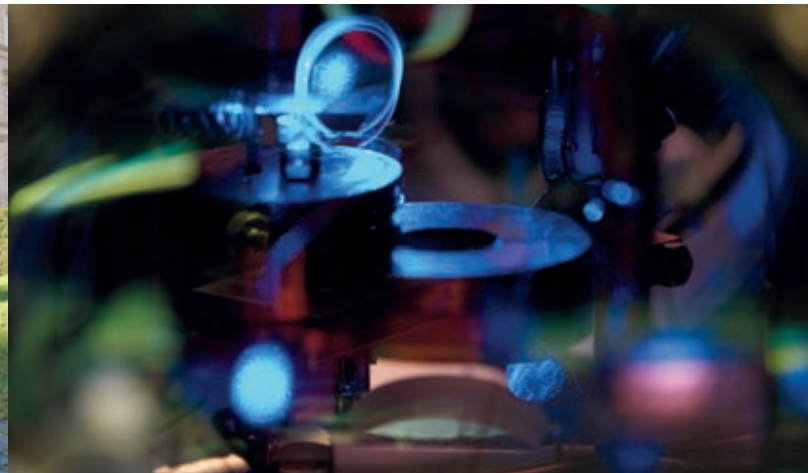


EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN



2011-12

University of Tübingen

One of Germany's Universities of Excellence

ANNUAL REPORT



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FOREWORD

President's Foreword

Dear Readers,

the University of Tübingen has had an exciting and highly successful year. On June 15 we joined the group of Germany's Universities of Excellence under the government's Excellence Initiative, reflecting our outstanding research profile. Under this funding program we are able to set up the Graduate School for Learning, Educational Achievement, and Life Course Development, and continue the outstanding work of our Center for Integrative Neuroscience Excellence Cluster. Also developed with an eye to the Excellence Initiative, the University's Institutional Strategy, entitled Research – Relevance – Responsibility, takes us a big step closer to joining the world's best research universities.

All this was only possible thanks to a grand common effort by all members of the University: academics and scientists dedicated to innovative research, highly motivated University staff involved in teaching, research and administration, keen students, effective committees, as well as the many friends and patrons of the University.

I thank each and every one of them for their decisive contributions to the success of this joint project. We have traveled a long and sometimes difficult road. But it has been worth it. And this considerable success means a lot more work is in store for us.



The main challenge in the coming years will be to ensure the long-term sustainability of projects whose development will begin with temporary Excellence Initiative funding. This will be an important focus of my second term as President of this University following my reelection in 2012. Now, the aim is to further open up our basic research to application-oriented research and to consistently strengthen our innovative research ties with non-University institutions. We are firmly on track with this in the Sciences and Medicine as well as in the Social Sciences and Humanities.

We aim to pay special attention to shaping an environment which awakens creativity and independence in junior researchers. To that end, we are expanding our Graduate Academy and setting up junior research units and junior professorships – which we hope to fill with qualified women candidates whenever possible. We are working to provide equal opportunities and greater diversity. Such efforts also aim at making every area of the University more family-friendly.

Our achievement in the Excellence Initiative has raised our profile internationally and made us more attractive as a partner for independent research institutions. We plan to use this success to boost our internationalization initiative by working on strategic multilateral partnerships with selected research universities around the world with core research profiles matching our own. Special funding for top international appointments, the Tübingen Distinguished Professorship Program, and grants for international PhD candidates are all measures we take to make Tübingen even more attractive to outstanding researchers from all around the globe.

Teaching quality is also central to us. Excellent teaching is just as important as excellent research; the one is unthinkable without the other. At the University of Tübingen, we are delighted to have had the quality of both our research and teaching affirmed by bodies such as the German Research Foundation, the German Council of Science and Humanities, and the Ministry of Education and Research. As part of the government-sponsored Study Successfully in Tübingen program, we were able to expand our counseling and student-support services. We found additional capacity to overhaul our curricula and to further qualify our teaching staff.

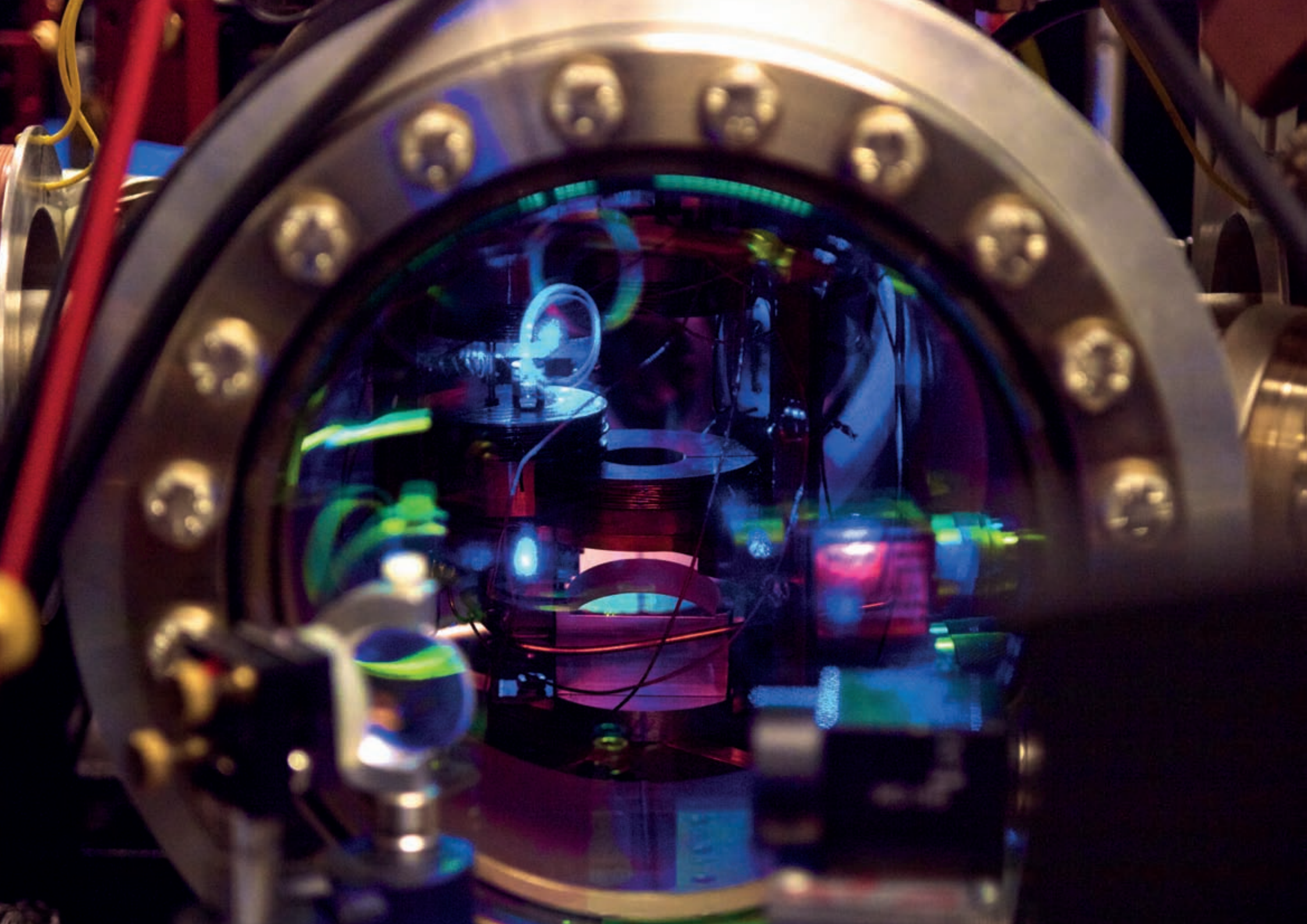
To turn all our plans into reality and to bring the Excellence Initiative projects to life, we also need a sustainable financial foundation. Reinforced by our success in the Excellence Initiative we look forward, however, to all the challenges before us with great optimism, and we will forge ahead with our long-term strategies. The University will continue to count on the dedication of its researchers, staff and friends.



Professor Bernd Engler
President of the University of Tübingen



Professor Bernd Engler



RESEARCH

TAKING ON RESPONSIBILITY

The University of Tübingen promotes top-level research with an eye to its value for society as a whole. Translational research in Medicine, antibiotics research in the field of Microbiology, and Education Science research are just a few of the areas in which Tübingen University makes outstanding contributions. We promote junior researchers and provide optimal conditions for their work, opening up new career opportunities for our graduates. And not least, Tübingen scientists and academics are applying their expertise in areas important to society overall.

RESEARCH IN TÜBINGEN

Success in the Excellence Initiative

The University of Tübingen was successful in the second round of the German government Excellence Initiative, with the approval of its Institutional Strategy, one Graduate School in the field of Education Science and the extension of its Excellence Cluster in the Neurosciences. These areas are to receive some €90m in additional funding from the German Research Foundation, the DFG, over the next five years. The approval of the University's Institutional Strategy places Tübingen alongside Germany's ten other "universities of excellence." We aim to secure our place among the world's best research institutions.



The University of Tübingen continues to offer a broad spectrum of subjects, providing exciting opportunities for interdisciplinary work in research and teaching. The social and economic issues which dominate current academic debate are increasingly in the spotlight. The institutional strategy motto, Research – Relevance – Responsibility, underlines the University’s mindfulness of the need to reinforce core competencies in basic research using application-based aspects of research, and to confront current issues and future problems. Funding for the Institutional Strategy will be used in five main areas:

- promoting junior researchers,
- attracting top international scientists and academics,
- equal opportunities,
- upgrading infrastructure for interdisciplinary research, and
- platforms for interdisciplinary application-oriented basic research.

Neuroscience Excellence Cluster

The Werner Reichardt Center for Integrative Neurosciences (CIN) was set up in 2007 following a successful application in the first round of the Excellence Initiative. Its aim: to understand how the brain carries out functions such as perception, memory, feelings, communication and movement, and how diseases can influence these functions. The work carried out at CIN helps improve diagnostics and therapy for impairments of movement, memory and perception, and provides impetus for technological innovations.

Five new professors, 13 junior research group leaders and a senior professor work at the Center, to which around 70 researchers from several University Faculties belong, as well as several external partners, such as the Max Planck Institutes for Intelligent Systems and for Biological Cybernetics, and the Fraunhofer Institute for Manufacturing Engineering and Automation. “This extension will enable us to further develop our structures and working groups,” says CIN spokesman Professor Hans Peter Thier, “and to boost them with further measures which will ensure even higher international visibility of Tübingen’s Neuroscience.”

Graduate School on Learning, Educational Achievement, and Life Course Development

The Graduate School on Learning, Educational Achievement, and Life Course Development (LEAD) examines how to provide greater access to high-quality education and improve the broad base of education in today’s information-based society. “Our systematic development in the field of Education Science in recent years has paid off,” says Professor Ulrich Trautwein, spokesman for the new Graduate School. And LEAD will not only benefit PhD students – it also includes elements for undergraduates and postdocs.

Lawmakers often call for evidence on which to make policy decisions in education, but there are few experts and little knowledge in the field. The LEAD Graduate School will examine key issues in education, such as: How can high school students perform better in reading, mathematics and science? And how can we reduce social inequalities in educational success? Empirical research is essential to answer these and other questions in education policy.



The University in the Rankings

Tübingen Rises in Key International Comparison

The University of Tübingen moved up eight places in the QS World University Rankings 2012. Tübingen rose to 144 from 152 in 2011. That puts Tübingen at no. 9 in Germany, up from no. 10.

In the Life Sciences, Tübingen rose nine places from 129 to 120, and was unchanged in the Humanities at no. 86. Tübingen has also moved into the world's top 200 for the Sciences, coming in at no. 195 compared with no. 201 in 2011. The QS World University Rankings draw on data regarding research, teaching and internationalization from more than 700 institutions of higher education in 72 countries.

DFG Funding Atlas

The University of Tübingen took 14th place in the 2012 Funding Atlas, the DFG or German Research Foundation's overview of public funding for research in Germany in the 2008-2010 period. Tübingen attracted a total of €140.9m in that period, nearly €21m more than in the previous overview, published in 2009.

Tübingen's Humanities and Social Sciences maintained their funding ranking at eighth place, and rose to fifth in the category "DFG funding per researcher." In the Life Sciences, Tübingen rose to eighth place from tenth in 2009. In the category "third-party funding per Professor," Tübingen's Life Sciences surged up to third place.



Individual subjects also rated well. The disciplines of Plant Science and Ancient Cultures were top in public funding, while Linguistics, Literature Studies, Philosophy, Psychology, Water Science, Geology and Paleontology were close to the top, as is Neuroscience – where Tübingen's Excellence Cluster, the Center for Integrative Neuroscience, attracted €21.7m in outside funding in the two-year period.

The Funding Atlas also placed Tübingen among Germany's top ten in the number of DFG reviewers it provides (no. 6) and the number of members it has on DFG review boards (no. 4). Tübingen placed tenth in attaining European Union research grants and fourth in hosting academics on DAAD exchanges.

Employees Welcome Tübingen Law Graduates

In April 2012, the business journal *Wirtschaftswoche* put Tübingen's Faculty of Law at number 8 on its list of the best institutions for legal studies in Germany. The magazine surveyed 500 employers in large and mid-sized enterprises to find out which of Germany's 43 law schools they prefer to draw on for personnel.

DFG-Backed Collaborative Research Centers

The University of Tübingen is home to five Collaborative Research Centers (SFBs), sponsored by the German Research Foundation (DFG) for their concentration of expertise in groundbreaking fields of research. Furthermore, Tübingen scientists and academics play a vital role in six Transregio Collaborative Research Centers (SFB/TRs), which integrate the expertise of researchers at different institutions.

Tübingen's Collaborative Research Centers

| Title | Coordinator | Funding Period |
|--|--|------------------------------|
| Threatened Orders (SFB 923) | Professor Dr Ewald Frie Modern History | July 1, 2011 - June 30, 2015 |
| Emergence of Meaning: The Dynamics and Adaptivity of Linguistic Structures (SFB 833) | Professor Dr Sigrid Beck English Language and Literatures | July 1, 2009 - June 30, 2013 |
| Understanding and Overcoming Therapy Resistance in Solid Tumors (SFB 773) | Professor Dr Klaus Schulze-Osthoff Interfaculty Institute of Biochemistry | July 1, 2008 - June 30, 2012 |
| The Bacterial Cell Envelope: Structure, Function, and Infection Interface (SFB 766) | Professor Dr Wolfgang Wohlleben Interfaculty Institute of Microbiology and Infection Medicine | July 1, 2007 - June 30, 2015 |
| Immunotherapy: Molecular Basis and Clinical Application (SFB 685) | Professor Dr Hans-Georg Rammensee Interfaculty Institute for Cell Biology | July 1, 2005 - June 30, 2013 |

Tübingen participates in these Transregional Collaborative Research Centers

| Title | Tübingen Coordinator | Funding Period |
|---|--|-------------------------------------|
| Geometric Partial Differential Equations (SFB-TR 71) | Professor Dr Franz Pedit Mathematics | January 1, 2009 - December 31, 2012 |
| Neutrinos and Beyond – Weakly Interacting Particles in Physics, Astrophysics and Cosmology (SFB-TR 27) | Professor Dr Josef Jochum Physics | January 1, 2007 - December 31, 2011 |
| Pathophysiology of Staphylococci in the Post-genomic Era (SFB-TR 34) | Professor Dr Friedrich Götz Interfaculty Institute of Microbiology and Infection Medicine | July 1, 2006 - June 30, 2014 |
| Control of Quantum Correlations in Tailored Matter: Common Perspectives of Mesoscopic Systems and Quantum Gases (SFB-TR 21) | Professor Dr Reinhold Kleiner Physics | July 1, 2005 - June 30, 2013 |
| Inflammatory Cardiomyopathy – Molecular Pathogenesis and Therapy (SFB-TR 19) | Professor Dr Reinhard Kandolf Institute of Pathology and Neuropathology | July 1, 2004 - June 30, 2012 |
| Gravitational Wave Astronomy: Methods – Sources – Observation (SFB-TR 7) | Professor Dr Kostas Kokkotas Astronomy and Astrophysics | January 1, 2003 - December 31, 2014 |

DFG-Backed Research Units and Clinical Research Units

The German Research Foundation (DFG) sponsors Units in which researchers can work together to focus on a specific, innovative research task. The groups usually receive funding for six years and frequently lead to the establishment of new disciplines. The University of Tübingen is currently home to seven DFG Research Units:

| Institution | Title | Spokesman |
|---|---|--------------------------------|
| Research Center for Ophthalmology | Hereditary Retinal Disorders: Clinical Aspects, Genetics and Animal Models (KFO 134) | Professor Dr Eberhart Zrenner |
| Faculty of Medicine | Treatment of Urinary Incontinence via Cell-Based Regeneration of the Urethral Sphincter (KFO 273) | Professor Dr Arnulf Stenzl |
| Faculty of Medicine | Platelets – Molecular Mechanisms and Translational Applications (KFO 274) | Professor Dr Meinrad Gawaz |
| Center for Applied Geoscience (ZAG) | Analysis and Modeling of Diffusion/Dispersion – Limited Reactions in Porous Media (FOR 525) | Professor Dr Peter Grathwohl |
| Institute of Asian and Oriental Studies, Chinese and Korean Studies | Monies, Markets and Finance in China and East Asia, 1600 - 1900: Local, Regional, National and International Dimensions (FOR 596) | Professor Dr Hans Ulrich Vogel |
| Institute of Psychology and Knowledge Media Research Center (IWM) | Analyzing and Promoting Effective Processes of Learning and Instruction (FOR 738) | Professor Dr Friedrich Hesse |
| Institute of Astronomy and Astrophysics | The Formation of Planets – The Critical First Growth Phase (FOR 759) | Professor Dr Wilhelm Kley |



NEW SCIENTIFIC PROJECTS

Gut Feelings – Intestinal Bacteria and the Immune System

With around one trillion bacteria per square meter, the intestinal ecosystem is highly complex and important to human health. The German Research Foundation has established a new Priority Program on intestinal microbiota, coordinated by Tübingen Professor Ingo Autenrieth, and Professor Dirk Haller, of Munich's Technical University. The program, entitled "A Microbial Ecosystem at the Edge between Immune Homeostasis and Inflammation," investigates the mechanisms leading to intestinal diseases. The researchers will examine the role of intestinal bacteria in the development of newborns' immune systems, in inflammatory bowel disease, and in other infections of the gut. The program is one of ten Priority Programs approved in May 2012. Priority Programs aim to leverage the combined scientific expertise of researchers from Germany and beyond who work in particularly current or emerging fields.

Hot Platelets – Role of Thrombocytes in Inflammation

Platelets help heal wounds and damaged organs. But an excess of them can lead to vascular and heart disease. The Clinical Research Unit "Platelets – Molecular Mechanisms and Translational Applications" at the University of Tübingen is therefore looking into platelet function and interaction with inflammation. The aim is for a better understanding of the role platelets play in thrombosis, heart attacks and strokes. The results will be used to develop and evaluate new treatments to fill current therapy deficits. Funding of €3.5m for the unit over four years was approved in 2011 and

work began in 2012. The unit's spokesman is Professor Meinrad Gawaz, medical director of Cardiology and Cardiovascular Medicine.

Germany's First Clinical Research Unit for Urology

To date, there is no lasting treatment for stress incontinence, the most common type of incontinence. It is usually caused by a weakness of the urethral sphincter. The DFG in 2012 decided to sponsor Germany's first Clinical Research Unit in the field of Urology. The unit, "Treatment of Urinary Incontinence via Cell-Based Regeneration of the Urethral Sphincter" is examining how specially cultivated cells taken from the patient can be used to regenerate the urethral sphincter and bring it back under neural control.

Project partners are several University Hospitals and the Faculty of Medicine, Stuttgart University, the Fraunhofer Institute for Manufacturing Engineering and Automation in Stuttgart and the Natural and Medical Sciences Institute in Reutlingen. The spokesman is Professor Arnulf Stenzl, medical director of the Tübingen Urology clinic.

Tübingen Coordinates Major Water Research Project

The University of Tübingen coordinates one of 13 water research projects sponsored by the German Education and Research Ministry (BMBF). These projects combine the German government's activities in the field of hydrology and ensure sustainable hydroecology. In the €2.7m joint project "SchussenAktivplus," launched in 2012, 19 institutions from academia, industry and government examine the



Researchers at work in the Schussen River

catchment area of the Schussen river, which flows into Lake Constance – a major source of Germany's drinking water. The practical orientation of the project has set the standard for used-water purification. "The aim is to document the success of the continuing purification measures at treatment plants of different sizes and of rainwater treatment systems, not only by looking at concentrations of chemicals and germs but also at the effects they have," says project coordinator Professor Rita Triebkorn of the Institute of Evolution and Ecology at the University of Tübingen. The project not only examines the immediate benefit for humans, it also demonstrates how fish and small life forms are helped by cleaner water.

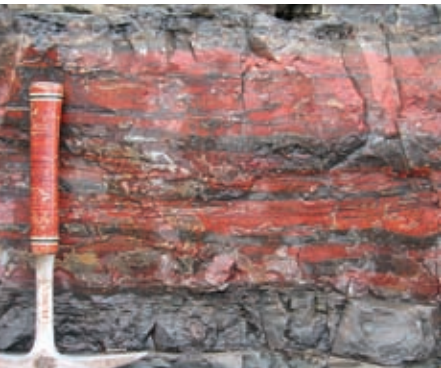
www.schussenaktivplus.de

FUNDING FOR INNOVATIVE RESEARCH

Starting Grants for Three Tübingen Researchers

Three University of Tübingen researchers are to receive European Research Council Starting Grants: Dr Hendrikje Nienborg, of the Werner Reichardt Center for Integrative Neuroscience (CIN), and Professor Johannes Krause, of the Institute for Archaeological Sciences, and Professor Andreas Kappler of the Geoscience Department. Starting Grants have been awarded annually by the ERC since 2008 to promote groundbreaking work by outstanding junior researchers.

Iron formations laid down by Precambrian bacteria



Professor Andreas Kappler receives the €1.5m Starting Grant for the interdisciplinary project Microbial Formation of Minerals by Communities of Fe(II)-oxidizing Bacteria in Modern and Ancient Environments. The project aims at finding out more about the beginnings and development of early life on Earth, and perhaps offer clues pointing to the existence of bacteria on iron-rich Mars. Kappler will also be analyzing what role iron-oxidizing bacteria play today in the treatment of poisonous metals such as arsenic and chromium – which bind with the minerals formed by the bacteria. This opens a door to possibilities for new water filters and biotechnology applications.

Dr Hendrikje Nienborg receives €1.9m over five years for her research into the neural foundations of visual perception – which is influenced by context, such as previous experiences, memories, as well as prior or accompanying stimuli. There has been a long debate over how these phenomena come to be; one theory says top-down signals are sent via feedback connections between different areas of the brain. The working group led by Hendrikje Nienborg, Optogenetic Examination of the Role of Feedback on Visual Processing and Perception, expects to gain important information, which will be relevant to perception and decision-making processes in humans.

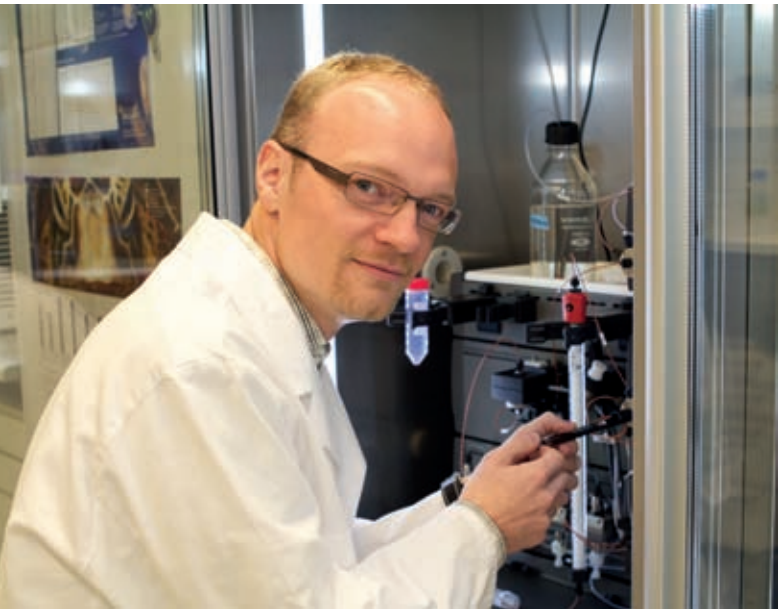
Professor Johannes Krause receives his €1.5m Starting Grant for the Ancient Pathogen Genomics of Re-emerging Infectious Disease project, which focuses on the evolution of disease in the context of historical pandemics such as the medieval outbreaks of the plague. Krause's team aims at decoding the genomes of pathogens from human skeletons dating back hundreds and thousands of years in order to track the evolution of diseases. The information this could provide may be useful in predicting a pathogen's future development – particularly as many bacteria evolve to resist antibiotics.

<http://erc.europa.eu>

Starting Grants Awarded to Tübingen Researchers

| | Name | Project | Funding Period |
|----------------|---|---|----------------|
| Starting Grant | Professor Dr Andreas Kappler Geoscience Department | Microbial Formation of Minerals by Communities of Fe(II)-oxidizing Bacteria in Modern and Ancient Environments (MICROFOX) | 2012 - 2017 |
| Starting Grant | Jun.-Professor Dr Johannes Krause Prehistory and Medieval Archeology | Ancient Pathogen Genomics of Re-emerging Infectious Disease (APGREID) | 2012 - 2017 |
| Starting Grant | Dr Hendrikje Nienborg Werner Reichardt Center for Integrative Neuroscience | Optogenetic Examination of the Role of Feedback on Visual Processing and Perception (NEUROOPTOGEN) | 2012 - 2017 |
| Starting Grant | Professor Dr Katerina Harvati Geoscience Department | Paleoanthropology at the Gates of Europe: Human Evolution in the Southern Balkans (PaGE) | 2011 - 2016 |
| Starting Grant | Dr Steffen Katzner Werner Reichardt Center for Integrative Neuroscience | Cortical Circuits of Visual Perception (Percept) | 2011 - 2016 |
| Advanced Grant | Professor Dr Reinhold Kleiner Professor Dr József Fortágh (co-investigator) Physics Department | Solid State / Cold Atom Hybrid Quantum Devices (SOCATHES) | 2008 - 2013 |
| Advanced Grant | Professor Dr Wolfgang Rosenstiel Department of Computer Science Professor Dr Niels Birbaumer (co-investigator) Institute of Medical Psychology Professor Dr Alireza Gharabaghi (co-investigator) Department of Neurosurgery | Bidirectional Cortical Communication Interface (BCCI) | 2008 - 2013 |
| Starting Grant | Dr Marc Himmelbach University Department of Neurology | Human Reaching and Grasping – Cognitive Networks of Visual Action Control (GRASP-CN) | 2007 - 2012 |
| Starting Grant | Professor Dr Martin Zerner Mathematics Department | Non-classical Interacting Random Walks (NCIRW) | 2007 - 2012 |





Professor Samuel Wagner

Kovalevskaja Award for the Effort to Disarm Bacteria

Microbiologist **Samuel Wagner** says he is looking forward to five years of research under optimal conditions. He took up his professorship at Tübingen's Institute of Medical Microbiology and Hygiene in February 2012 and the same year won the Alexander von Humboldt Foundation's Sofja Kovalevskaja Award. The Award is one of Germany's richest. "1.35 million euros – that makes all kinds of things possible," he says.

Wagner studied in Marburg, went to the Karolinska Institutet in Sweden for his Master's degree, and received his Doctorate at the University of Stockholm (2008). He was a visiting academic at Cornell University and a post-doctoral fellow at Yale University, USA. Now in Tübingen, Wagner is investigating what happens in the body when a salmonella infection breaks out. One mechanism the bacteria use is to inject toxic proteins into host cells. Professor Wagner is researching salmonella bacteria to find out how their "syringes" work at the molecular level, and how the proteins get through the inner bacterial membrane and into the host cell. If the process could be stopped, the bacteria could be rendered harmless. In the long term, Wagner says, a new treatment is possible. "Unlike conventional antibiotics, it would not kill the bacteria – it would simply prevent an infection." This would also circumvent the problem of resistant strains of bacteria descended from the survivors of antibiotic treatments.

But this will require a lot of basic research and collaboration between disciplines. In Tübingen, Wagner works closely with other researchers at his institute and within the Collaborative Research Center "The Bacterial Cell Envelope," as well as with experts from the Helmholtz Center for Infection Research, from Vienna, Yale and Tübingen's Max Planck Institute for Developmental Biology. He says he appreciates the research environment: "It is great to be able to tap into the expertise of so many colleagues and develop ideas in conversation."

Wagner also keeps an eye on the potential market for his developments. In his Stockholm days, Wagner took out a patent on the production of certain complex proteins, establishing a biotech company with his colleagues there. A new enterprise is now in the making, which aims to market innovative new vaccines.

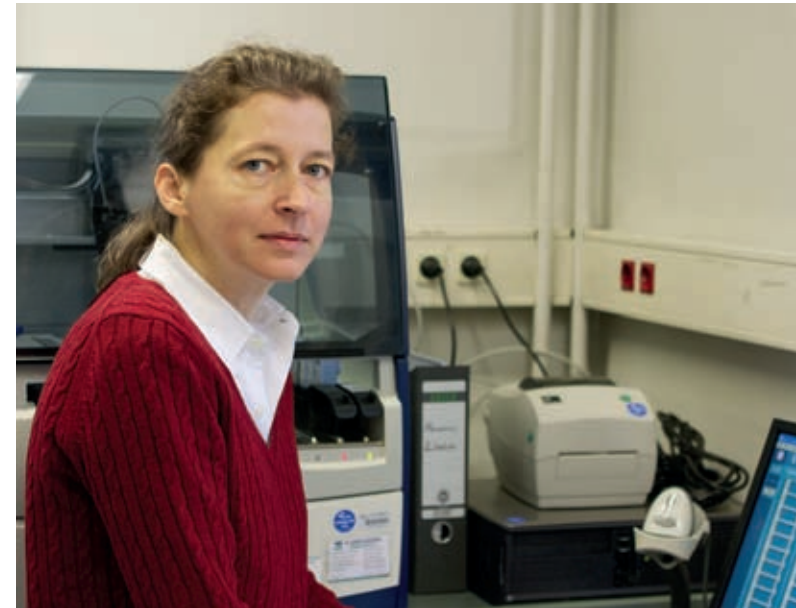
Grand Prix for Dementia Research

Neuropathologist **Manuela Neumann** seeks to understand what happens in the brain when people develop dementia, a complex condition with many unanswered questions. We know that patients with neurodegenerative diseases have malformed proteins – often in clotted layers. In the case of Alzheimer’s Disease, an aggregation of amyloid-beta peptides is responsible.

Neumann studied Medicine in Munich and Göttingen. After specializing in Neuropathology, she carried out research at the LMU Munich and at the University of Pennsylvania and worked as an assistant professor of Experimental Neuropathology in Zürich and as a physician at the Institute of Neuropathology at the Zürich University Hospital. She has been head of Neuropathology in Tübingen since June 2012 and has been carrying out research at the Center for Neurodegenerative Diseases (DZNE) – in an appointment made jointly by the University and the Helmholtz Research Center, which brings together researchers at various Universities investigating diseases of the nervous system.

Neumann says it is vital to identify proteins which form the typical aggregations in the brain. “That is the only way to understand how these diseases arise,” she says. Neumann did just that in cases of frontotemporal dementia (FTD), the third most common form of dementia, identifying TDP-43 as the protein causing major damage to FTD patients’ brains and also playing a role in a second neurodegenerative disease, amyotrophic lateral sclerosis (ALS). And she was able to isolate further harmful proteins in other cases of FTD and ALS. She and her team contributed to a new molecular classification of these diseases and laid the foundations of future research – which will aim to find ways of combatting neurodegenerative diseases.

Neumann’s work earned her the 2012 Grand Prix Européen of the Fondation pour la Recherche sur Alzheimer. She is now focusing on unlocking further secrets of FTD and ALS, including what role proteins like TDP-43 play in the healthy brain and how the aggregations are formed. “We know that something goes wrong with this protein, but we don’t understand the steps which lead to the death of nerve cells,” Neumann says. She will use the €150,000 Grand Prix prize money to develop models to help in this investigation.



Professor Manuela Neumann

Endowed Professorships

Endowed professorships are a valuable addition to Germany’s largely state-funded universities. These professorial chairs are fully or partially funded by third parties, such as foundations, businesses and industry associations. In recent years, the University has gained a substantial number of endowed professorships – enabling it to expand into more innovative fields of research.

| Professorship of | Name | Sponsor |
|------------------|------|---------|
|------------------|------|---------|

Law

| | | |
|--------------------------------------|-------------------------|--------------------------|
| Crime Prevention and Risk Management | position not yet filled | German Interior Ministry |
|--------------------------------------|-------------------------|--------------------------|

Humanities

| | | |
|--|----------------------------|-------------------------|
| East European Culture and History, 19th and 20th Centuries | Professor Dr Carl Bethke | German Culture Minister |
| Quantitative Linguistics | Professor Dr Harald Baayen | Humboldt Foundation |

Education Science

| | | |
|---|-------------------------------|-------------------------|
| Education Science | Professor Dr Ulrich Trautwein | DFG |
| Education Science / Science and Technology in Schools | Professor Dr Kerstin Oschatz | Gips-Schüle Foundation |
| Intergenerationally Just Policies | Professor Dr Dr Jörg Tremmel | Partridge Professorship |

| Professorship of | Name | Sponsor |
|--|------------------------------------|--|
| Medicine | | |
| Clinical Pharmacology | Professor Dr Matthias Schwab | Robert Bosch Foundation |
| Genome Biology of Neurodegenerative Diseases | position not yet filled | German Center for Neurodegenerative Diseases |
| Biomaterial Development / Cardiovascular Regenerative Medicine | Professor Dr Katja Schenke-Layland | Fraunhofer Institute for Interfacial Engineering and Biotechnology IGB |
| Neurodegeneration of the Eye | Professor Dr Mathias Seeliger | Heisenberg Professorship (DFG) |
| Clinical-Experimental Diabetology | Professor Dr Norbert Stefan | Heisenberg Professorship (DFG) |
| Neurology / Neurodegenerative Diseases | Professor Dr Thomas Gasser | Hertie Foundation |
| Cell Biology: Foundations of Neurological Diseases | Professor Dr Matthias Jucker | Hertie Foundation |
| Functional Neurogenetics | Professor Dr Philipp Kahle | Hertie Foundation |
| Neurology/ Epileptology | Professor Dr Holger Lerche | Hertie Foundation |
| Clinical Neurogenetics | Professor Dr Ludger Schöls | Hertie Foundation |
| yet to be decided | position not yet filled | Hertie Foundation |
| yet to be decided | position not yet filled | Hertie Foundation |
| yet to be decided | position not yet filled | Hertie Foundation |
| Molecular Biology of Degenerative Retinal Disorders | Professor Dr Marius Ueffing | Tistou und Charlotte Kerstan Stiftung Vision 2000 – Sehen – Kunst – Sinnesfunktion |
| Infectious Diseases of the Circulatory System | Professor Dr Harald Langer | Lichtenberg Professorship (VW Foundation) |
| Nephrology | position not yet filled | Sanofi-Aventis Deutschland GmbH |
| Neuroplasticity of the Developing Brain | Professor Dr Martin Staudt | Schön Klinik GmbH, Behandlungszentrum Vogtareuth |
| Preclinical Imaging and Imaging Technology | Professor Dr Bernd Pichler | Werner Siemens Foundation |
| Occupational and Social Medicine | Professor Dr Monika Rieger | Südwestmetall Employers Federation |

| Professorship of | Name | Sponsor |
|------------------|------|---------|
|------------------|------|---------|

Science

| | | |
|----------------------------------|---------------------------------|--|
| Glaciology | position not yet filled | Alfred Wegener Institute for Polar and Marine Research |
| Neural Information Processing | Professor Dr Felix Wichmann | Bernstein Professorship, German Ministry of Education and Research |
| Terrestrial Paleoclimatology | Professor Dr Madelaine Böhme | Heisenberg Professorship (DFG) |
| Evolutionary Cognition | Professor Dr Bettina Rolke | Heisenberg Professorship (DFG) |
| Data Mining in the Life Sciences | Professor Dr Karsten Borgwardt | Max Planck Institute for Biological Cybernetics |
| Geomicrobiology | Professor Dr Andreas Kappler | Stifterverband für die deutsche Wissenschaft |
| Environmental Archeology | Professor Dr Johannes Krause | Zeiss Foundation |
| Geoarcheology | Professor Dr Christopher Miller | Zeiss Foundation |

Center of Islamic Theology

| | | |
|--|------------------------------|---|
| Islamic Doctrine | Professor Dr Lejla Demiri | German Ministry of Education and Research |
| Islamic Theology | Professor Dr Omar Hamdan | German Ministry of Education and Research |
| Islamic Law | Professor Dr Mouez Khalfaoui | German Ministry of Education and Research |
| Islamic History and Contemporary Culture | Professor Dr Erdal Toprakyan | German Ministry of Education and Research |

| Professorship of | Name | Sponsor |
|------------------|------|---------|
|------------------|------|---------|

Sponsored by Germany's 200 Female Professors Program

| | | |
|---------------------|---------------------------------|---|
| Comparative Zoology | Professor Dr Katharina Foerster | German Ministry of Education and Research |
| Anorganic Chemistry | Professor Dr Doris Kunz | German Ministry of Education and Research |
| English Philology | Professor Dr Susanne Winkler | German Ministry of Education and Research |

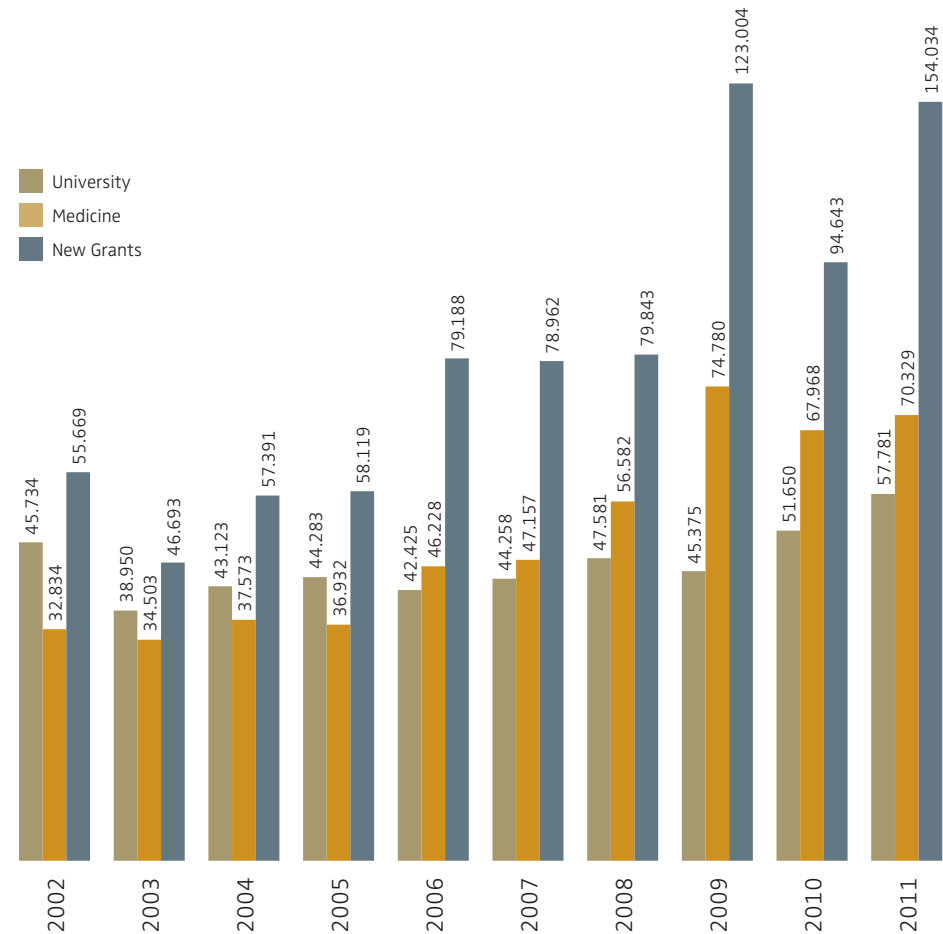
THIRD-PARTY FUNDING

Third-party funding for University of Tübingen projects showed renewed vigor in 2011 after a slight dip in 2010. Medicine, the Sciences and Humanities attracted more than €128m in external funding.

Third-Party Funding by Faculty

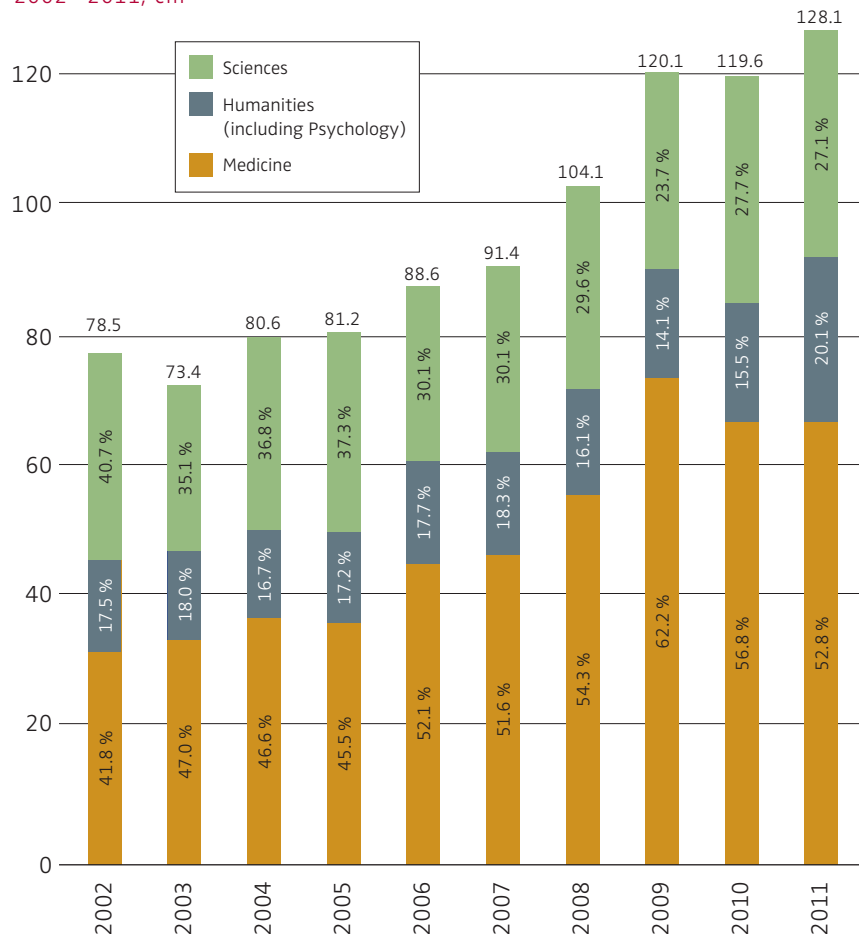
| Faculty / Institution | 2011 | 2011 | 2011 |
|--|-------------------------|--|--|
| | New Grants in euros (€) | Revenue (Collaborative Research Centers and CIN listed separately) | Revenue Including Collaborative Research Centers and CIN |
| Protestant Theology | 228,900 | 871,126 | 871,126 |
| Catholic Theology | 104,844 | 1,050,652 | 1,114,452 |
| Law | 893,327 | 390,301 | 390,301 |
| Medicine | 62,380,554 | 53,788,561 | 67,673,132 |
| Humanities | 11,160,658 | 7,240,344 | 9,941,761 |
| Economics and Social Sciences | 2,346,212 | 4,757,239 | 4,829,039 |
| Science | 37,212,188 | 28,678,239 | 35,198,623 |
| Central Admin, (incl. ESIT teaching quality pact funding) | 32,486,069 | 8,091,818 | 8,091,818 |
| Collaborative Research Centers | 7,221,300 | 17,928,544 | |
| Werner Reichardt Center for Integrative Neuroscience (CIN) | | 5,313,427 | |
| | 154,034,052 | 128,110,255 | 128,110,255 |

Third-Party Funding 2002 - 2011, €m



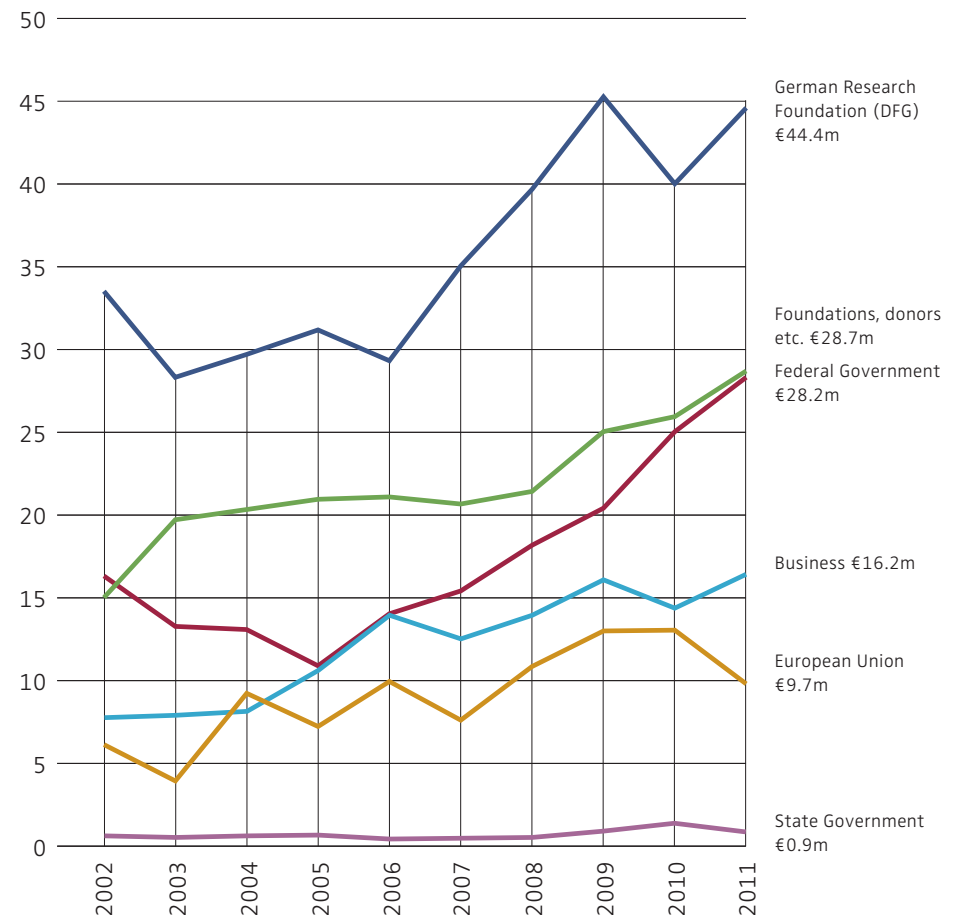
Third-Party Funding Attracted by the Sciences, Humanities and Medicine

2002 - 2011, €m



Sources of Third-Party Funding

2002 - 2011, €m



PLAYING TO OUR STRENGTHS



The School Psychology Center enables closer cooperation between schools and the discipline of School Psychology.

New Competence Center Strengthens School Psychology

The University of Tübingen was selected as the home of a new School Psychology Competence Center on the basis of its innovative teaching and research proposal. The Center, which opened in January 2012, works closely with the University's specialists in Psychology and Education Science.



Professor Ulrich Trautwein at the opening of the School Psychology Center.

The Center covers a broad spectrum – including violence prevention, the training of new school psychologists and the continued education of existing ones, as well as developing new training concepts and incorporating the latest research into practical applications.

Studying Complex Past of Ethnic Germans in Southeast Europe

2012 also saw the opening of Tübingen's new Research Center for German History and Culture in Southeastern Europe. Since the fall of the Iron Curtain there has been a resurgence of interest in the history and culture of ethnic Germans across Europe. The new Center aims to be the hub of Southeastern Europe research, pooling activities in the field, giving new impetus to research and ensuring its continuation on a solid footing. The focus is on the rich cultural heritage and current life of German minorities in the region.

The Center is the result of an initiative by the independent Institut für donauschwäbische Geschichte Tübingen, the Institute of Eastern European History, and the Ludwig Uhland Institute for Empirical Cultural Studies – the latter two being University of Tübingen institutes.

RESEARCH IN BRIEF

Sensational Discoveries in Archeology and Paleontology

2012 saw Tübingen researchers present remarkable results in a number of fields, attracting considerable media attention.

A team led by geoarcheologist Professor Christopher Miller in South Africa found evidence of the **oldest known human bed**, made of layers of compacted stems and leaves of sedges and rushes more than 77,000 years old.

The international team of paleoanthropologist Professor Katerina Harvati proved that **modern humans reached Europe** earlier than previously believed. 45,000 year old teeth from the Grotta del Cavallo in southern Italy – previously believed to be Neanderthal remains – were shown to be from modern humans.

The **oldest known art** made by anatomically modern humans turned out to be some 2000 years older than first thought. Improved radiocarbon dating of figurines and flutes from the Geissenklösterle Cave in southwest Germany put them at between 42,000 and 43,000 years old. Professor Nicholas Conard of the Institute of Prehistory and Medieval Archeology says the cultural innovations of sculpture and music spread west and south from the region.

A seven million year old hominid tooth found in Bulgaria shows that **primates lived in Europe** longer than previously thought, says Tübingen paleontologist Professor Madelaine Böhme. There are increasing numbers of indicators that part of human evolution may have taken place in Europe and western Asia. Professor Böhme was also able to push back the date of **origin of the Rhine River** using evidence



Dangerous liaisons – these turtles died while mating 47 million years ago.

of fossil teeth and bones from various types of deer found in central Europe 14 to 16 million years ago. They indicate that the Rhine River has been flowing for 15 million years instead of ten million as was previously believed.

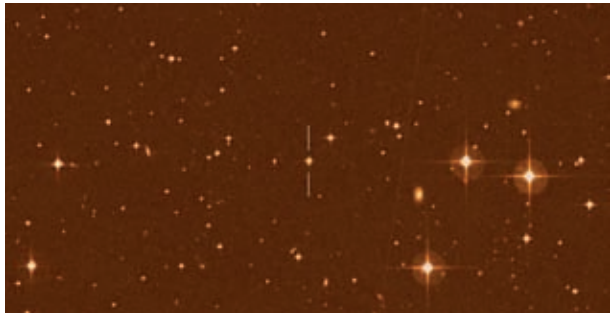
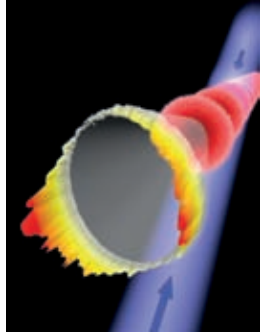
Research by Tübingen paleogeneticist Professor Johannes Krause and his colleagues demonstrated that today's plague is descended from **the Black Death** which blighted Europe in the Middle Ages. By decoding the plague bacteria genome, Krause's team was able to trace alterations in the evolution and virulence of the pathogen. (see p. 14)

Newspaper editors had a field day with findings by paleogeologist Professor Walter Joyce at the Messel fossil pit near Frankfurt. Joyce presented the fossils of nine pairs of **turtles who died having sex** 47 million years ago in the lake then occupying the site. The turtles had a permeable skin allowing them to breath under water. This useful feature turned fatal when the turtles – seeking privacy – dived into deeper water containing toxic compounds. Their remains are the oldest known fossils of mating vertebrates.

Such results are usually achieved via international, interdisciplinary collaboration. The Senckenberg Research Institute in Frankfurt was involved in a number of important projects. The list of research partners extends from Oxford University in the UK, to US universities, to Bulgaria and South Africa.

Selected Research Results

- **A new type of laser using ultracold gas** has been developed by Dr William Guerin and Alexander Schilke at the Institute of Physics. Using their “lattice” of ultracold atoms, it may one day be possible to create materials which can trap light.



- **Source of rare noble gases found in white dwarf:** Krypton (Kr) and Xenon (Xe) are two of the rarest elements on Earth. Until recently, there was no proof of where they are formed. Tübingen astronomers Thomas Rauch and Ellen Ringat, working with NASA scientist Dr Jeffrey W. Kruk, observed the burnt-out star RE 0503-289 using a NASA space telescope. They were able to identify and analyze absorption lines in the ultraviolet spectrum, showing that Kr and Xe occur hundreds and thousands of times more often there, a clear indicator that they were created in the star.

- **Conditions for life once existed on Mars** according to results sent back to Earth by the NASA Mars Rover Opportunity. Christian Schröder of the Tübingen Center for Applied Geoscience was involved in deploying the vehicle’s alpha-particle X-ray spectrometer. The Mars Rover analyzed veins of gypsum it found at the edge of a crater on the Red Planet. Gypsum is formed in water at a temperature lower than 60°C. Its presence on Mars indicates that conditions conducive to life existed there at least temporarily.
- **Nerve cells in the brain influence our decisions:** Working with rhesus monkeys, neurobiologists Dr Katharina Merten und Professor Andreas Nieder of the Tübingen Institute for Neurobiology have been able to show that nerve cells in the brain are active when yes-or-no decisions are made – and that they determine processes of perception independently of visual stimuli.
- **Doubts about Marco Polo laid to rest:** It has been said that Marco Polo did not really go to China. But a new book by Hans Ulrich Vogel, Professor of Chinese Studies, puts an end to rumors that Polo was a liar. Vogel analyzes relevant Chinese, Japanese, Italian, French, German and Spanish literature to verify Marco Polo’s writings on China in *Marco Polo Was in China: New Evidence from Currencies, Salts and Revenues* (Brill Verlag).
- **New technique for measuring dispersion forces** developed by Professor József Fortágh and Dr Andreas Günther from the Institute of Physics. Dispersion forces play a central role in the attraction between atoms and molecules; they influence the formation of material structures and the friction within micromechanical systems, and they are central to nanoscience research.



- **Minting money led to economic collapse 400 years ago:** irrational exuberance on the markets brought speculators and entire nations to their knees during the Thirty Years War. Holy Roman Emperor Ferdinand II needed cash to fight the Protestants and let his financiers flood the market with adulterated coinage. The economy collapsed and famine spread. The Emperor was forced to declare the state bankrupt and devalue the currency – all precisely described in *Das Prager Münzkonsortium* (Aschendorff Verlag), an award-winning book by Tübingen PhD candidate Steffen Leins.
- **Cracking the code of Speyer Cathedral:** Liturgy Studies Professor Andreas Odenthal and Dr Erwin Frauenknecht of the Institute of Medieval History showed how the architecture of Speyer Cathedral reflected the religious and political self-image of the region’s historical rulers.
- **Kidney cancer vaccine mobilizes immune system:** two clinical trials led by Professor Dr Hans-Georg Rammensee, head of Immunology at the University of Tübingen and co-founder of immatics biotechnologies demonstrated that a tailor-made vaccine can make a patient’s immune system start attacking tumor cells, significantly increasing the patient’s life expectancy compared with chemotherapy.

25 Years of Tübingen Archeologists in Troy

Germany and the University of Tübingen have close ties with one of the world's most famous archeological sites – Hisarlik in northwestern Turkey, believed to be where Homer's Trojan War was fought. When Heinrich Schliemann went there in 1873, he was convinced he had found the topless towers of Ilium. This set off more than a century of debate – and many years of involvement by German archeologists in the scientific excavation and restoration of objects found in the ancient ruins there.

Archeologists from the University of Tübingen's Institute of Prehistory headed excavations at the site for 25 years, starting in 1988 under Professor Manfred Korfmann and continuing in 2006 under Professor Ernst Pernicka. A Tübingen alumnus, Professor Rüstem Aslan of Canakkale University, a senior director of the excavations, has applied for the license to direct the work in 2013.

In their quarter-century of directing excavations at Troy, Tübingen archeologists demonstrated that the citadel on the hill at Hisarlik was surrounded by a Bronze Age city, which may have covered more than 30 hectares. Most of it lies under layers of Greek and Roman ruins. Using the latest methods and technology, the archeologists were able to hone the earlier chronologies with more precise dating of settlement layers. This is important because the chronology of Troy is used as a comparison for the dating of other sites in the eastern Aegean.



Are these the topless towers of Ilium?

Tübingen researchers say the Bronze Age ruins at Hisarlik in northwest Turkey are where Homer's epic Trojan War took place.

But the burning question remains: is this really the place where the great ancient saga played out? There is no absolute proof. Yet Professor Pernicka is convinced that it is, and points to the structure and size of the city, as well as its topography and the Bronze Age system of settlement in the area. And perhaps most telling of all, there are strong indications of "Troy tourism" even in classical times, with visitors thousands of years ago traveling to the ancient city to honor the memory of Homeric heroes.

Tübingen researchers have been invited to continue working in Troy alongside their Turkish colleagues. And the University of Tübingen has pledged to maintain its Troy archive for future excavators at the site where legend and history meet.

SCIENTIFIC AND ACADEMIC CAREERS

DFG-Sponsored Research Training Groups

In the 2011 - 12 academic year, five Research Training Groups continued their innovative work at the University of Tübingen and were joined by two new Groups in 2012. The Research Training Groups break new ground academically while also training young researchers. The DFG sponsored these Tübingen programs to the tune of €2.1m in the 2011 - 12 academic year, with €488,000 distributed to around 60 PhD candidates and postdoctoral researchers.

| Title | Coordinator | Funding Period |
|---|---|--------------------------------------|
| Humanities | | |
| Religious Knowledge in Pre-modern Europe (800-1800). Transfers und Transformations – Ways to the Modern Knowledge Society | Professor Dr Andreas Holzem Faculty of Catholic Theology | April 1, 2011 - September 30, 2015 |
| Sciences | | |
| International Research Training Group Tübingen – Hohenheim – Waterloo Integrated Hydrosystem Modelling | Professor Dr Olaf Cirpka Faculty of Science | April 1, 2012 - September 30, 2016 |
| Infection Biology: Human and Plant Pathogenic Bacteria and Fungi | Professor Dr Friedrich Götz Interfaculty Institute of Microbiology and Infection Medicine | October 1, 2005 - September 30, 2011 |
| International Center for Ethics in the Sciences and Humanities | Professor Dr Eve-Marie Engels Faculty of Science | April 1, 2004 - December 31, 2012 |
| Medicine / Sciences | | |
| Molecular Mechanisms in Bacterial Survival Strategies | Professor Dr Karl Forchhammer Interfaculty Institute of Microbiology and Infection Medicine | April 1, 2012 - September 30, 2016 |
| Cellular Mechanisms of Immune-associated Processes | Professor Dr Hans-Georg Rammensee Interfaculty Institute for Cell Biology | October 1, 2006 - September 30, 2012 |
| International research training group Tübingen – Dundee The PI3K Signal Pathway in Tumor Growth and Diabetes | Professor Dr Erwin Schleicher Department of Internal Medicine | April 1, 2006 - March 31, 2015 |

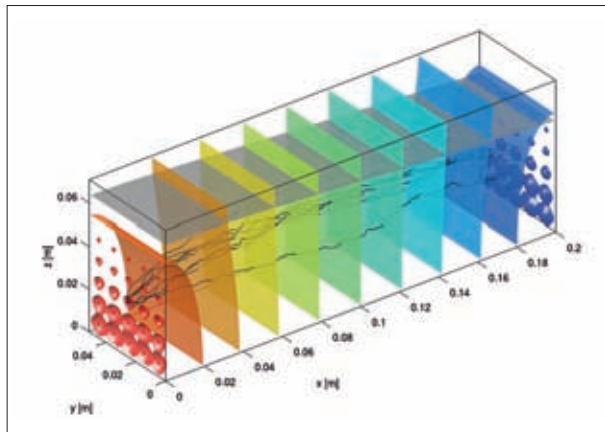
International Research Training Group Investigates Water Cycles

Professors and junior researchers at the Universities of Tübingen, Hohenheim and Waterloo (Canada) have joined forces in the Integrated Hydrosystem Modeling research training group (GRK 1829) to develop ever more accurate computer simulations of the Earth's water cycles.

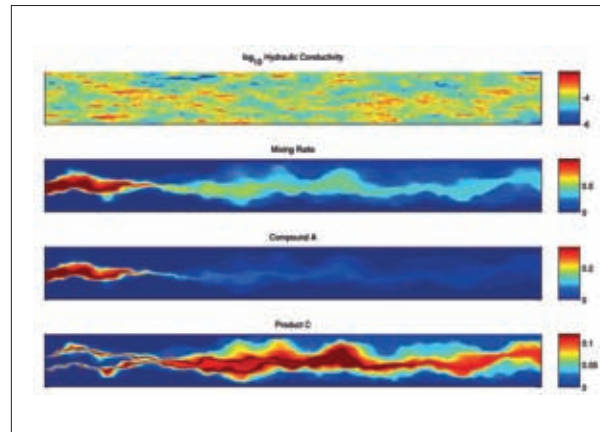
The group's coordinators are Tübingen's Professor Olaf A. Cirpka and Professor Edward A. Sudicky of Waterloo. The University of Tübingen is strongly represented by its Geoscience Department and the "Water Earth System Science" cluster, which combines expertise from the Universities

of Tübingen, Hohenheim and Stuttgart and the Helmholtz Center for Environmental Research in Leipzig.

Each PhD student is supervised by a German and a Canadian professor and a junior researcher, and each German PhD candidate does six months research at the Water Institute at the University of Waterloo. In regular Fall and Spring Schools, doctoral students discuss the results of their research. The German Research Foundation (DFG) is sponsoring the group with €3.4m over four years.



How are substances transported within water cycles? This graphic shows potential distribution (colored surfaces), the water table (gray), and the lines of transportation.



Researchers in the Integrated Hydrosystem Modeling training group develop computer models to simulate hydrological balance and water quality.

New School to Promote Evolutionary Studies

The University of Tübingen is planning a multi-disciplinary School of Evolutionary Studies to help train doctoral students and build upon the University's strengths in Evolutionary Biology. Seventeen professors from the fields of Biology, Geoscience, Computer Science and Archeology – as well as researchers from the Max Planck Institute for Developmental Biology – are currently collaborating in the Evolution and Ecology Forum (EvE). The new School will give them logistical support and make it easier to apply for Graduate School status. A curriculum is being designed to promote interdisciplinary exchange, and gifted Master's students will be able to take advantage of a fast-track program allowing the switch to PhD studies after two semesters.

The School will be sponsored by the Volkswagen Foundation, which has pledged a further €260,000 over three years to promote Evolutionary Biology research and teaching. The money will be used for lecture series, training workshops for teachers and the development of teaching materials. The overall goal is to raise the public profile of Evolutionary Biology and to give it a permanent place in school curricula.

PhD Networks

The University of Tübingen uses state of Baden-Württemberg funding not only for individual scholarships but also for grants within the framework of PhD networks. These 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 between five and seven grants for three years. PhD Networks must be innovative and interdisciplinary; competition for funding is fierce. DFG sponsorship of the University's Institutional Strategy in the Excellence Initiative has supplemented state funding for PhD Networks.

| Title | Coordinator | Funding Period |
|---|--|-----------------------|
| Humanities | | |
| Holy Texts. Literature as Sacred and the Sacred as Literature | Professor Dr Birgit Weyel Protestant Theology | From January 1, 2011 |
| Intellectual History – As Illustrated by the Early Modern Period | Professor Dr Christoph Schwöbel Protestant Theology | From December 1, 2009 |
| East and West 400 - 600. The Drifting Apart of the <i>Imperium Romanum</i> in Late Antiquity and the Early Medieval Period: Causes, Processes, Consequences | Professor Dr Mischa Meier History Department | From October 1, 2009 |

Humanities and Sciences

| | | |
|--|---|----------------------|
| The Ancient Mycobacterium Tuberculosis Genome Project – the Evolution of Tuberculosis in Humans | PD Dr Carsten Pusch Institute of Human Genetics | From July 1, 2009 |
| Symbols of the Dead: Archaeological, Scientific and Religious Historical Research on Sepulchral and Memorial Contexts in the Ancient Near East | Professor Dr Peter Pfälzner Institute for Ancient Near Eastern Studies | From October 1, 2007 |

Sciences

| | | |
|--|--|-----------------------|
| Particles, Fields and Messengers of the Universe | Professor Dr Josef Jochum Physics Department | From January 1, 2011 |
| Combinatory Structures and Methods in Mathematics and Computer Science | Professor Dr Jürgen Hausen Mathematics Department | From November 1, 2010 |
| Morphological Variability of Organisms in Response to Environmental Stress | Professor Dr Katja Tielbörger Institute for Evolution and Ecology | From November 1, 2010 |
| Carbon on Substrates – From Molecules to Films | Professor Dr Klaus Nickel Geoscience – Applied Mineralogy | From October 1, 2010 |
| Antibacterial Agents | Professor Dr Lutz Heide Pharmaceutical Institute | From August 1, 2009 |

Doctorates completed winter semester 2010/2011 and summer semester 2011

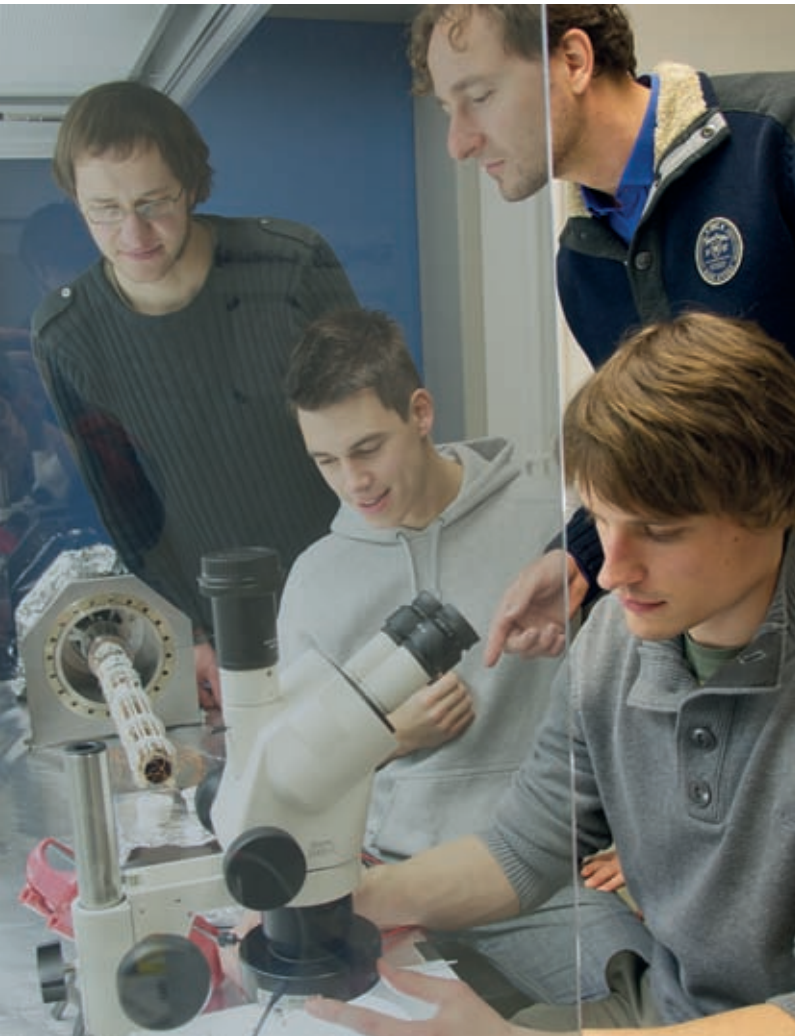
| Faculty | Doctorates | |
|-------------------------------|------------|------------|
| | Female | Male |
| Protestant Theology | 1 | 6 |
| Catholic Theology | 2 | 7 |
| Law | 14 | 37 |
| Medicine | 175 | 127 |
| Humanities | 29 | 25 |
| Economics and Social Sciences | 12 | 13 |
| Science | 95 | 108 |
| Total | 328 | 323 |
| | 651 | |

Habilitations completed in 2011

| Faculty | Habilitations | |
|-------------------------------|---------------|-----------|
| | Female | Male |
| Protestant Theology | 1 | 1 |
| Catholic Theology | 1 | 1 |
| Law | 0 | 3 |
| Medicine | 9 | 31 |
| Humanities | 4 | 2 |
| Economics and Social Sciences | 0 | 0 |
| Science | 2 | 0 |
| Total | 17 | 38 |
| | 55 | |

Junior Research Groups

We promote junior researchers in an attractive research environment and encourage them to gather experience internationally. The University of Tübingen supports junior research group leaders in their efforts to attain third-party funding.



| Sponsorship Program | Name | Institute | Project |
|--|--------------------------|---|---|
| Federal Education and Research Ministry Projects (2) | Dr Carsten Leven-Pfister | Dept. of Geoscience, Applied Geoscience | Field tests on coupled hydraulic tomographic methods in an alluvial aquifer; high-resolution in-situ methods for the monitoring of CO2 leakage at the local level |
| Federal Education and Research Ministry Projects (2), DFG Projects (2) | Dr Sebastian Behrens | Center for Applied Geoscience | Molecular microbial ecology |
| Federal Education and Research Ministry Project, DFG Project | Dr Hartmut Schulz | Dept. of Geoscience | Formation and paleoclimatic interpretation of a continuously laminated sapropel S5; sediments in the Arabian Sea as a monitor of the Asian monsoon system |
| DFG Projects (2) | Dr Nils Anthes | Dept. of Biology, Institute of Evolution and Ecology | Sexual selection in hermaphrodites |
| DFG Projects (2) | Dr Frederic Brunner | Center for Plant Molecular Biology | Identification and molecular characterization of oomycete effectors suppressing PAMP-triggered immunity in arabidopsis thaliana |
| DFG Projects (2) | Dr Andreas Hiltbrunner | Center for Plant Molecular Biology | Evolution of phytochrome signaling and nuclear transport; functional analysis of PAT1 |
| DFG Projects (2); Landesgraduierertenförderung | Dr Michael Marks | Dept. of Geoscience, Mineralogy and Geodynamics | Halogen and volatile systematics of vulcanites and plutonites from different geotectonic positions |
| DFG Projects (2) | Dr Merav Seifan | Dept. of Biology, Institute of Evolution and Ecology | The role of indirect interactions via shared pollinators in shaping grassland communities along productivity gradients; the role of biotic interactions in determining phenotypic and genotypic variation in metal hyperaccumulation and hypertolerance in two model brassicaceae species |
| DFG Project | Dr Thorsten Stafforst | Interfaculty Institute for Biochemistry | Chemical biology of nucleic acids |
| Emmy Noether Program | Dr Martin Obst | Center for Applied Geoscience | Quantitative mapping of toxic metals on the submicron scale in cell-mineral aggregates formed by iron mineral precipitating and dissolving bacteria |
| Emmy Noether Program | Dr Manami Sasaki | Dept. of Physics, Institute of Astronomy and Astrophysics | Nearby galaxies in X-rays: studying their components and global evolution |
| Emmy Noether Program | Dr Gabriel Schaaf | Center for Plant Molecular Biology | Functional characterization of phosphatidylinositol transfer proteins in yeast and arabidopsis and their potential use to increase aluminium tolerance in plants |



| Sponsorship Program | Name | Institute | Project |
|---|-----------------------|--|--|
| Emmy Noether Program | Dr Alexander Stibor | Dept. of Physics, Institute of Physics | Biprisma ion-interferometry with charged atoms and molecules for the measurement of Aharonov-Bohm effects for particles with inner structure |
| Emmy Noether Program | Dr Andreas Wachter | Center for Plant Molecular Biology | Alternative splicing in plants – novel regulatory mechanisms and their biological implications in the control of gene expression |
| EU Marie Curie Fellowship | Dr Martin Stelzle | Natural and Medical Sciences Institute Reutlingen (NMI) | Neuroelectronics and nanotechnology: towards a multidisciplinary approach for the science and engineering of neuronal networks |
| EU ERC Starting Grant | Dr Marc Himmelbach | Neurology Clinic, Neuropsychology | Human reaching and grasping – cognitive networks of visual action control (GRASP-CN) |
| EU Project “Tailored Improvement of Brownfield Regeneration in Europe”; Helmholtz Center, Project “SAFIRA II” | Dr Michael Finkel | Center for Applied Geoscience | Decision support integrating technology and economics |
| DFG Excellence Cluster 307 | Dr Andreas Bartels | Werner Reichardt Center for Integrative Neuroscience (CIN) | Vision and cognition |
| DFG Excellence Cluster 307 | Dr Laura Busse | CIN | Cortical circuits of visual perception |
| DFG Excellence Cluster 307 | Dr Ingrid Ehrlich | CIN, in collaboration with Hertie Institute for Brain Research | Physiology of learning and memory |
| DFG Excellence Cluster 307 | Dr Ziad Hafed | CIN | Physiology of active vision |
| DFG Excellence Cluster 307 | Dr Jing Hu | CIN | Sensory mechanotransduction |
| DFG Excellence Cluster 307 | Dr Maria Kukley | CIN | Neuron glia interactions |
| DFG Excellence Cluster 307 | Dr Thomas Münch | CIN | Retinal circuits and optogenetics |
| DFG Excellence Cluster 307 | Dr Hendrikje Nienborg | CIN | Neurophysiology of visual and decision processes |
| DFG Excellence Cluster 307 | Dr Marcel Oberländer | CIN, in collaboration with Bernstein Center for Computational Neuroscience | Neuroanatomy |
| DFG Excellence Cluster 307 | Dr Takashi Sato | CIN | Function and structure of neural circuits underlying behavior |

| Sponsorship Program | Name | Institute | Project |
|--|----------------------------|--|---|
| DFG Excellence Cluster 307 | Dr Markus Siegel | CIN | Large-scale neuronal interactions |
| DFG Excellence Cluster 307 | Dr Anton Sirota | CIN | Cortical neuroinformatics |
| DFG Excellence Cluster 307 | Dr Kirsten Volz | CIN | Neural basis of intuition |
| DFG Excellence Cluster 307 | Dr Hong Yu Wong | CIN | Philosophy of Neuroscience |
| IZKF Junior Research Group | Dr Dr Michael Föller | Physiology I | Regulation of membrane transport processes via AMP-dependent kinesis (AMPK) |
| IZKF Junior Research Group | Dr Harald Langer | Internal Medicine III | Evaluation of cell-specific inflammatory mechanisms for pathogenesis of atherosclerosis |
| IZKF Junior Research Group | Dr Marcus Schittenhelm | Internal Medicine II | Characterization of aberrant signal transduction of acute leukaemias; identification of new targets for a targeted molecular therapy |
| IZKF Junior Research Group | Dr Rebecca Schüle-Freyer | Neurology, Neurodegenerative Diseases; Hertie Institute for Brain Research | Identification of new genes for recessive spastic spinal paralysis (HSP) |
| IZKF Junior Research Group | Dr Björn Stork | Internal Medicine I | B-cell antigen receptor induced apoptosis and autophagy |
| Baden-Württemberg Foundation | Dr Frank Schleifenbaum | Dept. of Chemistry, Institute of Physical and Theoretical Chemistry | Life cell imaging |
| Project AmbiSense, (Baden Württemberg State); EXIST-Forschungstransfer (Federal Technology Ministry) | Dr-Ing. Christian Hoene | Dept. of Computer Science, Wilhelm Schickard Institute | Internet-based voice communication, wireless transmissions, location tracking, metering, accounting and charging |
| DFG Collaborative Research Center 766 | Dr Günther Muth | Interfaculty Institute for Microbiology and Infection Medicine | Inter- and intramycelial DANN translocation during conjugation in streptomycetes; Mre-proteins and the spore wall synthesis complex in streptomycetes |
| DFG Collaborative Research Center 773 | Dr Tassula Proikas-Cezanne | Interfaculty Institute for Cell Biology | Identification of anti-tumor therapies to modulate autophagy in therapy-resistant tumor cells |
| Volkswagen Foundation | Dr Katja Heubel | Dept. of Biology, Institute of Evolution and Ecology | Context-dependent plasticity of sexual selection |
| Volkswagen Foundation | Dr Matthias Synofzik | Hertie Institute for Brain Research | Grounding thoughts in actions: interdependencies between thoughts and motor control (ThinkAct) |
| University of Tübingen | Dr Kay Nieselt | Center for Bioinformatics | Integrative transcriptomics |
| University of Tübingen | Dr Dai Zhang | Dept. of Chemistry, Institute of Physical and Theoretical Chemistry | Parabolic mirror microscopy |

THE UNIVERSITY IN SOCIETY



Professor Claudia Buch



Professor Christian Seiler

Tübingen Professor Joins Germany's "Five Wise Men"

In February 2012, Tübingen Economics Professor Claudia Buch was called to join the Council of Economic Experts, which monitors the economy and advises the German government. Buch, the University's Professor of International Macroeconomics and Finance is the second woman ever to have joined the Council of Economic Experts, which was known as "the five wise men" until the appointment of Professor Beatrice Weder di Mauro in 2004.

Professor Buch's work focuses on international macroeconomics, the global activities of banks and corporations, and risks in the labor market. She has been Scientific Director of the University of Tübingen's Institute for Applied Economic Research since January 2005. Since 2004, Professor Buch has been a member of the Scientific Advisory Council to the German Economics Ministry, which she has chaired since 2008. She has been a member of the Advisory Scientific Committee to the European Systemic Risk Board (ESRB) since 2011.

Tübingen Law Professor Called to Bench of State Constitutional Court

The state parliament of Baden-Württemberg appointed Tübingen's Professor Christian Seiler to serve in the region's highest court for nine years. The specialist in constitutional, tax and administrative law is one of nine members of the court, which consists of three judges, three jurists (of which Professor Seiler is one), and three lay judges.

Three Tübingen professors are now active in these important positions – Professor Barbara Remmert is a judge at the Bremen constitutional court, and Professor Ferdinand Kirchhof is the vice-president of Germany's highest court, the Constitutional Court in Karlsruhe.

TALKING FACE TO FACE

A Wide Variety of Forums for Top Quality Research

The University of Tübingen hosted 28 major conferences in the 2011 - 12 academic year. They dealt with issues as varied as interreligious teaching in kindergartens, the regulation of temporary labor contracts, the treatment and care of child cancer patients, archeometry and the preservation of monuments, innovations in school education, computational vision, and the European context of the medieval "Parzival" romance – reflecting the broad span of high-quality research going on in Tübingen.

Microbiologists Meet in Tübingen

More than 1,300 microbiologists from around the world met in Tübingen in March 2012 for the annual conference of the Association for General and Applied Microbiology (VAAM). The conference reflected key issues in Tübingen Microbiology research – bacterial variation, the bacterial cell envelope and its role in infection, bacterial survival strategies, metabolism regulation, the mechanisms of pathogens, antibiotics production, and bacteria found in soil. The meeting was organized by members of the Faculties of Science and Medicine and by Tübingen's Max Planck Institute for Developmental Biology.

The VAAM's choice of Tübingen for its conference underlines the University's tremendous success in the field, with Collaborative Research Centers and Research Training Groups as well as international research networks coordinated by Tübingen scientists. Close cooperation between microbiologists in Science and Medicine is promoted by the Interfaculty Institute for Microbiology and Infection

Medicine (IMIT), an institution unique in Germany and one reason why a branch of the German Center for Infection Research (DZIF) is located in Tübingen.

Political Scientists Ask – Does Democracy Keep Its Promises?

"The Promises of Democracy" was the theme of the German Political Science Association (DVPW) congress in September

2012. Democracy is more in demand than ever, but faces criticism – from special interest groups in the Western world, and from opposing models, such as China's one-party state. More than 700 experts from Germany and neighboring countries spent a week discussing whether democracy remains viable in the 21st century.

Tübingen was one of the first places where Political Science was taught in Germany after World War II and today has one of the country's largest institutes in the discipline.





ACADEMIC AFFAIRS

ENSURING QUALITY TEACHING

The University of Tübingen offers innovative courses for its more than 27,000 students. In the 2011 - 12 academic year, we worked to further raise the quality of our classes in a number of ways, including an overhaul of our curricula and advisory services. We award the Teaching Prize annually to particularly outstanding and innovative teachers. And we supported unusual undertakings like the “Long Night of Postponed Term Papers” and an exciting film project.

MORE STUDENTS THAN EVER

Upgrading Our Infrastructure

In the wintersemester of 2012 - 13, more than 27,000 students were enrolled at the University of Tübingen, a new record high and over one thousand more than in the previous year. A pronounced jump in enrollments was expected in 2012, primarily as a result of a doubling of the number of secondary school graduates due to the phasing-in of graduation after 12 instead of 13 years of schooling. The University prepared for this by expanding its infrastructure over the past four years, creating some 1,200 additional places for freshmen in new and existing courses, as well as 40 new professorships.

The University was selected by the German government’s Teaching Quality Pact program for €13.5m in federal funding to improve teaching, courses and counseling. Under our Study Successfully in Tübingen scheme, curricula were upgraded, teachers given additional training, and student

advisory services reinforced. The University Library created around 350 additional places for students to read and work at its two main locations. It also introduced an automatic book-borrowing system run via radio frequency identification.

With student numbers increasing annually, we knew it was essential to optimize use of all available classrooms and lecture theaters. A room management committee has been working to improve efficient use of University spaces since 2010, and since late 2011 an electronic management system has made it possible to see at a glance which rooms are free anywhere in the University at any given time.



STUDENT NUMBERS AT A GLANCE

Enrollments 2009 - 2012

| At start of academic year: | Total | Female students | Female students as % | International students | International students as % |
|----------------------------|--------|-----------------|----------------------|------------------------|-----------------------------|
| 2011 - 12 | 25,849 | 15,047 | 58.2 | 3,224 | 12.5 |
| 2010 - 11 | 24,557 | 14,455 | 58.9 | 3,118 | 12.7 |
| 2009 - 10 | 24,473 | 14,437 | 59.0 | 3,121 | 12.8 |

First-Year Enrollments 2008 - 12

| At start of academic year: | Total | Female | Female as % of total |
|----------------------------|-------|--------|----------------------|
| 2011 - 12 | 4,531 | 2,605 | 57.5 |
| 2010 - 11 | 3,659 | 2,217 | 60.6 |
| 2009 - 10 | 3,823 | 2,401 | 62.8 |



Enrollments by Faculty, Major Subject

| Faculty | At start of 2011 - 12 academic year |
|-------------------------------|-------------------------------------|
| Protestant Theology | 575 |
| Catholic Theology | 308 |
| Law | 2,454 |
| Medicine | 3,383 |
| Humanities | 8,000 |
| Economics and Social Sciences | 4,578 |
| Science | 6,517 |
| Center of Islamic Theology | 34 |
| Total | 25,849 |

INNOVATIVE STUDY PROGRAMS

Preparing for the Future

The University of Tübingen has developed a large number of innovative Bachelor and Master courses, many specializing in new fields. One such is Medical Computer Science (B.Sc.), which gives students the fundamentals of Computer Science, Medicine and Biology. It prepares computer scientists for the health system of the future, which will depend on computerized processes. Another innovative program is our Master's degree in School Psychology (M.Sc.), underlining the growing importance of the psychologist in German schools.

Other courses target specific professions. For example, Practical Chinese Studies (B.A.) trains students for careers requiring knowledge of both Chinese language and culture. The Master's course in Democracy and Governance in Europe (M.A.) opens up opportunities for working at European research centers. A Master's degree in Molecular Medicine (M.Sc.) complements the Bachelor of Molecular Medicine introduced in 2011, and offers scientific training in medical issues and the methods of molecular biology.



Four Master's Options for Education Graduates

Students completing a Bachelor's degree have a number of options if they want to continue to the Master level. In the field of Education, Master's degree studies have been overhauled, and now students have a choice of four courses specializing in four different professionally-oriented areas.

A Master's course in Empirical Education Research and Pedagogic Psychology (M.Sc.) confronts students with empirical methods of education research, combining Psychology and Education Science. The Master of Adult Education (M.A.) course helps students gain valuable skills in training adults, including the ability to assess and teach courses offered to adults. A Master's Course in Research and Developments in Social Pedagogy/ Social Work (M.A.) focuses on the processes of social work and qualifies its graduates for careers in education, social work and business.

The Master's Course in School Research and Development (M.A.), may be studied full-time or part-time, and deals with teaching research as well as different education systems. Students learn to develop lesson plans on the microlevel, to design processes for school reform on the mesolevel, and to analyse schools in their social context at the macrolevel.

All of these options allow graduates to start PhD studies or apply their skills in the workplace. The aim is to better combine theoretical knowledge and practical experience. There is also a strong international angle, with two of the courses including a semester of study in the US at Lehigh University, Pennsylvania.

Islamic Theology Center Puts Down Roots

The University of Tübingen's Center of Islamic Theology is expanding. By late 2012, 60 students were enrolled for a Bachelor of Islamic Theology, and the number of professors and lecturers had grown. The Center's new director is Erdal Toprakyaran, Professor of Islamic History and Contemporary Culture. Founding director Omar Hamdan is Professor of Koranic Studies; Islamic Doctrine is taught by Professor Lejla Demiri; and Mouez Khalfaoui is Professor of Islamic Law.

The Center opened in October 2011, the first of Germany's four university schools of Islamic Theology. By sponsoring institutes teaching the discipline, the German Ministry of Education and Research aims to place Islamic Theology on a sound academic foundation in line with Germany's social pluralism. The official opening on January 16, 2012, was attended by German Education Minister Annette Schavan and the Grand Mufti of Bosnia and Herzegovina, Dr Mustafa Ceric, as well as representatives of Muslim, Jewish, and Christian communities in Europe.

The German government is sponsoring the Center for an initial five years for approximately four million euros. The state of Baden-Württemberg also contributes and will continue funding the Center after five years. Its advisory council includes representatives of Muslim groups in Germany.

The Center of Islamic Theology offers a wide spectrum of subjects in the field, combining theology with general philosophical, cultural and social issues. The course also deals with Islam in a European context and teaches inter-religious and intercultural skills. A Master-level program is in the pipeline, as well as courses for imams in Germany.



SEEKING NEW WAYS TO IMPROVE TEACHING

ESIT Scheme Strengthens Culture of Learning

The German government selected Tübingen as one of the institutions which would make good use of special funding to support innovative schemes for improved teaching and conditions for students. The Study Successfully in Tübingen (ESIT) scheme began in October 2011 and will bring in €13.4m over five years. The ESIT concept dovetails a number of measures to establish a new culture of learning.

We are optimizing course advice and practical orientation to help high school graduates decide which course is suitable for them. Student ambassadors talk to high school students about their studies. Websites and brochures providing course information are being updated. The career service is being upgraded to help more students make the right professional choices. And we provide training in professional skills to help graduating students get started in their careers. The University's new diversity-oriented Writing Center offers advice on writing term papers, theses and laboratory reports, and provides workshops for students as well as teaching staff. And a forum for advertising internships and Master's projects has been set up, crossing Faculty boundaries.

We are promoting **successful studies** with extra-curricular mentoring and peer support groups, which help students prepare for classes and review what they've covered. Law students can discuss cases in small groups. There is also support from junior professors, who teach preparatory and parallel classes to bring increasingly heterogeneous students up to a common level. These group learning and mentoring measures have already helped raise the pass rate in some subjects.

The program promotes **learning through research**. Teams of students and staff develop innovative teaching ideas for the University. The aim is to apply academic research to a wider practical use. Students carry out the work as part of classes, then they apply the result at a non-profit organization. In one example, students in "Sustainable Buildings" classes were able to help the citizens' advice bureau on matters relating to the renovation of old buildings. They subsequently produced a pamphlet on the proper way to insulate old buildings.

ESIT also offers new impulses for teaching staff. The **successful teaching** element of the program offers a variety of further training for those already teaching at the University. And in the **innovative curricula** section, longstanding teachers are given time to analyze and improve their teaching programs, to catch up with new developments and to integrate practical modules – improving the quality of teaching overall.

Upgrading Teaching at Region's Medical Schools

The University of Tübingen has also been successful in attaining funding for improved teaching in Medicine. A joint application by the Universities of Tübingen, Freiburg and Heidelberg was approved in December 2011, providing €6m for the project "Competence-oriented learning, teaching and testing in Medicine," known by its German acronym, MERLIN. The five-year project, coordinated in Tübingen, began in April 2012. It aims to teach future doctors important practical skills, including preventing illness and the right way to talk to patients.



Medical programs in the state of Baden-Württemberg are under review, with more practical skills being included for the many different roles a doctor may be called upon to play in different situations. Pilot projects are testing the new curricula at various universities. In Tübingen the pilot projects are running in Paediatrics and Gynaecology.

The overhaul of curricula is resulting in tailor-made classes and tutoring. Teachers at the region's medical faculties are being trained to spread new techniques, and the entire reform process is being empirically assessed. After three years of development in Germany's southwest, the project will be opened up to medical schools across the country.

FINANCING STUDIES

Private-Public Grant Assists Top Students

The University of Tübingen assisted a total of 66 outstanding students in the 2012 summer semester with “Deutschlandstipendium” scholarships. Each of the 42 women and 24 men received €300 per month to help with expenses while studying. The German government matches each €150 given by a private donor with €150 from its own

coffers. Sponsors include regional and national companies, private citizens, emeriti and alumni as well as the association of friends of the University, Unibund.

At the presentation ceremony on April 20, 2012, President Bernd Engler thanked the many sponsors. “Thanks to your involvement, we have been able to offer 21 more scholarships in the 2012 summer semester,” he said, adding that

the University would make every effort to get more sponsors on board.

Christian O. Erbe, president of the Reutlingen Chamber of Industry and Commerce, stressed that the scholarship was beneficial to all parties because it meant help for talented young people: “Our country’s prosperity, its healthy economy and its power of innovation all depend on your manifold knowledge, your ideas, and your hard work.” A Deutschlandstipendium scholarship receiver, Judith Zinsmaier, summed up the student view: “For us, the scholarship is a quantum leap!”

State Compensation for Loss of Tuition Fees

Students in the state of Baden-Württemberg paid tuition fees for the last time in late 2011, following a state government decision to abolish them. Following their introduction in 2007, tuition fees earned the University around €68m. Most of that was spent on improving teaching services.

The state’s universities subsequently began receiving compensation of €280 per regular student per semester – to be used, like the tuition fees – to maintain and upgrade the quality of teaching. The approximately €9m in compensation for the remainder of 2012 was distributed between the Faculties and used for upgrades to central facilities such as the University Library, IT services and the Language Learning Center.



IN BRIEF

Faktor14 Magazine Takes Student Commitment Prize

The dedicated editorial team of the “Faktor14” student magazine received the University’s 2012 Prize for Student Commitment in October 2012. Students and junior researchers from all Faculties can present their research projects in the magazine, which is published each semester and is funded solely via advertising. The jury said “Faktor14” was an excellent example of how to promote research-based learning.

The Faktor14 team of student editors



Vice-President of Academic Affairs, Professor Stefanie Gropper (left), Shawn Raisig (right)

Teaching Prize for Shawn Raisig

The University’s 2012 Teaching Prize went to English lecturer Shawn Raisig. Vice-President of Academic Affairs Professor Stefanie Gropper presented the €2,500 award in October 2012. Raisig, an American, has been teaching in Tübingen for five years. The Prize recognizes her work at the Research and Writing Center, a free service which since 2008 has been helping students to improve their academic writing skills in English. Shawn Raisig trains the Center’s tutors, qualifying advanced students to assist other students in individual tutoring sessions. The tutors arrange monitoring and workshops to continually raise the quality of their work.

The Research and Writing Center has become a part of language training at the Institute of English Language, raising the standard of student writing. It also encourages non-academic events, such as the Conversation Club. Raisig’s aim is to help students identify with the language they are studying.

Award for University Sports Center

Tübingen University’s sports center received a key award in November 2011, when the German universities’ sports association, ADH, selected Tübingen as its University of the Year. The association praised the “excellent integration of the Sports Center within University life, its innovative program, and its close work with the national association.” ADH chairman Dr Arne Göring also praised the inclusion of students and volunteers from the general population in teaching and organization, and the regular upgrading of sporting capacity. He added that the Tübingen University sports center’s health and safety courses made a valuable contribution to general health at the University.





Writing the Night Away

On the night of March 1-2, 2012, some 400 procrastination-prone students took advantage of the “Long Night of Postponed Term Papers” organized by the University’s new Writing Center. They congregated in the University Library, which stayed open from 6pm to 6am so that the participants could work on their term papers, swapping ideas and giving each other support. Advisors from the Writing Center and tutors from various departments were on hand to offer professional help. Computer help was also available, as well as information on technical aids for disabled and chronically ill students.

First Winter School on Intensive Care

The University of Tübingen’s Faculty of Medicine offered its first International Winter School in Critical Care February 6-17, 2012. Students from Tübingen University and its international partners in the US, Thailand, Croatia and Poland worked in pairs while learning to deal with issues in Critical Care Medicine. The course was initiated by Professor Reimer Riessen, head of intensive care for internal medicine at the Tübingen University Hospitals. Lecturers from Tübingen’s hospitals and institutes (Anaesthesiology, Internal Medicine, Surgery, Neurology, Medical Ethics, Anatomy) and lecturers from Brown University in Providence (USA) offered interactive lectures and seminars, complemented by visits to Tübingen’s intensive care units. The participants were also able to simulate emergencies in practical lessons at the simulation center, TüPASS.

Students Shoot Documentary on Early Animatrix

Media Studies students and staff made a documentary on the German-born pioneer of animation, Lotte Reiniger. “Dance of the Shadows” premiered in Tübingen in July 2012 and was also screened on the Franco-German television network ARTE as well as at a number of film festivals. A University coproduction with EIKON SÜDWEST and ARTE, the project was also sponsored by the regional government. The documentary is the result of projects in theory and the history of media at the University’s Media Studies school, including a portrait of Lotte Reiniger by Master’s degree students. Using an idea by Professor Susanne Marschall, Dr Rada Bieberstein and Kurt Schneider, the students worked with a professional camera team and the actress Maren Kroyman. Lotte Reiniger began her career in shadow puppetry for film in 1918, anticipating later animators. Her “Adventures of Prince Achmed” (1926) became the first successful animated feature film. Reiniger spent much of her life abroad, but her final years were spent living just outside Tübingen, and her effects are part of the exhibition in the town’s museum.





NETWORKS

WORLD-CLASS JOINT PROJECTS

The University of Tübingen is working to strengthen its partnerships at home and abroad with research institutions, museums, business, and of course with other universities. We are reinforcing our joint research in areas such as neuroscience, intelligent systems, ethics in business and the sciences, as well as in archaeology, at the international and local level. We are building upon our presence in Asia and working on key research areas with other members of the Matariki Network of Universities. And because personal contacts are important, we invite top scientists to live and work in Tübingen as guest professors, while encouraging our students to gain experience abroad and welcoming international students here.

PARTNERSHIPS WITHIN GERMANY



Ten Years of Clinical Brain Research at the Hertie Institute

The Hertie Institute for Clinical Brain Research (HIH) marked its tenth anniversary in October 2011. It has become one of Europe's premier research centers in the field of neurology. In their quest to better understand the brain and treat its malfunctions, HIH researchers have successfully isolated the genes controlling the mechanisms of Parkinson's disease and epilepsy, and have demonstrated how Alzheimer's disease spreads within the brain. The Institute celebrated its tenth birthday with an open day on October 8. Respected researchers met at an inter-

*From left:
Dr Michael Endres, Hertie Foundation Chairman;
Professor Eric R. Kandel, Nobel laureate in Medicine, 2000;
Professor Bernd Engler, University of Tübingen President;
Professor Denise B. Kandel;
Professor Michael Bamberg, Chairman of Tübingen University Hospitals*

national symposium on the perspectives for brain research, and some 900 guests listened to an address by Nobel Prize laureate Professor Eric R. Kandel (Medicine, 2000) and Professor Denise B. Kandel of Columbia University in New York.

The Institute is an outstanding example of how first-class research can be enabled by a combination of public and private funding. The Center has played a decisive role in building a concentration of internationally-recognized neurology research in Tübingen and helping to found the Center for Integrative Neuroscience, which has been an Excellence Cluster sponsored by the German government's Excellence Initiative since 2007. In addition, the Helmholtz Association's Center for Neurodegenerative Diseases (DZNE) has made Tübingen one of the partners in its research network.

www.hih-tuebingen.de

Global Ethic Institute – Searching for Universal Values

The Global Ethic Institute at the University of Tübingen started its work in April 2012. Founded thanks to a generous donation by the Karl Schlecht Foundation, the Institute along with the Global Ethic Foundation has become a cornerstone of the Global Ethic project based in Tübingen. The Global Ethic Institute's aim is to promote moral behavior in the global economy and dialogue between the world's religions.

"There can be no peace among nations without peace among religions – and no peace between religions without dialogue between religions" – are the insights on which Professor Hans Küng founded the Global Ethic project in 1990. The project seeks a global consensus on fundamental values, universal measures of morality and personal convictions. Küng, a legendary figure in contemporary German theology, headed the project's analysis of world religions for their core message in order to formulate a canon of ethical principles applicable across cultures. The Global Ethic Institute is now building upon that foundation.

The ethics of business is one of the Institute's areas of core research. The Institute also aims to promote innovations in business and society which are in line with the notion of a global ethic, as well as opening up a wider debate on ethics.

Economic philosopher Professor Claus Dierksmeier was appointed the Institute's director in early 2012. At the tenth Global Ethic Lecture on April 18, he spoke about economics and global ethics in the age of globalization.



Professor Hans Küng introduces the new director of the Global Ethic Institute, Professor Claus Dierksmeier.

The Global Ethic Institute is associated with the University of Tübingen; starting in 2012, the Institute has begun offering courses for students of all disciplines as well as public events providing a forum for dialogue on global economic ethics.

www.weltethos-institut.org

Insights Into Prehistory – Joint Projects Take Visitors Back to the Ice Age

Archaeologists from the University of Tübingen are collaborating on two key projects – a museum and a new archaeological park – to open up the physical and spiritual world of the people who lived in this region during the Ice Age. Anatomically modern humans lived in the valleys of the Swabian Jura in southwest Germany during the Ice Age some 40,000 years ago. They made musical instruments and carved delicate figurines of ivory – proving that, along with the arts of survival, they knew the arts of music and sculpture. These earliest known art objects, found in the region’s caves, make it one of the most important places in Europe for Stone Age researchers.

No less than eleven Stone Age figurines were found at the Vogelherd cave in 1931 by Gustav Riek, who later became a Professor of Prehistory at the University of Tübingen. Those finds are on display today at the University Museum in Hohentübingen Castle. In 2005, a University of Tübingen team began reworking the site excavated by Riek. In the tailings at the site they recovered further carvings and fragments, including an undamaged mammoth figurine.

Many of the finds from the region’s caves can be viewed at the Urgeschichtliches Museum in Blaubeuren, showcased in a newly redesigned permanent exhibition. It depicts the flora and fauna of the Ice Age and the everyday life of the people. The Ice Age art found here is believed to mark the region as the birthplace of culture in Europe 40,000 years ago. The Venus and the Phallus figures from Hohle Fels cave are to be seen here, along with the flutes from Hohle Fels and Geissenklösterle caves, as well as composite figures such as the Lion Man.



The 40,000 year old Venus figurine found at the Hohle Fels cave – now on display at the museum in Blaubeuren.

Another important project is the Vogelherd Archaeological Park, due to open in 2013. Modern architecture and technology will take the visitor back 40,000 years to learn about Stone Age hunting, food, art and general way of life – including hands-on exhibits. The project is financed by the European Union’s LEADER program, the state of Land Baden-Württemberg and a number of other sponsors. The University of Tübingen’s Institute of Prehistory is providing scientific support for the project.

A modern setting for an ancient world – the Vogelherd Archaeological Park will take visitors on a journey to the Ice Age.



Max Planck Institute for Intelligent Systems – Making Machines See, Understand and Interact

Systems which work successfully and continue while adapting their structure and characteristics to a changing environment are known as intelligent systems. One example is a robot arm playing table tennis which learns to make its own movements to hit the ball. Scientists at the Max Planck Institute for Intelligent Systems develop these autonomous systems, which have many valuable future applications.

The Max Planck Institute for Intelligent Systems' Tübingen branch was founded in 2011. In 2016 it is to get its own new research building at the Tübingen Max Planck Campus. It is already working closely with the University. Michael J. Black is Adjunct Professor of Bioinformatics and Bernhard Schölkopf is Adjunct Professor of Physics, both in the University's Science Faculty. At the same time, both men are members of the Center for Integrative Neuroscience excellence cluster.

The Max Planck Institute for Intelligent Systems in Stuttgart is responsible for learning material systems, micro- and nano-robotics, while the Tübingen researchers are investigating three main areas: machine learning, image recognition, robotics and biological systems:

- Professor Bernhard Schölkopf, formerly of the Tübingen Max Planck Institute for Biological Cybernetics, heads **Empirical Inference**. The aim of this research area is to decode complexity by focusing on statistical learning theory and its applications. That includes developing new approaches to machine learning, algorithmic modeling of perception and the application of learning algorithms to many different fields – from computer vision to bioinformatics.



After only a short training session, this robot arm develops its own movements for playing table tennis.

- Professor Michael J. Black, an internationally-recognized expert on computer vision, came to Tübingen from Brown University in the US and founded **Perceiving Systems** at the start of 2011. Its researchers use mathematical models to describe the principles of perception. They combine findings from the field of neuroscience with statistical models, machine learning and computer graphics, deriving new algorithms for recognizing images. The goal is to create seeing computers which will one day be able to understand the visual world of surfaces, materials, light and motion.
- Professor Stefan Schaal has been the director of **Autonomous Motion** since late 2012. He previously carried out his research at the University of Southern California. His team is investigating machine learning in complex humanoid robots, linking this research with neural information processing. This allows autonomous motion systems to teach themselves to move – using a relatively simple set of algorithms and a preprogrammed structure – and interact with their surroundings.

The basic research under way at the Max Planck Institute for Intelligent Systems is expected to lead to practical applications in fields such as robotics, medical technology, computer vision and materials science.

www.is.tuebingen.mpg.de

KEY RESEARCH PARTNERS IN GERMANY

- Curt Engelhorn Center for Archaeometry (Mannheim) – associated with the University of Tübingen
- NMI – Natural and Medical Sciences Institute (Reutlingen)
- Global Ethic Institute – associated with the University of Tübingen
- Bernstein Center for Computational Neuroscience (Tübingen)
- Werner Reichardt Center for Integrative Neuroscience Excellence Cluster (CIN)
- Helmholtz Association: German Consortium for Translational Cancer Research (DKTK)
- Helmholtz Association: German Center for Diabetes Research (DZD)
- Helmholtz Association: German Center for Infection Research (DZI)
- Helmholtz Association: German Center for Neurodegenerative Diseases (DZNE)
- Dr Margarete Fischer-Bosch Institute for Clinical Pharmacology (Stuttgart)
- Forschungsinstitut für Arbeit, Technik und Kultur e.V. (Tübingen)
- Senckenberg Research Institute (Frankfurt am Main)
- Forschungszentrum Jülich, member of the Helmholtz Association
- Fraunhofer Institute for Interfacial Engineering and Biotechnology (IGB, Stuttgart)
- Friedrich Miescher Laboratory, Max Planck Society (Tübingen)
- Heidelberg Academy of Sciences and Humanities
- Helmholtz Center for Environmental Research Leipzig-Halle

- Hertie Institute for Clinical Brain Research (Tübingen)
- University of Applied Forest Sciences (Rottenburg)
- Institute for Applied Economic Research e.V. (Tübingen)
- Institut für donauschwäbische Geschichte und Landeskunde (Tübingen)
- Knowledge Media Research Center (Tübingen)
- Max Planck Institute for Biological Cybernetics (Tübingen)
- Max Planck Institute for Developmental Biology (Tübingen)
- Max Planck Institute for Intelligent Systems (Stuttgart/Tübingen)
- PH Ludwigsburg University of Education
- University of Hohenheim – Center for Nutritional Medicine (ZEM) Tübingen – Hohenheim
- University of Stuttgart – cooperation within the Inter-university Center for Medical Technology
- Werner Siemens Foundation

In Transregional Collaborative Research Centers:

Gravitational Wave Astronomy: Methods – Sources – Observation (SFB/TR 7)

- Friedrich Schiller University Jena
- Max Planck Institute for Astrophysics (Garching)
- Max Planck Institute for Gravitational Physics (Potsdam-Golm, Hannover)
- Leibniz University Hannover

Inflammatory Cardiomyopathy – Molecular Pathogenesis and Therapy (SFB/TR 19)

- Charité – Universitätsmedizin Berlin
- Free University of Berlin
- Max Delbrück Center for Molecular Medicine, Berlin
- Max Planck Institute for Molecular Genetics, Berlin
- University of Greifswald

Control of Quantum Correlations in Tailored Matter (SFB/TR 21)

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

Neutrinos and Beyond – Weakly Interacting Particles in Physics, Astrophysics and Cosmology (SFB/TR 27)

- Max Planck Institute for Astrophysics (Garching)
- Max Planck Institute for Nuclear Physics (Heidelberg)
- Max Planck Institute for Physics (Werner Heisenberg Institute, Munich)
- Karlsruhe Institute of Technology (KIT)
- Technical University Munich

Pathophysiology of Staphylococci in the Post-Genomic Era (SFB/TR 34)

- University of Greifswald
- University of Würzburg

Geometric Partial Differential Equations (SFB/TR 71)

- University of Freiburg
- University of Zürich

WORLDWIDE PARTNERSHIPS

Tübingen University Opens New Branch in Seoul

The Tübingen Center for Korean Studies at Korea University (known as TUCKU) was officially opened on May 21, 2012. It is Tübingen's third branch in Asia after the Center for Japanese Language in Kyôto and the European Center for Chinese Studies (ECCS) at Peking University. TUCKU is associated with Korea University's Research Institute of Korean Studies and will further promote direct academic exchanges between the partner institutions.

Tübingen's Bachelor of Korean Studies program will integrate a year-long enrolment at TUCKU, enabling students to immerse themselves in the Korean language and culture without having to extend their overall period of study for the degree.

TUCKU director Dr Sun-ju Choi coordinates academic exchanges between Korea University and the University of Tübingen and counsels exchange students during their studies in Seoul. The Center offers Korean students the opportunity to study a wide variety of subjects in Tübingen – with the support of University of Tübingen scholarships and a new tutorial system encouraging Korean students to take an active role in the academic life of Germany's premier school of Korean Studies.



Korea University President Professor Byoung Chul Kim (center left) and Tübingen University President Professor Bernd Engler (center right) among dignitaries opening the Tübingen Center for Korean Studies in Seoul.

Matariki Network Develops Joint Research on Ethics in the Life Sciences

The University of Tübingen is one of the seven research universities forming the Matariki Network of Universities (MNU) – including Durham University (UK), Uppsala University (Sweden), Queen's University (Canada), Dartmouth College (USA), the University of Western Australia and Otago University (New Zealand). The network was founded in 2010 to promote an exchange of people and ideas in research.

Matariki Network representatives met in May 2012 in Durham and identified common research fields such as integrative neuroscience, energy and the environment, and peace and conflict research. The University of Tübingen's Professor József Fortágh of the Institute of Physics will bring together Matariki Network researchers in quantum science at a special workshop in July 2013.

Matariki Network researchers into ethics in the Life Sciences have already met to develop joint projects. Representatives of various disciplines met in Tübingen in October 2011 for a workshop entitled "Research Ethics in the Life Sciences – Agenda Setting for Research and Teaching." Despite the many facets of the issue, they were able to identify a common aim and launched a project on "Regulating Research in the Life Sciences in a Globalised World." It aims to use theoretical and empirical methods and focus on aspects of training in the Life Sciences.

Another research workshop in Durham in July 2012 allowed scientists from the universities of Durham, Uppsala, Western Australia, Otago and Tübingen to present case studies and discuss ways of regulating Life Sciences research in a globalized world. Tübingen's delegates were from the International Center for Ethics in the Sciences (IZEW).



Front row, from left: Heinz-Dieter Assmann (Tübingen), Deryck Beyleveld (Durham), Chris Hutchison (Durham), Aine Donovan (Dartmouth), Stefan Eriksson (Uppsala), Neil Pickering (Otago), Hans-Jörg Ehni (Tübingen);
Back row, from left: Shaun Pattinson (Durham), Simon Walker (Otago), Michael Dietrich (Dartmouth), Karin Moser v. Filseck (Tübingen), Urban Wiesing (Tübingen), Dominique Blache (Perth, Australia), Gareth Jones (Otago), Steven Liss (Kingston, Canada), Eve-Marie Engels (Tübingen).

GUEST PROFESSORS IN TÜBINGEN

Tübingen's Fulbright Professor – Political Scientist David Canon

In October 2011, the University welcomed political scientist David Canon of the University of Wisconsin to the Fulbright Distinguished Chair. He is the third outstanding US professor to spend a year teaching and researching in Tübingen under this Fulbright scheme.

Professor Canon introduced himself with a public lecture on "Governing or Gridlock? Political Polarization in the US" in December 2011. In the course of the academic year, he taught in the disciplines of both Political Science and American Studies. His lectures and classes focused on the US political system and the participation of ethnic groups in forging public policy.

Canon's publications examine a range of aspects of US politics, including the role of well-known figures such as astronauts, athletes and actors who have entered the political arena, and the effectiveness of Congress. He is a coauthor of the textbook "American Politics Today" (2009) and is much sought after as a commentator on US policymaking.



Professor David Canon



Professor Jeffery L. Dangl

Tübingen has the Fulbright Distinguished Chair of American Studies for five years. The German-American Fulbright Commission awards the scheme to German universities strong in the field of American Studies. Tübingen's first distinguished guest was Film Studies expert Jane Feuer (University of Pittsburgh), followed by the historian Robert J. Norrell (University of Tennessee). David Canon is succeeded by cultural historian Peter Boag (Washington State University) in the 2012 - 13 academic year.

Tübingen Distinguished Guest Professor – Plant Geneticist Jeffery Dangl

Professor Jeffery L. Dangl became our second Distinguished Guest Professor under the scheme introduced in the 2010 - 11 academic year. Professor Dangl heads a working group at the University of North Carolina in Chapel Hill (US) and is a member of the US National Academy of Sciences. A respected plant scientist, Dangl will teach and carry out research at the Tübingen Center for Plant Molecular Biology (ZMBP) for part of the next three years, focusing on the molecular foundations of plant immunity to infections.

The Tübingen Distinguished Guest Professorship integrates outstanding international scientists into Tübingen research projects. It is funded by the government of the state of Baden-Württemberg in connection with the Excellence Initiative program.

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

INTERNATIONAL STUDENTS AND STUDIES

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 in 62 different countries, as well as with our six partners in the Matariki Network of Universities. The locations of our partner universities are marked on the map.

We have some 450 partners in Europe under many different schemes. The University is highly active in the European Union's Erasmus Program, which alone involves partnership deals with around 300 European institutions. Our seven Faculties also run more than 80 exchange programs with institutions in Europe and around the globe.

Approximately 800 Tübingen students annually take advantage of the many exchange schemes we offer. This mobility gives them valuable international experience and helps strengthen the University's international networks.

North America

Canada
 University of Alberta - EDMONTON, ALBERTA
 McGill University - MONTREAL
 McMaster University - HAMILTON, ONTARIO
 Ontario Colleges and Universities - ONTARIO*
 Université Laval - 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
 University of California - BERKELEY, CA
 California State University - CA*
 University of Denver - DENVER, CO
 Connecticut State Universities and Colleges - CT*
 Yale University - NEW HAVEN, CT
 Georgetown University - WASHINGTON, DC
 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
 Antioch University - YELLOW SPRINGS, OH
 Oregon University System - OR*
 Reed College - PORTLAND, OR
 Allegheny College - MEADVILLE, PA
 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 exchange

Latin America

Argentina
 Pontificia Universidad Católica Argentina - BUENOS AIRES
 Universidad Nacional de Córdoba - CORDOBA

Brazil
 Universidade Federal Fluminense - NITEROI
 Universidade Federal do Rio Grande do Sul - PORTO ALEGRE
 P.U.C. do Rio Grande do Sul - PORTO ALEGRE
 Universidade Federal de Pernambuco - RECIFE
 Univates em Lajeado - LAJEADO
 Universidade de Santa Cruz do Sul - SANTA CRUZ
 Universidade Federal de Santa Maria - SANTA MARIA
 Universidade de São Paulo - SÃO PAULO
 Campus Universitario Ribeirão Preto - SÃO PAULO

Chile
 Pontificia Universidad Católica Santiago - SANTIAGO

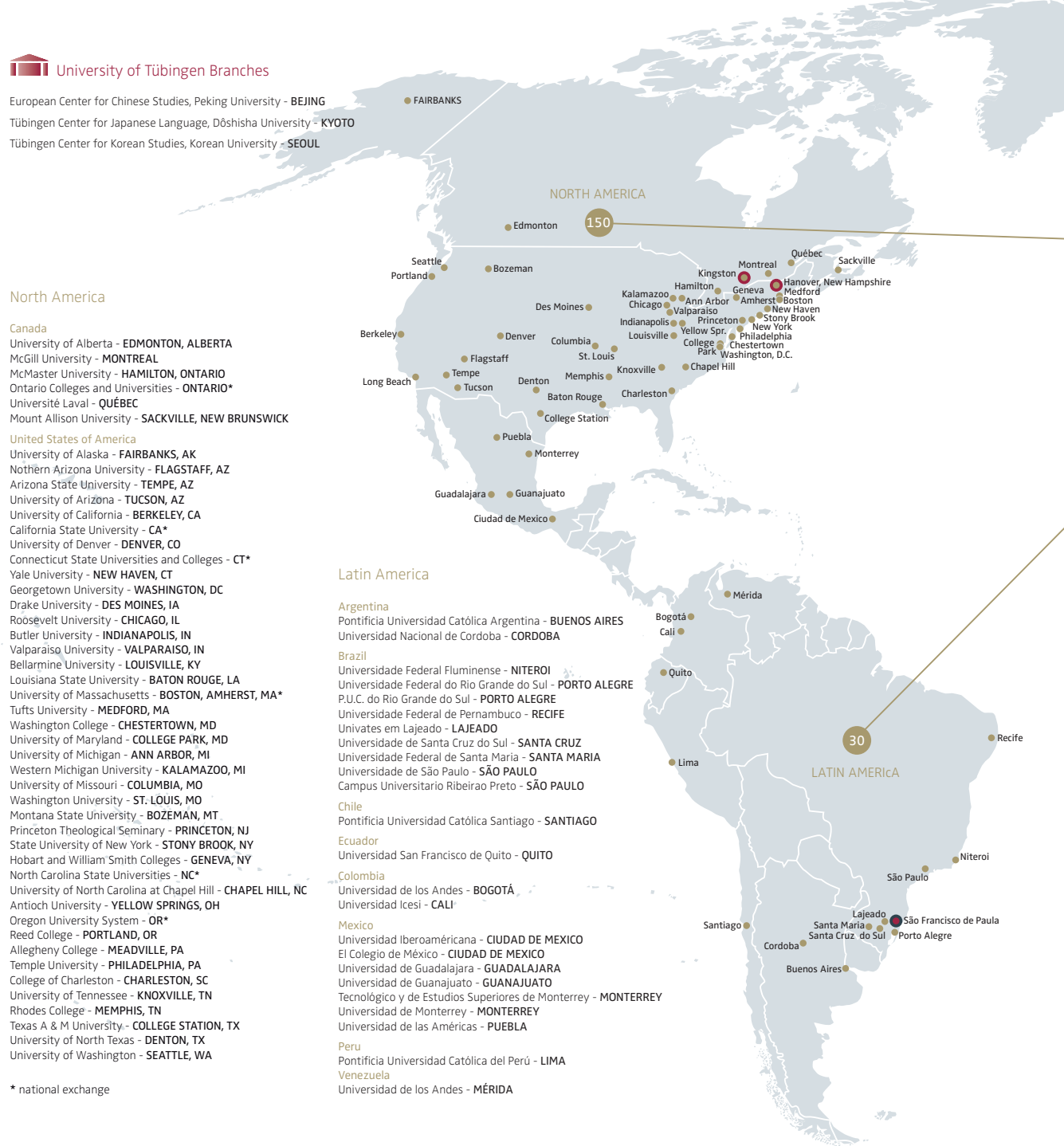
Ecuador
 Universidad San Francisco de Quito - QUITO

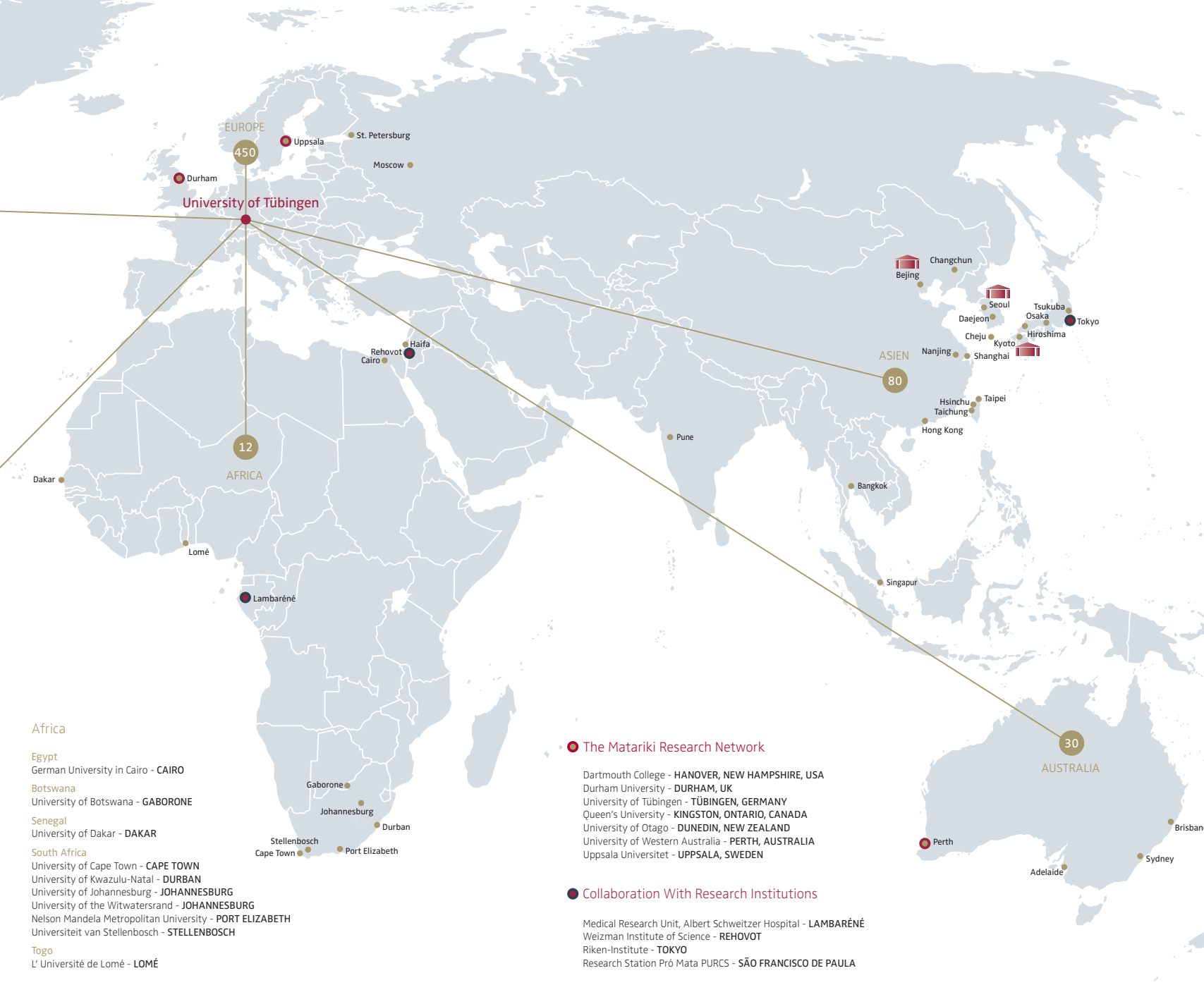
Colombia
 Universidad de los Andes - BOGOTÁ
 Universidad Icesi - CALI

Mexico
 Universidad Iberoamericana - CIUDAD DE MEXICO
 El Colegio de México - CIUDAD DE MEXICO
 Universidad de Guadalajara - GUADALAJARA
 Universidad de Guanajuato - GUANAJUATO
 Tecnológico y de Estudios Superiores de Monterrey - MONTERREY
 Universidad de Monterrey - MONTERREY
 Universidad de las Américas - PUEBLA

Peru
 Pontificia Universidad Católica del Perú - LIMA

Venezuela
 Universidad de los Andes - MÉRIDA





University of Tübingen

EUROPE

450

ASIEN

80

AFRICA

12

AUSTRALIA

30

Africa

- Egypt
German University in Cairo - CAIRO
- Botswana
University of Botswana - GABORONE
- Senegal
University of Dakar - 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

- 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
Weizman Institute of Science - REHOVOT
Riken-Institute - TOKYO
Research Station Pró Mata PURCS - SÃO FRANCISCO DE PAULA

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

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

- India
University of Pune - PUNE
- 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

- Singapore
National University of Singapore - SINGAPORE
Singapore Management University - SINGAPORE

- South Korea
National University of Cheju - CHEJU
Chungnam National University - DAEJEON
Seoul National University - SEOUL
Ewha Womans University - SEOUL
Hanyang University - SEOUL
Korea University - SEOUL
Yonsei University - SEOUL

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

- Thailand
Chulalongkorn University - BANGKOK
Silpakorn University - BANGKOK

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



UNIVERSITY STRUCTURE

WORKING TOWARD A COMMON GOAL

Following recent elections, the Board of Trustees and the President's Office will provide continuity in the coming years, and together with all members of the University from the administration and the Faculties, they aim at making the University of Tübingen better than ever. Commitment talks are defining and helping to achieve specific goals, and state-of-the-art research buildings are reinforcing the University's internationally-recognized scientific research. Yet we also make every effort to ensure that priceless historical buildings are restored – and are able to take on new functions.

UNIVERSITY LEADERSHIP

Board of Trustees

The University's new Board of Trustees started work on October 1, 2012. It is due to remain in office until the end of September 2015. The Board of Trustees is charged with guiding the University's overall development and suggests measures to improve its performance and competitiveness. The Board supervises University management and elects the President.

External Members

| | | |
|----------|--|--|
| Chairman | Professor Dr Wilhelm Rall | Stuttgart |
| | Professor Dr Andreas Busch | Bayer Pharma KG |
| | Dr Albrecht Hauff | Georg Thieme Verlag KG, Stuttgart |
| | Professor Dr Antonio Loprieno | University of Basel |
| | Professor Dr Christiane Nüsslein-Volhard | Max Planck Institute for Developmental Biology, Tübingen |
| | Bettina Würth | Adolf Würth GmbH & Co KG, Künzelsau |

University Internal Members

| | | |
|--|---------------------------------|-----------------------------------|
| | Professor Dr Ingrid Hotz-Davies | English Languages and Literatures |
| | Professor Dr Stefan Laufer | Pharmaceutical Institute |
| | Dr Thomas Nielebock | Institute of Political Science |
| | Professor Dr Barbara Remmert | Faculty of Law |
| | Christin Gumbinger | Student representative |



Left to right: Professor Herbert Mütter, Professor Stefanie Gropper, Professor Bernd Engler, Professor Heinz-Dieter Assmann and Dr Andreas Rothfuss

The President's Office

| | | |
|---|-----------------------------------|-----------------------------------|
| President | Professor Dr Bernd Engler | American Studies Program |
| Executive Vice-President | Dr Andreas Rothfuss | |
| Vice-President of Academic Affairs | Professor Dr Stefanie Gropper | Scandinavian Studies |
| Vice-President of Research | Professor Dr Herbert Mütter | Institute for Theoretical Physics |
| Vice-President of International Affairs | Professor Dr Heinz-Dieter Assmann | Faculty of Law |



Professor Herbert Mütter (left), Professor Heinz-Dieter Assmann

Vice-Presidents of Research and International Affairs Re-elected

The Vice-President of Research, Professor Herbert Mütter, and the Vice-President of International Affairs, Professor Heinz-Dieter Assmann, were re-elected October 1, 2012, by the Board of Trustees, with their new terms ending on September 30, 2016. Professor Mütter said one of his chief aims was to implement the University's Institutional Strategy, part of Tübingen's successful bid in the Excellence Initiative. He also plans to continue strategy talks to identify new fields of research and the accompanying opportunities.

Professor Assmann pledged to continue forming international strategic partnerships, and expanding on cooperation agreements with outstanding international universities whose core research areas overlap with Tübingen's. The aim is to form a network which will help the institutions involved promote their outstanding junior researchers and carry out research at the very highest level. Professor Assmann also aims to make Tübingen more attractive to international students.

CENTRAL ADMINISTRATION



*Left to right: Professor Peter Gratwohl, Faculty of Science;
University President Professor Bernd Engler;
Professor Olaf Cirpka, Department of Geoscience*

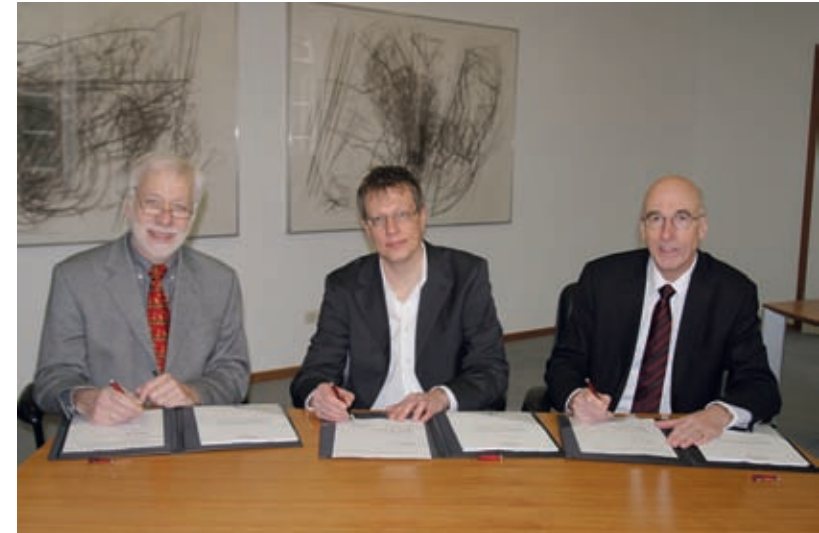
Commitment Agreements

University management seeks to maintain the best possible lines of communication with its departments. To that end, it instituted commitment talks as a process of agreement on goals and perspectives, and to assure quality and strategic development within the University.

University President Bernd Engler signed the first commitment agreement with representatives of the Science Faculty and its Geoscience Department in late 2011. After intense negotiations, the parties agreed on concrete goals for the following six years. The Department of Geoscience pledged to reinforce its outstanding position in terrestrial Geoscience via joint research projects and the promotion of junior researchers, and to increase significantly the number of courses taught in English.

In a further commitment agreement, University management and the Institute of Computer Science struck a deal in February 2012, setting goals to 2018. They include closer collaboration with the Max Planck Institute for Intelligent Systems and new international partners; the aim is to further develop key research areas in the fields of Bioinformatics, Media Computer Studies and Cognition Science. Cooperation with partners in industry will aim to expand application-based research at the Institute. Plans were also laid for the new Medical Computer Science study program and for a greater range of courses offered in English.

Each commitment agreement is subject to review when half the time has elapsed. A new round of commitment talks was launched in mid-2012 with the Economics Department.



*Left to right: Vice-President of Research Professor Herbert Müther;
Professor Torsten Grust, Institute of Computer Science;
Professor Wolfgang Rosenstiel, Dean of Science*

University Seeks System Accreditation

Under state law, each Bachelor and Master course must be separately accredited unless the University receives a “system accreditation” – its own entitlement to accredit courses. Before a system accreditation can be issued, the University’s internal quality assurance system for academic affairs is thoroughly vetted.

The University of Tübingen was admitted to the system accreditation application process in October 2011. The quality assurance institute ACQUIN examined the University’s documentation and sent a delegation of experts to assess the University’s policies and processes of quality assurance in teaching. In a second inspection in 2013, the experts will make an in-depth check of the University’s planning and execution of courses as well as its quality assurance mechanisms. Three courses will then be used to test the system. By the end of September 2014 we hope to have completed the process successfully.

A system accreditation is valid for six years. Courses which have been set up or tested in that time are automatically accredited. For the Faculties this would represent a great saving of the time and money currently spent on obtaining accreditation for each course. It would also give them more autonomy by enabling them to carry out their own quality checks on courses.

University Committed to Sustainability Measures

The University of Tübingen took part in the state of Baden-Württemberg’s first Sustainability Days project in April 2012 with a series of events on saving valuable resources. The University’s environmental coordinator, Hedwig Ogrzewalla, the waste disposal coordinator, Annette Eissler, and Daniel Schloz of the International Center for Ethics in the Sciences were present on campus to inform staff and students about the European Commission’s Eco Management and Audit Scheme (EMAS) and the University’s measures to comply with it. Student groups and University agencies detailed their contributions.

In November 2011 the University of Tübingen became the first institution of higher education in the region to receive EMAS certification. The Eco Management and Audit Scheme promotes the voluntary commitment by businesses and other organizations to keep improving pro-environmental measures. To this end, the University introduced and implemented a validated environmental management system, which has been made an integral consideration in administration, research and teaching.



WORKING AT THE UNIVERSITY

Portrait – Archivist Irmela Bauer-Klöden

The University of Tübingen has hundreds of thousands of historical documents, paintings and other objects dating as far back as its founding in 1477. Irmela Bauer-Klöden is one of the people responsible for maintaining and digitalizing the archives. Without Bauer-Klöden and her colleagues, it would be extremely difficult to find specific data. “You have to know where to look,” she says, “the information is often to be found in obscure places” in the thousands of meters of shelves.

Bauer-Klöden has been involved in this labor of love since her student days in the 1970s. Her first task was to compile a register of University senate minutes from the 17th century, “understanding hard-to-read sources and summarizing the content.” It was all new to her, “but I loved it,” she says. Over four decades, Irmela Bauer-Klöden has seen huge technical innovations. The first “proper” computer came along in the 1980s; now people with enquiries expect a reply within minutes. Bauer-Klöden can usually help them. Maintaining this huge volume of information from eras before digitalization is important, she says, citing documentation on one of Tübingen’s famous past students, Alois Alzheimer. “The archives are the University’s memory.”



Irmela Bauer-Klöden cares for the University’s historical documents.



Reinhard Brunner advises international students.

Portrait – International Students’ Coordinator Dr Reinhard Brunner

Approximately 650 international PhD candidates are currently working on their dissertations in Tübingen – more than twice as many as in 2005, says Dr Reinhard Brunner. Most of those students were admitted to the University by Dr Brunner and his staff at the Division of International Affairs.

Brunner’s Office for the Advising and Admission of International Students can tell, for instance, a US graduate of Mathematics what he needs to do to be admitted to a Tübingen Master’s course in Computer Science, or whether a Chinese degree qualifies its holder to be admitted to a PhD course in Tübingen. Dr Brunner and his staff answer dozens of enquiries daily, in some cases consulting with the respective Faculties, and advising international students in administrative matters such as what they require to get a German residence permit.

Reinhard Brunner has been working with international students since his own student days at the University. International interest in Tübingen is tremendous, says Brunner, “particularly in Neuroscience – but also in Biology and the Humanities.” The number of Master’s courses conducted in English is rising, and he receives around 700 applications for them each semester. But undergraduate student exchange programs are also important, says Brunner, because they bring in good candidates for graduate studies. “Anyone who has spent a year here comes back – and all former exchange students become excellent ambassadors for the University.”

University Staff 2012

| Faculty | Regular positions (FTE) | Third-party funded (FTE) | Tuition fee funded | Total staff | Male | | Female | | Full-time equivalent (FTE) | | |
|---|-------------------------|--------------------------|--------------------|-------------|----------------|-------------|----------------|-------------|----------------------------|----------------|----------------|
| | | | | | academic staff | | academic staff | | academic | non-academic | |
| Protestant Theology | 54.75 | 4.75 | 0 | 89 | 50 | 50 | 39 | 15 | 54.05 | 37.75 | 16.30 |
| Catholic Theology | 41.75 | 14 | 3 | 75 | 50 | 40 | 25 | 17 | 47.01 | 37.01 | 10 |
| Law | 98.75 | 4.86 | 7 | 169 | 92 | 84 | 77 | 30 | 94.79 | 56.62 | 38.17 |
| Medicine | 1153 | 543 | 58 | 2470 | 1243 | 1212 | 1227 | 1166 | 1788.80 | 1633.01 | 155.79 |
| Humanities | 299.15 | 63.22 | 24 | 535 | 288 | 265 | 247 | 166 | 352.00 | 287.84 | 64.16 |
| Economics and Social Sciences | 188.90 | 42.99 | 10 | 357 | 183 | 158 | 174 | 98 | 229.02 | 164.09 | 64.93 |
| Science | 758.88 | 335.15 | 14 | 1596 | 995 | 843 | 601 | 323 | 1088.60 | 745.20 | 343.40 |
| Center of Islamic Theology | 5 | 2.50 | 0 | 9 | 8 | 8 | 1 | 0 | 7.70 | 6.70 | 1 |
| Collaborative Research Centers / Research Training Groups | 1 | 82.45 | 3 | 127 | 62 | 60 | 65 | 60 | 82.79 | 77.04 | 5.75 |
| Central Administration (incl. University Library, IT Center etc.) | 618.58 | 27.15 | 10 | 674 | 292 | 45 | 382 | 44 | 524.25 | 63.85 | 460.40 |
| Total | 3219.76 | 1120.07 | 129 | 6101 | 3263 | 2765 | 2838 | 1919 | 4269.01 | 3109.11 | 1159.90 |

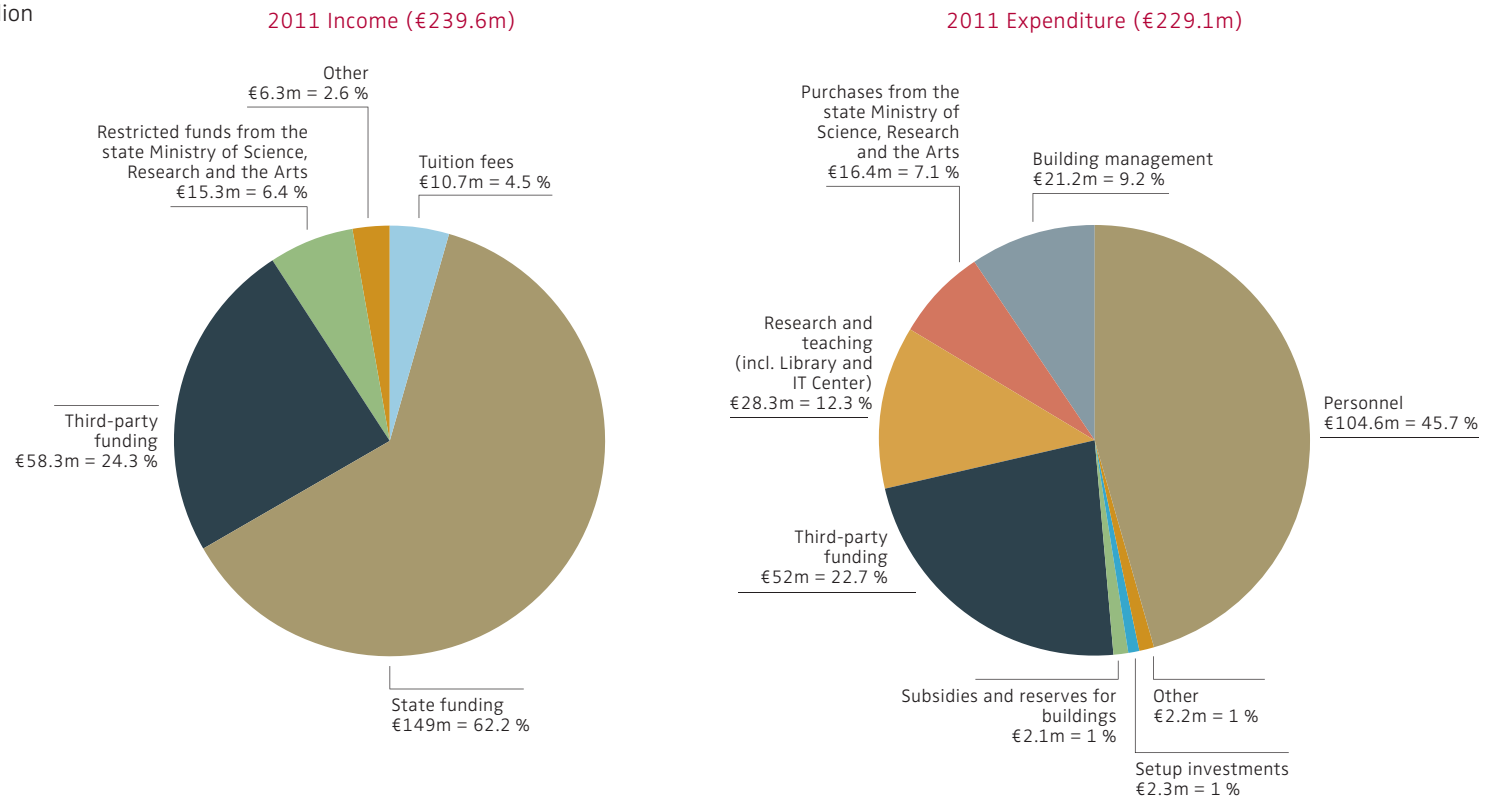
Professors 2012

| Faculty | 2012 | | |
|-------------------------------|------------|------------|-----------|
| | Total | Male | Female |
| Protestant Theology | 13 | 11 | 2 |
| Catholic Theology | 13 | 12 | 1 |
| Law | 21 | 19 | 2 |
| Medicine | 99 | 89 | 10 |
| Humanities | 78 | 53 | 25 |
| Economics and Social Sciences | 52 | 41 | 11 |
| Science | 149 | 132 | 17 |
| Center of Islamic Theology | 3 | 3 | 0 |
| KMRC | 5 | 3 | 2 |
| Central Administration | 2 | 1 | 1 |
| Total | 435 | 364 | 71 |

UNIVERSITY FINANCES

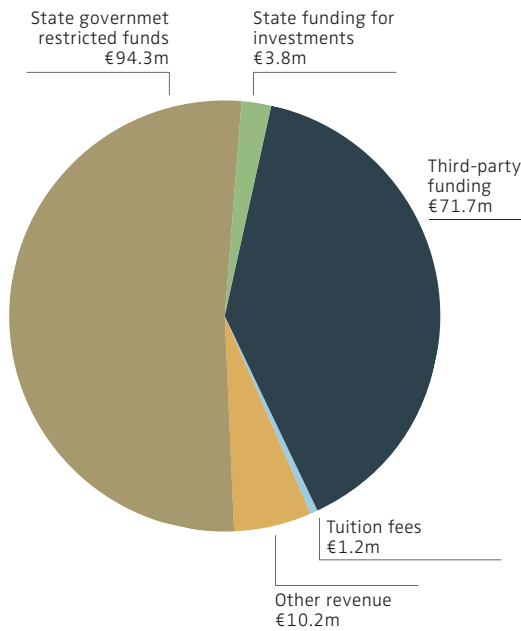
The University of Tübingen had a 2011 budget of more than €420 million. The Faculty of Medicine and University Hospitals accounted for over €181 million of the total.

University Budget (excluding Medicine)

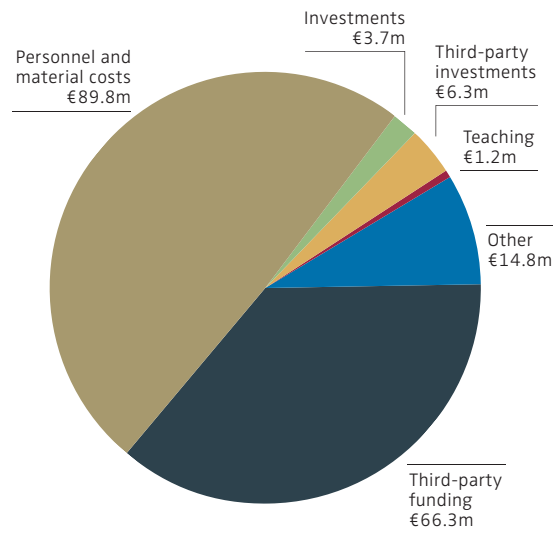


Faculty of Medicine Budget

2011 Revenue (€181.,2m)

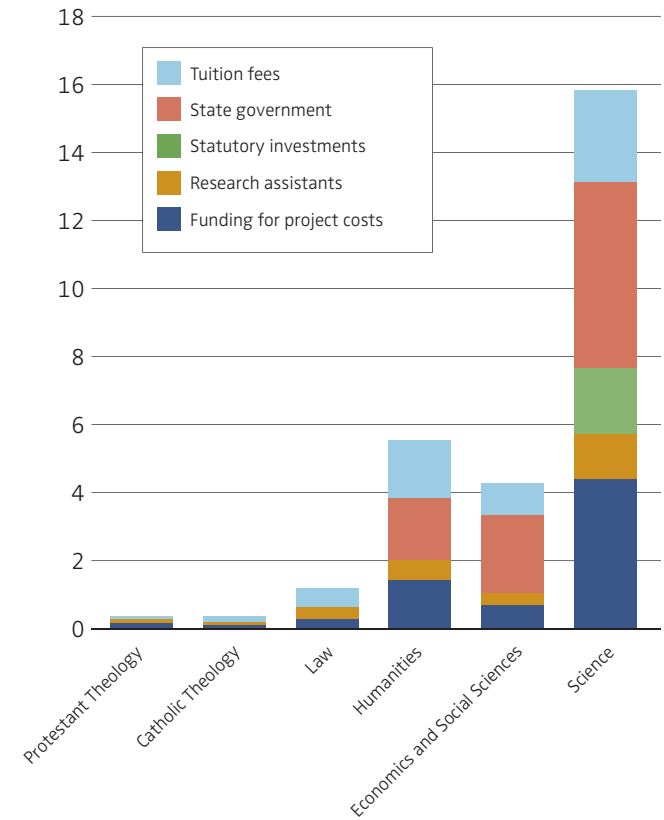


2011 Expenditure (€182.1m)



2011 Faculty Finances

€m (excluding Medicine)



CAMPUS CONSTRUCTION PROJECTS



New CIN Building Expands Tübingen's Neuroscience Campus

The University of Tübingen's Neuroscience excellence cluster, the Werner Reichardt Center for Integrative Neuroscience (CIN) moved into its new €20m building in May 2012. The new research center contains 4,000 square meters of laboratory and office space for the Center's 150 employees. Some research groups from the nearby Hertie Institute for Clinical Brain Research (HIH) also work there; the building also houses a sleep laboratory.

The German Center for Neurodegenerative Diseases is constructing its own research building in the neighborhood. Together with the CIN and HIH, it will form a unique Neuroscience Campus, underlining Tübingen's premier position in Neuroscience research.

www.cin.uni-tuebingen.de



New Home for Plant Molecular Biology on Morgenstelle Science Campus

A new building for the Center for Plant Molecular Biology has been under construction on the Morgenstelle Campus since 2009 and is due for completion in 2013. Biologists, biochemists, pharmaceuticals and bioinformatics researchers will teach and carry out interdisciplinary work in the €34.5m building. There are more important plans in the pipeline for the Morgenstelle Science Campus: new buildings for the Environmental and Geoscience Center (GUZ), as well as for Biochemistry and for Computer Science.



Putting Our Houses in Order

One of the University's oldest buildings, the Alte Aula (1477), underwent comprehensive restoration and structural renovation between 2007 and 2012 at a cost of €5.3m. This beautiful historic building now meets modern fire and earthquake safety standards and is home to the University's Institute of Education.



The University Library's main building reopened in December 2011 after receiving a €4m overhaul to help cater to a growing number of students. Measures include a new area for group work, as well as additional workspaces and room for more facilities such as photocopiers and lockers. Ventilation and fire safety systems were brought up to date. And a new façade lets in more light.

The Institute of Sport Science received more space for teaching and research in a €3.2m construction and renovation program ending in October 2011. It included the construction of a new gymnasium with more than 700 square meters of floor space. Other buildings were extensively renovated and modernized.



83A

CELEBRATING KNOWLEDGE

THE UNIVERSITY AND ITS ROLE IN SOCIETY

The University works to benefit society as a whole. By inviting high school students to carry out laboratory experiments, for example, we aim to nurture a love of science. Writers, journalists and outstanding researchers come to Tübingen to share their insights and develop ideas. Cultural events open doors on vibrant societies around the world. And the University Museum brings research alive for the public with its varied exhibitions.

NEW HONORARY SENATORS

The University of Tübingen welcomed four new Honorary Senators in the 2011 – 12 academic year. Each has made a unique contribution in his or her field.

Dr Nicola Leibinger-Kammüller – An Extraordinary Entrepreneur

Dr Nicola Leibinger-Kammüller, CEO of the TRUMPF engineering company, became an honorary senator in September 2012. The University pays tribute to Dr Leibinger-Kammüller's involvement in advising the government on innovation and growth, as a patron of the sciences and humanities, and in her many other functions supporting a strong German economy based on ethically sound principles.

The University also values her contributions to the enrichment of cultural life in the state of Baden-Württemberg, as well as her involvement in promoting application-based research via the Berthold Leibinger Foundation. "Dr Nicola



Dr Nicola Leibinger-Kammüller

Leibinger-Kammüller is an entrepreneur and patron of the sciences and humanities who is engaged in many different areas," said University President Bernd Engler, "we are happy and proud to have her as an honorary senator." Managing partner at Bosch GmbH, Tilman Todenhöfer, himself an honorary senator, praised Leibinger-Kammüller's readiness to take on social responsibilities, saying she speaks on public matters with courage and determination. Dr Nicola Leibinger-Kammüller read German, English and Japanese Studies in Freiburg, Middlebury (USA) and Zürich. After attaining her PhD, she worked in various areas of the TRUMPF Group, including public relations and marketing. She became president of the group in 2005.

Professor Rolf G. Werner – Making Valuable Contributions to Antibiotics Research

Professor Rolf G. Werner of Boehringer Ingelheim Pharma GmbH became an honorary senator in April 2012. A leader in the development of therapeutic proteins, he has identified new antibiotics and developed new tissue growth techniques, reinforcing the state of Baden-Württemberg's



Professor Rolf G. Werner

reputation as a place for groundbreaking medical research. Rolf G. Werner studied Mathematics, Physics, Organic Chemistry, Biochemistry and Microbiology at the University of Tübingen, completing his habilitation in 1990. He is now adjunct Professor for Industrial Biotechnology at the University, where he makes a vital contribution to research and teaching in his field. "The University of Tübingen is particularly grateful to Rolf G. Werner for his emphatic support for the University and its research agenda – and for the fact that he maintains this support even in times of tremendous professional commitments."

Dr Jürgen Hambrecht – Promoting Science Education in Germany

In October 2011, former CEO of chemicals giant BASF Dr Jürgen Hambrecht became an honorary senator. Dr Hambrecht has done much to improve the competitiveness of German business internationally, and has strengthened business ties with Asia.



Dr Jürgen Hambrecht

Dr Hambrecht has helped to found "Wissensfabrik – Unternehmen für Deutschland," an association dedicated to awakening a love of science in young children. In his laudation, the president of the Max Planck Society, Professor Peter Gruss, said Hambrecht had given great service to science and the economy, to education and progress, internationalism and openness to technology in Germany. Jürgen Hambrecht attained his doctorate in 1975 at the University of Tübingen. He worked for BASF for more than 35 years. He is a member of several supervisory boards, including those of Daimler and Lufthansa.

Professor Günther Uecker – A Modern Artist Nurturing Young Talent

The painter and sculptor Günther Uecker was honored for his services to art the same month. "His work is a universe, the mind can barely encompass it," said Dr Roland Wäspe, director of the Kunstmuseum St. Gallen, in his speech at the conferring of the title.



Professor Günther Uecker

The University honors Uecker for his contribution to contemporary German art. As a professor at the Düsseldorf Academy of Fine Arts, he helped develop the talents of promising young artists. Not least, Günther Uecker has created art at the University of Tübingen, including the pin art sculpture dedicated to Professor Theodor Eschenburg in the University Library and the relief in the Morgenstelle lecture theater center.

Günther Uecker studied at the School of Applied Arts in Wismar, at the Berlin Weissensee School of Art and at the Düsseldorf Academy of Fine Arts, where he began teaching in 1974. He made a name for himself with his relief-like pin art and kinetic light sculpture.

The University confers honorary senator status on public figures making outstanding contributions to education, the state and society. Honorary senators are ambassadors for the University, representing its interests in the spheres of politics and business as well as in society at large.

PRIZES RECEIVED

Education Minister Awards Humboldt Professorship to Tübingen Linguist

Internationally renowned linguistics professor Rolf Harald Baayen was among the six 2012 Humboldt Professors to officially receive the honor from German Education Minister Professor Annette Schavan in Berlin in May 2012. Born in the US, Baayen did his PhD in Amsterdam and launched his academic career at the Max Planck Institute for Psycholinguistics in Nijmegen, the Netherlands. Following stints at the University of Nijmegen and the University of Alberta, Canada, Professor Baayen is now working with neuroscientists, psychologists, linguists and philologists in Tübingen to discover more about human language systems. Alexander von Humboldt Professorships bring top researchers from around the world to German universities. Humboldt Professors receive up to €5m over five years to support their research.



Left to right: Professor Bernd Engler, University of Tübingen President, German Education Minister Professor Annette Schavan, Professor Rolf Harald Baayen, and Professor Helmut Schwarz, President of the Alexander von Humboldt Foundation

University and City of Tübingen Win International Energy Efficiency Award

Three Tübingen initiatives took the 2012 EE Visionary Award for Europe: the Institute for Physical and Theoretical Chemistry's "Clear-Up" project, the student initiative "Greening the University," and the city's climate-protection campaign "Tübingen macht blau" were jointly selected by the Florida-based Alliance to Save Energy for their "cutting-edge energy efficiency achievements that are leading the way in today's global economy," said Alliance President Kateri Callahan. The Alliance to Save Energy is a nonprofit organization that promotes energy efficiency worldwide through research, education and advocacy.

The selection committee said the variety and concentration of climate-protection projects in Tübingen was unique. It praised the town's energy conservation campaign, which transformed the transportation system to include hybrid, electric and hydrogen buses – as the kind of community-based project that promotes energy efficiency. Other winners of the Energy Efficiency Visionary Award in 2012 were the Buffalo Medical Campus, N.Y., USA; Masdar City, United Arab Emirates; and Melbourne city center, Australia.

<http://eeglobalforum.org>

PRIZES GIVEN



2012 Lucas Prize – Professor Seyla Benhabib

The 2012 Dr Leopold Lucas Prize went to US Professor of Political Theory, Seyla Benhabib, of Yale University. Professor Benhabib’s work focuses on the ethical foundation and implementation of a basic duty of hospitality in the age of globalization. Turkish-born Benhabib propounds a universal duty to set moral and civil concerns above the often biased interests of sovereign democracies when it comes to the rules of citizenship.

The Prize honors the memory of the Jewish rabbi and scholar Dr Leopold Lucas, murdered at Theresienstadt concentration camp in 1943. The Prize of €50,000 is awarded annually in recognition of outstanding achievement in the fields of Theology, History or Philosophy, focusing on individuals whose work promotes tolerance among nations and religions. It is awarded annually by the University of Tübingen’s Faculty of Protestant Theology.

Hölderlin Award for Jan Wagner

The poet Jan Wagner received the Friedrich Hölderlin Award in October 2011 from the University and the city of Tübingen for his work’s virtuosity and wealth of stylistic elements. Wagner, born in 1971, studied English language and literature in Hamburg, Dublin and Berlin, and has published four volumes of poetry. The award, which comes with €10,000 prize money, has been made every two years since 1989 to individuals who have made a unique poetic contribution to the German language, or to researchers, writers, artists and critics who have special links to the works of the poet Friedrich Hölderlin (1770 - 1843). The prize is awarded on October 21, the day Hölderlin began his studies at the Evangelische Stift college of Theology in Tübingen in 1788.

Left to right: Dagmar Waizenegger (City of Tübingen), Jan Wagner, Vice-President of Academic Affairs Professor Stefanie Gropper

Early Prehistory Prize for Dr Britt Marie Starkovich

The University of Tübingen’s prestigious Prize for Early Prehistory and Quaternary Ecology in 2012 went to Dr Britt Marie Starkovich of the University of Arizona’s School of Anthropology in recognition of her work on animal bones from the Middle and Upper Paleolithic, with which she demonstrates the changing diet of Neanderthals and early modern humans. The prize, sponsored by the German drinks company EiszeitQuell, is in its 14th year and – at €5000 – is the most valuable of its kind for young archaeologists.

Dr Starkovich, born in 1981, submitted her thesis in 2011 at the University of Arizona. Entitled “Trends in Subsistence from the Middle Paleolithic through Mesolithic at Klissoura Cave 1 (Peloponnese, Greece)”, it focuses on animal bones found at Klissoura Cave 1 in the northeast Peloponnese peninsula in Greece. Dr Starkovich used evolutionary ecology models to draw conclusions on how Neanderthals and early humans altered their food-gathering strategies and the different ways in which they used the cave in the time 80,000 to 10,000 years ago.



STRENGTHENING THE SCHOOL-UNIVERSITY CONNECTION

Microbiology Congress Gets Pupils Thinking Small

Bacteria are virtually everywhere – on your computer keyboard, on chairs, in the bathtub. Scientists at the University of Tübingen held a conference entitled “Micro + Bio? = Logical!” in November 2011. Some 80 high school students found out how friendly bacteria help humans and how the immune system recognizes unfriendly ones. Workshops dealt with issues such as how some bacteria can be used in the production of medicines, and introduced fields such as Geomicrobiology and Natural Products Chemistry. The young researchers could put all their questions directly to the experts and carry out experiments in the lab.

The conference aimed to create a new form of communication between schools and science, awakening interest in research among high school students. It was initiated by the government-sponsored GenBioCom project and the University's Collaborative Research Center “The Bacterial Cell Envelope: Structure, Function and Infection Interface” in collaboration with the Interfaculty Institute of Microbiology and Infection Medicine Tübingen (IMIT), the Center for Applied Geoscience, the Organic Chemistry Institute, the Carlo Schmidt high school's Life Sciences center, and the Biology, Biosciences and Biomedicine Association (VBIO).

Primary School Kids Turn Everything Red – or Blue

Researchers get younger several times a year at the Interfaculty Institute of Biochemistry (IFIB). Fourth-graders are invited to two-day workshops to discover how much fun Chemistry can be. In April 2012, the classes donned white coats and protective goggles and, using red cabbage juice as a pH indicator, documented its color changes when mixed with vinegar, cola, baking powder and other substances to determine the degree of acidity or alkalinity. They also broke down black ink into its component colors, revealed forgeries in documents, and created a “philosopher's stone” from a 5 cent piece.

“It's meant to give the kids a chance to experiment, have fun, and understand natural phenomena,” say organizers Dr Klaus Möschel and Dr Hubert Kalbacher. Every experiment can be reproduced at home. The lab workshops have been taking place for several years – getting children to ask questions about science.

Neuroscience in the Summer Vacation

Twenty high school students tried their hand at research during the fourth summer academy at the University's Neuroscience labs in late July and early August 2012. They looked at the various facets of the neurosciences, carried out a neurobiological experiment, studied original scientific works – and presented the results of their experiments at a meeting of Tübingen neuroscientists. Their work covered areas as diverse as the anatomy of the central nervous system, acoustics, eye movements as



a mirror of cognitive processes, and autonomous robots. They were also able to take behind-the-scenes tours of the Hertie Institute for Clinical Brain Research and the Werner Reichardt Center for Integrative Neuroscience. The program included a discussion on the consequences of neuroscientific discoveries on society.

CULTURAL HIGHLIGHTS



Novelist Brigitte Kronauer and friends tackled the relationship between art and reality at the 2011 Writers' Lectureship.

Investigative journalist Hans Leyendecker discussed the effects of new media on the old at the 2012 Media Lecture.



Playing With Life and Literature – 2011 Writers' Lectureship

The Writers' Lectureship 2011 featured three artists – the novelist Brigitte Kronauer, the painter Dieter Asmus and the writer Otto A. Böhmer – who held public lectures as well as seminars and workshops for students.

Brigitte Kronauer, winner of the 2005 Büchner Prize, is a masterly but playful author. She has been publishing essays and novels since the 1980s. Her three lectures on the subject of "Real Life and Literature" analyzed the precarious relationship between art and reality.

Otto A. Böhmer and Dieter Asmus also took up that theme. They have worked with Kronauer for many years, making the ideal trio for Writer's Lectureship discussions. Otto A. Böhmer's lecture looked at Kronauer's philosophical

perspectives. The painter Dieter Asmus, one of the biggest names in the "New Realism" movement, presented a selection of his works, linking them with Kronauer's concept of art.

The Writer's Lectureship is sponsored by Adolf Würth GmbH & Co. KG and is organized by the University's Institute of German Language and Literature.

Media Lecture – Hans Leyendecker and Everyman Journalism

One of Germany's best-known investigative journalists, Hans Leyendecker, gave the University of Tübingen Media Lecture on June 19, 2012. He focused on the future of investigative journalism and the state of quality journalism in the internet age, saying the popular desire for outrage has grown. "There are fashions and fury in this country and fury has many faces," he said. Whether that anger is directed against a new train station or against politicians, "the safety-valve for it is the internet. Anyone who has ever been the subject of public discussion will be slammed in online forums, on facebook, youtube, twitter."

In the run-up to the lecture, students at the University's Institute of Media Studies prepared special broadcasts on

the regional network SWR, dealing with Germany's controversial Pirate Party, the power of facebook, and new tasks facing the old media. Media Studies Professor Bernhard Pörksen and SWR studio director Dr Andreas Narr said of the joint project: "We aimed to integrate theory and practice, shed light on current media trends, and to make it clear that in the age of omnipresent digital media anyone can become an investigative journalist."

Leyendecker is an editor at the Süddeutsche Zeitung broadsheet and worked at the weekly news magazine *Der Spiegel* for 18 years. He played a prominent role in breaking a number of scandals on party slush funds, plutonium smuggling, soccer match fixing and many other cases of corruption. The Media Lecture is sponsored by SWR and the University of Tübingen and aims to inspire young journalists.



Presenter Roger Willemsen criticized Germany's unadventurous TV culture.

Presenter Roger Willemsen and the State of TV Today

The German essayist and television presenter Roger Willemsen has interviewed people such as the Dalai Lama, the King of Jordan, Woody Allen and Madonna. In November 2011, he came to Tübingen at the invitation of the University's Media Studies institute. Known for his lively style, Willemsen talked about today's inflated talk-show culture, saying it reveals a lot about the state of German journalism overall. "The spirit of inventive genius, the rough and ready, the love of rowdiness – have all but disappeared from television. There are a few rays of hope, but basically, the desire for anything new has gone," said Willemsen. "Its makers have grasped the fact that television is a medium which only exists on the vote of the masses."

Ambassadors Talk in Tübingen

Afghan ambassador Professor Abdul Rahman Ashraf was welcomed back to the University in November 2011 as part of a series of ambassadors' lectures in Tübingen. Professor Ashraf spent 18 years teaching and carrying out research at the University's Geological Institute before taking leave of absence to work for his native country. "Tübingen is my second home," he said. Ashraf's lecture, entitled "Afghanistan: Safety and Stability via Sustainable Economic Development," called for understanding for his country. He said the future depended on education to create jobs.

Spanish ambassador Rafael Dezcallar de Mazarredo also spoke in Tübingen in November 2011, saying the ties between Spain and Germany had become closer in recent years in his lecture "Spain, Germany and Europe."



The Afghan ambassador Professor Abdul Rahman Ashraf

Maurice Gourdault-Montagne, France's premier representative in Germany, spoke in June 2012 on the subject of "France – Germany: The New Challenges," underlining the important role Tübingen University has played in big social debates "since the 1960s."

The **ambassador of Turkey, Hüseyin Avni Karslıoglu**, visited the new Center of Islamic Theology in June 2012 and pledged his support for it. He said the Center was a sign that Islam is a part of Germany and would help promote a better understanding of the Islamic faith.

Indian ambassador Sujatha Singh praised the University's manifold activities in the field of Indian Studies when she visited in July 2012. She said she wished there were more exchanges of students and interns between India and Germany. University President Professor Bernd Engler said increased collaboration was planned with Indian universities, including an international Research Training Group in the area of Media Studies.



Dutch primatologist Frans de Waal said morality and culture are not human traits only.

Philosophy and Science Meet at the Unseld Lectures

Tübingen University's Forum Scientiarum invites top international researchers to take part in interdisciplinary dialogue at its annual Unseld Lectures. In November 2011, the Chilean biologist and philosopher Humberto Maturana spoke on the question "How do we know that we know?" Maturana has developed a systematic theory of cognition describing how the individual decides what reality he or she experiences. This line of thinking has attracted a lot of attention and has been adopted by various disciplines. The lecture was followed by a debate on "Ideas of Objectivity" with Tübingen Media Studies professor Bernhard Pörksen. The respected Dutch primatologist Frans de Waal held his Unseld Lecture in June 2012, speaking on "The Evolution of Morality." He said morality was not a specifically human trait – his research of social behavior in apes shows that forerunners of culture and morals exist among animals.

The talk was complemented by a lively debate with the German philosopher Gerhard Ernst, who said human morality was in a class of its own.

The Unseld Lectures are sponsored by the Udo Keller Foundation Forum Humanum and writings on the issues dealt with are published by Suhrkamp Verlag.

www.forum-scientiarum.uni-tuebingen.de/unseld-lectures

Korea Week Showcases Modern Dynamic Society

The University of Tübingen's Korea Week took place in June under the motto "the end of the morning calm." This is a play on the popular notion of the quiet which ended with the first contact with Western travelers, who called Korea "the Land of the Morning Calm." Although Koreans see the title as positive, it opens up a debate about colonialism and the view of Korea as a passive, quiet place. Yet South Korea today is tremendously dynamic.



This was reflected in Korea Week events. Along with Korean music and dance, and traditional ceremonies, there was a Taekwondo demonstration by the Kukkiwon Taekwondo Academy as well as readings by contemporary Korean authors, a symposium on Korean issues and a Korean Film Festival. The student cafeterias offered Korean food – for a true taste of the country.

The South Korean-based corporations Kia and Hyundai sent representatives to outline the career prospects they offer, and Bosch – an internationally operating German company – reported on perspectives at its Korean branch. Tübingen's Korean Studies discipline is unique in Europe, with a branch institute (TUCKU) at Korea University in Seoul opened in May 2012. (See p. 51)

THE LATEST FROM UNIVERSITY OF TÜBINGEN MUSEUM

Hidden Treasures in 43 Collections

3000 year old cuneiform inscriptions from Mesopotamia, meteorites and historical lab equipment – the University's rich heritage includes no less than 43 collections of unique objects to support research and teaching or simply preserved for posterity. The collections are currently being reviewed and made accessible to the public as far as possible. The Museum is also running seminars for students interested in cataloging and preserving historical objects.

A new brochure provides details of what the collections contain and where to find it. A catalogue of treasures from Hohentübingen Castle has also been published.

www.unimuseum.uni-tuebingen.de



The Wild Horse figurine from the Vogelherd cave is 38,000 years old.

Ice Age Art Gets Contemporary Museum Setting

The University of Tübingen Museum worked with state authorities and the Stuttgart interior designer Marina von Jacobs to present its archeological treasures in a new, contemporary format in May 2012. The permanent exhibition is now one of the highlights of the Ancient Cultures displays in the castle, Schloss Hohentübingen.

The new design includes signs in English and German. The exhibition opens with a new presentation of the region's famous 38,000 year old ice age figurines, including the iconic Wild Horse from the Vogelherd cave. The visitor then enters the world of Neolithic lake-villages – UNESCO heritage sites in southwest Germany – and can view finds from Heuneburg, a Celtic fortress of the Late Hallstatt period.

The Egyptian Collection – one of the most important German university collections – and the Classical Archaeology Collection have also been overhauled to better showcase key pieces. Audio guides are now available in English and German, jointly developed by University of Tübingen students and the regional broadcaster SWR.



Exhibition on the Egypt Expedition of Ernst von Sieglin

The Stuttgart soap magnate Ernst von Sieglin (1848-1927) was one of the University's most important patrons. A large part of the Classical Collection today located in Hohentübingen Castle was purchased with his funding. A special exhibition dedicated to his life and work ran from May to September 2012.

It focused on Sieglin's expedition to Alexandria (1898 - 1902), featuring original maps, diaries and finds from the excavations of the day, including marble statues from Roman and Hellenic times. Sieglin donated objects from his expedition to three museums: Dresden's classical Sculpture Collection, the Landesmuseum Württemberg in Stuttgart and the University of Tübingen's Archeological Institute. The 2012 exhibition reunited the marble statues for the first time in more than 100 years.

Paleontological Collection Brought up to Date

Following eighteen months of redesigning and renovation, the Museum's Paleontological Collection was reopened on November 2, 2011, with some 3000 objects now on display to the public. The work was largely sponsored by the Senckenberg Society for Nature Research, a partner of the University since 2009. The new-look exhibition was opened by state Science and Research Minister Theresia Bauer, the Senckenberg Association's Professor Georg Zizka and University President Professor Bernd Engler.

Excavations during the Sieglin expedition, Alexandria, 1898



The skeleton of a wolf which roamed southwest Germany 20,000 years ago.

Tübingen's Paleontological Collection now has state-of-the-art LED lighting, making it 90 percent more energy efficient, Germany's first "green" museum. The redesign was careful to preserve the history of paleontological research, with the Stratigraphic Room (1903) showcasing the history of life on Earth as well as looking back on the work of Tübingen researcher Friedrich August Quenstedt. The University of Tübingen's Paleontological Collection of nearly one million objects is one of the most important in Europe, both a museum collection and a valuable teaching resource. Among its highlights – the many marine dinosaurs, the unique presentation of mammal-like reptiles, two skeletons of the "Swabian Lindwurm" plateosaurus and a group of cave bears.



Opening the new-look Museum (from left): Heinz Haas (state of Baden-Württemberg), exhibition designer Marina von Jacobs, University President Professor Bernd Engler, and Professor Ernst Seidl, Museum Director.

Tübingen Showcases Region's Archeology

Archeological treasures from Baden-Württemberg were on show from December 2011 to February 2012 at the University of Tübingen Museum in Hohentübingen Castle. The state has around 60,000 known sites from the early Stone Age to the Middle Ages – some of them internationally significant. Among the highlights of the "Discoveries" exhibition were spectacular new finds from the Early Celtic tomb of a princess, new information on the Ice Age Lion Man figurine from a cave in the hills near Tübingen, a sandal more than 5000 years old, and a medieval flute.

EXHIBITIONS IN BRIEF

Tracking Down the Big Bang

Tübingen physicists involved in the ALICE experiment in the Large Hadron Collider in Geneva's CERN research center helped explain what it was all about with the "World Machine" exhibition of original objects at the Morgenstelle Campus in January 2012. It showed how the 27 km-long Large Hadron Collider was built 100 m below ground by more than 10,000 scientists and engineers, and how it helps uncover secrets of the universe.

ManMicrobe – Insights Into Infection Research

The ManMicrobe exhibition ran from January to March at Tübingen's Morgenstelle Campus, outlining the legacy of the father of infection research, Robert Koch. Using interactive exhibits, audio features and posters, the show described historical epidemics, looked at modern infection medicine and highlighted Koch's discovery of the tuberculosis bacillus.

The traveling exhibition was presented for the first time in southwest Germany by the University and University Hospitals in cooperation with the German Research Association and the Robert Koch Institute.



Learning about the history of infection research and the combatting of disease at the 2012 ManMicrobe exhibition.

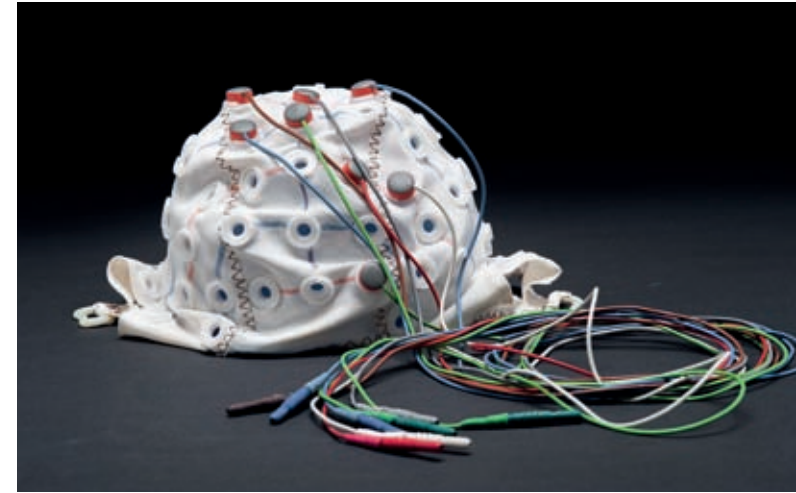


*How to interpret finds when you have no written sources?
A student exhibition showed how archeological finds
have been presented by their finders.*

Students Ask – Who Makes History?

With finds from 130 years of excavations, the University's Prehistory and Medieval Archeology Collection is one of the biggest of its kind in Germany. But who interprets finds – and therefore history? That was one of the questions asked by the "Who Makes History?" exhibition, which ran from February to April 2012 at the Museum in Hohen-tübingen Castle. It was initiated and run by students, who took a close and critical look at the history of the collection.

*An electroencephalography cap to measure electricity flows
in the brain features in the MindThings exhibition.*



Mind|Things – Exploring Human Perception

In July 2012, the University opened its permanent exhibition of instruments from the Psychology Collection demonstrating the workings of human perception. The "Mind|Things – Kopf|Sache" exhibition features apparatus from the past 100 years, highlighting the quirks of how we understand, speak, plan, count, and perceive time. This is the heart of experimental psychology, for we rely on our senses to provide the information we need to act and plan ahead.

The exhibition was designed by 30 students as part of an innovative two-semester seminar headed by the Museum's Frank Duerr. The seminar is an initiative of the Career Service and Museum.

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Additional photographs: Professor Rita Triebkorn p. 13; Andreas Kappler p. 14 (far left); Wolfgang Gerber p. 14 (left); Hendrikje Nienborg p. 14 (center); Senckenberg Nature Research Society p. 23; Physics Institute, Quantum Optics working group p. 24 (top left); ESO Digitized Sky Survey p. 24 (bottom left); Johann Scheible (ed.), Die fliegenden Blätter des XVI. und XVII. Jahrhunderts in sogenannten Einblatt-Drucken, mit Kupferstichen und Holzschnitten zunächst aus dem Gebiete der politischen und religiösen Caricatur. Aus den Schätzen der Ulmer Stadtbibliothek wort- und bildgetreu, Stuttgart 1850 p. 24 (right); Troia Project, University of Tübingen p. 25; Professor Olaf Cirpka p. 27 (both); Professor Claudia Buch p. 32 (left); Professor Christian Seiler p. 32 (right); Kompetenzzentrum Medizindidaktik, University of Tübingen p. 40; Zentrum für Medienkompetenz, University of Tübingen p. 43 (right); Hertie Institute for Clinical Brain Research p. 46; Urgeschichtliches Museum Blaubeuren p. 48 (top); Archäopark Vogelherd p. 48 (bottom); Max Planck Institute for Intelligent Systems p. 49; Korea University p. 51; Professor David Canon p. 53 (left); Professor Jeffrey L. Dangl p. 53 (right); Jan Münster p. 60 (left); Simona Steeger p. 60 (rechts); Humboldt Foundation / David Ausserhofer p. 72; Michael Seifert p. 73 (right); Writers' Lectureship / Sebastian Pickl p. 75 (left); Forum Scientiarum p. 77 (left); Institute of Chinese and Korean Studies, University of Tübingen p. 77 (right); Tübingen University Museum p. 78 (left); Juraj Liptak p. 78 (right); Institute of Classical Archeology, University of Tübingen p. 79 (left); Wolfgang Gerber p. 79 (right); Valentin Marquardt p. 81 (right).

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