Gustafsson, Terézia Mora, Péter Esterházy, Ilija Trojanow, Feridun Zaimoğlu, Jonathan Franzen, Daniel Kehlmann, Juli Zeh and Christoph Ransmayr.

Video: [www.youtube.com/watch?v=h7Xy11VJgbA](http://www.youtube.com/watch?v=h7Xy11VJgbA)



## GOLDEN ANNIVERSARIES



### Medical Genetics – The key to treating rare and complex diseases

Medical Genetics is an important, innovative part of modern medicine which exemplifies just how fast change can be. The forerunner of today's Institute of Medical Genetics and Applied Genomics was founded in 1966; now it has hundreds of employees, working in interdisciplinary teams for diagnostics, counselling, research, and teaching to give patients the very best possible care.

Fifty years later, whether dealing with issues of fertility, fetal deformities, slow development or deformities in children, cancer, or neurodegenerative or other genetically-linked conditions, the institute provides valuable expertise to all the Tübingen University Hospitals and to many national and international institutions.

Its research groups work with other experts around the world, searching for the genetic causes of a vast number of diseases, and investigating environmental influences on the human genome. Their findings may be transferred into clinical practice with personalized treatment concepts which also further expand the knowledge of doctors as well as students of Medicine, Molecular Medicine, Biology, and Medical Technologies. Germany's only Further Training Academy for Rare Disease (FAKSE) is part of this Tübingen Institute.

The Institute of Medical Genetics and Applied Genomics has remained true to its innovative beginnings, helping to found Germany's first Center for Rare Diseases in 2010 and the Center for Personalized Medicine in 2015.

## 50 years of Ancient Near Eastern Studies

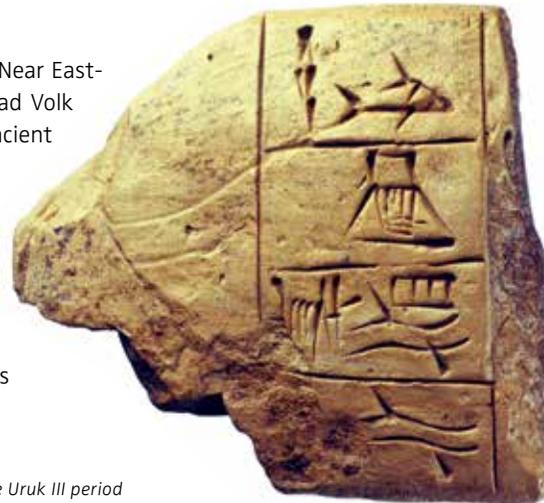
The ancient Mideast has been the focus of comprehensive studies in Tübingen since 1966, when Professor Wolfgang Röllig was authorized to establish an institute.

He successfully set up an institute which hosted two collaborative research centers, one of them – The Tübingen Atlas of the Near East – produced a key work in the discipline encompassing 134 volumes and has been described as one of the most successful collaborative research centers ever.

Röllig not only studied ancient near eastern texts, he conducted extensive archaeological surveys in Syria, which led to long-term excavations at Tel Sheikh Hamad in northern Mesopotamia.

This work was taken up by a new Professor of Near Eastern Archaeology, Peter Pfälzner, in 1996; Konrad Volk succeeded Wolfgang Röllig as Professor of Ancient Near Eastern Philology in 1998.

The Institute of Ancient Near Eastern Studies has carried out excavations at several locations in Syria, including at a royal palace in Qatna, a city destroyed by the Hittites in 1340 BCE. The excavations were extensively researched as part of research training groups and a further collaborative research center.



*Cuneiform script from the Uruk III period*

## OTHER EVENTS

*Top: Musical interlude at the awarding of the University Prize to the Werner Siemens Foundation in the Alte Aula*



*Center: Outstanding students receiving their Deutschlandstipendium scholarship certificates*



*Bottom: Children learning about science at the annual Children's University Research Day*



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