

GEORG-AUGUST-UNIVERSITÄT
GÖTTINGEN



Göttingen

Tradition – Innovation – Autonomy

Institutional Strategy to Promote Top-Level Research



Institutional Strategy to Promote Top-Level Research

GÖTTINGEN

TRADITION INNOVATION AUTONOMY

Georg-August-Universität Göttingen

Second Call

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Proposal for the Establishment and Funding
of the Institutional Strategy to Promote Top-Level Research

GÖTTINGEN

TRADITION INNOVATION AUTONOMY

GÖTTINGEN

TRADITION INNOVATION AUTONOMIE

Host University

Georg-August-Universität Göttingen

President of the Host University

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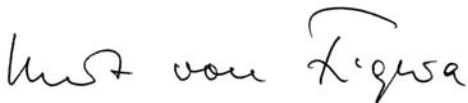
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Göttingen, 12 April 2007

A handwritten signature in black ink, reading "Kurt von Figura". The signature is written in a cursive, flowing style.

President

Overview

Abstract

The Georg-August-Universität sees its special strengths in its long research tradition and diversity of disciplines, its strong alliances with outstanding non-university research institutions in Göttingen, and its autonomy as a Public Law Foundation. We are convinced that the advance of knowledge primarily depends on the creativity and endeavours of individual researchers. We believe, however, that it can be furthered by means of strategic governance aimed at (I) attracting and retaining excellent researchers, (II) generating an environment favourable to top-level research, and (III) allocating resources consistently according to merit. The long-term strategy of the University is based on these principles, adapting them to the specific conditions of the Göttingen academic community.

The University of Göttingen strives to achieve international excellence by

- developing and strengthening a joint Göttingen Research Campus that fully integrates the non-university research institutions,
- devising and implementing strategies to identify, recruit, and support outstanding young researchers, both in established and in new fields of excellence, and providing greater freedom to its leading researchers.

Our Institutional Strategy is built on (I) a novel, dependable career track for young researchers based on individual merits in research, in combination with the development of new fields of excellence: **Brain Gain**, (II) special measures to foster and retain excellent researchers: **Brain Sustain**, (III) the establishment of an innovative Institute for Advanced Study supporting in particular the humanities and social sciences: **Lichtenbergkolleg**, and (IV) systematic recruitment of highly talented young scientists and scholars from abroad to the Göttingen Research Campus: **Göttingen International**.

Zusammenfassung

Die Georg-August-Universität Göttingen sieht ihre besonderen Stärken in ihrer großen Forschungstradition und Fächervielfalt, in der engen Verflechtung mit einem herausragenden außeruniversitären Forschungsumfeld und in ihrer Autonomie als Stiftungsuniversität. Sie versteht wissenschaftlichen Fortschritt als einen Prozess, der zu allererst aus der Kreativität und den Anstrengungen einzelner Forscher resultiert, gleichzeitig jedoch durch strategische Steuerung wie (I) Gewinnen und Binden dieser Forscher, (II) Gestaltung eines forschungsförderlichen Umfeldes und (III) konsequent an Leistung orientierte Ressourcenvergabe vorangetrieben werden kann. Vor dem Hintergrund dieser Überzeugungen und der besonderen Standortbedingungen in Göttingen hat die Universität ihre Zukunftsstrategie entwickelt.

Sie will internationale Exzellenz erreichen, indem sie

- mit ihren außeruniversitären Forschungspartnern am Ort einen gemeinsamen Wissenschaftsstandort Göttingen aufbaut und weiterentwickelt,
- in diesem Verbund systematisch herausragende Nachwuchswissenschaftler identifiziert, gewinnt und fördert sowie ihren Spitzenforschern Freiräume für Forschung schafft.

Mit unserem Zukunftskonzept wollen wir bewusst neue Wege erproben. Ein verlässlicher, ganz auf dem persönlichen wissenschaftlichen Erfolg basierender Karriereweg für Nachwuchswissenschaftler verbunden mit der Entwicklung neuer Forschungsschwerpunkte: **Brain Gain**, besondere Maßnahmen zur Förderung von Spitzenforschern: **Brain Sustain**, der Aufbau eines Wissenschaftskollegs zur Förderung innovativer und vernetzter Forschung in den Geistes- und Gesellschaftswissenschaften: **Lichtenbergkolleg** und die systematische Anwerbung herausragender ausländischer Nachwuchswissenschaftler für den Wissenschaftsstandort Göttingen: **Göttingen International** bilden die vier Säulen unseres Konzeptes.

List of Measures to be implemented

| Measure | Requested Funding |
|--|-------------------|
| Brain Gain | 47,867,055 |
| Brain Sustain | 11,041,700 |
| Lichtenbergkolleg | 8,909,300 |
| Göttingen International | 4,342,163 |
| Total | 72,160,218 |
| Suppl. funding for indirect expenses (20 % of direct expenses) | 14,432,044 |
| Total incl. suppl. funding | 86,592,262 |

Expense Categories per Year

| | 2007 (Nov/Dec) | 2008 | 2009 | 2010 | 2011 | 2012 (Jan-Oct) | Total |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Staff expenses | 113,690 | 4,561,800 | 8,199,564 | 11,700,600 | 11,700,600 | 9,626,368 | 45,901,622 |
| Other direct expenses | 200,250 | 2,441,024 | 3,874,255 | 4,781,755 | 4,781,755 | 3,913,159 | 19,992,196 |
| Investments | 638,800 | 3,560,933 | 850,000 | 850,000 | 200,000 | 166,667 | 6,266,400 |
| Total | 952,740 | 10,563,757 | 12,923,819 | 17,332,355 | 16,682,355 | 13,705,193 | 72,160,218 |
| Suppl. fund. for ind. exp. | 190,548 | 2,112,751 | 2,584,764 | 3,466,471 | 3,336,471 | 2,741,039 | 14,432,044 |
| Total incl. suppl. funding | 1,143,288 | 12,676,508 | 15,508,582 | 20,798,826 | 20,018,826 | 16,446,232 | 86,592,262 |

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1. Status Quo¹

1.1 The University Profile

Shortly before his death in 1972, Richard Courant was asked about the special spirit, both human and scientific, that defined his Institute of Mathematical Sciences at New York University. Courant's answer was, "It is Göttingen. Göttingen is here." He was referring to the scientific approach and research environment in Göttingen in the period before 1933: numerous exceptional scientists were at work in an atmosphere that supported the free exchange of ideas both within and between disciplines, attracting the best young researchers from all over the world. With its Institutional Strategy to Promote Top-Level Research, the University of Göttingen strives to regain this "trademark" by taking up the traditional Göttingen values and redefining them for the future. In doing so, we see one of our major opportunities in close scientific and scholarly collaboration with the excellent local non-university research institutions. It is our aim to create together with them the Göttingen Research Campus, a joint enterprise for science and scholarship that transcends institutional borders and promotes flexible alliances.

The University of Göttingen is an internationally renowned university placing emphasis on research and research-based teaching. The University is distinguished by the outstanding quality in its priority research areas, by its remarkable diversity of disciplines, especially in the humanities, and by a strong and deeply anchored interdisciplinarity in the natural and life sciences. Research excellence of international standard is currently recognized in

- the life sciences – Neurosciences, Molecular Biology, Biodiversity and Ecology,
- the natural sciences – Chemistry, Physics of Condensed Matter and Optics, Geobiology, and Pure Mathematics, and
- the humanities – German Language and Literature Studies, Oriental and Ancient World Studies, and Theology.

The most important challenges facing the University of Göttingen are to maintain its broad range of disciplines, furthering their development within an interdisciplinary and international network, and to achieve world-class performance in a research-focussed environment, thereby providing a sound basis for continued excellence in teaching and scholarship.

¹ Sections 1.1 and 1.2 of our proposal cover the topics of sections 1.1 - 1.5 in the Guidelines of the Wissenschaftsrat: Research Profile, Quality and Excellence in Research, Integration in International Networks, Cooperation with Non-University Partners and Recent Structural Reforms.

In its “Institutional Strategy to Promote Top-Level Research” the University focusses on

Tradition – historical strengths, **Innovation** – new approaches in the advancement of research and junior scientists and scholars, and **Autonomy** – a high degree of self-responsibility as a Public Law Foundation.

1.1.1 Tradition – Historical Strengths

Founded as a university of the Enlightenment in the year 1737, the Georgia Augusta is characterised to this day by the broad range and diversity of disciplines and subjects in both research and teaching. This diversity has evolved over the course of the University’s history and is a hallmark of Göttingen, especially in the humanities. Not only more specialised subjects such as Oriental and Classical Studies (Philology and Archaeology), but also History and German Language and Literature Studies came into being as separate disciplines at the University of Göttingen. The combination of a philological approach with historical studies distinguishes the humanities in Göttingen and has allowed strong interaction between the disciplines. This is reflected today by interdisciplinary training of postgraduates in Research Training Groups (RTGs) supported by the *Göttingen Graduate School of Humanities*, and in the creation of research-oriented interdisciplinary centres. An example is the *Centrum Orbis Orientalis (CORO)*: Centre of Semitic and Related Studies. In 2005, this centre was established jointly by the University and the Akademie der Wissenschaften zu Göttingen, uniting scholars from numerous disciplines of the Philosophical and Theological Faculties including Ancient Near Eastern Studies, Bible Sciences, Oriental Ecclesiastical History, Arabic Studies, Islamic Studies, Jewish Studies, Egyptology, Ancient History, Classical and Christian Archaeology, Iranian Studies, Classics, and Religious Studies. In an evaluation of the “niche subjects” in the year 2006, the Wissenschaftliche Kommission Niedersachsen (Scientific Commission of Lower Saxony, WKN) highlighted the “first-class opportunities for collaboration in interdisciplinary projects” in Göttingen, placing every single institute in “a situation now rare in Germany, namely that experts in almost all adjacent research areas are available on site”.

The Göttingen humanities benefit from close associations with the Akademie der Wissenschaften zu Göttingen, which was founded in 1751, only a few years after the University. Amongst the academies shaping the European intellectual movement in the 17th and 18th centuries, the Göttingen Academy was the first to be created in close partnership with a university. Göttingen scholars currently lead 14 of the Academy’s 30 long-term projects in the humanities.

In the early 20th century the University of Göttingen was the hub of the scientific world in natural sciences, particularly in mathematics and physics. This standing is reflected by the more than 40 Nobel laureates whose names are associated with Göttingen. In particular, the twelve laureates who were awarded the prize explicitly for research work performed in Göttingen continue to attract excellent scientists from all over the world. The Faculties of Chemistry, Physics, and Mathematics, while maintaining their strong disciplinary traditions, are increasingly moving towards integrated and interdisciplinary projects. The rise of the life sciences, which comprise Medicine (one of the University's founding faculties), Biology, Agricultural and Forest Sciences, parallels their aptitude to cooperate, both with each other and with the non-university research institutions within Göttingen: the latter have a particularly strong presence in the natural and life sciences. This process is best reflected by the Neurosciences, a centre of excellence with international visibility and strong foundations in the University Medical School and the Max Planck Institutes (MPI).

Law and the disciplines within the Economic and Social Sciences, which were combined into faculties in the 1960s, have a rich tradition in Göttingen. Individual research achievements and internationally acknowledged research areas (International and Comparative Law, Sociology of Work and Employment, Business Informatics, and Development Economics) provide a good basis for close interaction with the humanities, as well as with the natural and life sciences. Examples are the collaborative research projects on Biodiversity, Global Change, and Terrestrial Ecosystems (Funding Line, FL 1, p. 100), as well as Poverty Research in Developing Countries (p. 37).

The University of Göttingen owns historical treasures attracting scientists and scholars from all over the world, such as the Göttingen State and University Library, with its German National Library of the 18th Century and numerous special collections, as well as collections for teaching and research that are unique in the German-speaking sphere. Examples include the Art Collection and the University Museum for Ethnology housing the Cook/Forster Collection, and the collections of geological specimens and historical instruments of physics.

In the 18th and 19th centuries, the University of Göttingen became a motor for economic development by fostering the practical application and dissemination of research results. Companies and publishing houses were founded that are presently major players in the region's economy, some of them still carrying their traditional names (e.g. Sartorius, Vandenhoeck & Ruprecht).

Its prominent role in the history of sciences has endowed the University of Göttingen with high international visibility and invaluable scientific and scholarly resources. Being committed to the past poses both an obligation and a challenge to each member of the University to strive

for innovation and scientific excellence, because: “Tradition ist die Weitergabe des Feuers und nicht die Anbetung der Asche” (Tradition is the handing-on of the fire and not the worship of the ashes, Gustav Mahler).

1.1.2 Innovation – New Approaches in the Advancement of Research and Junior Scientists

In both research and the advancement of young scientists and scholars, the University can build on a range of recent innovations and initiatives that provide a strong base for its future development. We have

- promoted research collaboration across disciplines and with local non-university research institutions,
- developed world-class research foci and increased competitive third-party funding,
- invested in emerging researchers,
- developed best-practice post graduate training programmes,
- improved our placing in evaluations and research rankings, and
- reformed our governance to reward research success and manage risk.

The University of Göttingen profits from steadily expanding collaborative networks with local non-university research institutions. These networks encompass the Akademie der Wissenschaften zu Göttingen, the German Primate Centre, the German Aerospace Centre, the MPIs for Biophysical Chemistry, for Dynamics and Self-Organisation, for Experimental Medicine, for Solar System Research, and for the Study of Religious and Ethnic Diversity (the MPIs host a total of 25 departments), the Laser Laboratorium Göttingen, and, located at a somewhat greater distance, the Herzog August Library in Wolfenbüttel.

These on-site partners form an exceptionally vital cooperative alliance in research and teaching, unique in Germany for its breadth and depth. Elements already long proven in their success include joint Collaborative Research Centres (CRC), RTGs, joint professorial appointments (currently three professorships with the MPIs, seven with the German Primate Centre, and one with the German Aerospace Centre) and jointly run facilities. More recently, the University has adopted the policy to create joint research centres with major funding from third-party grants. Examples include the *DFG Research Centre Molecular Physiology of the Brain* (2002) funded by the German Research Foundation (DFG), the *Bernstein Centre for Computational Neuroscience* (2005), funded by the Federal Ministry of Education and Research (BMBF), and the Cluster of Excellence *Microscopy at the Nanometer Range* (2006). The *European Neuroscience Institute* is the only institute in Germany that is operated jointly by a university and the Max Planck Society. It is dedicated to the promotion of independent

young scientists who are embedded in both local and international networks. The international Master/Ph.D. programmes Molecular Biology and Neurosciences constitute parts of Max Planck Research Schools. They serve as blueprints for the development of the University's Graduate Schools. Within these programmes, University and non-university scientists teach and examine with equal status. Examples of successful joint operation of infrastructure are a joint data processing facility, and a large jointly-run animal facility. The research foci in the neurosciences and biosciences, developed in tandem with our partner research institutions, now stand for the University's profile.

In the humanities, an array of long-term projects (for example the Hebrew and Aramaic Lexicon of the Dead Sea Scrolls, the Septuaginta Edition, the Dictionaries of German and Medieval German, the Lichtenberg Edition, the Encyclopaedia of the Fairy Tale, and the Sanskrit Dictionary of the Buddhist Texts from the Turfan Finds) bear witness to the close and highly productive cooperation with the Akademie der Wissenschaften zu Göttingen.

The policy of the University to develop research centres across faculty and institutional boundaries is already paying off. Many of these centres have assumed an internationally leading role in the respective research areas. Examples include the neurosciences, molecular biosciences, environmental sciences, and oriental and ancient world studies. The University sees one of its most important instruments for achieving excellence and competitiveness in the systematic expansion of these flexible structures. While research centres need to be initiated by individual scientists (bottom-up approach), the University leadership has taken an active role in supporting and promoting the formation of new centres. As a first result, in 2006 and 2007 draft proposals for seven new DFG funded Collaborative Research Centres were or will be submitted, two of which have in the meantime reached the final review stage.

The total volume of third-party funding increased significantly in recent years, thus providing a further indicator of the upward trend. In the DFG Funding Ranking 2006, Göttingen University stands at position twelve, an improvement of three places. Moreover, in the 2006 CHE (Centre for Higher Education Development) research ranking, Göttingen is amongst the top eight universities for the first time.

The research-based training of young researchers, as practised, for example, within the Ph.D. programmes in the Neurosciences, Molecular Biology, and Medieval and Early Modern Studies, in cooperation with the local non-university research institutions, has received nationwide recognition. Last year, the German Academic Exchange Service (DAAD) awarded the integrated Master/Ph.D. programmes Molecular Biology and Neurosciences the "Label of Quality for the Ten Best Master's Degree Courses at German Universities", as the

only programmes in the field of life sciences. As a further indicator for our success in graduate education, the University currently hosts 16 DFG funded RTGs across all areas of science, placing the Georgia Augusta at rank one in Germany (pp. 94-95). In 2005, three new university-wide Graduate Schools were created, one in the humanities, one in the social sciences (including law and economics), and one in the natural and life sciences. Common quality standards with respect to the selection of doctoral students, supervision, and teaching were defined; these were taken up in the Schools' statutes.

In 2002, the University of Göttingen established Germany's first Junior Professorship. A further 44 had followed by the end of 2006, in almost all of its faculties. Eighteen young scientists and scholars currently lead their own third-party funded independent Junior Research Groups (JRGs). We consider it as one of our most important priorities to develop a dependable and performance-based career perspective for the best of them.

At the international level, the Georgia Augusta enjoys an excellent reputation as a university with great strengths in research. In the 2006 "Shanghai Academic Ranking of World Universities", the University occupies the 85th position worldwide, fourth amongst the German universities. It is regularly among the top ten universities in Germany chosen by leading foreign researchers with fellowships from the Alexander von Humboldt Foundation. It is a member of the Coimbra Group, a network of leading research universities, and maintains 1,300 research partnerships with 90 countries around the world. Within the Erasmus network linking 312 partner universities, approximately 10,000 students have undertaken study periods abroad over the past 20 years. In Germany, the University of Göttingen is ranked fourth with respect to international programmes funded by the DAAD. Overall, 42.3% of the students currently enrolled in our international Master and Ph.D. programmes obtained their previous education abroad (versus only 22.5% Germany-wide). In 2003, the DAAD honoured an alumni network covering four regions of the world (Latin America, South-East Asia, Iran, and Egypt and the Arab Region) that we established together with the universities of Kassel and Marburg.

As a measure of quality assurance, the WKN and the Central Agency for Evaluation and Accreditation (ZEVA) evaluate research and teaching across all disciplines within the universities of Lower Saxony. The University of Göttingen considers this evaluation, unique in Germany and widely acknowledged, as a reliable basis for strategic planning of future institutional developments. For instance, after a rather critical WKN evaluation of the educational sciences in 2002, we carried out a complete overhaul of our teacher training programmes, assisted by the newly founded interdisciplinary *Centre for Empirical Research into Teaching and Schools*, aligning the training programmes closely with research. Just two years after this reorganisation, the Stifterverband für die Deutsche Wissenschaft (Donors' Association for the

Promotion of the Sciences and the Humanities) selected the University of Göttingen as one of three German universities with exemplary and innovative concepts in the framework of the “New Ways Ahead in Teacher Training” programme.

In addition to this important pillar for quality assurance, a second pillar involving external experts is provided by the scientific advisory boards (SABs) of the research centres, which conduct biennial evaluations and report to the President of the University.

These external quality assurance tools are complemented by internal governance procedures, some of which are still under development. We have implemented a university-wide system for recording research performance, initially relying on the parameters “spent third-party funds” and “publications”. To this end, the faculties have developed a subject-specific weighting of third-party funding and publications. The performance-based allocation of resources for research was applied for the first time in 2006 on the basis of data from the years 2002 – 2004. As a new element of the University’s governance, a system for risk management was introduced in 2006 to identify at an early stage the administrative risks in the finance and asset contexts, as well as risks related to research and teaching (including reputation, development of integrated research projects, developments in student numbers).

1.1.3 Autonomy – Self-Responsibility as Public Law Foundation

On 1 January 2003, the University of Göttingen assumed the legal status of a Foundation under Public Law, making it the only “full subject university” (without engineering sciences) of this kind in Germany. The foundation status gives the University full authority to appoint professors and to determine terms and conditions of staff. Furthermore, the foundation status carries ownership and management of the University’s real estate comprising assets worth more than 570 million Euros.

The status as a Public Law Foundation enables the University to operate independently of ministerial supervision. Supervision is performed instead by the Foundation Council, whose members include distinguished representatives of business, academia and culture. The members are appointed in consultation between the University and the Ministry of Science and Culture of Lower Saxony. The Foundation Council has the final say about professorial appointments, the use of foundation capital, the taking up of loans, and the budget plan. It ensures that the University’s independent development is strictly oriented towards international quality benchmarks for academic institutions.

Decision-making processes within the University’s administration have been made leaner and more transparent, thereby improving them considerably. An example of such stream-

lining is the procedure for professorial appointments. Here, speed is often crucial for success and therefore quality. In the 39 professorial appointments made in 2005/2006, the time period between the public advertisement of the position and the acceptance of the offer by the selected candidate was reduced to 11.8 months (nationwide average: 22 months). This success is due primarily to the shortening of the period between Senate approval and acceptance of the offer. Due to our independent status as a foundation, the managing of this phase is entirely in our own hands, and we have succeeded in reducing it to an average of 3.6 months.

The Medical School incorporates the Faculty of Medicine and the University Hospital. It is largely independent from the rest of the University, with its own budget and endowment. The faculty and hospital are governed by a management board (Vorstand Universitätsmedizin) with overall responsibility for the entire School. The Foundation Council of the University supervises the Medical School by means of a dedicated board (Stiftungsausschuss Universitätsmedizin). Promoting close collaboration between research, medical training, and clinical work, the advantages of uniting basic and clinical medicine under a common administrative roof are becoming increasingly evident, particularly in comparison to the cooperative model more prevalent in Germany.

Financial and budget management, which operates with a global budget, business accounting and costing, has become markedly more efficient with the status of a foundation. The advantages of the financial autonomy are evident. Within an approved financial framework, the Foundation can act without constraints in managing personnel. It handles its own financial accounts, including liquidity and asset management. As owner of the real estate, the Foundation not only manages the buildings but also initiates and supervises construction activities, and it is free to use foundation property as collateral for loans. A real estate and facility management unit set up in 2004 is in charge of the planning, construction, and maintenance of premises in a user-oriented fashion, being considerably more cost-effective than was possible under state building management.

A special unit, MBMScienceBridge, has been created to assist the scientists and staff of the University in the commercial exploitation of their ideas and results, and in the foundation of spin-off companies. The unit promotes technology transfer and collaboration with companies and institutions in the region. MBMScienceBridge was first established as a competence centre within the University in 2001. Since 2004 it is a wholly-owned subsidiary of the Foundation. With its status of a limited liability company, it provides us with an efficient instrument for patent exploitation (79 filings, 38 exploitations and five spin-offs in the past six years).

The Foundation under Public Law is making major efforts to attract private donations for current expenditures and to build up endowments. In setting up separate departments for fundraising and alumni affairs, the University is systematically intensifying its contacts to former University members, potential donors, sponsors, and benefactors, with the long-term aim of mobilising private and public financing. In 2006, for example, the University succeeded in attracting private contributions of almost 700,000 Euros for the refurbishment of the Historical Observatory, which was residence and work place of Carl Friedrich Gauß from 1807 until 1855. The Observatory will be converted into the headquarters of the *Lichtenbergkolleg* (p. 44) and the Graduate Schools. In our efforts directed towards the integration of alumni and the establishment of professional fundraising we are building on a long tradition of support by patrons and donors, which dates back to the earliest days of the University. Many of the famous collections and museums, as well as valuable holdings at the University library, have been acquired only due to the commitment and generosity of patrons and former University members.

1.2 Deficits

By international standards, deficits in the area of integrated collaborative research are evident in a number of disciplines. This applies especially in the humanities and social sciences. While these disciplines are characterised by great achievements of individual scholars, they lag behind in integrated research. The notable successes in obtaining DFG and BMBF Research Centres, Research Units, JRGs, and other collaborative projects in the life and natural sciences cannot obscure the fact that as a whole, the University has not exploited its full potential over recent years. This is evidenced by citation indices (p. 89) and by a drop in the DFG funding ranking from rank eight (1997) to eleven (2000) and 15 in 2003, before rising again to rank twelve in 2006. The number of DFG funded CRCs fell from eleven in 1999 to eight in 2006 and five (three plus two without coordinator function) at the beginning of 2007. To some extent this is due to the highly concentrated generational changeover amongst professors at Göttingen University: between 1998 and 2005, exactly half of the 404 professors were newly appointed.

Weaknesses – *Internal*

While the distinguished tradition of Göttingen University provides visionary guidance for present research, it becomes disadvantageous if innovations within faculties and established disciplines are impeded due to traditional structures. The introduction of changes at the Georgia Augusta occasionally meets with considerable resistance, creating frictions and delays. A fair allocation of the limited resources is made difficult by fixed distribution keys that date from the past and that are often based on the political strength of established groups rather than on performance in research and teaching.

The reluctance to deal with this problem is a weakness for which the University itself is responsible. Instruments for correction have been at hand for a long time. Legally, the University allocates resources to professors at the time of their appointment only for a fixed term of five years. Up to now, however, the option of adjusting the initially negotiated allowance, for instance based on an evaluation of research and teaching, has only rarely been used. As a consequence, resources are tied up in lower-performing areas that are urgently needed in stronger fields. With the introduction of performance-linked allocation of resources for research in 2006, a first step has been taken towards eliminating this weakness.

As is typical for many other state-run universities, the governance structure of the University has traditionally been decentralised, with a high degree of independence given to its members and to individual institutes. As a consequence, the development of efficient instruments for central governance has been delayed. The University's central controlling system needs to be supplemented by strategic controlling that systematically analyses, compares, and utilises information to prepare recommendations for action.

Like most German universities, Göttingen was slow to realise that deficits in the policies promoting equal opportunities and compatibility of work and family pose major obstacles for future development. In retrospect, we must acknowledge that the measures for implementing equal opportunities were too hesitant and lacked emphasis. It is no consolation that the activities of our University in this area were rated to be among the best in Germany. Despite these measures considerable deficits in the promotion of female researchers are apparent in almost all faculties from the post-doc stage on. Similarly, the process of internationalisation has been only partially successful. The proportion of faculty (7 per cent) and of students (12 per cent) from abroad, although on par with the national average, is not satisfactory when considering the University's strong global network and international reputation.

Unsurprisingly, the establishment of a professional fundraising department and intensive alumni activities during the past five years have not yet brought about a decisive change to the University's dependency on public funding. Appreciable regular income from these alternative sources can be expected only in the longer term.

Until recently, the University faced strong legislative constraints in its freedom to select students to its curricular programmes. Since this right has been granted, individual student selection has been successfully implemented for admission to new Master programmes. However, in the case of Bachelor programmes we are only in the first stages of implementing this sensible tool. We are currently in the process of designing screening tools that evaluate the prospective students' aptitude and motivation, thus providing a sound and reliable basis for student selection.

Structural Under-Funding – **external**

By far the most important deficits beyond the control of the University are those caused directly or indirectly by structural under-funding. Since 1995, the cuts of the University's state budget amount to more than 15 per cent of its overall budget. These cuts have forced us to make decisions that inevitably had a negative impact on research, teaching, and the advancement of young scientists. For instance, staff reductions necessitated by the cuts interrupted the development of several budding and innovative research foci. In the humanities, any further staff cuts will stretch the scant personnel resources for research and teaching close to the limits needed for survival of the individual disciplines.

The cuts imposed by the Federal State of Lower Saxony, and the additional burden resulting from high increases in the costs of energy, overheads, and literature provision have had a particularly negative impact on the promotion of young researchers in all disciplines. The high fluctuation within this group of personnel means that the resources allocated to them are more flexible than most other funds bound by long-term commitments. Consequently, they were the main victims of cuts that were forced upon the University, particularly when imposed at short notice. For example, the planned increase of Junior Professorships and their provision with resources had to be abandoned. Without countermeasures, the number of Junior Professorships will drop to less than 30 by 2009.

Impairment of Governance Capacity – **internal / external**

Prior to the introduction of global budgets for the faculties, the resources from vacant University positions were channelled into a central presidential fund (approx. five to seven per cent of the state allocation). After the faculties gained financial autonomy in 2004, these funds were allocated to the individual faculties, thus depriving the University of an essential instrument needed for implementing structural changes. The cuts imposed on the University in 2004 and 2005 made it impossible to re-establish the fund by drawing on faculty resources as originally planned. As a result, the principal instrument required for steering the future development of the University is presently weakened significantly. In this case, external requirements (budget cuts) prevented the correction of a governance error made by the University (allocation of the funds to the faculties). In its development plan the University aims at introducing a *Structure and Innovation Fund* starting in the year 2008 (p. 24).

2. Long-Term Planning

2.1 Long-Term Aims of Göttingen University

Göttingen University's aim is to become, in a new form, what it was prior to 1933: a world-class university in which outstanding researchers work in a climate of cooperation and exchange, spurring each other on to attain excellence, and attracting and retaining the most talented junior researchers.

In pursuing this aim, we are convinced that excellence in research can be supported, but not created in a top-down manner. Excellence in research and teaching invariably germinates and grows from the ideas, initiatives, and the persuasive power of individuals. The role of the University and hence of those responsible for its governance is to prepare for its researchers a fertile environment, identify their potentials early, and promote them consistently.

This sounds a modest task, but in reality it is a considerable one: it means being open-minded, free of prejudice, and willing to support research ideas that promise to be competitive and sustainable – regardless of whether they are in line with trends, match developmental planning, or represent quotas of whatever kind.

The University of Göttingen's central objective is to find the brightest scientists and scholars from in and outside Germany, and to recruit and retain them by providing the best possible environment. We are aware of the restraints we face here: our financial basis is not equal to that of top foreign universities, nor to that of some competing universities within Germany. To realise our aims under the prevailing circumstances, we therefore rely on two central principles:

- As described above (pp. 4-7), the University of Göttingen is part of an academic environment unmatched elsewhere in Germany for its rich array of excellent non-university research institutions in closest proximity. Teaming up with these partners to create a joint research location, the Göttingen Research Campus, offers specific opportunities for attracting and retaining excellent scientists and scholars.
- Alongside our efforts to attract outstanding established researchers, we choose what we acknowledge to be a risky, yet also particularly promising approach in that we focus on recruiting and promoting excellent junior researchers. We are convinced of the validity of our approach: many groundbreaking scientific achievements are made at a relatively early career stage, and we can rely on our particular strengths in advancing young scientists and scholars. We are confident that a blend of highly talented junior researchers and outstanding senior researchers mentoring them will generate the power for innovation.

2.2 Strategy for Achieving Long-Term Aims

The long-term strategy of our University is targeted at intensive networking across the Göttingen Research Campus (pp. 16-19), identifying and attracting talented scientists and scholars as early as possible (pp. 19-21), training and nurturing them (pp. 21-22), creating a favourable working environment, (pp. 22-24) enhancing research performance through merit-based allocation of resources, and thereby steering the overall development of the University (p. 24). It is distinctive in that it allows research topics to be developed “bottom-up”, subjecting them thereafter to rigorous quality control and competitive funding.

2.2.1 Shaping the University as an Integral Part of the Göttingen Research Campus

The Göttingen Research Campus currently consists of the University of Göttingen and its on-site research partners listed on page 7. The incorporation of these research institutions into the University's planning and developmental processes is a key element of the University's long-term strategy. This network makes use of numerous possibilities for cooperation, ranging from joint professorial appointments, jointly operated research centres, and collaborative research projects, to jointly run degree programmes and large-scale facilities. A comprehensive description of the activities of the University and the non-university research institutions in Göttingen can be provided to the reviewing panel. Prominent examples are

- the research focus in the Neurosciences with the *DFG Research Centre Molecular Physiology of the Brain* and the *European Neuroscience Institute*,
- the integrated international M.Sc./Ph.D. programmes,
- the large array of collaborative projects, and
- large facilities such as a high-standard animal house, a 3-Tesla MR tomograph entirely devoted to research, and a jointly operated supercomputing facility.

The Göttingen Research Campus represents a vivid and productive research and teaching network, which has developed to a degree that is unique in Germany; this process will be taken significantly further in the future.

Göttingen Research Council: At the centre of this integrative process is the *Göttingen Research Council (GRC)*, an institution formed in 2006. The *GRC* consists of seven members representing the University: the President, as chair, the Vice President for research, the chair of the Medical School Management Board, a representative of the University Foundation Council, and three members elected by the Senate representing the subject groups humanities, social sciences, and natural/life sciences, and seven members of the non-university research institutions: Akademie der Wissenschaften zu Göttingen, German Primate Centre, and the MPIs for Biophysical Chemistry, for Dynamics and Self-Organisation, for Experimental Medicine, for Solar System Research, and for the Study of Religious and Ethnic Diversity.

The *GRC*'s tasks include the identification of research foci suitable for joint development and networks in research, teaching, and advancement of young scholars and scientists. It brings the competence of the non-university research institutions into the University's quality management structures. To achieve this, the *GRC* elects the members of the *University Research Committee* (pp. 19-20) and provides its chairperson. The *GRC*'s recommendations are passed to the University's governing boards (Presidential Board, Medical School Management Board, Senate) and the non-university research institutions. In implementing the measures funded via the Excellence Initiative, it also takes operative decisions (pp. 32-33). Figure 1 provides an overview of the functions performed by the *GRC*: advising the governing bodies of the University and non-university research institutions on the development of the Göttingen Research Campus, electing the *University Research Committee*, and making decisions on measures within the Institutional Strategy.



Fig. 1: Composition and tasks of the Göttingen Research Council (GRC)

Structural changes initiated by the *GRC* since its establishment in December 2006 include:

- a general offer by the University to grant honorary or extraordinary professorships to scientists and scholars appointed as heads of the main units at the non-university research institutions. Their teaching obligations, two hours per week in Bachelor or Master programmes, allow for teaching relief for University faculty members, thereby improving the latter's capacity for research and cooperation. This offer currently applies to some 30 scientists and scholars, of whom the majority have already assumed teaching responsibilities in biology, physics, chemistry and medicine.
- appointment of independent JRG leaders at the non-university research institutions as University W1 Junior Professors. Their teaching load (two hours per week) likewise allows for

reduction of teaching duties of University faculty members, in particular of those of our W1 Junior Professors.

- novel forms of support for University researchers via non-university institutions. In addition to their research group at the University, the appointees in three ongoing professorial appointment procedures in biology, physics, and medicine will run a research unit at the MPI for Biophysical Chemistry. The latter will cover a large part of the costs for personnel and consumables. To improve the research capability of outstanding University scientists and scholars, and to strengthen jointly hosted research initiatives, the non-university research institutions intend to support selected excellent researchers with funds (approximately 150,000 Euros per year) for a period of four to five years.

The University will combine the evaluation of its Institutional Strategy in the fifth year with an evaluation of the work of the *GRC*.

Joint Research Centres: The major structural elements for jointly developing the Göttingen Research Campus are centres operating across institutional borders. These centres have a mid-term perspective, define the structure and profile of the campus, and pursue interdisciplinary objectives in research and teaching. They are supported by a start-up grant from central funds, to be replaced in time by the centres' own grants. The centres participate in the appointment procedures for professorships attached to them and are entitled to comment to the Senate and Presidential Board on appointment proposals. Centres are evaluated at regular intervals by their external SABs. Complementing the centres, the University of Göttingen will also promote disciplinary and faculty-based research foci, knowing that successful interdisciplinary research requires an excellent basis in disciplines and faculties.

The University and its non-university partners do not stipulate the topics for which research centres are to be set up. They respect the fact that maturation to a centre is a process that normally starts with individual third-party funded projects, is continued via collaborative projects based thereon, and may end with acquiring the potential to become a research cluster. This part of Göttingen's development as a research campus occurs "bottom-up" and guarantees its dynamic and innovative quality. Combining internal and external evaluation procedures that, in addition to excellence, also take into account the capacity to create local networks, ensures the sustainability of this development and its potential for shaping the profile of the Göttingen Research Campus. In the case of joint research centres, the authority for oversight lies with the *GRC*, and in the case of exclusively in-house University research centres, with the *University Research Committee* (pp. 19-20). In both cases, the decision-making body for the University is the Presidential Board.

In setting up centres, we will be guided by our own “best-practice” model, the Neurosciences. Here, a highly visible network based on research alliances and joint work in teaching and junior scientist advancement was created step by step over more than a decade. The research activities in several faculties, MPIs, and the German Primate Centre were brought together. This network includes the *DFG Research Centre Molecular Physiology of the Brain*, the *Bernstein Centre for Computational Neuroscience (BMBF)*, the *Centre for Systems Neuroscience*, the *Institute for Multiple Sclerosis Research* (Hertie-Stiftung), a CRC (SFB 523), the M.Sc./Ph.D. programme Neurosciences with the international Max Planck Research School of the same name, the *European Neuroscience Institute*, and the Cluster of Excellence *Microscopy at the Nanometer Range* approved in 2006. Today, this research focus is the highlight of the Göttingen Research Campus. The reviewers evaluating our DFG Research Centre in 2006 declared it on a par with the neurosciences in Harvard and Stanford.

2.2.2 Attracting and Retaining Excellent Researchers

Professorial Appointment Procedures: These constitute the most important long-term tool for the development of excellence and are of crucial importance for attracting to Göttingen first-class scientists and scholars. Intensifying active recruitment, thereby giving priority to equal opportunities and advancing internationalisation, is a key element of our strategy for improving the search, selection, and appointment procedures. In addition, the following changes are planned: (I) consultation of the Presidential Board by the *University Research Committee* prior to starting professorial search and appointment procedures, and (II) advising, supporting, and monitoring the work of the search committees by experienced scientists and scholars (nominated by the Presidential Board and the Senate to accompany about two ongoing procedures at any one time) who belong to the respective set of disciplines (humanities, social sciences, natural and life sciences, and medicine) of the professorship concerned.

University Research Committee: A committee consisting of 15 members is being set up to advise the Presidential Board and Senate on major research issues. This represents the strategic counterpart to the SABs of the non-university research institutions. Amongst its main tasks are to critically comment on proposals for new establishment or continuation of professorships, and on the use of resources from the *Structure and Innovation Fund* (p. 24). The committee will report to the Presidential Board and the Management Board of the Medical School. Its recommendations will also be made available to the Senate and the GRC. In its work, the committee will rely on the Faculties' and University's development plans and reports from the strategic controlling unit. The latter will be built up to complement the University's controlling unit already in operation. The committee's members – representing

the humanities, social sciences, and natural and life sciences – will be highly reputed experts. They can be members of the University, the non-university research institutions in Göttingen, or external research institutions. They are elected for a four-year term (re-election being possible) by the *GRC* (faculties and centres will have the right of nomination). A member of the *GRC* will chair the committee (without a vote). This structure raises the committee's degree of independence as compared to a committee installed by and composed exclusively of University members, while at the same time allowing for intensive consultation to an extent that would not be feasible in a committee composed exclusively of non-Göttingen members. The functional analogy of the *University Research Committee* and the SABs of non-university research institutions, as well as the role of the *GRC* in guaranteeing the independence of the *University Research Committee*, are illustrated in Fig. 2.

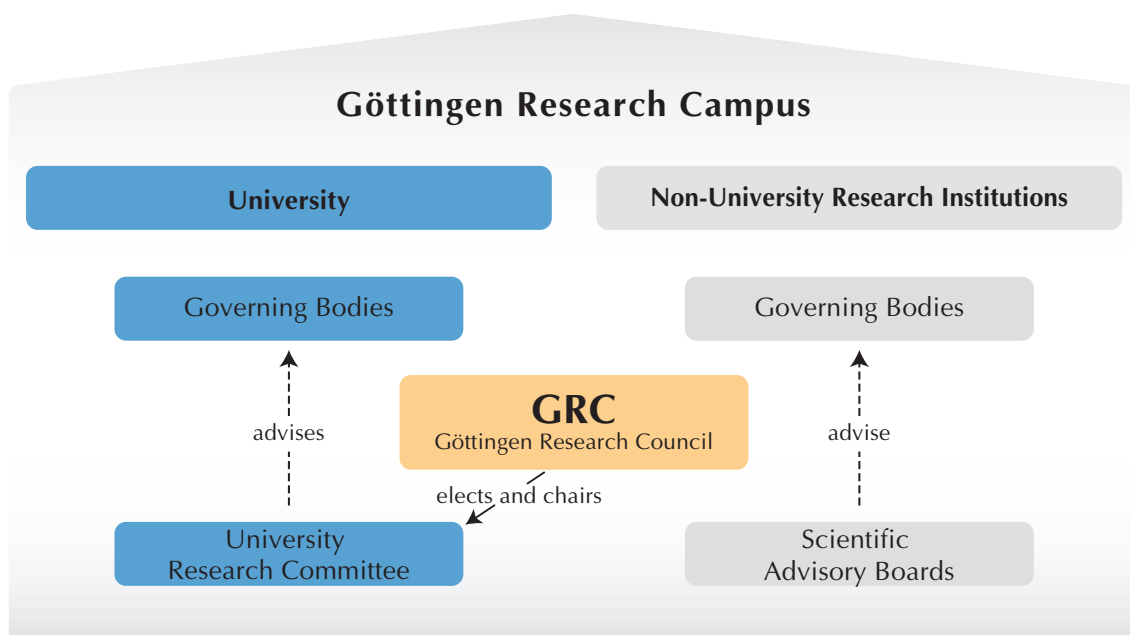


Fig.2: Role of the *University Research Committee* in analogy to the scientific advisory boards of non-university research institutions

The University will combine the evaluation of its Institutional Strategy in the fifth year with an evaluation of the *University Research Committee*.

Internationalisation: As an instrument to enhance future recruitment of top-level international researchers and to lead the University as a whole to greater research excellence, internationalisation offers Göttingen special opportunities – not least because the University's reputation is particularly high in international contexts. We are pursuing three main targets: (I) a significant increase in the proportion of our faculty from abroad, (II) quantitative and qualitative improvement of the recruitment of excellent foreign students and junior researchers, and (III) the

focussing and intensifying of our international activities for the advancement of research and of young scientists and scholars. The measure *Göttingen International* is targeted at the latter two points. In addition, the number and size of our international Master and Ph.D. programmes, currently 16 with slots for 521 students, will be increased. By 2010, the University expects to have 28 international degree programmes with about 800 students. The conditions for foreign students will be improved by means of a Welcome Centre catering to the special needs of foreign students and academics. Supported out of overhead funds, it will expand existing services and cooperate with the international study programmes, the International Student Centre, the City of Göttingen (Dual Career Service, International School) and the Service Centre for Third-Party Funded Research (p. 23).

2.2.3 Training and Fostering Excellent Junior Scientists and Scholars

Research-Based Teaching: The most promising chances for identifying, interesting, and attracting the best young researchers come with research-oriented teaching. The University of Göttingen has now adopted Bachelor and Master structures for its degree programmes. The Bachelor programmes prepare the students for research-oriented Master programmes, while at the same time containing profession-oriented elements. Their particular attractiveness is guaranteed by the fact that highly distinguished scholars and scientists at the Göttingen Research Campus participate in the teaching of Bachelor students. The Master programmes are characterised by their marked focus on research and their intimate linkage with Ph.D. programmes. Currently, selection procedures for Master programmes are being designed to ensure that well-qualified students from Germany and abroad, with high motivation and social competence, are recruited. The emphasis on research is further increased through involvement of non-university researchers in the teaching programme (pp. 16-19).

The University's three Graduate Schools for Humanities, Social Sciences, and Natural/Life Sciences are developing accredited Ph.D. programmes. By 2010 these programmes will host almost all doctoral students in the natural and life sciences, two thirds of those in the humanities, and one third in the social sciences. For doctoral students working outside the thematically oriented programmes, the Graduate Schools offer organised supervision through thesis committees, as well as access to their study and qualification courses. The integrated M.Sc./Ph.D. programmes Molecular Biology and Neurosciences, established in 2000, were of great importance for the development of the Graduate Schools. For example, scientists from non-university research institutions are involved in the teaching at the Master's level, and thesis committees can be headed by scientists from in- or outside the University, irrespective of "Habilitation".

After the current transitional phase (implementation of the Bologna process and increased student numbers due to the double "Abitur" year and demographic factors) has ended, the

University expects to teach approximately 50 per cent of its students in Bachelor, 30 per cent in Master, and 20 per cent in Ph.D. programmes.

Junior Professorships and Junior Research Group Leaders: At the core of our strategy for advancing young researchers is the provision of reliable career tracks set in an environment that is both supportive and demanding. Göttingen University's approach is to entrust young scientists with independent research and teaching activities early on. It was the first in Germany to install a Junior Professor. In future, the University intends to appoint a sixth of its professors as W1 Junior Professors. They can receive a tenure option, and transition into a W2/W3 professorship is possible as a means to counter an offer from outside.

An alternative model providing a dependable career track for young researchers will be tested within the *Brain Gain* measure of our Institutional Strategy. Furthermore, the University focusses on supporting its post-doctoral scientists and scholars through third-party funded independent JRGs. 22 such groups (including ten groups within the Emmy Noether Programme, p. 87) are currently established at Göttingen University.

Equal Opportunities: The University regards equal opportunities and work-family compatibility as fundamental preconditions for the full realisation of its existing potential for excellence in the areas of research, teaching and the promotion of junior scientists and scholars. The proportion of women in the post-doctoral phases needs to be raised substantially: our target is a proportion between 35 and 65 per cent in all career stages and disciplines.

To this end, we have already put in place our master plan for the advancement of women, which has won the University top placements in the "University Ranking under Gender Aspects" (Centre of Excellence Women and Science, Bonn). In 2007 we submitted a university-wide application for certification by the Total E-Quality Science Award, an award already granted twice to the University Medical School. Building on these successes, the University is currently developing new guidelines for the integration of gender mainstreaming into its development plan and is introducing gender equality monitoring measures.

2.2.4 Creation of Favourable Conditions

Dual Career / Compatibility of Career and Family: The Dual Career Service available to a network made up of the University, non-university research institutions, the City of Göttingen, and large business enterprises in Göttingen is being extended to cover all aspects (social integration, living accommodation, childcare, schools and employment for partners) as a full service facility located centrally in the Town Hall. The personnel costs are borne jointly by the City and the University. The University will provide bridging funds to support the employment of researchers with partners in a Dual Career arrangement.

To assist work-life balance, the University operates three childcare facilities offering 159 places for all age groups, extended opening hours, and special services (e.g. bilingual supervision, sports). The University, in some cases in collaboration with the City of Göttingen, is taking a range of steps to improve and extend childcare arrangements; a number of these are listed on page 28.

Service Centre for Third-Party Funded Research: Many junior researchers have excellent ideas, but still lack the knowledge to gain and administrate third-party funding. This is to be addressed by a Service Centre for Third-Party Funded Research, an offspring of the University's existing department for research support in the central administration. The advisory capacity already at hand for preparation of grant proposals and the administration of third-party funded research projects will be extended and improved in order to give researchers more time for their research, and to achieve the targeted 40 per cent rise in third-party funding within the five-year period 2007-2011 (not including funding for the Institutional Strategy). The service centre, which will also bring together administrative units of collaborative research entities such as CRCs and research groups, will be financed from state funding and overhead funds.

Adjustments of Obligatory Teaching Volumes amongst Faculty: In order to reduce the teaching obligations of particularly high-performance researchers, the University will implement student-capacity-neutral shifts in obligatory teaching volumes amongst faculty. These will be based on data from the performance-oriented resource allocation process for research and teaching, and from external evaluations.

Computational Science and IT Infrastructure: The creation of favourable conditions must take into account the recent progress in knowledge management, simulation methods, and visualisation techniques. In January 2007 the University set up a chief information office, which will completely restructure all IT into integrated portal services for Göttingen scientists and scholars, and make them available worldwide.

The IT resources, which were traditionally divided up among several major IT service centres and the University library, are amongst the most substantial in Germany, providing services not only to the University but also to many libraries, MPIs and various medical research networks across the country. The integration of basic services is currently being reorganised to operate on a task-oriented rather than a department-oriented basis.

Göttingen will be a major node in the upcoming national grid infrastructure (e.g. BMBF e-Science funding, with three of nine projects managed from Göttingen). This strategic node position is crucial in assisting the University in its pursuit of excellence. It is of particular significance

within the humanities, enabling online-publication, digital libraries, and long-term digital archiving for all research data. A proposal requesting federal funding is currently in preparation to rationalise existing services as well as to solve a new challenge for all life sciences: the storage and archiving of data, dynamic measurements, and biomaterials annotated with links to knowledge.

2.2.5 Performance- and Perspective-Based Allocation of Resources

Performance-Based Allocation of Resources in Research and Teaching: The University of Göttingen has satisfied the basic prerequisites for available resources to be allocated according to performance in an accurate, transparent and fair manner by implementing the performance recording system for research (introduced in 2006, p. 10). A similar system is being prepared for teaching (introduction 2008).

To complement and strengthen this process on the basis of the performance recording systems, the University plans to distribute a larger share of its resources for professorships dependent on performance. In 2006 the faculties defined basic staff provision levels for their professorships. Provisions going beyond these basic levels are granted temporarily, in the case of new appointments for five years. Prolongation of supplementary provision five years after appointment will be decided by the faculty and the Presidential Board on the basis of a report submitted by the professor concerned and a discussion with him/her, as before, but from now on also on the basis of the data recorded for research and teaching evaluation, the development plans, and information from the controlling department and external evaluations.

Structure and Innovation Fund: Adjustment of resource allocation between faculties geared to performance is planned for 2008 onwards. To this end, the University is setting up a *Structure and Innovation Fund* in order to be able to provide temporary or permanent financial support for innovations in research, teaching, equal opportunities, internationalisation, and quality management. The fund also ensures the sustainability of the measures proposed in our Institutional Strategy. The significance of individual structural and innovative measures will be evaluated on the basis of the central and faculty development planning and prioritised with a view to the perspectives of the University as a whole. The distribution of funds is decided by the Presidential Board; its decision is based on recommendations by the *University Research Committee* (pp. 19-20).

The fund, which will amount to approximately three per cent of the state funding, will be financed (I) from central presidential funds already available for structural improvements, (II) from transfers of faculty budget portions when professorships fall vacant, and (III) from resources presently spent for indirect costs. The latter will in future be financed from the overheads of third-party funded projects.

2.3 Development Plan

Early in 2005, the Presidential Board and the faculties agreed on the essential elements for development plans of faculties. Each faculty has in the meantime defined two to four research foci verifiably fulfilling the criteria for excellence with respect to quality, cooperation, and interdisciplinarity, or plausibly demonstrating their potential to do so. Proposals for the designation of the professorships falling vacant until 2012 were made and dates were set for the planned measures. The development plans were the subject of discussion between the Deans, the Senate, the Presidential Board and the Foundation Council at a retreat in July 2006. Based on these plans, the Presidential Board and Senate, with external advice (e.g. from the WKN), are currently drawing up the University's development plan in line with its long-term strategy.

The major research projects involving the extension of existing foci or establishing new ones that have reached a solid planning stage are described below. Projects being part of the measures planned under Section 3 are omitted here. Each research project is inherently linked with the furthering of junior researchers, equal opportunities, and internationalisation; consequently, these are not set out separately for each project.

Sustainable provision of financial support is the subject of the "Zukunftsvertrag" (Contract for the Future) agreed upon with the Federal State of Lower Saxony. This contract guarantees the institutions of higher education continued provision of state funding at the level of 2005 for the period until 2010. The contract is expected to be extended in a follow-up agreement.

2.3.1 Natural and Life Sciences

Amongst the scientific foci, the Neurosciences – hosted within the University mainly by the Medical School and, in the non-university research institutions, by the MPIs for Biophysical Chemistry, Dynamics and Self-Organisation, and Experimental Medicine – have achieved the most accomplished degree of implementation and the highest international visibility. The aim for the coming years is to gain long-term stability for the many structural activities that until now are only temporarily secured, along with dynamic further development of the research profile. The Cluster of Excellence *Microscopy at the Nanometer Range* is expected to have a strong impact in numerous areas of basic research in the biosciences. The translational aspect of basic research in the neurosciences, through transfer of new knowledge into the clinical context, is the subject of a Transregional CRC that will be evaluated in August 2007.

In the Faculties of Chemistry, Physics and Mathematics (cooperating with the life sciences), collaborative research foci are being developed. They deal, for example, with the function of membrane-integrated biomolecules, the further development of high resolution light and X-ray microscopy, and the cooperative behaviour of biological systems. Proposals or draft proposals

have been or are being submitted for three corresponding CRCs. Research groups from the University together with those from the two MPIs for Biophysical Chemistry, and Dynamics and Self-Organisation plan for a research cluster *Matter and Biology* investigating issues associated with life and materials sciences. The move of the MPI for Solar System Research planned for the near future – from Katlenburg-Lindau into the direct vicinity of the University of Göttingen's Astrophysics department – will add to the existing *International Max Planck Research School on Physical Processes in the Solar System and Beyond* a new priority area looking at magnetic fields, oscillations and convections in stars and planets, with a view to establishing a CRC.

The environmental sciences with their research areas (I) Climate Change and its Consequences, (II) Securing of Wood and Food Production and (III) Conservation of Global Biodiversity will be complemented by a focus on Functional Biodiversity Research in Agricultural and Forest Ecosystems. This involves the creation of professorships, the development of two CRCs and further collaborative projects, and the setting up of an additional Ph.D. programme (the latter as part of the *Graduate School for Terrestrial Ecosystems* proposed in FL1) by 2012. The development of this research focus is being supported by a funding programme for the development of research clusters financed by the Federal State.

In the Molecular Biosciences, assembled in the *Göttingen Centre for Molecular Biosciences*, three initiatives for new CRCs focus on (I) the Morphogenesis and Development of Fungi, (II) the Control of Development by Means of Protein and RNA Modification, as well as the Generation of Cellular Asymmetry, and (III) the Structure and Dynamics of Large Macromolecular Assemblies. Moreover, a focus in cardiology is planned, stretching from basic sciences to clinical trials. It may evolve alongside the Neurosciences into the second research cluster in medicine. This focus can build on a clinical research group, several BMBF and EU funded collaborative projects and clinical (multi-centre) trials.

2.3.2 Humanities and Social Sciences

The humanities and the social sciences in Göttingen can point to individual research excellence within their ranks. At the same time, the record of those disciplines in the Excellence Initiative so far has shown that the University must support them in the identification and development of profile-defining collaborative research foci. Building up such research foci in the humanities is aided by the existence of thematically linked groups of excellent researchers, particularly in Theology, Studies of the Ancient World, and Literary and Cultural Studies. In addition, these subjects can build on successful collaborative projects, for example the highly successful *Centre for Medieval and Early Modern Studies*, the long-term projects in collaboration with the Akademie der Wissenschaften, and the recently founded *Centrum Orbis*

Orientalis (pp. 5-7). The new MPI for the Study of Religious and Ethnic Diversity, due to take up work in late 2007, will generate an additional promising opportunity for collaborative work for the humanities and social sciences in Göttingen. In addition, the humanities have recently been targeted for special support in the form of W1 and W3 professorships, which will be allocated by the State of Lower Saxony on the basis of a competitive process. In the first round of this contest in 2007, the humanities were able to win two W3 professorships in Ancient History and Ancient Near Eastern Studies, and a W1 professorship with W2 tenure track in North American Studies. The fostering of junior scholars has been intensified through the foundation of the two Göttingen Graduate Schools in the Humanities (GSGK) and the Social Sciences (GGG).

As far as research topics are concerned, research interests in the humanities are concentrated particularly on topics in cultural and religious studies in combination with linguistic and historical text analysis. Initial steps towards collaborative projects in this area have been made with draft proposals and full proposals for a CRC (jointly with the Hebrew University of Jerusalem) on the *Interaction of Wisdom and Religion in Ancient Cultures* (SOPHIA), for DFG Research Units on *Art and Religion in Modern Societies*, *Popular Aesthetics: Seriality, Variations, Transformation, and Constitution of Cultural Property* (in cooperation with the universities of Hamburg and Tübingen), as well as RTGs on *Public and Private Religions*, and *Expert Cultures: 1000-1600*.

Questions of common and differing rationalities in the humanities and social sciences vis-à-vis the natural and life sciences are gaining prominence. This trend is particularly visible in individual research endeavours, in the RTG *Interdisciplinary Environmental History*, but also in the foundation of multidisciplinary centres, such as the Centre for Medical Law and the basic research oriented Centre of Modern Humanities. The evaluation of our Institutional Strategy will reveal whether these interdisciplinary activities and research ideas have proven to be competitive and fit for expansion.

In the social sciences, which in Göttingen comprise the faculties of social sciences, law and economics, individual areas of excellence are currently usually linked to individuals or small teams, such as the work of Göttingen's development economists in a CRC (SFB 552), a DFG Research Unit (FOR 756), and several collaborative DFG projects with researchers from other universities. The University sees opportunities for further cross-disciplinary collaborations. For example, collaborations on Empirical Poverty Research (p. 37), collaborations in Legal and Economic Aspects of Biodiversity Research, research foci in Behavioural Law and Economics, as well as Education Research and Institutional Change, have the potential to sharpen the profile of Göttingen's social sciences.

2.3.3 Time Schedule

Unless already mentioned, the schedule for the time period until 2012 concerning the introduction of the measures outlined in 2.2 (pp. 16-24) , and with regard to major new buildings, is as follows:

Establishing the Göttingen Research Campus

- New regulations for professorial appointments: by July 2007
- Appointment of a *University Research Committee*: 2008
- Remodelling of existing centres: begun in 2006, to be completed by 03/2010
- Amendment of the existing master plan for the advancement of women and introduction of a quality control scheme for gender mainstreaming: 2007/2008

Attracting, training, and retaining excellent junior and senior researchers

- Completion of admission, study and examination regulations for the Master programmes: by WS 2009/10
- Performance-based allocation of resources for teaching: from 04/2008 onwards
- Extension of the University quality management system for teaching (information and monitoring system with participation of study programme representatives, quality control of tuition fee-funded measures, handling of student reports by an ombudsperson, further development of didactics courses for faculty): by end 2008
- Accreditation of the University quality management system "Teaching": 2009
- Welcome Centre: established by end 2008
- Bilingual primary school: August 2008
- International high school (with International Baccalaureate): August 2008

Creation of favourable conditions

- Further development of the Dual Career Service for the Göttingen Research Campus, in alliance with the City and the business community: 2008
- Increase of childcare facility capacity by 35 places, with opening hours from 7.00 a.m. – 9.00 p.m., five days per week: August 2008
- Extension of opening hours at municipal childcare facilities to 8.00 a.m. – 7.00 p.m.: 2008
- Provision of 20 parent-and-child rooms in University buildings: 2007/2008
- Establishment of a Service Centre for Third-Party Funded Research (with integration of existing services e.g. EU office): mid-2008
- Adjustment of teaching loads: from 2008 onwards, on the basis of the new regulations on teaching obligations to be issued by the State Parliament of Lower Saxony in 2007
- Reorganisation of IT services (Gö*): 2006-2010
- Campaign to raise foundation capital: currently in preparation

Performance-based allocation of resources

- Development of new procedural guidelines for adjustment of supplementary professorial provisions: by end 2007
- Establishing a strategic controlling system (as part of the controlling unit): 2008
- *Structure and Innovation Fund*: 2008

New major buildings / Planned conversions

- Historical Observatory: Renovation to house the Lichtenbergkolleg and Graduate Schools: end 2007, the associated Faculty Club: by 2009
- Informatics: Completion 10/2008
- Conversion of a seminar building on the campus for small-group teaching (with funding support from tuition fees): 2007/2008
- Centre for Cultural Sciences: completion 2010
- Major renovation of the Chemistry Institutes (to house Chemistry and Mathematics): 2009 – 2015
- Johann Friedrich Blumenbach Institute (to house Zoology and Anthropology): 2009 – 2011
- Building for third-party funded research projects in natural and life sciences on North Campus (to house independent JRGs): 2009 – 2012
- New building for eScience Data Processing Centre: 2012

3. Institutional Strategy – Project Description

3.1 Aims

As set out in section 2.1, Göttingen University's central aim is to attract and to keep the most talented scientists and scholars, and provide them with a challenging and supportive working environment. The mid- and long-term planning, as given in section 2.2 (pp. 15-24), is designed to meet these needs following two principles: firstly, the development of a joint research base in Göttingen together with the non-university research institutions (a development manifesting itself foremost in joint research centres and highly productive research foci) and, secondly, a consistent and effective policy for gaining and retaining excellent young scientists and scholars.

The project we are proposing for funding within the Excellence Initiative pursues this aim through an innovative methodological approach, which will undergo a five-year probation period and, if successful, will be continued. The proposed strategy opens up a new recruitment track for excellent junior researchers: **Brain Gain**, and is complemented by a strategy for retaining such exceptional – and by then established – individuals: **Brain Sustain**. This career track is flanked by measures particularly addressing researchers in the humanities and social sciences: **Lichtenbergkolleg**, and excellent young researchers recruited from abroad: **Göttingen International** to enter this career track. This overall strategy focusses on people. Its implementation will ensure dynamic growth and the remodelling of the scientific and scholarly profile of the Göttingen Research Campus. In the following, we outline these four elements to enable a clearer understanding of their common goal, and to point out the specific objectives served by the individual measures.

Measure 1: **Brain Gain**

The measure *Brain Gain* is a novel approach to recruiting first-class junior researchers, the majority of whom will work in newly formed interdisciplinary research centres. These *Courant Research Centres* are the result of a selection process led by external reviewers. Each of the centres is proposed by a group of established Göttingen researchers, and concentrates on innovative topics. Göttingen must provide specific advantages for the study of these topics. Each *Courant Research Centre* houses several JRGs, which, supported by senior researchers, explore the centre's innovative topic. The *Courant Research Centres* thus form a synthesis of the two principles of our long-term strategy: advancement of junior scientists coupled with development of the Göttingen Research Campus by means of research centres.

In addition to these centres, several free-floating JRGs will be set up in areas in which collaborative research networks are less common or not on hand, but which nevertheless have the potential to contribute to the profile of the Göttingen Research Campus. The option of

tenure track is available to all JRG leaders. Obtaining tenure depends exclusively on their excellent research performance and teaching.

Through *Brain Gain*, the profile of the Göttingen Research Campus is subject to continuous renewal: innovative, interdisciplinary topics are first scrutinised in a selection process. Those that are successful then receive funding for a period of five years. During this period they are expected to grow to a stage from which they can continue on their own.

Measure 2: *Brain Sustain*

Attracting exceptionally talented junior researchers to Göttingen (*Brain Gain*) would bring the Göttingen research community little lasting benefit if the best of them were lost again after having reached the status of top-level researchers. *Brain Gain* therefore requires an accompanying measure permitting excellent researchers to be retained. This is the purpose of *Brain Sustain*.

Brain Sustain transports the fundamental idea behind *Brain Gain* to the level of established top-rank research: just as promising scientists and scholars are to be attracted by means of interdisciplinary research centres, top-rank researchers are to be retained for the Göttingen science and scholarly community by providing them with a strong collaborative research environment and granting them freedom for research. For this, three new professorships will be created, the designation of which is purposely kept open. They can be installed wherever a strategic gap in the academic portfolio of new collaborative projects in one of the Göttingen priority research areas becomes apparent. Moreover, a special fund is planned to cover such unexpected costs for staff and consumables as may arise, or for developing or maintaining collaborative research projects.

With the help of *Brain Sustain*, high-performing researchers will obtain leave of up to two years from teaching and administrative duties. In such cases, *Brain Sustain* can complement our strategy for advancing junior researchers (pp. 21-22), since the positions of interim professorships will be offered to junior researchers, thereby facilitating their further career progress.

Measure 3: *Lichtenbergkolleg* – An Institute of Advanced Study

The career track opened up in *Brain Gain* and *Brain Sustain* relies on participation in co-operative research projects. In the humanities and social sciences, however, the preconditions for this career track are presently not fulfilled to the same degree as in the natural and life sciences. This is due to the tradition of these disciplines and therefore not specific to Göttingen. To exploit the strengths and potential of the humanities and social sciences on the Göttingen Research Campus, to identify and develop important research ideas and activities in discourse with internationally distinguished scholars, to prepare for cooperative research

projects, and to strengthen the competitiveness of the humanities and social sciences for *Brain Gain* activities: these are the goals of the *Göttingen Lichtenbergkolleg*.

In order to accomplish its goals, the *Lichtenbergkolleg* combines the traditional idea of a centre for advanced studies – giving highly distinguished scholars time and opportunity for intensive work, for discussion, and for disciplinary and interdisciplinary cooperation – with two more innovative and experimental ideas that are specific to our Institutional Strategy for Göttingen:

- The selection of fellows will be geared to the thematic foci already anchored in the Göttingen humanities and social sciences. These foci will be explored further in the discussions between the fellows and the Göttingen scholars, to examine their suitability as *Courant Research Centres* in *Brain Gain* or as a nucleus for other cooperative research projects.
- The fellows invited to participate will include young researchers at a proportion higher than at other institutes of advanced study. Thus the *Lichtenbergkolleg* will not only reveal possible research foci but at the same time identify and attract highly gifted young scholars.

Measure 4: *Göttingen International*

Göttingen International fulfils a “feeder” function for *Brain Gain* and *Brain Sustain* in that it strengthens the recruitment of junior scientists and scholars to Göttingen. It is aimed at (I) enhancing the recruitment of foreign students in both number and quality, (II) heightening the international visibility of the Göttingen Research Campus, (III) attracting foreign scholars and scientists to spend research periods in Göttingen and cooperate with Göttingen investigators, thereby (IV) advancing the internationalisation of the Göttingen research community as a whole.

Göttingen International strategically focusses the University's international contacts, both in terms of geography and content: intensification of contacts with carefully selected international partners is combined with cooperation in excellent research areas. A key instrument of this strategy will be the setting up of four liaison offices abroad and a coordination office in Göttingen.

3.2 Implementation of the Measures Proposed

Role of the *Göttingen Research Council* in the Project

The *GRC* embodies the University's conviction that in Göttingen scientific and scholarly excellence is achieved and maintained by a cooperative strategy where the University joins forces with the local non-university institutions.

The overall functions and the composition of the *GRC* have been described in detail in section 2.2.1 (pp. 16-18) of this proposal. Here we will concentrate on its specific, pivotal role in coordinating, operating, and assessing *Brain Gain* and *Brain Sustain*.

For *Brain Gain* the GRC has coordinated the initial selection process for the *Courant Research Centres*. It will coordinate the free-floating JRGs, and the future rounds of selections, including the next one planned for 2009. The GRC is responsible for ensuring the scientific and scholarly standards of all activities within *Brain Gain*, most notably the evaluations of the research centres and of the JRGs as well as of all tenure recommendations to the University (pp. 33-39). The GRC will assume the operative responsibility for the funding acquired for *Brain Gain* and *Brain Sustain* in the context of this proposal, namely the funding decisions for the research centres, the free-floating JRGs, and *Brain Sustain*.

Knowing the importance of an accurate assessment of scientific and scholarly excellence, the GRC will, for many of its decisions, rely strongly on external advice, as it did in setting up ad-hoc committees for the selection process in 2005/2006. For some of its activities the GRC will also turn to the newly established *University Research Committee* (pp. 19-20) for advice. To fulfil its activities the GRC will install a head office staffed with an academic administrator and administrative and secretarial support.

The GRC will encourage the JRG leaders to acquire competitive external funds (e.g. Emmy-Noether and Heisenberg programmes, EU and other DFG provided grants). In part these grants may substitute for the funding through *Brain Gain*.

3.2.1 Measure 1: *Brain Gain*

As outlined on pages 25 and 26, the University has, together with its non-university partner institutions in Göttingen, established four focal areas of excellent research in the natural and life sciences (Matter and Biology, Neurosciences, Biodiversity, Molecular Biosciences). These areas dispose over a “critical mass” of high-quality scientists. They possess a strong research infrastructure, continuously acquire competitive funds, and form the main basis of the University’s current strength in research. They are central to its long-term planning. They also form the cornerstones of the applications filed by the University in FL 1 and FL 2 and one of the targets of *Brain Sustain*.

What has been lacking, however, is a recurrent and reliable process for identifying and strengthening innovative areas that have the potential to become future research foci in Göttingen. Initially, such areas are typically represented by only a small number of excellent scientists or scholars (often recently appointed). Such areas are in need of additional resources in order to mature into new research foci and, in particular, to attract and retain promising young scientists and scholars.

We want to combine the support for such research areas with an attractive career option for young scientists and scholars. In addition to an intellectually stimulating environment and

optimal working conditions for their well-equipped JRGs, they can obtain permanent appointments in the University and the non-university institutions, with the tenure decision being solely dependent on merit. The University expects that this approach will strongly enhance its attractiveness for the most promising young scientists and scholars and provide a model for the establishment, support, and development of budding research areas in Göttingen.

The majority of JRGs will be established in the context of the new *Courant Research Centres*. These Centres build on a core of researchers in Göttingen who have demonstrated scientific or scholarly excellence and thus provide a stimulating and supportive environment for the JRGs. With the support given to the new centres they will be enabled to reach “critical mass”, to achieve international visibility, and to attract grants. Each *Courant Research Centre* will normally host three JRGs funded through *Brain Gain*.

About one third of the JRGs will be established independently of the *Courant Research Centres* as free-floaters. They will be advertised without constraints on their topic.

Courant Research Centres – Structure, Tasks and Responsibilities: Each *Courant Research Centre* will be carried by five or more established scientists or scholars from the University or the non-university institutions. The governance of a centre will be the responsibility of its Executive Committee and a speaker. Additionally, the *GRC* will appoint an SAB of international scientists or scholars for each centre. A member of the SAB together with one local senior researcher will constitute a “support-tandem”, to ensure a personal mentorship for each JRG leader.

Each centre will enhance graduate level teaching at the University by either developing a new Master/Ph.D. programme or by participating in programmes existing within the three Graduate Schools in Göttingen. Each JRG will contribute to these teaching activities. Reflecting the centres’ focus on research, the mandatory teaching load will be half that of regular Junior Professorships. The budget of each centre also includes funds for a rotating sabbatical of the senior researchers, to allow them to dedicate themselves fully to the work of the centre during that period. Public outreach activities as well as administrative needs of the *Courant Research Centres* and free-floaters will be organised centrally.

The budget of each *Courant Research Centre* is sufficient for funding the centre and its JRGs for the initial five years. Nevertheless, the *GRC* strongly encourages the centres to acquire additional sources of funding. Further JRGs can be integrated into a centre if they bring in their own funding. If a centre manages to find alternative funding for its *Brain Gain*-funded JRGs, it will be permitted to keep a substantial share of the resources originally allocated to the JRG.

Courant Research Centres – Regular Selection and Implementation: The selection of the research centres is organised as a bottom-up process. This process depends on existing scientific or scholarly strength in Göttingen and is driven by an innovative concept. To judge the scientific and scholarly merits of each proposal, the selection process relies on experts from the respective fields. The *GRC* will initiate new rounds of selection every three to four years.

The first round of selection was initiated in the second half of 2005 with a university-wide call for proposals for new priority research areas. This call resulted in more than 40 proposals that were subjected to three rounds of selection. The first round was carried out by the *GRC*, the following two with the help of external experts nominated by the *WKN*. These experts came to Göttingen for two consecutive panel sessions in January and June 2006 and were supported by written reviews from international experts. In the end, five of the proposals were selected for funding as *Courant Research Centres* through the Excellence Initiative. In 2009 there will be another selection round aiming to bring the total number of centres to seven.

At the end of the initial five-year funding period, the centres that have thrived will have acquired external funding to support their continued existence as a University research centre. Once excellent *JRG* leaders are tenured, their funding will come from the University's own resources. As a result of this process the University will have provided the resources and structures for new foci of research and will have remodelled its faculties in line with these areas.

Courant Research Centres – Topics of the Five Initial Research Centres: To give new ideas a fair chance, the search for topics for new research centres was guided by the idea that there should be no thematic restrictions or preferences; however, Göttingen must provide a specific advantage for tackling the chosen topic to ensure that it builds on competence already available. The proposed research centres selected in June 2006 all have links to already established research areas, and, more importantly, they also show potential for developing into entirely new research clusters. We exemplify this for two centres in more detail.

The research centre *Poverty, Equity, and Growth in Developing Countries* builds on research in a DFG Research Unit (FOR 756 *Impact of Shocks on the Vulnerability to Poverty: Consequences for Development of Emerging South East Asian Economies*), a CRC (SFB 552 *Stability of Rainforest Margins*), and an existing externally-funded Ph.D. programme (*Applied Statistics and Empirical Methods*). In terms of methodology, it builds on the GRK 1023 *Identification in Mathematical Models*. The successful establishment of the new research centre can contribute to generating in Göttingen a new and internationally visible research focus on sustainable development in developing countries. Together with the research cluster *Biodiversity* (p. 26), two central global challenges, namely poverty reduction and the maintenance of the natural environment in developing and transition countries, would

thus be the focus of a broad range of researchers, ranging from plant geneticists and ecologists to poverty researchers and statistical modellers.

The research centre *Evolution of Social Behaviour: Comparative Studies of Human and Non-Human Primates* combines the fields of anthropology and social psychology with primate studies, which is prominently represented in Göttingen by the German Primate Centre, a Leibniz Society institution. The research topic is linked to neurosciences, which it extends by adding behavioural biology, as well as to environmental sciences, which it extends by studying the ecological basis of behaviour of human and non-human primates. Thus, the centre can become the interface of interdisciplinary research linking social and life sciences.

Two of the three remaining centres focussing on research areas from the natural sciences have links to established research foci in Material Sciences and Biophysics, Molecular Neurosciences (*X-ray Photonics*), and Biodiversity and Ecology (*Geobiology – Development of Early Life and Organic Matter controlled by Rock and Mineral Forming Processes*). The third centre, *Higher Order Structures in Mathematics*, brings together complementary branches of Mathematics and Theoretical Physics. It seeks to reestablish a cooperation that was particularly successful in Göttingen in the past.

For each centre, a detailed proposal which formed the basis of the final selection can be made available to the referee panel of the Wissenschaftsrat. Hence, only a brief outline of each centre is given here.

A. Nano-Spectroscopy and X-ray Imaging (Coordinator: Prof. Salditt)

The elucidation of molecular structure and dynamics in complex ambient environments presents a major challenge for modern analytical science. These ambitious research goals are fuelled by the significant progress in short pulse X-ray sources (within reach in the near future), particularly linear accelerator-based free electron laser sources such as the European XFEL project at DESY, Hamburg. Central goals are: (I) the development, implementation and application of advance imaging technologies, combined with X-ray scattering and spectroscopy methods, and (II) the development and application of time-resolved X-ray studies both at accelerator-based and compact X-ray sources in Göttingen.

Principal investigators: Bernd Abel, Stefan Herminghaus, Ulrich Krebs, Klaus Mann, Tim Salditt, Konrad Samwer, Simone Techert, Wolfgang Viöl.

B. Higher Order Structures in Mathematics (Coordinator: Prof. Schick)

A central interest in modern mathematics is the examination of structural principles. The research centre will focus on the construction and exploration of universal, highly organised

structures both in- and outside of pure mathematics. This research will strengthen the very foundations of mathematics and enable the development of new concepts in mathematical physics and theoretical computer science. Simultaneously, new methods like non-commutative geometry will connect these findings to areas such as number theory, allowing long-standing conjectures to be tackled.

Principal investigators: Detlev Buchholz, Ralf Meyer, Samuel Patterson, Karl-Henning Rehren, Thomas Schick, Yuri Tschinkel.

C. Geobiology – Development of Early Life and Organic Matter Controlled by Rock and Mineral Forming Processes (Coordinator: Prof. Reitner)

Knowledge on pre-biotic and real-life processes in various environments over time is still poor. These processes control bio-geochemical cycles and have major impacts on the earth's environment ("Global Change"). The research centre will focus on (I) key environments like the vast subterranean biosphere, where fluid-biofilm-mineral interfaces control rock-forming processes, (II) the metabolic formation of biominerals, a key process in bio-geochemical cycling, and (III) the early diversification of early metazoans and land plants, which are major factors in global change.

Principal investigators: Thomas Friedl, Robbert Gradstein, Wolfgang Liebl, Burghart Morgenstern, Joachim Reitner, Harald Schneider, Volker Thiel, Gert Wörheide.

D. Poverty, Equity and Growth in Developing Countries: Statistical Methods and Empirical Analyses (Coordinator: Prof. Klasen)

Designing policies to reduce poverty in developing and transition countries requires a solid understanding of both poverty dynamics and the policy drivers that affect poverty reduction. The research centre will focus on the statistical and econometric analysis of these issues, with a particular focus on poverty measurement issues, analyses of ex ante vulnerability and drivers of poverty and distributional change, as well as the transmission of prices, policies, and technologies across space and time. The centre combines a unique and recently established pool of developing country researchers (from the Faculties of Economics and Agriculture) with methodologically oriented researchers at the *Centre for Statistics*, a hub of interdisciplinary statistical and empirical research.

Principal investigators: Bernhard Brümmer, Stefan von Cramon-Taubadel, Stephan Klasen, Axel Munk, Matin Qaim, Martin Schlather, Stefan Sperlich, Walter Zucchini.

E. Evolution of Social Behaviour: Comparative Studies of Human and Non-Human Primates (Coordinators: Profs. Kappeler & Boos)

How evolutionary and cultural mechanisms interact in shaping human social behaviour is still poorly understood, in large part due to the historical lack of communication between social and life sciences. This research centre will build on existing local expertise to bridge this gap using parallel studies in humans and non-human primates, relying on neo-Darwinian evolutionary theory as the main theoretical framework. Its central areas of research will be (I) sex differences and gender roles, (II) cooperation and pro-social behaviour, and (III) group cohesion, decision-making and performance to advance our understanding of biological continuity and cultural singularity in human evolution.

Principal investigators: Margarete Boos, Julia Fischer, Peter Kappeler, Stefan Schulz-Hardt, Michael Waldmann.

Selection of the Free-Floaters: Additional JRGs will be established outside of the Courant Research Centres, about five in the first and three in the second round of selection in 2009.

The *GRC* will call for proposals for the free-floating JRGs with no constraints on the scientific or scholarly interests of the applicants. The successful applicants for the free-floating positions must be able to contribute to the strategic development of the University and its faculties. As the free-floating positions are particularly well suited to areas where large networks are less common, we expect the majority of the free-floaters to be in the humanities and social sciences.

In the case of the free-floating JRGs, the *GRC* will coordinate the mentoring support and the evaluations directly. This policy will ensure that all JRGs benefit from a similar mentoring scheme and are judged according to the same standards of excellence.

Gender Mainstreaming: Whereas the number of men and women entering the German universities has almost reached parity, there is still a large imbalance in the gender ratio amongst faculty. The biggest imbalance occurs in the period between receiving a doctoral degree and obtaining a tenured faculty position.

Over the last decade the University has implemented a number of measures to address this issue, including the appointment of University and faculty equal opportunities officers and the implementation of schemes for the promotion of gender equality. According to gender research one major factor contributing to the gender imbalances at the faculty level is that a smaller proportion of women qualified for an advertised faculty position apply for that position than is the case with the pool of qualified men.

To overcome this problem the first activity after the establishment of the *Courant Research Centres* will be to conduct a symposium for each of them geared towards junior women researchers in the respective fields by specifically inviting them as presenters and participants. These symposia will promote the research centres, foster interactions between the junior researchers invited, and actively encourage symposium participants to apply for JRG leader positions.

To underscore the University's commitment to increasing the proportion of women faculty, the research centres will be able to establish a third JRG only if at least one of them is led by a woman. Similarly, the majority of free-floaters have to be women. For gender mainstreaming activities as well as measures supporting work-family balance, the research centres and the free-floating JRGs will receive earmarked central funds that are distributed by the *GRC* in close collaboration with the University's equal opportunities office.

Evaluation- and Merit-Based Perspectives of JRG Leaders: JRG leaders will be evaluated by the *GRC* in the third and in the sixth year after their appointment (p. 53). If an evaluation is negative, the JRG can receive funds for one additional year to allow for the completion of ongoing research projects and the transition of group members into other employment.

If both evaluations are positive, the JRG leader will obtain a tenured professorship. This decision will rely solely on an evaluation of his or her research achievements and teaching performance. In summary, a young scientist or scholar entering *Brain Gain* as a JRG leader has the perspective of tenure after six years. In contrast to existing practices where candidates for professorships are examined and selected by faculties at the time of a vacancy, tenured positions under *Brain Gain* will be given to young scientists or scholars who have proven their excellence in the local research community through a rigorous process of selection and evaluation. The University has committed itself to opening its decision-making to external competence available at the Göttingen Research Campus. The appointment process for the JRG leaders will therefore rely heavily on the *GRC*.

3.2.2 Measure 2: *Brain Sustain*

Brain Sustain is designed as a measure "to keep the best", thereby complementing our strategy "to attract and further the best". To this end, we will give excellent researchers freedom for their endeavours and help them secure or initiate new collaborative research programmes.

Freedom for Research (Sabbaticals): Periods of leave from teaching and administration are intended for outstanding researchers at the University. The sole criterion for awarding these periods is excellence in research. As the persons eligible are normally short of time

rather than funds, all available resources will be targeted at providing teaching and administrative substitutions. However, the awardees will be free in their use of the funds, i.e. they may use them partially or exclusively for other purposes if this benefits their research, thereby ensuring the highest possible impact of this activity. To ensure that the scholars and scientists taking on such interim teaching and administrative duties (W2/W3 professorships) are not impeded in their own career, they will obtain support for research assistance and consumables. The *GRC* can award periods of leave on application, as well as on its own initiative.

New Professorships: In the humanities, natural and life sciences, at least nine initiatives for new CRCs will have entered their decisive phase by the end of 2008 (pp. 25-27). For some of these initiatives, the reviewing process may uncover gaps in their concept that need to be closed in order not to endanger the success of the initiative. In *Brain Sustain* we apply for the support required for the funding of three professorships including personnel, consumables, and equipment for up to four years. This will allow us to close such gaps and to advance existing and new CRCs.

Flexible Fund: These resources are intended for temporary measures for personnel (e.g. to counter external offers of appointment) and unforeseen expenditures for consumables or investments (e.g. purchase of new and replacement equipment). The resources are targeted at established or developing priority research areas.

3.2.3 Measure 3: *Lichtenbergkolleg* – An Institute for Advanced Study

By means of the *Lichtenbergkolleg*, the University of Göttingen seeks both to give outstanding scholars freedom to focus on research, and to promote thematic fields anchored in the priority research areas of the Göttingen humanities and social sciences. It aims to tap potentials that, for structural reasons, have been insufficiently utilised up to now, and to identify, validate, and collaboratively develop profile-defining focal areas of research. We are convinced that the University holds high attraction for incoming fellows and is particularly well suited to host an Institute for Advanced Study.

- Göttingen offers an inspiring environment for scholars working in the humanities and social sciences. This embraces the Göttingen State and University Library and its unique source holdings dating from the 16th through the 18th centuries, the nearby Herzog August Library Wolfenbüttel, the University's important collections, the Akademie der Wissenschaften, the MPI for the Study of Religious and Ethnic Diversity, the manifold possibilities for cross-disciplinary projects with the natural sciences offered by the MPIs and the German Primate Centre, and the numerous RTGs and Graduate Schools encompassing all disciplines.

- The Göttingen Research Campus offers cutting-edge infrastructure with modern technologies provided by the well-equipped library (digitisation centre, grid projects, e-humanities). This makes all the resources of modern knowledge-grid technologies available to scholars in the humanities.
- The Historical Observatory, which will house the *Lichtenbergkolleg*, is a building of special historical significance. Following completion of its renovation, it will provide the University with premises superbly suited to intensive research endeavours.
- As a classic university city, “Göttingen – Stadt, die Wissen schafft”, offers an ideal environment for intensive scholarly work.

Profile of the Lichtenbergkolleg

The Göttingen *Lichtenbergkolleg* will be distinguished by:

- A. selecting outstanding scholars in line with the strengths and potentials of research conducted in the humanities and social sciences on the Göttingen Research Campus,
- B. addressing the aims of advancement of junior researchers, internationalisation, and promotion of gender equality, in the granting of fellowships, and
- C. providing a reliable yet flexible model for cooperation between incoming fellows and associated local scholars.

A. Focus on Local Strengths and Potentials

The selection of fellows is based entirely on scholarly excellence. We will give preference to scholars distinguished in the thematic fields established on the Göttingen Research Campus. With regard to content, these strengths and potentials in the humanities and social sciences currently lie in a broad field of research in religious and cultural studies from the ancient to the modern world. The following provides an example of such a thematic field of study:

- ***Religion in Modern Cultures:*** The traditional view of modernity, which is based on the assumption of an irreversible process of secularisation, has been refuted by the diversity of religious manifestations in modern cultures. Göttingen scholars past and present have demonstrated that the “religious field” is an especially sensitive indicator of social and cultural mentalities and their changes. In close cooperation with the new MPI for the Study of Religious and Ethnic Diversity, the researchers will thus stress the historical and cultural dimensions of modern religious cultures, thereby contributing to the ongoing debates revolving around the concept of multiple modernities.

Strengths and potentials of Göttingen research also lie in cross-disciplinary combinations spanning the humanities and natural sciences. Among the topics currently under intensive

international discussion in the humanities is the relationship between humanistic approaches (both traditional and culturalist) and the experimental and empirical methodologies of the natural sciences. The power to define concepts – for instance, concerning the question of when a human life begins and ends – is increasingly shifting from the domain of the humanities to the domain of the natural and life sciences. This poses a challenge to scholars working in cultural, social, and legal studies, who need to reflect on the presuppositions and value judgments implied by this shift. At the same time, new findings in the neurosciences or in areas such as palliative medicine raise ethical questions calling for an interdisciplinary dialogue. Furthermore, methodological and theoretical developments in the human sciences are redefining the boundaries between established disciplines. The *Lichtenbergkolleg* offers a forum for discussing such unconventional interdisciplinary issues, which fundamentally affect the self-perception of disciplines in the humanities. The following description indicates a possible research area in this vein:

- **Nature and Culture:** Divergences and Convergences of Scholarly and Scientific Methods and Theories: This research area will investigate the differing rationalities in the humanities and the natural sciences, as manifested in their varying models of the ways in which nature and culture interact. The current relevance of these questions can be deduced from the fact that models of culture are assuming a growing significance for experimental disciplines such as cognitive ethology and primatology. Conversely, recent philological and historiographical approaches are turning to models borrowed from the cognitive and neurosciences.

These thematic areas have their point of departure in research strengths and potentials at hand in Göttingen. The debates in the *Lichtenbergkolleg* will reveal whether these areas can be profitably developed to become *Courant Research Centres* or other collaborative and internationally visible research projects.

B. Internationalisation and Advancement of Junior Scholars

The *Lichtenbergkolleg* aims at internationalisation by seeking to enlist renowned scholars from different countries and institutions. Potential fellows will be sought not only in western European and North American locations traditionally regarded as strong centres of scholarship, but also, and in particular, in emerging eastern European and Asian locations. As in all the measures of our Institutional Strategy, the aim is to inherently link junior scholar advancement with scholarly excellence. Thus in seeking its fellows the *Lichtenbergkolleg* will make no distinction between junior and established researchers.

C. Cooperation between Fellows and Göttingen Scholars

The goal of the *Lichtenbergkolleg* is to accentuate the Göttingen strengths in the humanities and social sciences. It is also designed to counter the tendency towards isolated research in the humanities and social sciences, at the same time enhancing the profile of the Göttingen Research Campus. To achieve these aims, the external fellows will work in cooperation with Göttingen scholars in thematically focussed working groups. These partnerships will further the integration of incoming fellows into Göttingen research contexts and simultaneously strengthen the work of local scholars. High-ranking local scholars with special expertise in the relevant area will be invited as associates to enter into cooperation with the incoming fellows.

The conditions and structures that govern these cooperations necessitate flexible management. The terms of fellowships and associate memberships will therefore be adjusted to meet individual needs.

Components of the Lichtenbergkolleg

Fellows: The selection of fellows is made strictly according to criteria of excellence and the fit of their research with the selected thematic areas. The fellows are expected to display excellence in their research and a strikingly original and creative scholarly profile, initiate interdisciplinary cooperation, and indicate their potential contribution to one of the prioritised research areas at the *Lichtenbergkolleg*. In addition, a fellowship without thematic constraints can be offered to particularly illustrious scholars.

Approximately 15 fellowships will be awarded annually to outstanding international scholars, as a rule for a period of twelve months. The fellows are required to take up residence in Göttingen, but have few further obligations. Every fellow will

- present himself or herself to the public by giving a lecture within the framework of a Lichtenberg Lecture Series,
- meet with junior researchers at the Göttingen Graduate Schools,
- contribute to a colloquium dealing with his or her research focus, organised by the *Lichtenbergkolleg*.

In contrast to other institutes of advanced study, the *Lichtenbergkolleg* also allows scholars to actively apply for fellowships. In line with Göttingen University's aim to further improve gender equalities and equal opportunities (p. 22), female scholars with excellent performance in thematically relevant areas will be specifically invited to apply. This is known to be especially advantageous for women. Fellows with children, who tend to be short of time and mobility, will be able to negotiate special conditions for their stays to suit their particular needs.

Furthermore, the Welcome Centre facilitates the stay of fellows with children by making available to them quality childcare with flexible opening hours.

Associate Members: High-ranking local scholars will act as cooperation partners for fellows working in the same thematic area. Up to 15 associates will be appointed normally for one year by the director of the *Lichtenbergkolleg*, following nominations from the fellows, the faculties, the Akademie der Wissenschaften zu Göttingen and the MPI for the Study of Religious and Ethnic Diversity, and in agreement with the SAB (p. 45). The conditions of associate membership – e.g. reduction of teaching load – will be negotiated individually with the director.

Historical Observatory and Faculty Club: Suitable premises are necessary to enable well-focussed work and intensive cooperation at the *Lichtenbergkolleg*. The University offers these in the Historical Gauss Observatory, which will provide the *Lichtenbergkolleg* with offices for the fellows, conference rooms, and a library. In addition, the Observatory will house the head office and seminar rooms of the Göttingen Graduate Schools. Adjacent to the Observatory, a new building will be home to the Faculty Club, providing fellows and associate members with social areas and catering.

Conferences, Seminars and Lecture Series: The *Lichtenbergkolleg* provides the organisational and financial infrastructure for conferences, lecture series, and short-term research visits. The seminars and lecture series primarily aim at identifying topics that lend themselves to collaborative research in Göttingen. Moreover, they will bring the fellows together with the JRGs and the University Graduate Schools. In so doing, they will strengthen the academic impact of the fellows' projects. Conferences include thematic colloquia and symposia on the fellows' focal research areas, colloquia and workshops on current and controversial interdisciplinary topics, and seminars specifically targeted at junior scholar support and advancement.

Governance

The vitality, attractiveness, and success of the *Lichtenbergkolleg* will be highly dependent on governance structures combining strict quality control with flexibility in decision-making, catering to the fellows' individual needs. This balance of internal self-regulation and external evaluation is to be achieved through

- an SAB consisting exclusively of external scholars,
- a director with substantial decision-making powers and his or her own budget,
- transparent criteria for the selection of thematic areas and fellows, in accordance with the specific goals of the *Lichtenbergkolleg*.

Institution and Governing Bodies: The *Lichtenbergkolleg* will be a central academic institution of the University. Its tasks, organisation and governance, and employment of resources will be laid down in statutes corresponding to the provisions of this proposal. The statutes will be passed by the Senate. The governing bodies of the *Lichtenbergkolleg* are the SAB and the director together with two deputies.

Scientific Advisory Board: The SAB consists of eight external scholars appointed for five years by the Presidential Board in agreement with the Foundation Council, following nominations by the WKN. The SAB is responsible for rigorous quality control and resource deployment in agreement with the director. It constitutes from its members the search committee for selection of the director and presents its decision before the Senate. Moreover, the SAB examines and selects proposals for focal research areas, taking into account their suitability for fostering excellence in Göttingen's humanities and social sciences. Every four years the SAB evaluates the measure as a whole. For reaching these decisions it can commission additional expert opinions. The recommendations of the SAB are presented to the decision-making bodies of the University, i.e. the Presidential Board and the Senate.

Director: The director is selected by the SAB and appointed for five years in a procedure corresponding to that of a professorial appointment. The director proposes two colleagues from Göttingen as deputies, who are appointed according to the same procedure. The director has his or her own budget and represents the *Lichtenbergkolleg* externally. Besides providing stimulus for the *Lichtenbergkolleg's* activities, his or her tasks are:

- to choose, in agreement with the SAB, thematic areas that accentuate the research profile of the humanities and social sciences in Göttingen,
- to decide on the invitation of fellows, after recommendation by the faculties, the Akademie der Wissenschaften zu Göttingen, and the MPI for the Study of Religious and Ethnic Diversity, and in agreement with the SAB,
- to negotiate with the fellows the individual conditions of their stay at the *Lichtenbergkolleg*,
- to negotiate with the associate members the mode of their association, and
- to report annually to the Senate and to the Presidential Board.

3.2.4 Measure 4: *Göttingen International*

At present, the recruitment of gifted students and of junior researchers from all over the world to Göttingen University takes place mainly via interactive Internet sites, joint activities with the DAAD in the framework of the marketing consortium GATE and, especially, through existing individual research partnerships. Although such partnerships function as highly efficient recruiting instruments on a case-by-case basis, their suitability as a means for well focussed and

sustained strengthening of Göttingen's focal areas in research and teaching is limited. However, the University's particular strengths in the international context provide specific advantages for developing structures to promote the recruitment of young scientists and scholars.

Liaison Offices

By setting up Liaison Offices abroad, the University of Göttingen seeks to use its thriving relations with partners in carefully chosen locations to enhance the international recruitment of students and researchers, as well as to initiate or intensify existing research collaborations. When establishing these Liaison Offices on site at partner universities, the University will draw on existing alumni networks or build up new ones. The Liaison Offices will support exchange of students and researchers in both directions. The University has already gathered experience in establishing such offices abroad: in Indonesia and Chile, for example, offices were set up to assist research cooperation (including a CRC) and the operation of joint Master programmes. Liaison Office teams, chosen according to the specific conditions of the respective host locality, will carry out the following tasks:

- raise international awareness of the Göttingen Research Campus and its special assets (by means of workshops, summer schools, guest lectures),
- seek talented students and researchers interested in studying and working in Göttingen, and help them find financial support,
- inform members of Göttingen University about the foreign partner university,
- establish and develop alumni associations, and
- maintain contacts to universities and non-university institutions and enterprises in the host country.

The Göttingen Liaison Offices abroad will cooperate with the DAAD, providing information on the range of educational opportunities in Göttingen and its partners within the Coimbra Group of European universities. Once the Liaison Offices have been successfully established, their operation will be taken over by Göttingen alumni, who will receive support from Göttingen. Partner universities have been selected in four countries. These partners fulfil the following two criteria: firstly, they clearly benefit themselves from cooperation with the Göttingen Research Campus. Secondly, collaborative arrangements are already in place (student and faculty exchange, research cooperation, alumni associations) that will support the launch of these Liaison Offices.

In the case of our partnerships with the Universities of California (UC) and Nanjing, intensive student exchange and research cooperation is already in practice. Further expansion of these requires at least a transient local presence.

U.S.A. – University of California: Since its inauguration in 1963, some 4,000 students have benefited from the exchange programme with UC. With the assistance of the ca. 30 former directors of the Study Centre who form the network's nucleus, we aim to revive interest in the USA for German universities, which in recent years has been on the decline. This programme will safeguard UC as an exchange destination favoured by Göttingen students. In future, the programme will incorporate post-docs and junior researchers. Teaching assistantships will be set up in Göttingen supported through tuition fees, and traineeships will be organised in the region. The Berkeley Campus was chosen as the location for the Göttingen University Liaison Office within UC, firstly, because numerous research partnerships already exist in the natural sciences (physics, biology, geology and agricultural sciences) and, secondly, because interest in exchanges involving our students and junior scholars (and in the development of joint research projects) has been expressed at Berkeley campus across a wide spectrum of the humanities. The UC "Education Abroad Program" has already given its official approval.

P. R. China – University of Nanjing: Since 1987, Göttingen University has maintained an intensive and successful partnership with the University of Nanjing, one of the oldest and most highly reputed universities in China (at third place in the national ranking). This encompasses partnerships in law (Sino-German Institute for Legal Studies on the Nanjing campus since 1989), German studies (German-Chinese Institute of Intercultural German Studies and Cultural Comparison since 2004) and the natural sciences (regular exchange of students and scientists in physics and chemistry). The directors of the Nanjing headquarters of the German business enterprises Siemens and BASF are Göttingen alumni and already contribute to this cooperation, for example by making scholarships available. The University of Nanjing plans to join forces with Göttingen University to set up a German-Chinese Centre and has already given its consent to the establishment of a University Liaison Office.

South Korea – Korea University: An especially active alumni association exists in South Korea, whose activities are to be enhanced by means of a Liaison Office. Alumni Korea currently numbers 350 former Göttingen students from all faculties, many of whom occupy key positions locally. A special feature here is the close connection with the humanities and social sciences in Göttingen. The alumni association has set up a scholarship fund for the education of outstanding Korean Ph.D. students in Göttingen. This Liaison Office will be located at the Korea University, which has already given its approval to the plan.

India – Pune University: The University of Göttingen has long-standing individual research partnerships with Indian scientists and scholars. Moreover, a particularly large proportion of our students and post-doctoral researchers, most notably within the natural sciences, come from India. We have chosen Pune as the location for our Liaison Office, because its Univer-

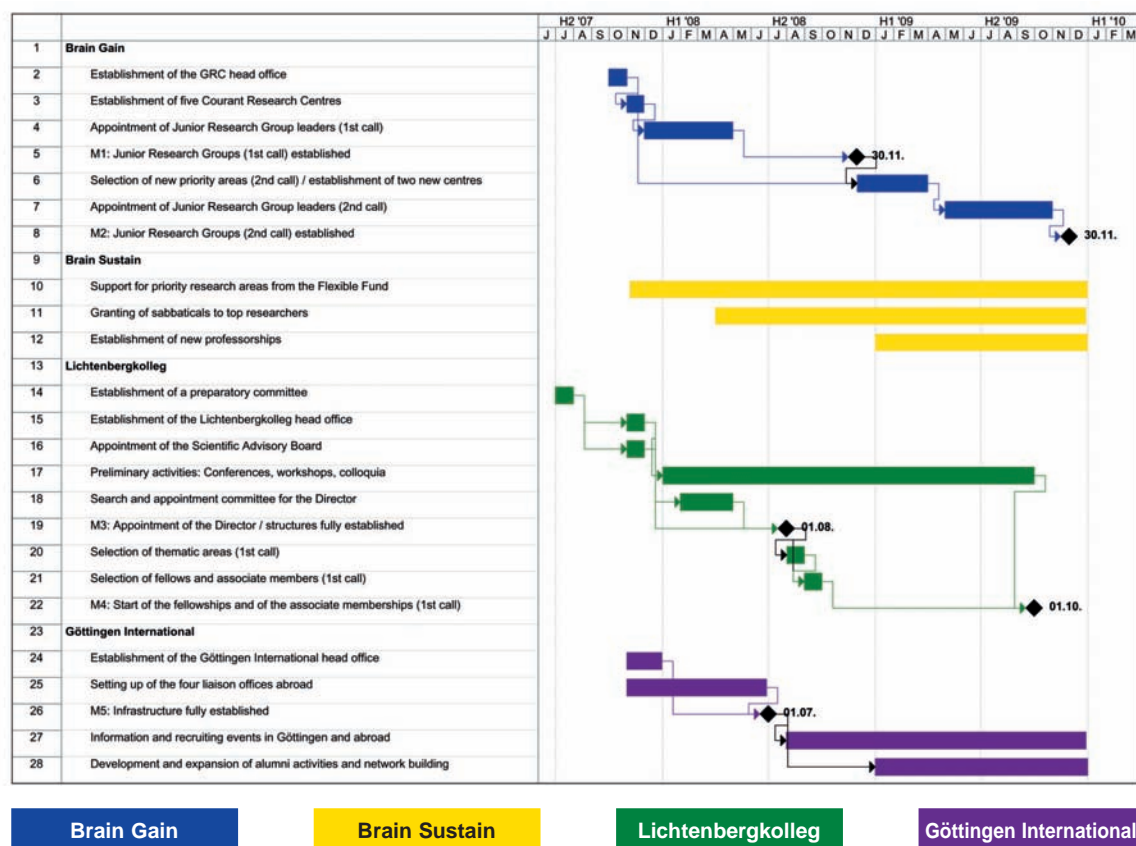
sity, one of the two most highly reputed in the country, teaches a set of disciplines similar to our own. Furthermore, thriving research and teaching connections already exist between the Institute of Indology and Tibetan Studies in Göttingen and the Centre of Sanskrit Studies in Pune. The University of Pune explicitly supports the internationalisation activities envisaged by Göttingen University, and has already agreed to provide premises for a Göttingen Liaison Office.

The Liaison Offices abroad will be supported by a Head Office with its base in the international relations unit of Göttingen University. The Head Office is responsible for coordinating *Göttingen International* and managing its central resources for events and travel grants. It will initiate new international degree programmes and monitor the offices abroad. The Head Office will be supported by the University's Welcome Centre (p. 21). *Göttingen International* will be continuously evaluated on the basis of annual reports so that it can be adjusted at short notice to the specific circumstances at the location.

3.2.5 Implementation: Specific Work Plan (2007 – 2009)

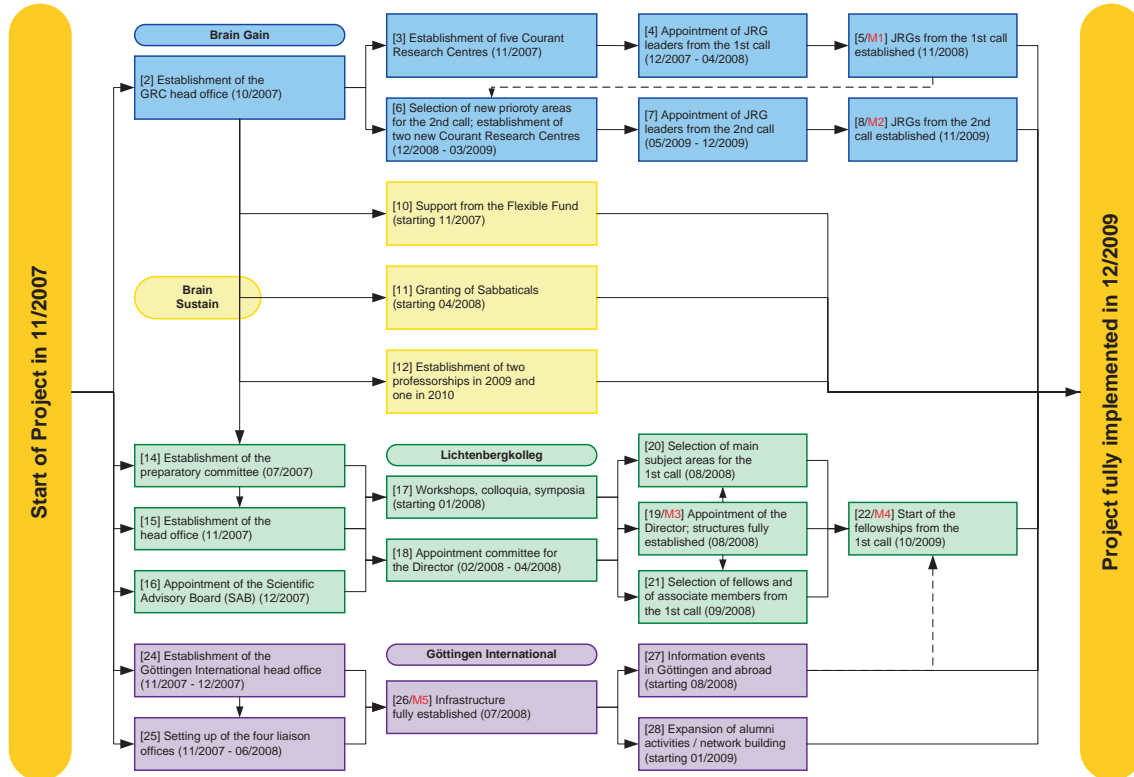
A. Timing

The timing of the activities (shown as bars) and the milestones (represented as filled rhombi) of our four measures is shown in the Gantt Chart below.



B. Interdependencies

The network diagram below displays the interdependencies of the measures and of their activities.



C. Activities, milestones and results for each measure (2007 – 2009)

Brain Gain

Milestone (M) 1 [5] (11/2008): Establishment of the JRGs of the first call

Activities: In autumn 2007 a provisional coordination office will prepare the setting up of the *Courant Research Centres*, nomination of the SAB members, and the search symposia for JRG leaders. This ensures that the five centres (as well as the head office) can start work in 11/2007 [2; 3], the selection of JRG leaders in 12/2007, and that 13 JRG leaders within the centres, and the leaders of five free-floating JRGs, will be appointed by 11/2008 at the latest [4].

Reporting: A detailed report (incorporating reports from the SABs) will be drawn up by the GRC head office after year one, and filed to the GRC.

M2 [8] (12/2009): Establishment of the JRGs of the second call

Activities: The GRC will initiate a selection process for new priority research areas in 12/2008. This procedure will lead to the setting up of two new *Courant Research Centres* in

04/2009 and will end with the appointment of five new JRG leaders within the two centres and the leaders of three free-floating JRGs by 02/2010 at the latest.

Reporting: A detailed report (incorporating reports from the SABs) will be drawn up by the GRC head office after years two and three, and filed to the GRC.

Brain Sustain

This measure consists of three ongoing supporting activities:

Support for priority research areas from the flexible fund [10] and granting of sabbaticals to top researchers [11]

Applications for teaching sabbaticals and for support from the flexible fund can be submitted from 11/2007 onwards. It is anticipated that after one year, sabbaticals will have been granted to up to ten top researchers, as well as support for unforeseen needs amounting to 500,000 Euros per year. The average number of teaching sabbaticals in the following years will drop to approximately five.

Reporting: Annual reports will be filed to the GRC by the GRC head office.

Establishment of three new professorships [12]

Applications for new professorships in priority research areas will be submitted to the GRC from 2008 onwards. The GRC will evaluate the applications, and initiate the selection procedure. We expect that two professorships will be established in 2009, and a third in 2010.

Reporting: Reports will be filed to the GRC by its head office after years two and three.

Lichtenbergkolleg

M3 [19] (08/2008): Establishment of structures and appointment of director

Activities: A preparatory committee will be installed by 09/2007 [14], which will establish the head office by 11/2007 [15] and select topics for the workshops and meetings [17]. The SAB, established by 12/2007 [17], will set up from its own ranks a search committee for the position of the director (02/2008–04/2008) [18], and nominate, together with the preparatory committee and the future director, the priority thematic areas for the first call [20]. The director will be appointed in 08/2008 [19].

Reporting: A report on the appointment procedure for the position of the director will be filed by the SAB to the member of the Presidential Board responsible for research, to whom the director's first report will be filed in 11/2008.

M4 [22] (10/2009): Start of the fellowships and associate memberships

Activities: The first-call fellows will be selected by the director, in agreement with the SAB, by 09/2008; the associate members will be selected by the director, following nominations from the fellows, faculties, and partner institutions and in agreement with the SAB [21]. The associate members and the fellows will take up their activities in the *Lichtenbergkolleg* in 10/2009 [22]; at the same time, the preparatory committee will be dissolved.

Reporting: Annual reports will be filed by the director to the member of the Presidential Board responsible for research from 11/2009 onwards.

Göttingen International

M5 [26] Establishment of infrastructure

Activities: The *Göttingen International* head office will be established by 12/2007 [24], and the liaison offices abroad (Berkeley, Nanjing, Pune, and Seoul) will be set up by 06/2008 [25]. Once the infrastructure is fully established [26], the offices abroad will begin their information, recruiting and networking (alumni) activities [27; 28].

Reporting: A report will be filed by the *Göttingen International* head office to the member of the Presidential Board responsible for international affairs in 11/2008 and annually thereafter.

D. Milestones and decision-making at each milestone (2007–2009)

Brain Gain

M1 [5] (11/2008): Establishment of the JRGs from the first call

Goals: All JRG leader positions successfully appointed and JRGs established.

Decision-making: GRC. Based on the reports filed by its head office and the SAB of each centre, the GRC checks whether the goals have been fully met. In case of negative results, the GRC decides (I) if the recruiting strategy or the appointment procedure needs to be adapted, (II) if the allocation of funds requires adaptation, and (III) if the resources offered to JRGs are sufficient.

M2 [8] (12/2009): Establishment of the JRGs from the second call

Goals and decision-making as with M1.

Lichtenbergkolleg

M3 [19] (08/2008): Establishment of structures and appointment of director

Goals: Candidate with outstanding track record appointed as director by 08/2008; infrastructure established.

Decision-making: Presidential Board of the University. Based on the reports filed by the chairperson of the preparatory committee and by the SAB, the Presidential Board checks if the goals have been fully met. In case of unsatisfactory results, the Presidential Board decides (I) if the recruiting strategy requires adjustment, (II) if the profile of and the resources allocated for the position of the director must be changed, (III) if the profile of the thematic fields must be adapted, and (IV) if structural changes are necessary.

M4 [22] (10/2009): *Start of the fellowships from the first call*

Goals: All 15 fellowships awarded to excellent candidates; suitable associate members appointed and in the process of forming teams with the fellows.

Decision-making: Presidential Board of the University. Based on the reports filed by the director, the Presidential Board checks if the goals have been fully met. In case of unsatisfactory results, the Presidential Board decides (I) if the recruiting strategy for the fellows and/or the profile of the fellowships needs to be adjusted, (II) if the conditions for associate membership and/or the profile of associate membership should be changed, and (III) if the allocated funds are sufficient.

Göttingen International

M5 [26] *Establishment of infrastructure*

Goals: Göttingen International head office and the four liaison offices successfully established and operating.

Decision-making: Presidential Board of the University. Based on the reports filed by the *Göttingen International* head office, it checks if the goals have been fully met. In case of unsatisfactory results, it decides (I) if the choice of the partner universities must be changed, (II) if the working conditions of the offices abroad must be adapted, and (III) if the allocated funds are sufficient.

E. Governance aspects (2007 – 2009)

Brain Gain

Allocation of funds: The GRC allocates funds to the *Courant Research Centres* and to the free-floating JRGs. Within a centre, its Executive Committee is responsible for the allocation of funds to the JRGs.

Appointment of JRG leaders of Courant Research Centres: After international advertisement, active recruiting, and search symposia, the principal investigators (PI) of a centre and its SAB

propose a list of candidates to the *GRC*. Candidates approved by the *GRC* are proposed to the Presidential Board of the University, which makes the appointments.

Appointment of the leaders of free-floating JRGs: As above, except that the organisation of the selection procedure is in the hands of the *GRC* and selection is made by appointment committees for the humanities, social sciences, or natural and life sciences (depending on the candidates' research topics). The seven members of the appointment committees are nominated by the *GRC* (proposals can be made by the Senate).

Executive Committees of Courant Research Centres: Consist of three PIs (one acting as spokesperson), one JRG leader, one post-doc and one Ph.D. student, elected from their ranks for two years.

SAB: Four or more members from outside Göttingen, preferably abroad, will be appointed by the *GRC* for five years (proposals can be made by the respective centre). The SABs participate in the selection of JRG leaders, are part of the support-tandems of JRG leaders, and regularly evaluate their centre.

Evaluation of the JRG leaders after three years: Responsibility for this lies with the SAB of the centre. In the case of the leaders of free-floating JRGs, the evaluation will be initiated by his or her mentor (nominated by the *GRC*) and assisted by an external reviewer.

Final evaluation of JRG leaders, with decision for promotion to permanent professorship: In the sixth year the *GRC* installs an appointment committee (according to the regulations of the University) consisting of members from the research centre and its SAB. In the case of free-floating JRGs, the appointment committee consists of members of the faculty due to host the JRG and others proposed by the *GRC*. Based on external reviews the appointment committee makes a proposal to the *GRC*. In case of approval by the *GRC*, the proposal is submitted to the Senate for comment and to the Presidential Board and the Foundation Council for final decision.

Evaluation of the research centres: Every four years the *GRC* will initiate an extensive external evaluation of each centre. Should this evaluation be negative, the centre will either be subjected to a one-year probation period and subsequent re-evaluation, or closed down, i.e. lose its funding through *Brain Gain* and from other University resources. Nevertheless, successful JRGs of the respective centre can continue as free-floaters if so recommended by the evaluators.

Brain Sustain

Allocation of funds: The GRC will set up procedures for a competitive distribution of funds for sabbaticals and unforeseen needs (flexible fund). In the case of sabbaticals, the GRC will rely on ad-hoc advice from the *University Research Committee*, the SABs of the *Courant Research Centres* and external advice.

Selection procedure for professorships: Will be initiated by the GRC in accordance with the appointment procedure regulations of the University. A member of the GRC will be on each appointment committee.

Lichtenbergkolleg

Allocation of funds: Funding will be allocated by the member of the Presidential Board responsible for research, on the basis of proposals by the preparatory committee. This responsibility will pass to the director once he or she is appointed.

Selection of fellows: The director selects the fellows in agreement with the SAB, based on proposals made by the faculties, the Akademie der Wissenschaften zu Göttingen, and the MPI for the Study of Religious and Ethnic Diversity.

Selection of associate members: Follows the same procedure as for fellows.

Selection of priority thematic areas: Is made by the director in agreement with the SAB.

Preparatory committee: The eight members will be appointed by the Presidential Board, based on proposals from the faculties, the GRC, and the University's Foundation Council.

SAB: The eight members of the SAB (all external) are appointed by the Presidential Board in agreement with the University's Foundation Council, based on proposals made by WKN.

Appointment of the director: The search and selection procedure as well as the appointment of the director will be in accordance with the University's regulations concerning professorial appointments. The appointment committee is constituted by the SAB from its own ranks.

Responsibilities of the director: The director plays a key role in the selection of the fellows and of the Göttingen associate members (as described above). In addition, the director will allocate funds and negotiate with each nominee the conditions of their fellowship or associate membership.

Quality assurance: Annual reports will be filed by the director to the member of the Presidential Board responsible for research. In addition, the SAB will file its own report to the member of the Presidential Board responsible for research every two years.

Evaluation: The SAB will initiate an external evaluation every four years.

Göttingen International

Allocation of funds: Administered by the member of the Presidential Board responsible for international affairs.

Decision-making and quality assurance: Annual reports are filed by the *Göttingen International* head office to the Board of Directors of the Göttingen Graduate Schools as well as to the member of the Presidential Board responsible for international affairs. The latter decides in agreement with the Board of Directors of the Graduate Schools if, and what, action needs to be taken in case goals have not been fully met.

3.2.6 Personnel and Cost Plan

Brain Gain

Each JRG will consist of the position of the group leader (W1), two scientists/scholars (E13) and one technical staff member (E8). Each research centre will have one position for teaching buy-out (W3) for senior researchers and one position for a scientist/scholar (E13) for each JRG.

The *GRC* head office (responsible for the administration of research centres, free-floaters, *Brain Sustain*, public relations and gender mainstreaming measures) will be staffed with a director (E14), a scientist/scholar (E13) and two technical/secretarial staff members (E8/E9).

| Salary Scale | 2007 (Nov/Dec) | 2008 | 2009 | 2010 | 2011 | 2012 (Jan-Oct) |
|--------------|-------------------|--------------|--------------|---------------|---------------|-------------------|
| W3 | - | 3.75 | 4.00 | 7.00 | 7.00 | 5.25 |
| W1 | - | 9.00 | 18.67 | 26.00 | 26.00 | 21.67 |
| E14 | 0.17 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 |
| E13 | 1.00 | 31.75 | 52.58 | 71.00 | 71.00 | 59.16 |
| E8/E9 | 0.17 | 10.75 | 20.67 | 28.00 | 28.00 | 23.33 |
| Total | 1.34 | 56.25 | 96.92 | 133.00 | 133.00 | 110.24 |

Direct expenses are based on the following flat-fees: JRG 50 T€ per year; research centre 140 T€ per year; Head office: basal flat rate 15 T€ per year, flat rate per centre 35 T€ per year, once-only costs 20 T€ per centre; Investments (once-only costs) 50 T€ per JRG and 200 T€ per research centre.

| | Staff | Other direct expenses | Investments | Total |
|----------------------------|-------------------|-----------------------|------------------|-------------------|
| Activity 1 | 31,082,292 | 13,018,363 | 3,766,400 | 47,867,055 |
| Total for measure 1 | 31,082,292 | 13,018,363 | 3,766,400 | 47,867,055 |

Brain Sustain

For sabbaticals (activity 1) W3 positions are provided. On average a new W3 professorship (activity 2) will be equipped with the positions of two scientists/scholars and 1.5 technical/secretarial staff members.

| Salary Scale | 2007 (Nov/Dec) | 2008 | 2009 | 2010 | 2011 | 2012 (Jan-Oct) |
|--------------|-------------------|-------------|--------------|--------------|--------------|-------------------|
| W3 | - | 7.50 | 12.00 | 13.00 | 13.00 | 10.00 |
| E13 | - | - | 4.00 | 6.00 | 6.00 | 5.00 |
| E6/E8 | - | - | 2.00 | 3.50 | 3.50 | 2.92 |
| Total | - | 7.50 | 18.00 | 22.50 | 22.50 | 17.92 |
| Stipends | - | 7.50 | 10.00 | 10.00 | 10.00 | 7.50 |

The flexible fund (activity 3) will be used for personnel (40%), consumables (20%), and investments (40%).

| | Staff | Other direct expenses | Investments | Total |
|----------------------------|------------------|-----------------------|------------------|-------------------|
| Activity 1 | 4,266,000 | 525,000 | - | 4,791,000 |
| Activity 2 | 2,730,700 | 270,000 | 750,000 | 3,750,700 |
| Activity 3 | - | 1,500,000 | 1,000,000 | 2,500,000 |
| Total for measure 2 | 6,996,700 | 2,295,000 | 1,750,000 | 11,041,700 |

Lichtenbergkolleg

The head office of the *Lichtenbergkolleg* is staffed with a director (W3), personnel for administration (1.5 E13), (e-)library services (1 E13), and secretarial assistance (1.5 E9).

| Salary Scale | 2007 (Nov/Dec) | 2008 | 2009 | 2010 | 2011 | 2012 (Jan-Oct) |
|--------------|-------------------|-------------|-------------|--------------|--------------|-------------------|
| W3 | - | 0.42 | 4.75 | 16.00 | 16.00 | 13.33 |
| E13 | 0.25 | 1.50 | 2.50 | 2.50 | 2.50 | 2.08 |
| E9 | 0.17 | 1.00 | 1.50 | 1.50 | 1.50 | 1.25 |
| Total | 0.42 | 2.92 | 8.75 | 20.00 | 20.00 | 16.67 |

Eight colloquia, three symposia, ten workshops, and guest lecturers are planned for the implementation period (11/07 – 09/09). From 10/2009 onwards, three colloquia, two symposia, several workshops, and guest lecturers are planned per year. The SAB will meet annually.

Other direct expenses are based on the following flat-fees:

Activity 1: Head office and director's budget

Head office: once-only costs 20,000 € in 2007 and 2008, running costs 100,000 €/year, investments 250,000 € in 2007 only, colloquium (10-12 participants) 15,000 €, symposium (20-25 participants) 30,000 €, SAB 30,000 €/year and workshops, guest lecturers and other activities 60,000 €/year.

Activity 2: Fellows (starting 10/09)

Each fellow (calculated on basis of W3) will be supported with 10,000 €/year.

Activity 3: Associate members (starting 10/09)

The director has a lump sum of 225,000 €/year to support the associate members (e.g. teaching buy-out, administrative assistance).

| | Staff | Other direct expenses | Investments | Total |
|----------------------------|------------------|-----------------------|----------------|------------------|
| Activity 1 | 1,359,800 | 1,590,000 | 250,000 | 3,199,800 |
| Activity 2 | 4,384,500 | 462,500 | - | 4,847,000 |
| Activity 3 | - | 862,500 | - | 862,500 |
| Total for measure 3 | 5,744,300 | 2,915,000 | 250,000 | 8,909,300 |

Göttingen International

The head office in Göttingen (activity 1) will be staffed with the positions of a director (E15), a scientist/scholar (E13) and a secretary (0.5 E8), the liaison offices (activity 2) with a scientist/scholar.

| Salary scale | 2007 (Nov/Dec) | 2008 | 2009 | 2010 | 2011 | 2012 (Jan-Oct) |
|--------------|-------------------|-------------|-------------|-------------|-------------|-------------------|
| E15 | 0.10 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 |
| E13 | 0.10 | 3.33 | 5.00 | 5.00 | 5.00 | 4.17 |
| E8 | 0.04 | 0.50 | 0.50 | 0.50 | 0.50 | 0.42 |
| Total | 0.24 | 4.83 | 6.50 | 6.50 | 6.50 | 5.42 |
| Stipends | – | 20.00 | 40.00 | 40.00 | 40.00 | 20.00 |

| | Staff | Other direct costs | Investments | Total |
|-----------------------------|------------------|--------------------|----------------|------------------|
| Activity 1 | 1,039,530 | 929,000 | – | 1,968,530 |
| Activity 2 | 1,038,800 | 834,833 | 500,000 | 2,373,633 |
| Total for measures 4 | 2,078,330 | 1,763,833 | 500,000 | 4,342,163 |

3.2.7 Quality Management

Monitoring instruments and quality management

A. Quarterly status reporting in the kick-off period: The kick-off period (11/2007–10/2008) of the four measures will be closely monitored by the GRC head office. Short status reports will be filed by those responsible for the implementation of each of the four measures every three months (01/2008; 04/2008; 07/2008; 10/2008). This guarantees that rapid action can be taken if necessary.

B. Annual reporting (11/2008): From 11/2008 detailed annual reports will be filed by those responsible for the implementation of each measure to the respective decision-making bodies (pp. 53-55). Based on these annual reports (commented on by the respective SABs), the University will file its annual report on the progress of the whole project to the Wissenschaftsrat.

C. Mid-term evaluation (04/2010): The GRC, the Senate, the Foundation Council, and the Presidential Board of the University will evaluate the success of the implementation (expected to be complete by the end of 2009) of the whole project in a closed meeting in spring 2010.

D. Full external evaluation of the project in its fifth year (2011): In 2011 a full external evaluation will be initiated by the GRC, the Senate, the Presidential Board, and the Foundation Council of the University; decisions on continuation of measures will depend on the results of this evaluation. All measures that are continued beyond 2011 will be subject to a full evaluation every four years.

E. Quality assurance of selection and appointment procedures: All selection and appointment procedures (research centres and JRG leaders in *Brain Gain*; new professors through *Brain Sustain*; director, fellows and associate members of the *Lichtenbergkolleg*) are subject to close scrutiny and consistently take into account external expertise (pp. 52-55). Reports on the results of these procedures will be filed by the respective appointment committees and head offices to the GRC/Presidential Board (pp. 52-55).

Parameters and criteria of quality

Gender equality: Aspects of gender equality are taken into account in the quality management of all measures according to the following criteria: (I) successful implementation of gender equality measures (increase in the numbers, participation, visibility, promotion, and retention of women scientists and scholars), (II) participation in and initiation of research geared to

increasing gender equality in the respective fields, (III) instalment of a strong mandate concerning gender equality, earmarking of specific funds for its implementation, and offering information, advice, and support to all administrative staff concerned.

Brain Gain

(I) Publication of research results, (II) successful raising of third-party funding, (III) invitations to lectures and conferences, (IV) awards, (V) results of peer-based evaluations.

Brain Sustain

Sabbaticals: (I) publications, citation analysis (if applicable), (II) raising of third-party funding, (III) results of evaluations.

New professorships: (I) individual scholarly/scientific performance of new professors (publications etc.), (II) structural effects of the new chairs on the respective research area, (III) initiation of and participation in cooperative research programmes.

Flexible fund: (I) implementation of new technical or scholarly platforms, (II) impact on research quality, (III) success in retaining excellent researchers in Göttingen.

Lichtenbergkolleg

(I) Visibility of the *Lichtenbergkolleg* amongst the general public and in the scholarly world, (II) initiation of new collaborative research activities with excellent national and international partners, (III) successful heightening of the national and international visibility of the Göttingen humanities and social sciences in general, (IV) identification of focal research areas that prove to be competitive and sustainable, (V) publications of the fellows and associate members acknowledging the support from the *Lichtenbergkolleg*.

Göttingen International

(I) Increase in the number of international students in Göttingen, (II) increase in the number of Göttingen students benefiting from a stay abroad, (c) initiation of international collaborative research projects, (III) increase of the international visibility of research results produced in Göttingen, (IV) increase in the number of alumni actively participating in alumni activities.

3.3 Partner Institutions

The measures proposed in our Institutional Strategy are based on the establishment of a Göttingen Research Campus formed by the University and its non-university partner institutions. The instrument necessary for the strategic development and quality management of this network was set up in 2006 in the form of the *GRC*, with the following non-university research institutions:

- Akademie der Wissenschaften zu Göttingen
- German Primate Centre
- German Aerospace Centre
- MPI for Biophysical Chemistry
- MPI for Dynamics and Self-Organisation
- MPI for Experimental Medicine
- MPI for Solar System Research
- MPI for the Study of Religious and Ethnic Diversity

3.4 Interdisciplinarity

We rely on the continuous identification and the dynamic development of innovative and interdisciplinary research areas. This is ensured by the structural composition of the *Courant Research Centres* (pp. 34-36), by the cooperation of the free-floating JRGs with their host institutions (p. 38), and by bringing together fellows and associate Göttingen members through the *Lichtenbergkolleg* (pp. 40-45).

3.5 Governance

The decision-making processes are in accordance with the established regulations of the University and, in addition, consistently take into account the expertise provided by our non-university partners (pp. 35, 38-40, 52-55).

3.6 Structural Changes

The implementation of the measures proposed in our Institutional Strategy and their sustainable continuation is based on:

- the *GRC* (established in 2006) as the steering device of the Göttingen Research Campus (pp. 16-18),
- the *University Research Committee* (to be established in 2008) providing advice to the Presidential Board and to the Senate in important research matters (pp. 19-20),
- the *Structure and Innovation Fund* (to be set up in 2008) to ensure performance-based allocation of resources for measures with importance for the University's development (p. 24).

3.7 Gender Issues

Independently of the proposed project, we will expand the established measures for promoting gender equality and work-family compatibility (Dual Career Service, childcare catering for the needs of researchers) within a definite and rapid schedule, partly in cooperation with the City of Göttingen (pp. 22-23, 58).

3.8 Sustainability

Towards the end of the fifth year of our project, the University will set up an external board of reviewers which will evaluate the four measures and check whether the goals have been met. The University is committed to continue each of the four measures in the case of positive evaluation. The scope of the continuation, however, will depend on the amount of funding we will have managed to make available through internal redeployment of our own resources, and acquisitions from external sources. We expect a significant increase in third-party funding from public-sector research funding programmes, foundations, and the business sector (p. 23). Acquisition of third-party funding will be actively enhanced and supported by the new Service Centre for Third-Party Funded Research and by our Office for Joint Ventures and Technology Transfer. Increasing revenues from a growing endowment fund and from consistent expansion of fundraising activities will contribute to the continuation of the four measures of our project beyond 2013, on a smaller, yet significant scale. In case of positive evaluation, we expect the State of Lower Saxony to continue its support at least at the same level as during the funding period of the Excellence Initiative.

With measure 1 (*Brain Gain*), the University has assumed a substantial financial commitment primarily due to its guarantee to finance the JRGs for a period of six years from their establishment, while funding from the Excellence Initiative will last only until 10/2012. Our obligations to the JRGs from the first call continue to mid-2014, and for those from the second call to the end of 2015. In total we estimate them to amount to almost 16 million Euros, which we will be able to cover only if a part of the overhead from the Excellence Initiative can be used for that purpose.

With the granting of tenure to positively evaluated JRG leaders, the University has assumed further substantial commitments. We anticipate that up to half of the JRG leaders (nine from the first and four from the second call) will be favourably evaluated. Their positions, their groups, and the three new professorships (*Brain Sustain*) will have to be funded from the regular budgets of the University, the faculties and the *Structure and Innovation Fund* (p. 24).

3.9 Overall Financial Plan

| Measure | Staff expenses | Other direct expenses | Investments | Total |
|---|-------------------|-----------------------|------------------|-------------------|
| Brain Gain | 31,082,292 | 13,018,363 | 3,766,400 | 47,867,055 |
| Brain Sustain | 6,996,700 | 2,295,000 | 1,750,000 | 11,041,700 |
| Lichtenbergkolleg | 5,744,300 | 2,915,000 | 250,000 | 8,909,300 |
| Göttingen International | 2,078,330 | 1,763,833 | 500,000 | 4,342,163 |
| Total | 45,901,622 | 19,992,196 | 6,266,400 | 72,160,218 |
| Supplementary funding for indirect expenses (20 % of direct exp.) | | | | 14,432,044 |
| Total including indirect expenses | | | | 86,592,262 |

| Measure | 2007 (Nov/Dec) | 2008 | 2009 | 2010 | 2011 | 2012 (Jan-Oct) | Total |
|-------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Brain Gain | 535,127 | 7,422,333 | 8,437,264 | 11,386,400 | 10,986,400 | 9,099,531 | 47,867,055 |
| Brain Sustain | 83,333 | 2,006,000 | 2,116,800 | 2,442,200 | 2,442,200 | 1,951,167 | 11,041,700 |
| Lichtenbergkolleg | 308,367 | 514,700 | 1,277,800 | 2,411,800 | 2,411,800 | 1,984,833 | 8,909,300 |
| Göttingen International | 25,913 | 620,724 | 1,091,955 | 1,091,955 | 841,955 | 669,662 | 4,342,163 |
| Total | 952,700 | 10,563,757 | 12,923,819 | 17,332,355 | 16,682,355 | 13,705,193 | 72,160,218 |

| Salary Scale (number of staff members) | 2007 (Nov/Dec) | 2008 | 2009 | 2010 | 2011 | 2012 (Jan-Oct) |
|---|-------------------|--------------|---------------|---------------|---------------|-------------------|
| W3 | - | 11.67 | 20.75 | 36.00 | 36.00 | 28.58 |
| W1 | - | 9.00 | 18.67 | 26.00 | 26.00 | 21.67 |
| E15 | 0.10 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 |
| E14 | 0.17 | 1.00 | 1.00 | 1.00 | 1.00 | 0.83 |
| E13 | 1.35 | 36.58 | 64.08 | 84.50 | 84.50 | 70.41 |
| E6-E9 | 0.38 | 12.25 | 24.67 | 33.50 | 33.50 | 27.91 |
| Total | 2.00 | 71.50 | 130.17 | 182.00 | 182.00 | 150.24 |
| Stipends | - | 27.50 | 50.00 | 50.00 | 50.00 | 27.50 |

4. The Institutional Strategy in Context

4.1 Status Quo and Long-Term Planning

Founded as a University of the Enlightenment, the Georgia Augusta can look back on more than 250 years of renowned research and teaching. Amongst its undisputed strengths today are

- its outstanding focal areas in research, such as those in the Materials Sciences, Optics, Neurosciences, Biodiversity Research, and Molecular Biosciences, which fulfil all criteria of international excellence,
- its remarkable diversity of disciplines offering unmatched opportunities for cooperation in interdisciplinary projects and generating first-class research achievements, for example in German Language and Literature Studies, Religious Sciences and Theology, as well as in specialised subjects such as Arabic, Oriental, and Classical Studies,
- its exemplary support of junior scientists and scholars, that has led, for example, to the establishment of international graduate programmes serving as nationwide models, attracting students from throughout the world,
- its close collaboration and networking with non-university research institutions in Göttingen, generating exceptional synergy effects that have enabled the formation of research consortia, including DFG funded CRCs, DFG funded and BMBF funded research centres, and a Cluster of Excellence,
- its international network and attractiveness for students and researchers from abroad, and
- its autonomy as a “Stiftungsuniversität”.

Yet when our present status is compared to that of the particularly successful periods in our history, such as the Göttingen golden age of physics, mathematics and chemistry in the early 20th century, it becomes clear that the Georgia Augusta has lost some of its splendour. Until the late 1920s, coming to Göttingen was a ‘must’ for the best young physicists, mathematicians and chemists, to work with the great names of the day such as Born, Hilbert, Klein, Nernst, Noether, Prandtl, or Windaus; today, in many areas of science and scholarship we can no longer entice the finest minds to this University and keep them here. We regard this as our University’s principal weakness, the causes of which can be traced back to clearly identifiable deficits. Some are of our own making; many, however, are not specific to our University, but represent problems shared by most German universities. The factors contributing to this include

- the lack of the funds necessary to provide internationally competitive terms to top-level researchers, and to lighten teaching and administrative loads,
- the lack of reliable success-based career paths (e.g. tenure tracks) for young scientists and scholars,

- the lack of effective mechanisms for identifying, establishing, and evaluating new research areas, and of mechanisms for identifying and discontinuing weaker ones,
- weaknesses in interdisciplinary collaborative research, especially in some areas of the humanities and the social sciences,
- weaknesses in the consistent and effective use of the University's international network to recruit excellent foreign students and appoint outstanding foreign scientists and scholars.

The Measures: The University and its non-university partners are convinced that the proposed Institutional Strategy ideally complements the University's long-term planning (section 2, pp. 15-29) and will create an environment for research and teaching with high international appeal. Having formed a strong and highly motivated research community, we want to recruit and retain exceptional scientists and scholars, not only in the research areas already well established, but in a range of research areas reflecting the breadth of our University's disciplines. Along with the instruments we have incorporated in our long-term strategy (pp. 15-29), the measures we propose here are designed to bring about a qualitative leap forward. The quick and efficient implementation will take advantage of the University's autonomy as a Public Law Foundation, and of the *GRC*. The *GRC* will be the driving force for an already fertile network of the University and its non-university partner institutions, the common goal being the further growth and development of the Göttingen Research Campus. Via the *GRC* the University is purposely opening its doors to external influence and assessment, because this allows us to benefit to the greatest possible extent from the research and conceptual expertise of our partner institutions and their personnel. The *GRC* provides the local scientific community with a "think tank" ideally suited to advancing and shaping the development of the Göttingen Research Campus.

- *Brain Gain* is designed to attract and attach the most talented young researchers to Göttingen. It will achieve this by establishing JRGs and implementing a tenure track career path that depends entirely on the scientific or scholarly success of the individual. We are convinced that this is the most effective way to counter the frequently bemoaned 'brain drain' from German universities. An important profile-enhancing function of *Brain Gain* is the recurring process of identifying budding research fields with the quality and potential to become, as *Courant Research Centres*, internationally visible centres of excellence. The *Courant Research Centres*, their scientific quality, their connection to the non-university research institutions, and the transparency of the selection procedure will be ensured by the *GRC*.
- *Brain Sustain* is a measure aimed at supporting leading researchers in their work, and at accentuating the profile of outstanding research areas. *Brain Sustain* will, on the one hand,

provide excellent investigators with longer-term research sabbaticals or financial support, and, on the other hand, allow established research areas to be further developed through additional professorships with strategic importance.

- The *Lichtenbergkolleg* will serve to enhance the competitiveness of the Göttingen humanities and social sciences, and function as a crystallisation point for collaborative research projects in these disciplines. For the selection of fellows, scholarly excellence will be the foremost criterion, followed by the thematic orientation of their research, and its pertinence in the context of local research activities.
- *Göttingen International* is designed to enhance and to foster the University's contacts with international partners of strategic importance due to their research foci, reputation, and geographic location. *Göttingen International* will use these contacts in the interests of the University. Its main objective is the recruitment of exceptional graduate students and visiting scholars and scientists.

The Outlook: The measures planned in our Institutional Strategy build on existing strengths of our University and on its local and international networks. We are confident that implementation of these measures will bring about a marked acceleration of the University's renewal process, and raise its attractiveness significantly. By means of the *Brain Gain* career model, the Georgia Augusta should again become a first choice for the world's very best young minds, as it offers a reliable career track based strictly on merit.

By repeatedly renewing the search for innovative research areas, an element inherent to *Brain Gain* and the *Lichtenbergkolleg*, the University will be able to respond swiftly to new trends and developments, constantly remodelling the spectrum of its research areas, and thus creating new collaborative research alliances. This dynamic aspect complements the activities in the projects proposed in FL1 and already approved for funding in FL2. In terms of content, the latter are aimed to a greater extent at stabilising excellent fields already present (e.g. Neurosciences, Microscopy, Biodiversity Research). In combination with the governance and evaluation elements of our long-term strategy, the activities in *Brain Gain* and in the *Lichtenbergkolleg* will (I) lastingly strengthen established areas of excellence, (II) expand research fields with high potential for Göttingen and lead them to world-class level, (III) identify and develop promising new research areas rapidly, and (IV) allow early recognition of areas that are losing potential.

Our Institutional Strategy supports the projects proposed or already funded in FL1 and FL2, both in terms of content, and with respect to the target groups. Taken together, the four measures cover all the career phases of researchers with particular significance for our University, from

attracting highly qualified and gifted students (*Göttingen International*), Ph.D. students (*Göttingen International*, FL1) and post-docs (FL2), via the recruitment of the best young researchers on the verge of independence (*Brain Gain*), to ultimately retaining outstanding local researchers (*Brain Sustain*).

We are aware that our Institutional Strategy for the Georgia Augusta selects a route that is not devoid of risks. We have deliberately avoided concentrating exclusively on developing those research areas where we are already strong, even though this would have had a positive impact on our visibility in the short term.

- We choose this path to enable us to identify high-potential research fields and motivate the protagonists to outstanding performance, address innovative research topics, and react quickly to new developments.
- We choose this path as we firmly believe that there is great potential in Göttingen for world-class research beyond the already established areas.
- We choose this path to enable us to use our most valuable resources, the ideas and the passion of our investigators, as the vehicle for our University's further development.

Whether or not our Institutional Strategy will prove to be a good model for university development remains to be assessed at the end of the five-year funding period. We will then need to evaluate whether we have indeed been more successful than others in attracting brilliant researchers to Göttingen and retaining them, in identifying and establishing viable new research trends, and in setting up new research consortia. We are optimistic that this will be the case. Although the programme we are pursuing is novel to Germany, many aspects of it have already been tested – in varying forms and degrees – at leading universities abroad.

Even if our Institutional Strategy is successful and is pursued beyond the term of the Excellence Initiative funding, we would be misguided in expecting that in ten to fifteen years' time our University could equal the likes of Harvard or Stanford. To achieve this, the resources available in Germany are simply insufficient. But we will have succeeded in creating a new Göttingen spirit – a research community distinguished by exceptional performance across a breadth of disciplines, where cutting-edge research issues are tackled successfully, where merit and achievements are the guiding principles, and where established researchers and excellent young investigators spur each other on to produce the best possible results.

Our Institutional Strategy strives to make Göttingen a place where the best minds from inside and outside Germany will naturally assemble – a research community in the vein of Courant's "Göttingen".

4.2 Legal Preconditions

The legal preconditions necessary for the implementation of the Institutional Strategy are in accordance with the new Higher Education Law of Lower Saxony (NHG) of 26 February 2007. Certain details with regard to flexible teaching loads and exemption from teaching obligations will be the subject of new regulations (“Lehrverpflichtungsordnung”) to be issued by the State of Lower Saxony in the first half of 2007. The changes envisaged in these new regulations provide the necessary legal preconditions for the proposal as far as it concerns teaching obligations.

The Institutional Strategy and the long-term planning of the University were unanimously approved by the Presidential Board of the University, the Management Board of the Medical School, and the Senate, in March 2007, and have the full support of the allied non-university research institutions in Göttingen.

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Annex 1 – Basic Data of the University

Unless otherwise specified, all figures are derived from statistics of the year 2006.

a) Total budget in €

| Budget | including Medicine* | not including Medicine |
|--------------------------------|---------------------|------------------------|
| total | 570,044,239 | 347,695,300 |
| thereof state support | 364,823,700 | 224,065,700 |
| thereof third-party funding | 80,458,939 | 48,868,000 |
| thereof DFG, EU, Federal Funds | 55,451,445 | 35,569,610 |

* Budget of the University (without Medicine) prior to certification of annual accounts 2006 plus budget of the Medical School without hospital income (before annual account consolidation)

b) Third-party funding in €

| Third-Party Funding | per Professor | per Scientific Staff Member (including Professors) |
|--|---------------|---|
| total (including Medicine) | 199,156 | 26,268 |
| total (not including Medicine) | 160,223 | 28,678 |
| according to research areas: | | |
| Literature, Languages and Cultural Studies | 41,806 | 10,291 |
| Sports | 10,474 | 2,619 |
| Law, Economics and Social Sciences | 42,731 | 9,444 |
| Mathematics and Natural Sciences | 193,134 | 30,019 |
| Medicine | 319,100 | 23,246 |
| Agriculture, Forestry and Nutrition | 227,998 | 32,356 |
| Arts | 76,852 | 20,960 |

c) Performance-based resource allocation (research only)

| | Performance-based allocated budget | per cent ¹ |
|---|------------------------------------|-----------------------|
| total (including Medicine) | 3,267,567 | 2.55 |
| total (not including Medicine) | 1,251,567 | 1.42 |
| according to research areas: | | |
| Literature, Languages and Cultural Studies ² | 84,271 | 1.53 |
| Sports | 7,278 | 1.48 |
| Law, Economics and Social Sciences | 294,814 | 1.46 |
| Mathematics and Natural Sciences | 538,171 | 1.26 |
| Medicine | 2,016,000 | 5.04 |
| Agriculture, Forestry and Nutrition | 327,034 | 1.67 |
| Arts | 0 | |

¹ Performance-based allocated budget proportion as percentage of total budget of Faculties/individual research area budgets.

² The Faculty of Philosophy is not contained in the research area Literature, Languages and Cultural Studies as no performance-based allocated budget was distributed in 2006. From 2007 onwards performance-based resource allocation for research will also apply to the Faculty of Philosophy.

d) Teaching

| Teaching | including Medicine | not including Medicine |
|--|--------------------|------------------------|
| Student capacity ("Flächenbezogene Studienplätze") | 21,446 | 18,946 |
| Enrolled students (total) | 24,607 | 20,781 |
| thereof female (in %) | 12,490 (50.8) | 10,333 (49.7) |
| from foreign countries (in %) | 2,857 (11.6) | 2,484 (12.0) |
| Student/Professor ratio | 60.91 | 68.13 |

e) Personnel

| Personnel | including Medicine | not including Medicine |
|--|--------------------|------------------------|
| Professors | 404 | 305 |
| thereof female (in %) | 72 (17.8) | 57 (18.7) |
| from foreign countries (in %) | 28 (6.9) | 25 (8.2) |
| C4/W3 professors | 242 | 190 |
| thereof female (in %) | 29 (12.0) | 23 (12.1) |
| from foreign countries (in %) | 15 (6.2) | 14 (7.4) |
| C3/W2 professors | 125 | 86 |
| thereof female (in %) | 32 (25.6) | 26 (30.2) |
| from foreign countries (in %) | 10 (8.0) | 9 (10.5) |
| C2/W1 professors | 37 | 29 |
| thereof female (in %) | 11 (29.7) | 8 (27.5) |
| from foreign countries (in %) | 3 (8.1) | 2 (6.9) |
| Scientific staff members (not including professors) | 2,659 | 1,399 |
| thereof third-party funded (in %) | 987 (37.1) | 550 (39.3) |
| thereof female (in %) | 1,015 (38.2) | 504 (36.0) |
| from foreign countries (in %) | 299 (11.2) | 177 (12.7) |

f) Graduations

| Graduations | 2004 | 2005 | 2006 |
|---------------------------------|--------------|--------------|--------------|
| total | 2,347 | 2,413 | 2,528 |
| thereof female (in %) | 1,208 (51.5) | 1,272 (52.7) | 1,296 (51.3) |
| from foreign countries (in %) | 194 (8.3) | 229 (9.5) | 202 (8.0) |
| according to degree: | | | |
| <i>Diplom</i> | | | |
| total | 676 | 674 | 751 |
| thereof female (in %) | 313 (46.3) | 360 (53.4) | 381 (50.7) |
| from foreign countries (in %) | 27 (4.0) | 37 (5.5) | 30 (4.0) |
| <i>Magister</i> | | | |
| total | 250 | 325 | 303 |
| thereof female (in %) | 168 (67.2) | 214 (65.8) | 200 (66.0) |
| from foreign countries (in %) | 38 (15.2) | 51 (15.7) | 39 (12.9) |
| <i>Staatsexamen</i> | | | |
| total | 1,031 | 962 | 910 |
| thereof female (in %) | 573 (55.6) | 524 (54.5) | 511 (56.2) |
| from foreign countries (in %) | 43 (4.2) | 51 (5.3) | 51 (5.6) |
| <i>Bachelor</i> | | | |
| total | 152 | 188 | 298 |
| thereof female (in %) | 54 (35.5) | 70 (37.2) | 104 (34.9) |
| from foreign countries (in %) | 4 (2.6) | 12 (6.4) | 13 (4.4) |
| <i>Master</i> | | | |
| total | 214 | 260 | 265 |
| thereof female (in %) | 92 (43.0) | 103 (39.6) | 99 (37.4) |
| from foreign countries (in %) | 64 (29.9) | 75 (28.8) | 69 (26.0) |
| <i>Further Education</i> | | | |
| total | 24 | 4 | 1 |
| thereof female (in %) | 8 (33.3) | 1 (25.0) | 1 (100.0) |
| from foreign countries (in %) | 18 (75.0) | 3 (75.0) | 0 (0.0) |

| Graduations | 2004 | 2005 | 2006 |
|--|--------------|--------------|--------------|
| total | 2,347 | 2,413 | 2,528 |
| thereof female (in %) | 1,208 (51.5) | 1,272 (52.7) | 1,296 (51.3) |
| from foreign countries (in %) | 194 (8.3) | 229 (9.5) | 202 (8.0) |
| according to research areas: | | | |
| <i>Literature, Languages and Cultural Studies</i> | | | |
| total | 348 | 349 | 350 |
| thereof female (in %) | 243 (69.8) | 239 (68.5) | 244 (69.7) |
| from foreign countries (in %) | 16 (4.6) | 20 (5.7) | 18 (5.1) |
| <i>Sports</i> | | | |
| total | 31 | 30 | 45 |
| thereof female (in %) | 17 (54.8) | 16 (53.3) | 21 (46.7) |
| from foreign countries (in %) | 0 (0.0) | 1 (3.3) | 0 (0.0) |
| <i>Law, Economics and Social Sciences</i> | | | |
| total | 841 | 910 | 923 |
| thereof female (in %) | 405 (48.2) | 460 (50.5) | 456 (49.4) |
| from foreign countries (in %) | 66 (7.8) | 89 (9.8) | 70 (7.6) |
| <i>Mathematics and Natural Sciences</i> | | | |
| total | 382 | 347 | 376 |
| thereof female (in %) | 157 (41.1) | 164 (47.3) | 174 (46.3) |
| from foreign countries (in %) | 21 (5.5) | 28 (8.1) | 26 (6.9) |
| <i>Medicine</i> | | | |
| total | 467 | 488 | 445 |
| thereof female (in %) | 268 (57.4) | 266 (54.5) | 261 (58.7) |
| from foreign countries (in %) | 34 (7.3) | 45 (9.2) | 41 (9.2) |
| <i>Agriculture, Forestry and Nutrition</i> | | | |
| total | 261 | 273 | 369 |
| thereof female (in %) | 103 (39.8) | 113 (41.4) | 122 (33.1) |
| from foreign countries (in %) | 56 (21.5) | 46 (16.8) | 46 (12.5) |
| <i>Arts</i> | | | |
| total | 17 | 16 | 20 |
| thereof female (in %) | 15 (88.2) | 14 (87.5) | 18 (90.0) |
| from foreign countries (in %) | 1 (5.9) | 0 (0.0) | 1 (5.0) |

| Diplom | 2004 | 2005 | 2006 |
|--|------------|------------|------------|
| total | 676 | 674 | 751 |
| thereof female (in %) | 313 (46.3) | 360 (53.4) | 381 (50.7) |
| from foreign countries (in %) | 27 (4.0) | 37 (5.5) | 30 (4.0) |
| according to research areas: | | | |
| <i>Literature, Languages and Cultural Studies</i> | | | |
| total | 52 | 79 | 62 |
| thereof female (in %) | 46 (88.5) | 62 (78.5) | 49 (79.0) |
| from foreign countries (in %) | 1 (1.9) | 2 (2.5) | 3 (4.8) |
| <i>Sports</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Law, Economics and Social Sciences</i> | | | |
| total | 357 | 362 | 448 |
| thereof female (in %) | 155 (43.4) | 187 (51.7) | 218 (48.7) |
| from foreign countries (in %) | 14 (3.9) | 30 (8.3) | 22 (4.9) |
| <i>Mathematics and Natural Sciences</i> | | | |
| total | 266 | 231 | 240 |
| thereof female (in %) | 112 (42.1) | 110 (47.6) | 114 (47.5) |
| from foreign countries (in %) | 12 (4.5) | 5 (2.2) | 5 (2.1) |
| <i>Medicine</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Agriculture, Forestry and Nutrition</i> | | | |
| total | 1 | 2 | 1 |
| thereof female (in %) | 0 (0.0) | 1 (50.0) | 0 (0.0) |
| from foreign countries (in %) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| <i>Arts</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |

| Magister | 2004 | 2005 | 2006 |
|--|-------------|-------------|-------------|
| total | 250 | 325 | 303 |
| thereof female (in %) | 168 (67.2) | 214 (65.8) | 200 (66.0) |
| from foreign countries (in %) | 38 (15.2) | 51 (15.7) | 39 (12.9) |
| according to research areas: | | | |
| <i>Literature, Languages and Cultural Studies</i> | | | |
| total | 119 | 136 | 119 |
| thereof female (in %) | 76 (63.9) | 91 (66.9) | 81 (68.1) |
| from foreign countries (in %) | 14 (11.8) | 15 (11.0) | 12 (10.1) |
| <i>Sports</i> | | | |
| total | 10 | 18 | 24 |
| thereof female (in %) | 6 (60.0) | 10 (55.6) | 12 (50.0) |
| from foreign countries (in %) | 0 (0.0) | 1 (0.6) | 0 (0.0) |
| <i>Law, Economics and Social Sciences</i> | | | |
| total | 98 | 149 | 135 |
| thereof female (in %) | 69 (70.4) | 96 (64.4) | 87 (64.4) |
| from foreign countries (in %) | 22 (22.4) | 35 (23.5) | 26 (19.3) |
| <i>Mathematics and Natural Sciences</i> | | | |
| total | 4 | 4 | 3 |
| thereof female (in %) | 2 (50.0) | 3 (75.0) | 2 (66.7) |
| from foreign countries (in %) | 1 (25.0) | 0 (0.0) | 0 (0.0) |
| <i>Medicine</i> | | | |
| total | 0 | 1 | 0 |
| thereof female (in %) | 0 | 1 (100.0) | 0 |
| from foreign countries (in %) | 0 | 0 (0.0) | 0 |
| <i>Agriculture, Forestry and Nutrition</i> | | | |
| total | 2 | 1 | 2 |
| thereof female (in %) | 0 (0.0) | 1 (100.0) | 0 (0.0) |
| from foreign countries (in %) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| <i>Arts</i> | | | |
| total | 17 | 16 | 20 |
| thereof female (in %) | 15 (88.2) | 14 (87.5) | 18 (90.0) |
| from foreign countries (in %) | 1 (5.9) | 0 (0.0) | 1 (5.0) |

| Staatsexamen | 2004 | 2005 | 2006 |
|--|-------------|-------------|-------------|
| total | 1,031 | 962 | 910 |
| thereof female (in %) | 573 (55.6) | 524 (54.5) | 511 (56.2) |
| from foreign countries (in %) | 43 (4.2) | 51 (5.3) | 51 (5.6) |
| according to research areas: | | | |
| <i>Literature, Languages and Cultural Studies</i> | | | |
| total | 177 | 134 | 170 |
| thereof female (in %) | 121 (68.4) | 86 (64.2) | 114 (67.1) |
| from foreign countries (in %) | 2 (1.1) | 2 (1.5) | 3 (1.8) |
| <i>Sports</i> | | | |
| total | 21 | 12 | 20 |
| thereof female (in %) | 11 (52.4) | 7 (58.3) | 9 (45.0) |
| from foreign countries (in %) | 0 (0.0) | 1 (8.3) | 0 (0.0) |
| <i>Law, Economics and Social Sciences</i> | | | |
| total | 306 | 290 | 239 |
| thereof female (in %) | 141 (46.1) | 140 (48.3) | 104 (43.5) |
| from foreign countries (in %) | 7 (2.3) | 3 (1.0) | 7 (2.9) |
| <i>Mathematics and Natural Sciences</i> | | | |
| total | 60 | 39 | 49 |
| thereof female (in %) | 32 (53.3) | 26 (66.7) | 34 (69.4) |
| from foreign countries (in %) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| <i>Medicine</i> | | | |
| total | 467 | 487 | 432 |
| thereof female (in %) | 268 (57.4) | 265 (54.4) | 250 (57.9) |
| from foreign countries (in %) | 34 (7.3) | 45 (9.2) | 41 (9.5) |
| <i>Agriculture, Forestry and Nutrition</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Arts</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |

| Bachelor | 2004 | 2005 | 2006 |
|--|-----------|-----------|------------|
| total | 152 | 188 | 298 |
| thereof female (in %) | 54 (35.5) | 70 (37.2) | 104 (34.9) |
| from foreign countries (in %) | 4 (2.6) | 12 (6.4) | 13 (4.4) |
| according to research areas: | | | |
| <i>Literature, Languages and Cultural Studies</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Sports</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Law, Economics and Social Sciences</i> | | | |
| total | 40 | 53 | 47 |
| thereof female (in %) | 19 (47.5) | 16 (30.2) | 24 (51.1) |
| from foreign countries (in %) | 3 (7.5) | 5 (9.4) | 5 (10.6) |
| <i>Mathematics and Natural Sciences</i> | | | |
| total | 36 | 49 | 49 |
| thereof female (in %) | 4 (11.1) | 17 (34.7) | 11 (22.4) |
| from foreign countries (in %) | 0 (0.0) | 5 (10.2) | 7 (14.3) |
| <i>Medicine</i> | | | |
| total | 0 | 0 | 13 |
| thereof female (in %) | 0 | 0 | 11 (84.6) |
| from foreign countries (in %) | 0 | 0 | 0 (0.0) |
| <i>Agriculture, Forestry and Nutrition</i> | | | |
| total | 76 | 86 | 189 |
| thereof female (in %) | 31 (40.8) | 37 (43.0) | 58 (30.7) |
| from foreign countries (in %) | 1 (1.3) | 2 (2.3) | 1 (0.5) |
| <i>Arts</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |

| Master | 2004 | 2005 | 2006 |
|--|-----------|------------|-----------|
| total | 214 | 260 | 265 |
| thereof female (in %) | 92 (43.0) | 103 (39.6) | 99 (37.4) |
| from foreign countries (in %) | 64 (29.9) | 75 (28.8) | 69 (26.0) |
| according to research areas: | | | |
| <i>Literature, Languages and Cultural Studies</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Sports</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Law, Economics and Social Sciences</i> | | | |
| total | 40 | 56 | 54 |
| thereof female (in %) | 21 (52.5) | 21 (37.5) | 23 (42.6) |
| from foreign countries (in %) | 20 (50.0) | 16 (28.6) | 10 (18.5) |
| <i>Mathematics and Natural Sciences</i> | | | |
| total | 16 | 24 | 35 |
| thereof female (in %) | 7 (43.8) | 9 (37.5) | 13 (37.1) |
| from foreign countries (in %) | 8 (50.0) | 18 (75.0) | 14 (40.0) |
| <i>Medicine</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Agriculture, Forestry and Nutrition</i> | | | |
| total | 158 | 180 | 176 |
| thereof female (in %) | 64 (40.5) | 73 (40.6) | 63 (35.8) |
| from foreign countries (in %) | 36 (22.8) | 41 (22.8) | 45 (25.6) |
| <i>Arts</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |

| Further Education | 2004 | 2005 | 2006 |
|--|-------------|-------------|-------------|
| total | 24 | 4 | 1 |
| thereof female (in %) | 8 (33.3) | 1 (25.0) | 1 (100.0) |
| from foreign countries (in %) | 18 (75.0) | 3 (75.0) | 0 (0.0) |
| according to research areas: | | | |
| <i>Literature, Languages and Cultural Studies</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Sports</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Law, Economics and Social Sciences</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Mathematics and Natural Sciences</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Medicine</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Agriculture, Forestry and Nutrition</i> | | | |
| total | 24 | 4 | 1 |
| thereof female (in %) | 8 (33.3) | 1 (25.0) | 1 (100.0) |
| from foreign countries (in %) | 18 (75.0) | 3 (75.0) | 0 (0.0) |
| <i>Arts</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |

g) Doctorates

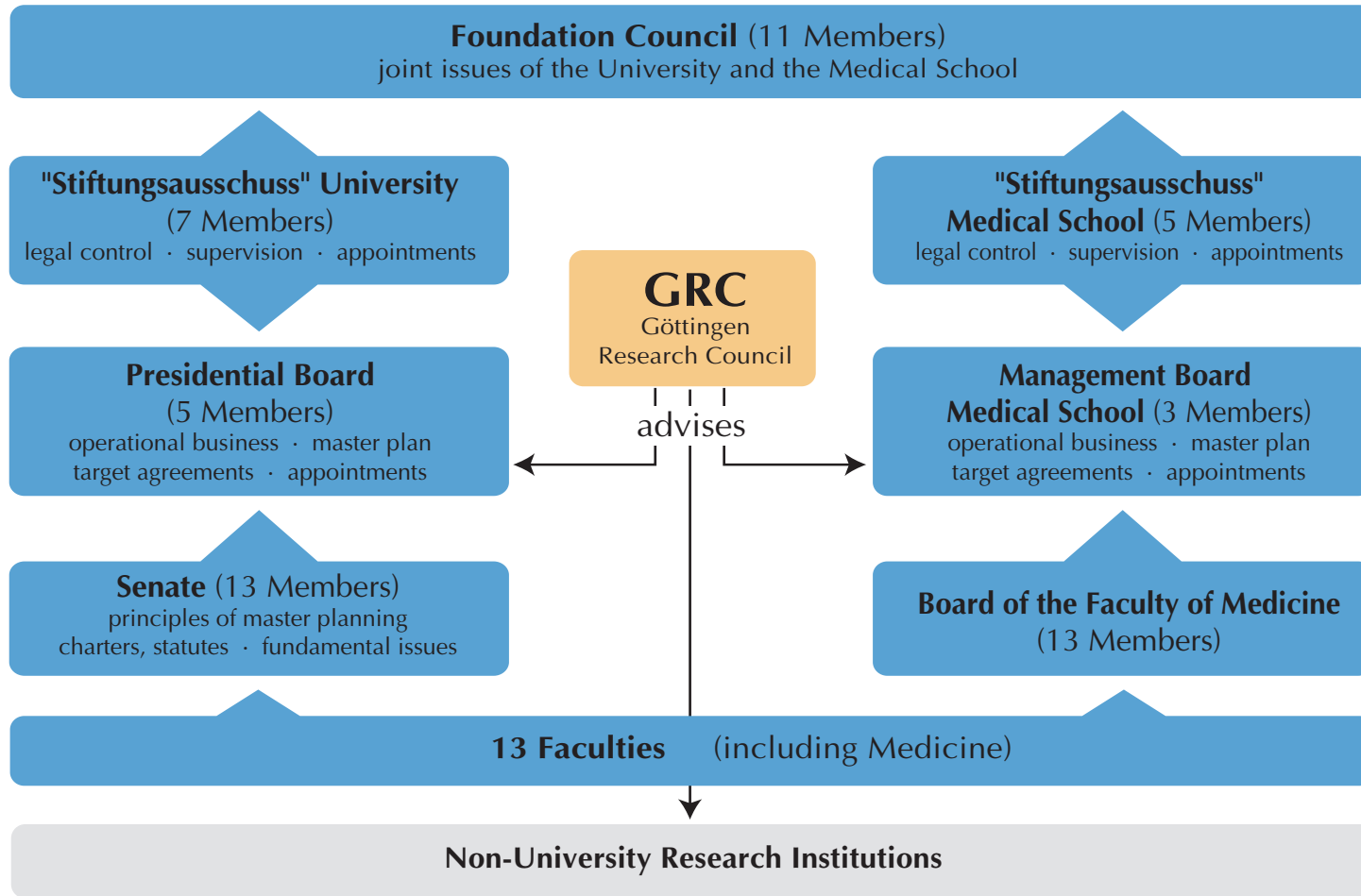
| Doctorates | 2004 | 2005 | 2006 |
|--|-------------|-------------|-------------|
| total | 655 | 643 | 665 |
| thereof female (in %) | 268 (40.9) | 241 (37.5) | 293 (44.1) |
| from foreign countries (in %) | 127 (19.4) | 143 (22.2) | 146 (22.0) |
| according to research areas: | | | |
| <i>Literature, Languages and Cultural Studies</i> | | | |
| total | 46 | 46 | 36 |
| thereof female (in %) | 22 (47.8) | 18 (39.1) | 22 (61.1) |
| from foreign countries (in %) | 4 (8.7) | 6 (13.0) | 7 (19.4) |
| <i>Sports</i> | | | |
| total | 10 | 5 | 4 |
| thereof female (in %) | 1 (10.0) | 1 (20.0) | 1 (25.0) |
| from foreign countries (in %) | 4 (40.0) | 3 (60.0) | 1 (25.0) |
| <i>Law, Economics and Social Sciences</i> | | | |
| total | 110 | 88 | 118 |
| thereof female (in %) | 34 (30.9) | 26 (29.5) | 41 (34.7) |
| from foreign countries (in %) | 13 (11.8) | 8 (9.1) | 13 (11.0) |
| <i>Mathematics and Natural Sciences</i> | | | |
| total | 195 | 199 | 220 |
| thereof female (in %) | 67 (34.4) | 56 (28.1) | 84 (38.2) |
| from foreign countries (in %) | 60 (30.8) | 79 (39.7) | 81 (36.8) |
| <i>Medicine</i> | | | |
| total | 234 | 225 | 209 |
| thereof female (in %) | 121 (51.7) | 114 (50.7) | 114 (54.5) |
| from foreign countries (in %) | 22 (9.4) | 12 (5.3) | 9 (4.3) |
| <i>Agriculture, Forestry and Nutrition</i> | | | |
| total | 54 | 77 | 76 |
| thereof female (in %) | 18 (33.3) | 24 (31.2) | 31 (40.8) |
| from foreign countries (in %) | 24 (44.4) | 35 (45.5) | 34 (44.7) |
| <i>Arts</i> | | | |
| total | 6 | 3 | 2 |
| thereof female (in %) | 5 (83.3) | 2 (66.7) | 0 (0.0) |
| from foreign countries (in %) | 0 (0.0) | 0 (0.0) | 1 (50.0) |

h) Habilitations

| Habilitations | 2004 | 2005 | 2006 |
|--|-------------|-------------|-------------|
| total | 53 | 56 | 47 |
| thereof female (in %) | 13 (24.5) | 17 (30.4) | 9 (19.1) |
| from foreign countries (in %) | 4 (7.5) | 4 (7.1) | 2 (4.3) |
| according to research areas: | | | |
| <i>Literature, Languages and Cultural Studies</i> | | | |
| total | 6 | 8 | 7 |
| thereof female (in %) | 3 (50.0) | 4 (50.0) | 4 (57.1) |
| from foreign countries (in %) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| <i>Sports</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Law, Economics and Social Sciences</i> | | | |
| total | 5 | 5 | 3 |
| thereof female (in %) | 1 (20.0) | 2 (40.0) | 1 (33.3) |
| from foreign countries (in %) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| <i>Mathematics and Natural Sciences</i> | | | |
| total | 12 | 11 | 7 |
| thereof female (in %) | 1 (8.3) | 4 (36.4) | 1 (14.3) |
| from foreign countries (in %) | 2 (16.7) | 2 (18.2) | 0 (0.0) |
| <i>Medicine</i> | | | |
| total | 30 | 26 | 27 |
| thereof female (in %) | 8 (26.7) | 5 (19.2) | 3 (11.1) |
| from foreign countries (in %) | 2 (6.7) | 2 (7.7) | 2 (7.4) |
| <i>Agriculture, Forestry and Nutrition</i> | | | |
| total | 0 | 5 | 3 |
| thereof female (in %) | 0 | 2 (40.0) | 0 (0.0) |
| from foreign countries (in %) | 0 | 0 (0.0) | 0 (0.0) |
| <i>Arts</i> | | | |
| total | 0 | 1 | 0 |
| thereof female (in %) | 0 | 0 (0.0) | 0 |
| from foreign countries (in %) | 0 | 0 (0.0) | 0 |

i) Appointments of professors

| Appointments of Professors | 2004 | 2005 | 2006 |
|--|-------------|-------------|-------------|
| total | 27 | 32 | 30 |
| thereof female (in %) | 10 (37.0) | 9 (28.1) | 8 (26.7) |
| from foreign countries (in %) | 3 (11.1) | 4 (12.5) | 1 (3.3) |
| according to research areas: | | | |
| <i>Literature, Languages and Cultural Studies</i> | | | |
| total | 8 | 5 | 5 |
| thereof female (in %) | 5 (62.5) | 2 (40.0) | 3 (60.0) |
| from foreign countries (in %) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| <i>Sports</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |
| <i>Law, Economics and Social Sciences</i> | | | |
| total | 4 | 5 | 8 |
| thereof female (in %) | 1 (25.0) | 2 (40.0) | 2 (25.0) |
| from foreign countries (in %) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| <i>Mathematics and Natural Sciences</i> | | | |
| total | 5 | 8 | 7 |
| thereof female (in %) | 3 (60.0) | 2 (25.0) | 1 (14.3) |
| from foreign countries (in %) | 1 (20.0) | 2 (25.0) | 1 (14.3) |
| <i>Medicine</i> | | | |
| total | 10 | 13 | 9 |
| thereof female (in %) | 1 (10.0) | 3 (23.1) | 1 (11.1) |
| from foreign countries (in %) | 2 (20.0) | 2 (15.4) | 0 (0.0) |
| <i>Agriculture, Forestry and Nutrition</i> | | | |
| total | 0 | 1 | 1 |
| thereof female (in %) | 0 | 0 (0.0) | 1 (100.0) |
| from foreign countries (in %) | 0 | 0 (0.0) | 0 (0.0) |
| <i>Arts</i> | | | |
| total | 0 | 0 | 0 |
| thereof female (in %) | 0 | 0 | 0 |
| from foreign countries (in %) | 0 | 0 | 0 |



As a Foundation under Public Law, the *Stiftungsuniversität*, encompassing the two parts University and Medical School, is headed by a Foundation Council (*Stiftungsrat*). The latter consists of the seven members of the Foundation Committee of the University (*Stiftungsausschuss Universität*), and four of the members of the Foundation Committee of the Medical School (*Stiftungsausschuss Universitätsmedizin*). The *Stiftungsausschuss Universität* assumes responsibility for all matters that do not involve the Medical School, while the *Stiftungsausschuss Universitätsmedizin* is responsible for those that concern exclusively the Medical School. The Presidential Board (*Präsidium*) manages the University, except in matters concerning the Medical School. This is the function of the Management Board of the Medical School (*Vorstand Universitätsmedizin*).

The GRC advises the governing boards of the University and the allied non-university research institutions.

Annex 3 – Data concerning Excellence in Research and the Training and Support of Young Researchers

a) Rankings

| Type | Specification | Position | Comments |
|--|--|----------|---|
| DFG Funding Ranking 2006 | according to total funding | 12 | up 3 positions since ranking 2003 |
| | relative to number of professorships | 14 | up 9 positions since ranking 2003 |
| | according to research areas | | |
| | Humanities and Theology | >20 | new category |
| | Social and Behavioural Studies | 19 | new category |
| | Medicine | 12 | up 4 positions since ranking 2003 |
| | Biology | 5 | up 3 positions since ranking 2003 |
| | Agriculture/Forestry/ Veterinary Medicine | 3 | down 1 position since ranking 2003 |
| | Physics | 15 | up 10 positions since ranking 2003 |
| | Chemistry | 7 | up 4 positions since ranking 2003 |
| | Mathematics | 19 | up 7 positions since ranking 2003 |
| | Geological Sciences | 19 | down 11 positions since ranking 2003 |
| Alexander von Humboldt-Ranking 2006 | relative to total number | 7 | of 80 universities |
| | relative to number of professorships | 15 | of 80 universities |
| DAAD-Ranking 2005 | | 4 | of 100 universities |
| Shanghai Academic Ranking of World Universities 2006 | | 85 4 | of 500 universities worldwide of all German universities |
| CHE Research Ranking 2006 | | 7 | of all German universities |
| CEWS University Ranking: Aspects of Equality of Treatment 2005 | | 1 | of 66 universities; highest ranking together with 3 other universities |
| Karriere Magazin Benchmarking »Unternehmen Uni« 2006 | | 5 | of 35 German universities |

b) Awards and honours

Nobel Prizes ¹

| Laureate | Area | Date |
|-------------------------------|-----------------------|------|
| Otto Wallach (1847-1931) | Chemistry | 1910 |
| Johannes Stark (1874-1957) | Physics | 1919 |
| Walther Nernst (1864-1941) | Chemistry | 1920 |
| Richard Zsigmondy (1865-1929) | Chemistry | 1925 |
| Adolf Windaus (1876-1959) | Chemistry | 1928 |
| Werner Heisenberg (1901-1976) | Physics | 1932 |
| Peter J. W. Debye (1884-1966) | Chemistry | 1936 |
| Adolf Butenandt (1903-1995) | Chemistry | 1939 |
| Max Born (1882-1970) | Physics | 1954 |
| Manfred Eigen (*1927) | Chemistry | 1967 |
| Bert Sakmann (*1942) | Physiology & Medicine | 1991 |
| Erwin Neher (*1944) | Physiology & Medicine | 1991 |

¹ Laureates who received the Nobel Prize for their research achievements in Göttingen.

Awards for Senior Researchers (currently active)

| Specification | Awardee ² | Comments |
|---------------------------------|---|-------------------------------------|
| Gottfried Wilhelm Leibniz-Preis | <p>Prof. Dr. Joachim Reitner (1996, Centre for Geosciences)</p> <p>Prof. Dr. Herbert W. Roesky (em.) and Prof. Dr. George M. Sheldrick (1988, Institute of Inorganic Chemistry)</p> <p>Prof. Dr. Konrad Samwer (2004, I. Physical Institute)</p> <p>Prof. Dr. Gerhard Wörner (1997, Centre for Geosciences)</p> <p>Prof. Dr. Annette Zippelius (1998, Institute for Theoretical Physics)</p> <p><i>Prof. Dr. Ulrich Christensen (1994, MPI for Solar System Research)</i></p> <p><i>Prof. Dr. Theo Geisel (1994, MPI for Dynamics and Self-Organisation)</i></p> <p><i>Prof. Dr. Christian Griesinger (1998, MPI for Biophysical Chemistry)</i></p> <p><i>Prof. Dr. Herbert Jäcke (1986, MPI for Biophysical Chemistry)</i></p> <p><i>Prof. Dr. Reinhard Jahn (2000, MPI for Biophysical Chemistry)</i></p> <p><i>Prof. Dr. Reinhard Lührmann (1996, MPI for Biophysical Chemistry)</i></p> <p><i>Prof. Dr. Erwin Neher (1987, MPI for Biophysical Chemistry)</i></p> | German Research Foundation (DFG) |

² in Italics: members of non-university research institutions coopted to the University

| Specification | Awardee ² | Comments |
|--|--|--|
| Ernst-Jung-Preis | <i>Prof. Dr. Reinhard Jahn</i> (2006, MPI for Biophysical Chemistry) <i>Prof. Dr. Reinhard Lührmann</i> (2003, MPI for Biophysical Chemistry) | Jung Foundation |
| Max-Planck-Forschungspreis | <i>Prof. Dr. Dr. h. c. mult. Jürgen Troe</i> (1993, Institute of Physical Chemistry) <i>Prof. Dr. Dr. h. c. mult. Manfred Eigen</i> (1994, MPI for Biophysical Chemistry) <i>Prof. Dr. Reinhard Jahn</i> (1990, MPI for Biophysical Chemistry) <i>Prof. Dr. Reinhard Lührmann</i> (1990, MPI for Biophysical Chemistry) | Alexander von Humboldt Foundation and Max Planck Society |
| Max-Planck-Fellow | <i>Prof. Dr. Annette Zippelius</i> (2006, Institute for Theoretical Physics) | Max Planck Society |
| Karl Heinz Beckurts-Preis | <i>Prof. Dr. Jens Frahm</i> (1993, MPI for Biophysical Chemistry) <i>Prof. Dr. Stefan Hell</i> (2002, MPI for Biophysical Chemistry) | Beckurts Foundation |
| Deutscher Zukunftspreis | <i>Prof. Dr. Stefan Hell</i> (2006, MPI for Biophysical Chemistry) <i>Prof. Dr. Herbert Jäckle and</i> <i>Prof. Dr. Peter Gruss</i> (1999, MPI for Biophysical Chemistry) | Federal President of Germany |
| Otto-Bayer-Preis | <i>Prof. Dr. Christian Griesinger</i> (2003, MPI for Biophysical Chemistry) <i>Prof. Dr. Herbert Jäckle</i> (1992, MPI for Biophysical Chemistry) | Otto-Bayer-Stiftung |
| Körber Preis für Europäische Wissenschaft | <i>Prof. Dr. Dr. h.c. Kurt von Figura</i> (2004, Dept. of Biochemistry II) | Körber Foundation |
| Deutscher Umweltpreis | <i>Prof. Dr. Dr. h. c. Bernhard Ulrich</i> (em.) (1997, Institute of Soil Science and Forest Nutrition) | German Environmental Foundation |
| Deutscher Krebspreis | <i>Prof. Dr. Wolfgang Steiner</i> (2005, Dept. of Otorhinolaryngology) | German Cancer Association |
| Otto-Warburg-Medaille | <i>Prof. Dr. Dr. h.c. Kurt von Figura</i> (2002, Dept. of Biochemistry II) | German Society for Biochemistry and Mo- lecular Biology (GBM) |
| Emil-Fischer-Medaille | <i>Prof. Dr. Dr. h.c. Lutz F. Tietze</i> (2004, Institute of Organic and Biomolecular Chemistry) | German Chemical Society (GDCh) |
| Adolf-von-Baeyer-Denkmünze | <i>Prof. Dr. Armin de Mejiere</i> (2005, Institute of Organic and Biomolecular Chemistry) | German Chemical Society (GDCh) |

| Specification | Awardee ² | Comments |
|---|---|--|
| Inorganic Award | Prof. Dr. Herbert W. Roesky (em.) (2004, Institute of Inorganic Chemistry) | American Chemical Society |
| The Marcus Wallenberg Prize | Prof. Dr. Dr. h.c. Bernhard Ulrich (em.) (1988, Institute of Soil Science and Forest Nutrition) | Marcus Wallenberg Foundation |
| Emil von Behring-Preis | Prof. Dr. Dr. h.c. Gerhard Gottschalk (em.) (2006, Institute for Microbiology and Genetics) | University of Marburg and Novartis Behring |
| Philip Morris Preis für Zukunftstechnologien | Prof. Dr. Dr. h.c. Gerhard Gottschalk (em.) (1992, Institute for Microbiology and Genetics) | Philip Morris Foundation |
| Wissenschaftspreis des Stifterverbandes für die Deutsche Wissenschaft | <i>Prof. Dr. Eberhard Fuchs (2002, German Primate Centre)</i> | Stifterverband für die Deutsche Wissenschaft |
| Polanyi Medal | Prof. Dr. Dr. h.c. mult. Jürgen Troe (1992, Institute of Physical Chemistry) | Royal Society of Chemistry London |
| Bernard Lewis Gold Medal | Prof. Dr. Dr. h.c. mult. Jürgen Troe (1996, Institute of Physical Chemistry) | Combustion Institute |
| Walther-Nernst-Denkmünze | Prof. Dr. Dr. h.c. mult. Jürgen Troe (1998, Institute of Physical Chemistry) | German Bunsen Society for Physical Chemistry |
| Justus-von-Liebig-Preis | Prof. Dr. Peter Glodek (em.) (2002, Institute of Animal Breeding and Genetics) | Alfred Töpfer Stiftung |
| 2006 Green Award | Prof. Dr. Stephan Klasen (2006, Department of Economics) | World Bank |
| Tjalling C. Koopmans Prize | Prof. Dr. Stefan Sperlich (2003, Institute for Statistics and Econometrics) | Cambridge University Press |
| Alfred Chandler Prize | Prof. Dr. Hartmut Berghoff (2006, Institute for Economic and Social History) | Harvard Business School |
| Louis-Jeantet-Prize | <i>Prof. Dr. Herbert Jäcke (1999, MPI for Biophysical Chemistry)</i> | Louis-Jeantet- Foundation |
| Sobek-Forschungspreis | <i>Prof. Dr. Jens Frahm (2005, MPI for Biophysical Chemistry)</i> | Sobek Foundation |
| Orden »Pour le Mérite« | <i>Prof. Dr. Erwin Neher (1995, MPI for Biophysical Chemistry)</i> | |

Awards and fellowships for Young Researchers (currently active)

| Specification | Awardee ³ | Comments |
|---|--|--|
| Heinz Maier-Leibnitz Preis | Prof. Dr. Frank Rexroth (1992, Institute for Medieval and Modern History) Prof. Dr. Konrad Samwer (1983, I. Physical Institute) Dr. Mikael Simons (2001, Dept. of Biochemistry II) | German Research Foundation (DFG) |
| Gerhard Hess-Preis | <i>Prof. Dr. Nils Brose</i> (1997, MPI for Experimental Medicine) <i>Prof. Dr. Ulrich Christensen</i> (1988, MPI for Solar System Research) | German Research Foundation (DFG) |
| Alfried Krupp-Förderpreis für junge Hochschullehrer | Prof. Dr. Christiane Gatz (1994, Albrecht-von-Haller-Institute for Plant Sciences) | Krupp Foundation |
| Sofja Kovalevskaja-Preis | Dr. Kawon Oum (2002, Institute of Physical Chemistry) | Alexander von Humboldt Foundation |
| Friedrich-Lütge-Preis | Dr. Ingo Köhler (2005, Institute for Economic and Social History) | Gesellschaft für Sozial- und Wirtschaftsgeschichte |
| Emmy Noether Programme | Dr. Susana Andrade (Institute for Microbiology and Genetics) Dr. Ingo Heilmann (Albrecht-von-Haller-Institute for Plant Sciences) Dr. Rainer Hirsch-Luipold (Associated Theological Institutes) PD Dr. Lars S. Maier (Dept. of Cardiology and Pneumology) Dr. Andreas Pack (Centre for Geosciences) Dr. Nikola-Michael Prpic (Dept. of Developmental Biology) Dr. Pablo Ramacher (Mathematical Institute) Dr. Ansgar Reiners (Institute for Astrophysics) Dr. Oliver Marcus Schlüter (European Neuroscience Institute, ENI) Dr. Christian Scholl (Institute for Art History) Dr. Daniel Werz (Institute of Organic und Biomolecular Chemistry) [01.07.2007] | German Research Foundation (DFG) |

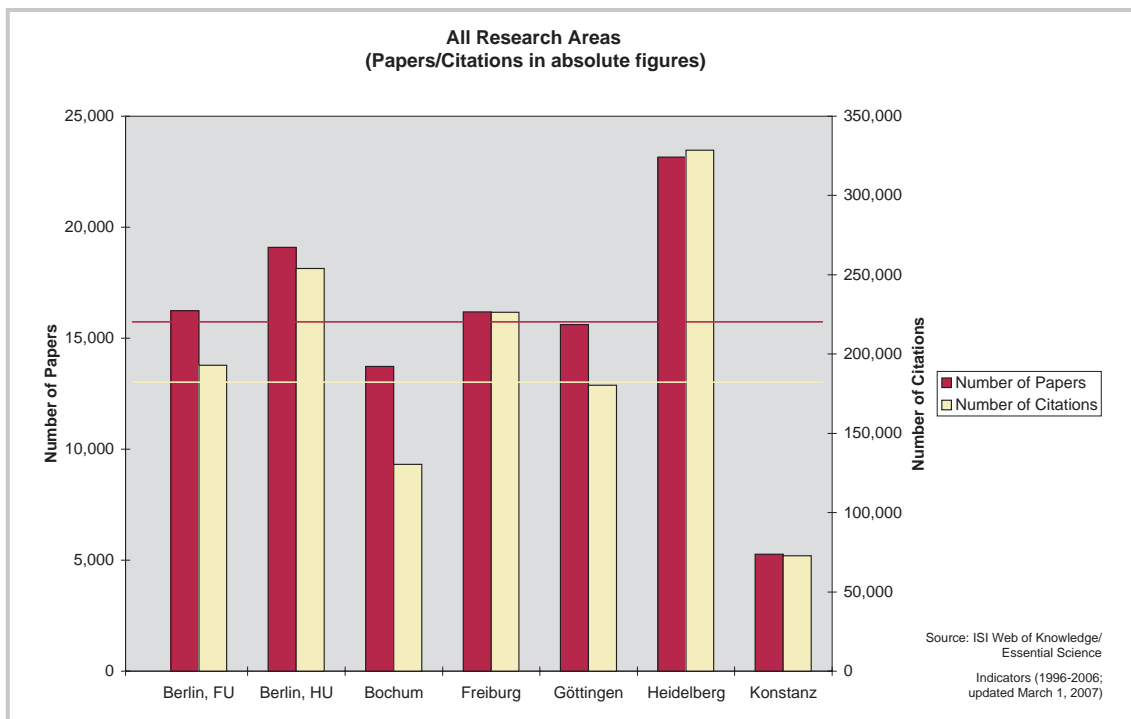
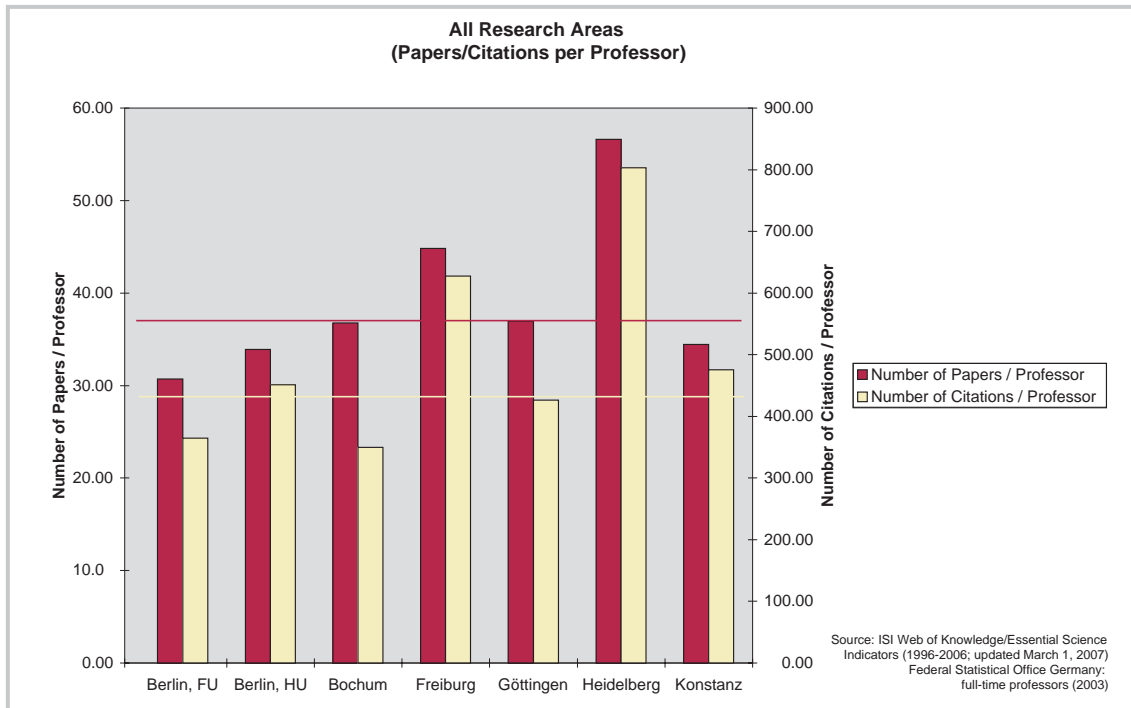
³ in Italics: members of non-university research institutions coopted to the University

| Specification | Awardee ³ | Comments |
|---------------------------|--|--------------------------|
| Tandem Projects | PD Dr. Frauke Alves (Dept. of Haematology and Oncology) Dr. Markus Stahl (Dept. of Paediatrics I) | Max Planck Society |
| Lichtenberg Professorship | Dr. Preda Mihailescu (Mathematical Institute) Dr. Marcus Müller (Institute for Theoretical Physics) | Volkswagen Foundation |

Honours

| Specification | Number | Comments |
|---|--------------------------|----------------|
| German Academy of Natural Scientists LEOPOLDINA | 17 (<i>plus 6 MPI</i>) | Active Members |
| German Research Council | 1 | Active Member |
| DFG Memberships in Boards and Committees | 10 | Active Members |
| DFG Members of the Review Boards | 13 (<i>plus 5 MPI</i>) | Active Members |
| DFG Senate | 3 | Active Members |

c) Publication data



d) Third-party funding

| Type | Specification | Number | Comments |
|--------------|--------------------------------|--------|---|
| DFG Funding | DFG Research Centre | 1 | CMPB: DFG Research Centre Molecular Physiology of the Brain (since 2002) |
| | Collaborative Research Centres | 5 | to the end of 2006: 8 (6 with coordination); 13.4.2007: 5 (3 with coordination) |
| | Research Training Groups | 16 | to the end of 2006: 16 (15 with coordination) 13.4.2007: 16 (13 with coordination) |
| | Emmy Noether Groups | 10 | to the end of 2006: 6 13.4.2007: 10 |
| | Research Units | 13 | to the end of 2006: 13 (4 with coordination); 13.4.2007: 13 (4 with coordination) |
| EU Funding | Integrated Projects | 8 | to the end of 2006: 9 13.04.2007: 8 (1 with coordination) |
| | Networks of Excellence | 12 | to the end of 2006: 12 13.04.2007: 12 (none with coordination) |
| BMBF Funding | BMBF Bernstein Centre | 1 | BCCN: Bernstein Centre for Computational Neuroscience Göttingen (since 2005) |
| | Networks | 4 | |

e) Patents

| Type | Specification | Number | Comments |
|---------|---|--------|--------------------------------|
| Patents | Medical Technology | 20 | Patent Applications since 2000 |
| | Life Science | 27 | |
| | Physics, Chemistry, Forestry, Agriculture | 32 | |

f) Institutional cooperations with non-university research institutions in Göttingen

| Type | Name |
|--------------------|--|
| Joint Appointments | Prof. Dr. Eberhard Bodenschatz MPI for Dynamics and Self-Organisation – Professorship for Theoretical Physics |
| | Prof. Dr. Andreas Dillmann German Aerospace Centre – Professorship for Fluid Mechanics |
| | Prof. Dr. Julia Fischer German Primate Centre – Professorship for Cognitive Ethology/Ecology |
| | Prof. Dr. Eberhard Fuchs German Primate Centre – Professorship for Clinical Neurobiology |
| | Prof. Dr. Theo Geisel MPI for Dynamics and Self-Organisation – Professorship for Theoretical Physics |
| | Prof. Dr. J. Keith Hodges German Primate Centre – Professorship for Reproductive Biology |
| | Prof. Dr. Gerhard Hunsmann German Primate Centre – Professorship for Virology |
| | Prof. Dr. Uwe Jürgens German Primate Centre – Professorship for Neurobiology |
| | Prof. Dr. Peter Kappeler German Primate Centre – Professorship for Sociobiology/Anthropology |
| | Prof. Dr. Stefan Treue German Primate Centre – Professorship for Cognitive Neurosciences and Biopsychology |
| | Prof. Dr. Dr. h.c. mult. Jürgen Troe MPI for Biophysical Chemistry – Professorship for Physical Chemistry |

| Type | Name | Partners |
|--|--|---|
| Interdisciplinary Research Centres (Selection) | GZMB Göttingen Centre for Molecular Biosciences (1998) | Faculties of Biology, Chemistry, Medicine and Agricultural Sciences, MPI for Biophysical Chemistry, MPI for Experimental Medicine, German Primate Centre |
| | ENI European Neuroscience Institute (2001) | Faculties of Biology, Physics, Medicine, MPI for Experimental Medicine, MPI for Biophysical Chemistry, German Primate Centre, Schering AG |
| | ZNV Centre for Systems Neuroscience (2002) | Faculties of Biology and Medicine, MPI for Biophysical Chemistry, MPI for Experimental Medicine, MPI for Dynamics and Self-Organisation, German Primate Centre |
| | DFG Research Centre Molecular Physiology of the Brain (2002) | Faculties of Biology, Physics, Medicine, ENI, GZMB, MPI for Biophysical Chemistry, MPI for Experimental Medicine, German Primate Centre and industrial partners |
| | Bernstein Centre for Computational Neuroscience Göttingen (2005) | Faculties of Biology, Physics, Medicine, MPI for Dynamics and Self-Organisation, MPI for Biophysical Chemistry, German Primate Centre, Otto Bock HealthCare |

Annex 4 – Third-Party Funding

a) Total volumes of funding in € (expenses)

| Type | Research Area | 2002 | 2003 | 2004 | 2005 | 2006 |
|------|--|------------|------------|------------|------------|------------|
| | total | 67,598,009 | 68,389,558 | 65,921,523 | 71,779,962 | 80,458,939 |
| | Literature, Languages and Cultural Studies | 2,937,408 | 2,024,695 | 1,919,501 | 2,505,090 | 3,344,442 |
| | Sports | 22,646 | 9,515 | 5,372 | 2,959 | 41,898 |
| | Law, Economics and Social Sciences | 2,871,787 | 2,707,493 | 2,146,659 | 2,576,284 | 2,606,617 |
| | Mathematics, Natural Sciences | 20,231,649 | 16,957,282 | 17,822,915 | 18,501,072 | 21,824,123 |
| | Medicine | 25,044,009 | 29,507,751 | 29,341,428 | 29,821,543 | 31,590,939 |
| | Agriculture, Forestry and Nutrition | 11,665,898 | 9,394,996 | 8,738,490 | 9,845,002 | 9,803,896 |
| | Arts | 61,783 | 113,919 | 126,436 | 213,428 | 230,556 |
| | others | 4,762,829 | 7,673,907 | 5,820,723 | 8,314,585 | 11,016,468 |
| DFG | total | 27,970,642 | 32,583,291 | 30,426,889 | 33,776,817 | 30,886,212 |
| | Literature, Languages and Cultural Studies | 1,541,570 | 1,228,795 | 1,046,322 | 1,432,435 | 1,806,834 |
| | Sports | 0 | 0 | 0 | 0 | 35,351 |
| | Law, Economics and Social Sciences | 764,784 | 590,291 | 804,064 | 962,752 | 881,960 |
| | Mathematics, Natural Sciences | 9,668,968 | 9,401,765 | 9,613,039 | 9,969,891 | 7,892,042 |
| | Medicine | 10,087,935 | 12,691,825 | 13,376,440 | 13,786,602 | 11,158,876 |
| | Agriculture, Forestry and Nutrition | 3,227,604 | 2,607,332 | 2,813,121 | 3,071,809 | 2,376,060 |
| | Arts | 49,452 | 108,336 | 123,900 | 210,571 | 229,604 |
| | others | 2,630,328 | 5,954,948 | 2,650,003 | 4,342,757 | 6,505,485 |
| EU | total | 3,437,232 | 2,818,984 | 2,712,833 | 3,510,048 | 5,618,473 |
| | Literature, Languages and Cultural Studies | 710 | 0 | 12,732 | 8,937 | 114,832 |
| | Sports | 0 | 0 | 0 | 0 | 0 |
| | Law, Economics and Social Sciences | 188,983 | 132,638 | 63,194 | 89,252 | 238,036 |
| | Mathematics, Natural Sciences | 367,547 | 444,568 | 595,228 | 937,812 | 2,519,790 |
| | Medicine | 772,639 | 1,018,008 | 1,409,905 | 1,401,128 | 1,985,031 |
| | Agriculture, Forestry and Nutrition | 1,706,810 | 439,493 | 498,039 | 733,421 | 760,784 |
| | Arts | 0 | 0 | 0 | 0 | 0 |
| | others | 400,543 | 784,277 | 133,735 | 339,498 | 0 |

| Type | Research Area | 2002 | 2003 | 2004 | 2005 | 2006 |
|------------------------|--|------------|------------|------------|------------|------------|
| Federal Funding | total | 14,658,780 | 13,785,845 | 13,290,374 | 12,853,516 | 18,946,760 |
| | Literature, Languages and Cultural Studies | 515,128 | 29,098 | 0 | 155,939 | 284,079 |
| | Sports | 0 | 0 | 0 | 0 | 0 |
| | Law, Economics and Social Sciences | 396,929 | 543,634 | 378,472 | 587,540 | 424,240 |
| | Mathematics, Natural Sciences | 6,439,923 | 4,099,804 | 4,687,839 | 4,044,354 | 6,930,848 |
| | Medicine | 4,409,386 | 5,944,909 | 5,100,771 | 4,805,966 | 6,737,928 |
| | Agriculture, Forestry and Nutrition | 2,897,414 | 2,740,065 | 2,350,358 | 3,044,402 | 2,946,897 |
| | Arts | 0 | 0 | 0 | 0 | 0 |
| | others | 0 | 428,335 | 772,934 | 215,315 | 1,622,766 |
| Industry | total | 7,381,753 | 4,454,152 | 5,455,908 | 5,571,457 | 5,296,221 |
| | Literature, Languages and Cultural Studies | 249,491 | 262,558 | 112,169 | 121,027 | 104,242 |
| | Sports | 2,167 | 0 | 0 | 2,959 | 6,547 |
| | Law, Economics and Social Sciences | 645,353 | 412,243 | 532,877 | 370,226 | 90,221 |
| | Mathematics, Natural Sciences | 1,820,696 | 1,212,535 | 1,112,932 | 1,020,996 | 1,005,644 |
| | Medicine | 3,069,793 | 1,454,857 | 1,607,991 | 1,827,396 | 2,090,845 |
| | Agriculture, Forestry and Nutrition | 1,590,326 | 605,612 | 862,087 | 1,320,266 | 1,427,970 |
| | Arts | 3,927 | 0 | 0 | 0 | 0 |
| | others | 0 | 506,347 | 1,227,852 | 908,587 | 570,752 |
| Foundations and others | total | 14,149,603 | 14,747,285 | 14,035,520 | 16,068,125 | 19,711,273 |
| | Literature, Languages and Cultural Studies | 630,509 | 504,244 | 748,278 | 786,752 | 1,034,454 |
| | Sports | 20,479 | 9,515 | 5,372 | 0 | 0 |
| | Law, Economics and Social Sciences | 875,738 | 1,028,687 | 368,052 | 566,514 | 972,159 |
| | Mathematics, Natural Sciences | 1,934,515 | 1,798,610 | 1,813,877 | 2,528,019 | 3,475,799 |
| | Medicine | 6,704,256 | 8,398,152 | 7,846,321 | 8,000,451 | 9,618,259 |
| | Agriculture, Forestry and Nutrition | 2,243,744 | 3,002,494 | 2,214,885 | 1,675,104 | 2,292,185 |
| | Arts | 8,404 | 5,583 | 2,536 | 2,857 | 952 |
| | others | 1,731,958 | 0 | 1,036,199 | 2,508,428 | 2,317,465 |

b) Funding periods

| Type | Specification | Title | Funding Period |
|------------------------------------|-----------------------------------|---|-------------------------|
| DFG Research Centre | FZT 103 | Molecular Physiology of the Brain | 01.10.2002 - 30.09.2010 |
| DFG Collaborative Research Centres | SFB 523 | Protein and Membrane Transport between Cellular Compartments | 01.07.1996 - 31.12.2008 |
| | SFB 552 | Stability of Rainforest Margins in Indonesia | 01.07.2000 - 30.06.2009 |
| | SFB 602 | Complex Structures in Condensed Matter from Atomic to Mesoscopic Scales | 01.01.2002 - 31.12.2008 |
| | SFB 299 (University of Gießen)* | Land Use Options for Marginal Regions | 01.01.1997 - 31.12.2008 |
| | SFB 566 (Hannover Medical School) | Cytokine Receptors and Cytokine-Dependent Signal Paths as Therapeutic Target Structures | 01.01.2001 - 31.12.2007 |
| DFG Research Training Groups | GRK 335 | Molecular, Cellular, and Clinical Biology of Internal Organs | 01.04.1997 - 31.03.2007 |
| | GRK 407 | The Future of the European Social Model | 01.10.1997 - 30.09.2007 |
| | GRK 521 | Protein-Protein Interactions during Intracellular Transport of Macromolecules | 01.10.1999 - 30.09.2008 |
| | GRK 535 | Groups and Geometry | 01.10.1999 - 30.09.2008 |
| | GRK 632 | European Research Training Group: Neuroscience – Neuroplasticity Research | 01.09.2000 - 31.08.2007 |
| | GRK 782 | Spectroscopy and Dynamics of Molecular Coils and Aggregates | 01.04.2002 - 31.03.2011 |
| | GRK 896 | Images of Deities – Images of God – Images of the World. Polytheism and Monotheism in the Ancient World | 01.01.2004 - 30.06.2008 |
| | GRK 1023 | Identification in Mathematical Models: Synergy of Stochastic and Numerical Methods | 01.07.2004 - 31.12.2008 |
| | GRK 1024 | Interdisciplinary Environmental History – Natural Environment and Societal Behaviour in Central Europe | 01.07.2004 - 31.12.2008 |
| | GRK 1034 | The Impact of Inherited Polymorphism in Oncology: From Basic Science to Clinical Application | 01.01.2005 - 30.06.2009 |

* () with coordinating function

| Type | Specification | Title | Funding Period |
|--------------------|---|---|-----------------------------|
| | GRK 1083 | Generation History. Generational Dynamics and Historical Change in 19th and 20th Century | 01.04.2005 - 30.09.2009 |
| | GRK 1086 | The Role of Biodiversity for Biogeochemical Cycles and Biotic Interactions in Temperate Deciduous Forests | 01.04.2005 - 30.09.2009 |
| | GRK 1195 | Successful Matching of School Learning Determinants: Understanding and Optimisation | 01.10.2005 - 31.03.2010 |
| | GRK 1422 | International Research Training Group: Metal Sites in Biomolecules: Structures, Regulation and Mechanisms | 01.10.2006 - 31.03.2011 |
| | GRK 585 (Technical University Clausthal) | European Research Training Group: Microstructural Control in Free-Radical Polymerization | 01.01.2000 - 31.12.2008 |
| | GRK 1351 (University of Hamburg) | Extrasolar Planets and their Host Stars | 01. 01. 2007 - 30. 06. 2011 |
| | GRK 1397 (University of Kassel) | Regulation of soil organic matter and nutrient turnover in organic agriculture | 01.01.2007 - 30.06.2011 |
| DFG Research Units | FOR 496 | Poplar – a model to address tree-specific questions | 01.04.2003 - 31.03.2009 |
| | FOR 546 | Analysis of Systemic Effects of Infections of Selected Brassicaceae by Soil-borne Micro-organisms Considering Especially Multitrophic Interactions with Insects and Microbial Pathogens | 01.08.2004 - 31.07.2007 |
| | FOR 571 | Geobiology of Organo- and Biofilms: Coupling of the Geosphere and the Biosphere by Microbial Processes | 01.03.2005 - 29.02.2008 |
| | KFO 155 | Clinical Research Unit: The role of biomechanics and Ca ²⁺ homeostasis in heartfailure and regeneration | 01.08.2006 - 31.07.2009 |
| | FOR 402 (University of Bayreuth) | Functionality in a Tropical Mountain Forest: Diversity, Dynamic Processes and Utilization Potentials under Ecosystem Perspectives | 01.01.2001 - 30.04.2007 |
| | FOR 521 (University of Magdeburg) | Regulation of Immunological Processes by Membrane Proximal Signaling Modules | 01.11.2003 - 31.10.2009 |

| Type | Specification | Title | Funding Period |
|------------------------|---|--|-------------------------|
| | FOR 562 (University of Bayreuth) | Dynamics of Soil Processes under Extreme Meteorological Boundary Conditions | 01.04.2005 - 31.03.2008 |
| | FOR 563 (University of Freiburg) | Micro-Macro Modelling and Simulation of Liquid-Vapour Flows | 01.06.2005 - 31.05.2008 |
| | FOR 723 (University of Leipzig) | Functional Renormalization Group for Correlated Fermion Systems | 01.04.2007 - 31.03.2010 |
| | FOR 753 (University of Bonn) | Genetically Functional Basics of Water Retention in Pork Meat (DRIP) | 01.03.2006 - 29.02.2008 |
| | FOR 756 (University of Hannover) | Impact of shocks on the vulnerability to poverty: consequences for development of emerging Southeast Asian economies | 01.09.2006 - 31.08.2009 |
| | FOR 788 (University of Freiburg) | Competitive Mechanisms of Water and Nitrogen Partitioning in Beech-dominated Deciduous Forests | 01.08.2006 - 31.07.2009 |
| | FOR 816 (University of Magdeburg) | Biodiversity and Sustainable Management of a Megadiverse Mountain Ecosystem in Southern Ecuador | 01.02.2007 - 31.01.2010 |
| EU Integrated Projects | IP: BIOXHIT (EMBL, Heidelberg) | Biocrystallography (X) on a Highly Integrated Technology Platform for European Structural Genomics | 01.01.2004 - 31.12.2008 |
| | IP: DAIDALOS II (T-Systems, Berlin) | Designing Advanced network Interfaces for the Delivery and Administration of Location independent, Optimised personal Services | 01.01.2006 - 31.12.2008 |
| | IP: PACO-PLUS (University of Karlsruhe) | Perception, Action & Cognition through Learning of Object-Action Complexes | 01.02.2006 - 31.01.2010 |
| | IP: EUROSCA (University of Tübingen) | European Integrated Project on Spinocerebellar Ataxias: Pathogenesis, Genetics, Animal Models and Therapy | 01.01.2004 - 31.12.2008 |
| | IP: Active p53 (Regina Elena Cancer Institute, Rome) | Manipulating Tumor Suppression: a Key to Improve Cancer Treatment | 01.12.2004 - 30.11.2009 |

| Type | Specification | Title | Funding Period |
|---------------------------|--|--|-------------------------|
| | IP: EUROHEAR (INSERM, Paris) | Advances in Hearing Science: from Functional Genomics to Therapies | 01.12.2004 - 30.11.2009 |
| | IP: NeuroproMiSe (Istituto Superiore di Santa, Rome) | Neuroprotective Strategies for Multiple Sclerosis | 01.11.2005 - 31.10.2010 |
| | IP: EUGeneHeart | Genomics of Cardiomyocyte Signalling to Treat and Prevent Heart Failure | 01.01.2006 - 31.12.2010 |
| EU Networks of Excellence | NoE: REVERSE (University of Munich) | Reasoning on the Web with Rules and Semantics | 01.03.2004 - 29.02.2008 |
| | NoE: EPOCH (University of Brighton) | European Research Network on Excellence in Processing Open Cultural Heritage | 01.03.2004 - 29.02.2008 |
| | NoE: ALTER-NET (Natural Environment Research Council, GB) | A long-term Biodiversity: Ecosystems and Awareness Research Network | 01.04.2004 - 31.03.2009 |
| | NoE: SOFTCOMP (FZ Jülich) | Soft Matter Composites – An approach to nanoscale functional materials | 01.06.2004 - 31.05.2009 |
| | NoE: DELOS (ERCIM, France) | Network of Excellence on Digital Libraries | 01.01.2005 - 31.12.2007 |
| | NoE: EVOLTREE (INRA, France) | Evolution of trees as drivers of terrestrial biodiversity | 01.04.2006 - 31.03.2010 |
| | NoE: European LeukemiaNet (University of Heidelberg) | Strengthen and develop scientific and technological excellence in research and therapy of leukemia (CML, AML, ALL, CLL, MDS, CMPD) by integration of the leading national leukemia networks and their interdisciplinary partner groups in Europe | 01.01.2004 - 31.12.2008 |
| | NoE: SAFE (University of Warwick) | Special Non-Invasive Advances in Foetal and Neonatal Evaluation Network | 01.03.2004 - 28.02.2009 |
| | NoE: CASCADE (Karolinska Institute, Stockholm) | Chemicals as Contaminants in the Food Chain: an NoE for Research, Risk Assessment and Education | 01.02.2004 - 31.01.2009 |

| Type | Specification | Title | Funding Period |
|----------------------------------|---|---|-------------------------|
| | NoE: BRAIN-NET EUROPE II (University Hospital Munich) | Network of European Brain and Tissue Banks for Clinical and Basic Neuroscience | 01.07.2004 - 30.06.2009 |
| | NoE: NEURONE (Cambridge University) | Molecular Mechanisms of Neuronal Degeneration – from Cell Biology to the Clinic | 01.01.2005 - 01.12.2008 |
| | NoE: RUBICON (Karolinska Institute, Stockholm) | The Role of Ubiquitin and Ubiquitin-like Modifiers in Cellular Regulation | 01.01.2006 - 31.12.2010 |
| Federal Funding (over € 900,000) | BMBF | Plant diversity in lowland rain forests of North-east Ecuador – Potentials for bioprospecting and strategies of sustainable use of target plants | 01.06.2003 - 31.05.2008 |
| | BMBF | Mediaconomy: Internet Economy in the media industry – changes in market structures and services caused by mobile applications. An interdisciplinary approach. | 01.07.2003 - 31.12.2007 |
| | BMBF | Biotech GenoMik – from Genomes to Functions to Products | 01.06.2006 - 31.05.2009 |
| | BMBF | National Genome Research Network 2 – Genome Network Cardiovascular Diseases, Göttingen: Genomics of diastolic heart failure: susceptibility, progression and therapeutic outcome | 01.09.2004 - 31.08.2007 |
| | BMBF | Bernstein Centre for Computational Neuroscience, Göttingen: Centre for Adaptive and Neuronal Systems | 01.02.2005 - 31.01.2010 |
| | BMBF | Medical Care in General Practice | 01.04.2005 - 31.10.2008 |
| | BMBF | Analyses of wood from beech (<i>Fagus sylvatica</i>) and grand fir (<i>Abies grandis</i>) from sustainably managed mixed forests for production of innovative wood products | 01.08.2005 - 31.07.2009 |
| | BMBF | Aldosterone Receptor Blockade in Diastolic Heart Failure A double-blind, randomised, placebo-controlled, parallel group study to determine the effects of spironolactone on exercise capacity and diastolic function in patients with symptomatic diastolic heart failure – Aldo-DHF | 01.11.2005 - 31.10.2008 |

| Type | Specification | Title | Funding Period |
|------|---------------|--|-------------------------|
| | BMBF | The Social Phobia Psychotherapy Research Network (SOPHO-NET) | 01.10.2006 - 30.09.2009 |
| | BMBF | Biodiversity and spatial complexity in agricultural landscapes under global change | 01.11.2006 - 31.10.2009 |
| | BMBF | Network for rare diseases: German Network of Hereditary Movement Disorders (GeNeMove) | 01.10.2006 - 30.09.2008 |
| | BMBF | Technology Platform for Microbial Genome Research (TPMG) I. Göttingen University: DNA Sequencing and Annotation | 01.06.2006 - 31.05.2009 |

Annex 5 – Activities in 1st and 2nd Funding Line

| Funding Line | Title | Partners | Status |
|--|--|--|--------------------------------|
| 1st call (2005/2006) | | | |
| Cluster of Excellence (EXC 171) | Microscopy at the Nanometer Range | <ul style="list-style-type: none"> – MPI for Biophysical Chemistry – MPI for Experimental Medicine – German Primate Centre – X-LAB | funded |
| 2nd call (2006/2007) | | | |
| Graduate School (GSC 226) | Göttingen Graduate School for Neurosciences and Molecular Biosciences (GGNB) | <ul style="list-style-type: none"> – MPI for Biophysical Chemistry – MPI for Experimental Medicine – MPI for Dynamics and Self-Organisation – German Primate Centre | full proposal requested |
| Graduate School (GSC 182) | Göttingen Graduate School of Terrestrial Ecosystems (GGTE) | <ul style="list-style-type: none"> – Federal Biological Research Centre for Agriculture and Forestry – Fraunhofer-Institute for Wood Research – Wilhelm-Klauditz-Institut – Federal Research Centre for Forestry and Forest Products – North-West German Forest Experiment Station – Leibnitz-Centre for Agricultural Landscape Research (ZALF) – Universidad de Chile, Facultad de Ciencias Forestales – Environmental Studies Program of the University of Kansas – FAO Food and Agriculture Organisation of the United Nations – Centre for International Forestry Research (CIFOR) – ICARDA International Centre for Agricultural Research in Dry Areas – IFPRI International Food Policy Research Institute – IAI Inter-American Institute for Global Change Research – Degussa AG – Symrise GmbH & Co. KG – Pfeleiderer GmbH & Co. KG | full proposal requested |

Annex 6 – Research Profiles of Key Researchers

Overview

Senior Researchers

| | |
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| Becker, Heiko C. | 102 |
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| Kratz, Reinhard G. | 116 |
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Senior Researchers

Professor Dr. Becker, Heiko C.

Department of Crop Sciences, Faculty of Agricultural Sciences

Born: 1950

Education and Employment

1974 Diploma (Biology), Freie Universität Berlin

1978 Dr. sc. agr., University of Hohenheim

1978-1987 Research Assistant, University of Hohenheim

1987 Habilitation (Plant Breeding), University of Hohenheim

1987-1994 Associate Professor of Plant Breeding,
Swedish University of Agricultural Sciences, Uppsala/Svalöv

Since 1995 Professor of Plant Breeding, University of Göttingen

Honours and Awards

Editorial Service

Editor-in-Chief of Theor. Appl. Genetics (2000-2005)

Editorial Board memberships: Theor. Appl. Genetics, J. Appl. Genetics,
Genetic Resources and Crop Evolution, Plant Breeding

Other Scientific Activities

Coordinator of EU Project

“Application of Biotechnology for genetic improvement of oilseed rape” (1998-2002)

Chairman of the Section Oil and Protein Crops of EUCARPIA
(European Association for Research on Plant Breeding)

Boards: BAZ (Federal Centre for Breeding Research on Cultivated Plants)

Dean of the Faculty of Agricultural Sciences (1999-2001)

Selected publications (up to five since 2000)

- Marwede V., Schierholt A., Möllers C. and Becker H.C.: “Genotype x environment interactions and heritability of tocopherol contents in canola”. *Crop Sci.* 44, 728-731, 2004.
- Baye T. and Becker H.C.: “Analyzing seed weight, fatty acid composition, oil, and protein contents in *Vernonia galamensis* germplasm by near infrared reflectance spectroscopy”. *J. Am. Oil Chem. Soc.* 81(7): 641-645, 2004.
- Hüsken A., Baumert A., Milkowski C., Becker H.C., Strack D. and Möllers C.: “Resveratrol glucoside (piceid) synthesis in seeds of transgenic oilseed rape (*Brassica napus* L.)”. *Theor. Appl. Genet.* 111, 1553-1562, 2005.
- Teklewold A. and Becker H.C.: “Comparison of phenotypic and molecular distances to predict heterosis and F1 performance in Ethiopian mustard (*Brassica carinata* Braun)”. *Theor. Appl. Genet.* 112, 752-759, 2006.
- Zhao J., Becker H.C., Zhang D., Zhang Y. and Ecke W.: “Conditional QTL mapping of oil content in rapeseed with respect to protein content and traits related to plant development and grain yield”. *Theor. Appl. Genet.* 113, 33-38, 2006.

Professor Dr. Beese, Friedrich

Institute of Soil Science and Forest Nutrition, Faculty of Forest Sciences and Forest Ecology

Born: 1943

Education and Employment

1964-1968 Studies of Agronomy, University of Göttingen

1968 Diploma in Agronomy

1972 Dr. in Soil Science (Soil Hydrology), University of Göttingen

1972-1974 Postdoc, Institute of Soil Science and Forest Nutrition,
University of Göttingen (Water Budgets of Agricultural Ecosystems)

1974-1987 Research Soil Scientist, Institute of Soil Science and Forest Nutrition,
University of Göttingen (Water and Nitrogen Cycling in Forest Ecosystems and Modelling)

1978-1979 DFG/Fulbright Fellow, New Mexico State University, Las Cruces (USA)
(Trickle Irrigation and Salt Flow-Modelling)

1986 Habilitation in Soil Science and Forest Nutrition
(Nitrogen Dynamics in Eco-systems of different Acidity)

1987-1994 Director (C4) of the GSF Institute of Soil Ecology, Munich
(GSF – National Research Centre for Environment and Health)

Since 1994 Full professorship (C4) in Soil Science and Forest Nutrition, University of Göttingen

Editorial Service

Member of Editorial Boards

Other Scientific Activities

Member of the German Advisory Council on Global Change (1992-2000)

Member of the Jury German Environmental Award (1998-2002)

Member of different Scientific Boards: Research Centre Jülich
Helmholtz Centre for Environmental Research (UFZ); Harz National Park
Institut für Energiewirtschaft und Rationelle Energieanwendung (IER), Stuttgart
Leibniz-Centre for Agricultural Landscape Research (ZALF), Müncheberg
GSF – National Research Centre for Environment and Health
Munich Working Group on Biosystems (MABIF)

Coordinator of the German activities of Global Change and Terrestrial Ecosystems (GCTE)
(1990-1994); Chair of the Research Network on Agroecosystems Munich (FAM) (1990-1994)

Chair of the Forest Ecosystems Research Centre (FZW), University of Göttingen (since 1996)

Selected publications (up to five since 2000)

- Meesenburg H., Merino A., Meiwe K.J. and Beese F.: "Effects of long-term application of ammonium sulphate on nitrogen fluxes in a beech ecosystem at Solling, Germany". Water Air Soil Poll. Focus 4, 415-426, 2004.
- Teepe R., Brumme R. and Beese F.: "Nitrous Oxide Emission and Methane Consumption Following Compaction of Forest Soils". Soil Sci. Soc. Am. J. 68, 605-611, 2004.
- Potthoff M., Dyckmans J., Flessa H., Muhs A., Beese F. and Joergensen R.G.: "Dynamics of maize (*Zea mays* L.) leaf straw mineralization as affected by the presence of soil and the availability of nitrogen". Soil Biol. Biochem. 37(7): 1259-1266, 2005.
- Raubuch M. and Beese F.: "Influence of soil acidity on depth gradients of microbial bio-mass in beech forest soils". Eur. J. Forest Res. 124, 87-93, 2005.
- Dyckmans J., Flessa H., Lipski A., Potthoff M. and Beese F.: "Microbial biomass and activity under oxic and anoxic conditions as affected by nitrate additions". J. Plant Nutr. Soil Sci. 169, 108-115, 2006.

Professor Dr. Bergmann, Marianne

Archaeological Institute, Faculty of Philosophy

Born: 1943

Education and Employment

1972 PhD (Classical Archaeology) at University of Bonn

1972-1973 Reisestipendium (grant for one year of travel)
of the German Archaeological Institute

1973-1974 Research Assistant at German Archaeological Institute,
Rome Department (Italy)

1974-1991 Assistant at Archaeological Institute, University of Marburg

1985 Habilitation in Classical Archaeology

Since 1991 Professor (C4) at Archaeological Institute, University of Göttingen

1994 Offer of a Chair at Frankfurt University (declined)

Honours and Awards

1980 Award of the Philological-Historical Class
of the Akademie der Wissenschaften zu Göttingen

Member of the Akademie der Wissenschaften zu Göttingen

Member of the Central Management of the German Archaeological Institute

Member of the Academia Europaea

Editorial Service

“Beiträge zur Altertumswissenschaft” (Olms-Verlag)

Other Scientific Activities

Referee for:

German Research Foundation (DFG); among others: DFG Priority Programmes
(SPP 1065 / SPP 1209) “Formen und Wege der Akkulturation im östlichen Mittelmeerraum
und Schwarzmeergebiet in der Antike” and “Die hellenistische Polis als Lebensform”

Fritz Thyssen Stiftung

Alexander von Humboldt Foundation

National Fund of the Republic of Austria

Selected publications (up to five since 2000)

- Amedick R. and Bergmann M. (mit Beiträgen von J. Fabricius und K. Fittschen): “Projekt Viamus”.
E-learning Universität, Antikes Porträt. Handbook of ancient portraiture 6th cent. B.C. – 6th cent. A.D.
(2004) www.viamus.de.
- Bergmann M. and Freigang Chr. (mit einem Beitrag von Th. Noll): “Athen im Königreich Hannover.
Das Aulagebäude der Universität Göttingen aus dem Jahr 1837”. Munich 2006.
- Bergmann M.: “Konstantin und der Sonnengott. Die Aussagen der Bildzeugnisse”, in: A. Demandt,
J. Engemann (eds.), Konstantin der Große. Geschichte – Archäologie – Rezeption. Colloquium Trier 2005
(Trier 2006) 143-161.
- Bergmann M.: “The philosophers and poets in the Sarapieion at Memphis”, in: R. von den Hoff,
P. Schultz (eds.), Early Hellenistic Portraiture: Image, style, context (Cambridge University Press, in print).
- Bergmann M.: “Alexander son of Zeus. Problems of the deification of Alexander the Great”,
in: D. Pandermalis (ed.), Alexander the Great, Colloquium New York 2005 (in print).

Professor Dr. Braus, Gerhard H.

Department of Molecular Microbiology and Genetics, Faculty of Biology

Born: 1957

Education and Employment

1983 Diploma (Biology), University of Freiburg

1987 Dr. sc. nat., Swiss Federal Institute of Technology (ETH) Zurich

1987 Biophysical Institute, Laboratory of K. Kirschner, Biozentrum Basel (Switzerland)

1987-1991 Junior Group Leader, ETH Zurich

1991 Habilitation (Microbiology), ETH Zurich

1992 Department of Genetics, University of Georgia, Athens (USA)

1993-1996 Associate Professor of Biochemistry, University of Erlangen-Nuremberg

Since 1996 Professor of Microbiology (since 2001 Professor of Microbiology and Genetics), University of Göttingen

2002 Offer of the Chair for Genetics at the University of Munich (declined)

2002 BMS Institute of Functional Genomics, Princeton (USA)

Honours and Awards

1987 ETH Medal for PhD thesis

1992 Swiss Society for Microbiology Award (SGM-Förderungspreis)

Editorial Service

Editorial Board memberships: Current Genetics, Applied Microbiology, and Biotechnology

Other Scientific Activities

Coordinator of DFG Research Training Group (GRK 227)

“Chemische Aktivitäten von Mikroorganismen” (1999-2003)

Boards: AGRPC (Aspergillus Genomes Research Policy Committee)

DFG Research Centre (FZT 103) “Molecular Physiology of the Brain” (CMPB)

XLAB – Experimental Laboratory for Young People, Göttingen

Dean of the Faculty of Biology, University of Göttingen (2004-2006)

Selected Publications (up to five since 2000)

- Helmstaedt K., Heinrich G., Lipscomb W.N. and Braus G. H.: “A refined molecular hinge between allosteric and catalytic domain determines allosteric regulation and stability of fungal chorismate mutase”. P. Natl Acad. Sci. USA 10, 6631-6636, 2002.
- Braus G. H., Grundmann O., Brückner S. and Mösch H. U.: “Amino acid starvation and Gcn4p regulate adhesive growth and FLO11 expression in *Saccharomyces cerevisiae*”. Mol. Biol. Cell 14, 4272-4284, 2003.
- Helmstaedt K., Strittmatter A., Lipscomb W. N. and Braus G. H.: “Evolution of DAHP synthase encoding genes in the yeast *Saccharomyces cerevisiae*”. P. Natl Acad. Sci. USA 102, 9784-9789, 2005.
- Galagan J. E., Braus G. H., Draht O., Busch S and Birren B.: (18th of 50 authors) “Sequencing of *Aspergillus nidulans* and comparative analysis with *A. fumigatus* and *A. oryzae*”. Nature, 438, 1105-1115, 2005.
- Bömeke K., Pries R., Korte V., Scholz E., Herzog B. and Braus G. H.: “Yeast Gcn4p stabilisation is initiated by the dissociation of the nuclear Pho85/Pcl5 complex”. Mol. Biol. Cell. 17, 2952-2962, 2006.

Professor Dr. Brück, Wolfgang

Department of Neuropathology, Faculty of Medicine

Born: 1961

Education and Employment

1986 Approbation/Medical Degree, University of Mainz

1988-1994 Medical residency in Neuropathology and research fellow

Department of Neuropathology, University of Göttingen

1994 Facharzt (Specialty qualification in Neuropathology)

Department of Neuropathology, University of Göttingen

1996 Habilitation (Neuropathology), Department of Neuropathology, University of Göttingen

1998 Acting Director of the Department of Neuropathology,

Humboldt-Universität zu Berlin, Charité

1998-2002 Associate Professor of Neuropathology at the Department of Neuropathology,

Humboldt-Universität zu Berlin, Charité

Since 08/2002 Head of the Department of Neuropathology, University of Göttingen

Honours and Awards

1995 Langheinrich Scholarship for Multiple Sclerosis Research

1999 Fellowship of the Human Frontier Science Programme on Macrophage Activation in EAE

2000 Langheinrich Award for Multiple Sclerosis Research

2002 Hans Heinrich Georg Queckenstedt Award for Multiple Sclerosis Research

Editorial Service

Editorial Board memberships: Acta neuropathologica, Journal of Neurology

Other Scientific Activities

01-09/2005: Acting Dean of the Faculty of Medicine and Administrative Director of the Medical School, University of Göttingen

Since 11/2005 Research Dean of the Faculty of Medicine, University of Göttingen

Coordinator of the SFB-TR 43 initiative Göttingen-Berlin

"The Brain as a Target of Inflammatory Processes"

Selected publications (up to five since 2000)

- Kuhlmann T., Lingfeld G., Bitsch A., Schuchardt J. and Brück W.: "Acute axonal damage in multiple sclerosis is most extensive in early disease stages and decreases over time". Brain 2002; 125:2202-2212.
- Kerschensteiner M., Bareyre F.M., Buddeberg B.S., Merkler D., Stadelmann C., Brück W., Misgeld T. and Schwab M.E.: "Remodeling of axonal connections contributes to recovery in an animal model of multiple sclerosis". J. Exp. Med. 2004; 200:1027-1038.
- Keegan M., König F., McClelland R., Brück W., Morales Y., Bitsch A., Panitch H., Lassmann H., Weinshenker B., Rodriguez M., Parisi J. and Lucchinetti C.F.: "Relation between humoral pathological changes in multiple sclerosis and response to therapeutic plasma exchange". Lancet 2005; 366:579-582.
- Zhou D., Srivastava R., Nessler S., Grummel V., Sommer N., Brück W., Hartung H.P., Stadelmann C. and Hemmer B.: "Identification of a Pathogenic Antibody Response to Native Myelin Oligodendrocyte Glycoprotein in Multiple Sclerosis". P. Natl Acad. Sci. USA 2006; 103: 19057-19062
- Metz I., Lucchinetti C.F., Openshaw H., Garcia-Merino A., Lassmann H., Freedman M.S., Azzarelli B., Kolar O.J., Atkins H.L. and Brück W.: "Autologous hematopoietic stem cell transplantation fails to stop demyelination and neurodegeneration in multiple sclerosis". Brain, in press.

Professor Dr. Detering, Heinrich

Institute of German Philology, Faculty of Philosophy

Born: 1959

Education and Employment

1979-1985 Study of German Philology, Theology, and Philosophy in Göttingen and Heidelberg

1985-1988 Scandinavian Philology in Göttingen and Odense (Denmark)

1985 First Diploma (Staatsexamen) in Göttingen

1985-1987 Research Assistant in a DFG-funded project in Göttingen

1987-1988 Doctoral Scholarship of Studienstiftung des deutschen Volkes, 1988 Dr. phil.

1988-1994 Assistant Lecturer at the Chair of Albrecht Schöne, University of Göttingen

1990 Research Scholarship at the H.C. Andersen Centre,
University of Southern Denmark, Odense

1993 Habilitation in German and Nordic Philology

1994-1995 Deputy Professorship for Comparative Literature, University of Munich (two terms)

1994 declined Heisenberg Fellowship of the DFG

1995 Professor Neuere Deutsche Literatur und Neuere Nordische Literaturen, University of Kiel

2001 declined an offer of appointment as professor at the University of Bonn

Since 2005 Professor (W3) Neuere Deutsche und Vergleichende Literaturwissenschaft,
University of Göttingen

Honours and Awards

1989 Wissenschaftlicher Förderpreis of the Raabe Society (for doctoral thesis)

1990 Award of the Akademie der Wissenschaften zu Göttingen (for doctoral thesis)

2001/2002 Fellow at the Wissenschaftskolleg zu Berlin

2003 (spring) Paul Celan Fellow at Washington University, St. Louis (USA)

Member of the Deutsche Akademie für Sprache und Dichtung (since 1997), the Akademie der Wissenschaften zu Göttingen (since 2003), the Akademie der Wissenschaften und der Literatur, Mainz (since 2003), the Royal Danish Academy of Sciences and Letters (since 2003)

Other Scientific Activities

Member of the Scientific Advisory Board of Wissenschaftskolleg zu Berlin, of Executive Committee of Deutsches Literaturarchiv Marbach (since 2004), of the selection committees for the German Goethe Medal (since 2002), the Thomas Mann Prize (since 1995), the Ingeborg Bachmann Prize (2004-2006), the Büchner Prize (2001-2005) among others

1996 Visiting Professor, University of Aarhus (Denmark)

1999 Senior Research Fellow, University of Bergen (Norway)

2006 Visiting Professor, Washington University, St. Louis (USA)

Selected Publications (up to five since 2000)

- Detering H.: "Grundzüge der Literaturwissenschaft". Ed. Munich 1996. – 7th impr. 2005.
- Detering H.: "Autorschaft. Positionen und Revisionen". Germanistisches DFG-Symposion 2001. Stuttgart/Weimar 2002.
- Detering H.: "Thomas Mann: Werke, Briefe, Tagebücher". Große kommentierte Frankfurter Ausgabe. Co-editor of the Complete Edition; Editor of Essays I and Königliche Hoheit, 2 volumes each, Frankfurt/M. 2002 and 2004. Further volumes in preparation.
- Detering H.: "Herkunftsorte. Literarische Verwandlungen". Heide 2001.
- Detering H.: "'Frauen, Juden und Litteraten'. Zu einer Denkfigur beim jungen Thomas Mann". Frankfurt/M. 2005.

Professor Dr. Engel, Wolfgang

Department of Human Genetics, Faculty of Medicine

Born: 1940

Education and Employment

1960-1965 Education in Medicine and Psychology, Universities of Heidelberg and Freiburg

1965 MD, University of Freiburg

1968-1977 Postdoctoral Research Fellow, University of Freiburg

1974 Habilitation in Human Genetics, University of Freiburg

Since 1977 Full Professor (C4) and Director of the Department of Human Genetics, University of Göttingen

Honours and Awards

1967 Gödecke Award of the University of Freiburg

1979 Hans Nachtsheim Award of the Gesellschaft für Anthropologie und Humangenetik

1988 Eduard Grosse Award of the Deutsche Gesellschaft für Andrologie

1990 Honorary Member of the Czech Society for Medical Genetics

1993 Werner G. Gehring Foundation Award

Other Scientific Activities

Member of the DFG Collaborative Research Centre (SFB 46)

"Molecular Basis of Development" (1973-1979)

Coordinator of the DFG Research Unit (FOR 56) "Molekularbiologische Untersuchungen zur Keimzellendifferenzierung und frühen Embryonalentwicklung beim Säuger" (1986-1992)

Coordinator of the DFG Collaborative Research Centre (SFB 217)

"Molecular Genetics of Morphoregulatory Processes" (1994-2002)

Member of the DFG Research Training Group (GRK 242)

"Molecular Genetics of Development" (1996-2004)

Dean of the Faculty of Medicine (1986-1989 and 1995-1996)

President of the Deutsche Gesellschaft für Reproduktionsmedizin (1998-1999)

Member of the DFG Clinical Research Unit (KFO 155)

"The Role of Biomechanics and Ca²⁺ Homeostasis in Heartfailure and Regeneration"

Member of the DFG Research Centre (FZT 103)

"Molecular Physiology of the Brain" (CMPB) (since 2005)

Selected Publications (up to five since 2000)

- Adham I.M., Sallam M.A., Steding G., Korabiowska M., Brinck U., Hoyer-Fender S., Oh C. and Engel W.: "Disruption of the pelota gene causes early embryonic lethality and defects in cell cycle progression". Mol. Cell. Biol. 4, 1470-1476, 2003.
- Nayernia K., Vauti F., Meinhardt A., Cadenas C., Schwyer S., Meyer B.I., Schwandt I., Chowdhury K., Engel W. and Arnold H.H.: "Inactivation of a testis-specific Lis1 transcript in mice prevents spermatid differentiation and causes male infertility". J. Biol. Chem. 28, 48377-48385, 2003.
- Nayernia K., Li M., Jaroszynski L., Khusainov R., Wulf G., Schwandt I., Korabiowska M., Michelmann H. W., Meinhardt A. and Engel W.: "Stem cell based therapeutical approach of male infertility by teratocarcinoma derived germ cells". Hum. Mol. Genet. 14, 1451-1460, 2004.
- Nayernia K., Nolte J., Michelmann H.W., Lee J.H., Rathack K., Drusenheimer N., Dev A., Wulf G., Ehrmann I.E., Elliott D.J., Okpanyi V., Zechner U., Haaf T., Meinhardt A. and Engel W.: "In vitro-differentiated embryonic stem cells give rise to male gametes that can generate offspring mice". Dev. Cell 11, 125-132, 2006.
- Guan K., Nayernia K., Maier L.S., Wagner S., Dressel R., Lee J.H., Nolte J., Wolf F., Li M., Engel W. and Hasenfuß G.: "Pluripotency of spermatogonial stem cells from adult mouse testis". Nature 440, 1199-1203, 2006.

Professor Dr. Figura, Kurt von
President of the University of Göttingen
Born: 1944

Education and Employment

1963-1969 Study of Medicine at the Universities of Tübingen and Vienna (Austria)
1970 Dr. med., University of Tübingen
1971-1977 Physiologisch-Chemisches Institut, University of Münster
1975 Habilitation in Biochemistry, University of Münster
1977-1986 Professor (C3) of Biochemistry, University of Münster
1986-2004 Professor (C4) of Biochemistry, University of Göttingen
1992 declined an appointment as professor at the University of Heidelberg
Since 2005 President of the University of Göttingen

Honours and Awards

1981 FEBS Anniversary Prize
1992 Dozentenpreis, Fonds der Chemischen Industrie
2002 Dr. h.c., University of Namur (Belgium)
2002 Otto Warburg Medal
Member of the EMBO, Akademie der Wissenschaften zu Göttingen,
Deutsche Akademie der Naturforscher Leopoldina

Other Scientific Activities

Member of the DFG Senate (1990-1996) and the
Senate Commission for Clinical Research (1997-2005)
Member of the Advisory Board of the Max Planck Institute of Biochemistry, Martinsried
(1994-2001) and of the Senate of the Max Planck Society (since 2005)
Past or present Member: Advisory Board of the ZMBH (Heidelberg), ZMNH (Hamburg),
IZFK (Münster), Rudolf-Virchow-Zentrum (Würzburg), MDC for Molecular Medicine (Berlin),
Biochemie-Zentrum (Heidelberg)
Member of selection committees for Humboldt, F.W. Bessel, and Helmholtz Prize (Alexander
von Humboldt Foundation since 2001), German-Israeli Project Cooperation (DIP) (1997-2004),
Wittgenstein Prize (since 2005)

Selected Publications (up to five since 2000)

- Tanaka Y., Guhde G., Suter A., Eskelinen E.L., Hartmann D., Lüllmann-Rauch R., Janssen P.M.L., Blanz J., Figura K. von and Saftig P.: "Accumulation of autophagic vacuoles and cardiomyopathy in LAMP-2-deficient mice". *Nature* 406, 902-906 (2000).
- Lübcke T., Marquardt T., Etzioni A., Hartmann E., Figura K. von and Körner C.: "Complementation cloning identifies CDG-IIc, a new type of congenital disorders of glycosylation, as a GDP-fucose transporter deficiency". *Nat. Genet.* 28, 73-76 (2001).
- Dierks T., Schmidt B., Borissenko L.V., Peng J., Preusser A., Mariappan M. and Figura K. von: "Multiple sulfatase deficiency is caused by mutations in the gene encoding the human C α -formylglycine generating enzyme". *Cell* 113, 435-444 (2003).
- Dierks T., Dickmanns A., Preusser-Kunze A., Schmidt B., Mariappan M., Figura K. von, Ficner R. and Rudolph M.-G.: "Molecular basis for multiple sulfatase deficiency and mechanism for formylglycine generation of human formylglycine-generating enzyme". *Cell* 121, 541-552 (2005).
- Roeser D., Preusser-Kunze A., Schmidt B., Gasow K., Wittmann J.G., Dierks T., Figura K. von and Rudolph M.-G.: "A general binding mechanism for all human sulfatases by the formylglycine-generating enzyme". *P. Natl Acad. Sci. USA* 103, 81-86 (2006).

Professor Dr. Friml, Jiří

Department of Plant Cell Biology, Faculty of Biology

Born: 1973

Education and Employment

1997 Diploma (Biochemistry), Masaryk University, Brno (Czech Republic)

2000 Dr. rer. nat. (Biology), University of Cologne

2002 PhD (Biochemistry), Masaryk University, Brno

2002-2007 Independent group leader, Centre for Plant Molecular Biology, University of Tübingen

2003-present External lecturer at Department of Plant Physiology, Charles University, Prague (Czech Republic)

2005 Habilitation (Genetics), Centre for Plant Molecular Biology, University of Tübingen

2006 Offer of the Chair of Plant Developmental Biology, University of Heidelberg (declined)

2007 Chair of Plant Cell Biology, Institute for Plant Research, University of Göttingen

Honours and Awards

2000 Max Planck Society Award: The Otto Hahn Medal

2002 Volkswagen Foundation Junior Researcher Award

2004 EMBO Young Investigator Award

2005 Heinz Maier Leibnitz Prize of the DFG

Selected publications (up to five since 2000)

- Friml J., Wisniewska J., Benková E., Mendgen K. and Palme K.: "Lateral relocation of auxin efflux regulator AtPIN3 mediates tropism in Arabidopsis". *Nature* 415, 806-809, 2002.
- Benková E., Michniewicz M., Sauer M., Teichmann T., Seifertová D., Jürgens G. and Friml J.: "Local, efflux-dependent auxin gradients as a common module for plant organ formation". *Cell* 115, 591-602, 2003.
- Friml J., Yang X., Michniewicz M., Weijers D., Quint A., Tietz O., Benjamins R., Ljung K., Sandberg G., Hooykaas P., Palme K. and Offringa R.: "A PINOID-dependent binary switch in apical-basal PIN polar targeting directs auxin efflux". *Science* 306, 862-865; 2004.
- Paciorek T., Zažímalová E., Ruthardt N., Petrášek J., Stierhof Y-D., Kleine-Vehn J., Morris D. A., Emans N., Jürgens G., Geldner N. and Friml J.: "Auxin inhibits endocytosis and promotes its own efflux from cells". *Nature* 435, 1251-1256, 2005.
- Wiśniewska J., Xu J., Seifertová D., Brewer P., Růžicka K., Blilou I., Roquie D., Benková E., Scheres B. and Friml J.: "Polar PIN localization directs auxin flow in plants". *Science* 312, 883, 2006.

Professor Dr. Geisel, Theo

Institute for Nonlinear Dynamics, Faculty of Physics

Director at the Max Planck Institute for Dynamics and Self-Organisation

Born: 1948

Education and Employment

1967-1975 Undergraduate and graduate studies of Physics at the Universities of Frankfurt (until 1970) and Regensburg (1970-1975)

1975 Dr. rer. nat. in Theoretical Physics, University of Regensburg

1976-1977 Post-Doc, Max Planck Institute for Solid State Research, Stuttgart

1978-1979 Post-Doc, Xerox Palo Alto Research Centre (USA)

1980-1982 Assistant Professor, Institute for Theoretical Physics, University of Regensburg

1982 Habilitation, Theoretical Physics, University of Regensburg

1983-1987 Heisenberg Fellow and Privatdozent, University of Regensburg

1988-1989 Associate Professor of Theoretical Physics, University of Würzburg

1989-1996 Associate Professor of Theoretical Physics, University of Frankfurt

Since 1996 Professor of Theoretical Physics, University of Göttingen, and

Director at the Max Planck Institute for Dynamics and Self-Organisation, Göttingen

Honours and Awards

1983 Heisenberg Fellowship of the DFG

1994 Gottfried Wilhelm Leibniz Prize of the DFG

Editorial Service

Divisional Associate Editor, Physical Review Letters

Editorial Board, CHAOS, American Institute of Physics

Other Scientific Activities

Visiting Scientist at Stanford University (USA), Department of Applied Physics (1987)

Visiting Scientist at the University of California, Santa Barbara (USA),

Kavli Institute for Theoretical Physics (1989, 1996, 2001, 2003, 2004)

Coordinator of the DFG Collaborative Research Centre (SFB 185)

“Nonlinear Dynamics” in Frankfurt, Darmstadt, and Marburg (1993-1996)

Executive Director, Max Planck Institute for Flow Research, Göttingen (now MPIDS) (1997-2001)

Coordinator of the Bernstein Centre for Computational Neuroscience, Göttingen (since 2005)

Selected Publications (up to five since 2000)

- Timme M., Wolf F. and Geisel T.: “Prevalence of unstable attractors in networks of pulse-coupled oscillators”. Phys. Rev. Lett. 89, 154105, 2002.
- Brockmann D. and Geisel T.: “Lévy flights in inhomogeneous media”. Phys. Rev. Lett. 90, 170601, 2003.
- Geisel T. and Wolf F.: “Universality in visual cortical pattern formation”. J. Physiol. 97, 253-264, 2003.
- Hufnagel L., Brockmann D. and Geisel T.: “Forecast and control of epidemics in a globalized world”. P. Natl Acad. Sci. USA 101(42): 15124-15129, 2004.
- Brockmann D., Hufnagel L. and Geisel T.: “The scaling laws of human travel”. Nature 439, 462-465, 2006.

Professor Dr. Hasenfuß, Gerd

Department of Cardiology and Pneumology, Faculty of Medicine

Born: 1955

Education and Employment

1981 M.D. degree, University of Freiburg

1982-1988 Training in Internal Medicine and Cardiology, University of Freiburg

1988-1990 Visiting Assistant Professor, Department Molecular Physiology and Biophysics, University of Vermont, Burlington (USA)

1991/1993 Specialisation Internal Medicine and Cardiology

1993-1998 Assistant Professor in Internal Medicine and Cardiology, Department of Internal Medicine, University of Freiburg

Since 1998 Chair of the Department of Cardiology and Pneumology, University of Göttingen, Chair of the Heart Centre Göttingen

Honours and Awards

1991 German Society of Internal Medicine: Theodor Frerichs Prize

2001 Member of the Akademie der Wissenschaften zu Göttingen

2003 First prize of the German Start-Up Competition

2004 Doctor Léon Dumont Prize of the Belgium Society of Cardiology

2005 Teaching Award, Faculty of Medicine, University of Göttingen

Editorial Service

Associate Editor: European Journal of Heart Failure

Member of nine Editorial Boards including Circulation and Circulation Research

Other Scientific Activities

German Research Foundation Established Investigator (Heisenberg Fellowship 1994-1998)

Coordinator of EU-Integrated Project "EUGeneHeart" (2006-2010)

Coordinator of National Genome Research Network, site Göttingen (2001-2007)

Coordinator of DFG Transregional Collaborative Research Centre within the SFB Programme (SFB-TR 2) "Biomechanische Phänotyp-Regulation im Herz-Kreislauf-System" (2001-2004)

Coordinator of DFG Clinical Research Unit (KFO 155) "The Role of Biomechanics and Ca²⁺ Homeostasis in Heartfailure and Regeneration" (2006-2009)

Member of DFG Review Board "Internal Medicine" (since 2004)

Selected Publications (up to five since 2000)

- Höcht-Zeisberg E., Kahnert H., Guan K., Wulf G., Hemmerlein B., Schlott T., Tenderich G., Körfer R., Raute-Kreinsen U. and Hasenfuss G.: "Cellular repopulation of myocardial infarction in patients with sex-mismatched heart transplantation". Eur. Heart J. 2004; 25, 749-758.
- Wojnowski L., Kulle B., Schirmer M., Schlüter G., Schmidt A., Rosenberger A., Vonhof S., Bickeböller H., Toliat M.R., Suk E.K., Tzvetkov M., Kruger A., Seifer S., Kloess M., Hahn H., Loeffler M., Nurnberg P., Pfreundschuh M., Trümper L., Brockmöller J. and Hasenfuss G.: "NAD(P)H oxidase and multidrug resistance protein genetic polymorphisms are associated with doxorubicin-induced cardiotoxicity". Circulation 2005; 112(24):3754-3762.
- Guan K., Nayernia K., Maier L.S., Wagner S., Dressel R., Lee J.H., Nolte J., Wolf F., Li M., Engel W. and Hasenfuss G.: "Pluripotency of spermatogonial stem cells from adult mouse testis". Nature 2006 Apr 27;440(7088):1199-203.
- Kögler H., Schott P., Toischer K., Milting H., Van P.N., Kohlhaas M., Grebe C., Kassner A., Domeier E., Teucher N., Seidler T., Knöll R., Maier L.S., El-Banayosy A., Körfer R., Hasenfuss G.: "Relevance of brain natriuretic peptide in preload-dependent regulation of cardiac sarcoplasmic reticulum Ca²⁺ ATPase expression". Circulation 2006 Jun 13;113(23):2724-32.
- Wagner S., Dybkova N., Rasenack E.C., Jachobshagen C., Fabritz L., Kirchhof P., Maier SK., Thang T., Hasenfuss G., Brown J.H., Bers D.M., Maier L.S.: "Ca²⁺/calmodulin-dependent protein kinase II regulates cardiac Na⁺ channels". J. Clin. Invest. 2006; 116(12):3127-38.

Professor Dr. Hildermeier, Manfred

Institute of Medieval and Modern History, Faculty of Philosophy

Born: 1948

Education and Employment

1966-1972 Studies in History, German Literature and Slavonic Literature at the Universities of Bochum and Tübingen

1973-1974 Scholarship holder in Stanford, California (USA)

1976 Dr. phil. at the University of Tübingen

1983 Habilitation at the Freie Universität Berlin

Since 1985 Professor of East European and Russian/Soviet History at the University of Göttingen

1990 declined an offer of appointment as professor at the University of Heidelberg

1999 declined offers of appointment as professor at the Universities of Kiel and Cologne

Honours and Awards

1995 Prize and Fellowship of the Historisches Kolleg, Munich

Since 1998 Member of the Akademie der Wissenschaften zu Göttingen

Since 2001 Member of the Berlin-Brandenburgische Akademie der Wissenschaften

2001 Fellow of the Wissenschaftskolleg zu Berlin

2003-2004 Visiting Professor/Fellow of the Stifterverband für die Deutsche Wissenschaft at St. Antony's College, Oxford (Great Britain)

Editorial Service

Member of the Editorial Staff: Jahrbücher für Geschichte Osteuropas (since 1993) and of the Journal of Modern European History (since 2002)

Other Scientific Activities

Chairman of the Verband der Historiker und Historikerinnen Deutschlands (2000-2004)

Co-director of the Berliner Kolleg für Vergleichende Geschichte Europas (since 1998)

Member of the board of the Historisches Kolleg (since 2000)

Member of the Council of the

Stiftung Deutsche Geisteswissenschaftliche Institute im Ausland (since 2002)

Chairman of the board of the German Historical Institute Moscow (Russia) (since 2005)

Member of the DFG Research Training Group (GRK 1083) "Generation History. Generational Dynamics and Historical Change in 19th and 20th Century" (since 2005)

Selected Publications (up to five since 2000)

- Hildermeier M.: "Europäische Zivilgesellschaft in Ost und West". Frankfurt a. M. 2000 (ed. together with J. Kocka and Ch. Conrad).
- Hildermeier M.: "Die Sowjetunion 1917-1991". Munich 2001.
- Hildermeier M.: "Liberales Milieu in russischer Provinz". Jahrb. Gesch. Osteur. 51 (2003), 498-548.
- Hildermeier M.: "Die Russische Revolution 1905-1921". 5 editions, Frankfurt a. M. 2006.
- Hildermeier M.: "Osteuropa als Gegenstand vergleichender Geschichte", in: G. Budde, S. Conrad, O. Janz (eds.), Transnationale Geschichte. Themen, Tendenzen und Theorien. Festschr. für Jürgen Kocka. Göttingen 2006, 117-136.

Professor Dr. Kirchheim, Reiner

Institute of Materials Physics, Faculty of Physics

Born: 1943

Education and Employment

1971 Diploma (Physics), 1973 Dr. rer. nat., University of Stuttgart

1973-1993 Research Associate, Max Planck Institute for Metals Research, Stuttgart

1979-1980 Post-doc, Rice University, Houston (USA)

Visiting professor: 1983 University of Illinois at Urbana-Champaign (USA);

1992 Ohio State University, Columbus (USA);

1998 National Institute of Standards and Technology, Gaithersburg (USA)

1986 Habilitation (Physical Metallurgy), University of Stuttgart

1991 Offer of a full professorship, University of Illinois at Urbana-Champaign (declined)

Since 1993 Professor of Materials Physics, University of Göttingen

1996 Offer of the Chair for Physical Metallurgy at the University of Leoben and Director of the Erich Schmid Institute of Materials Science, Austrian Academy of Science (declined)

Honours and Awards

1987 Scripta metallurgica outstanding paper award

1990 Carl Wagner Prize, German Bunsen Society for Physical Chemistry

ISI Highly Cited Author in Materials Science

1997 Member of the Akademie der Wissenschaften zu Göttingen

2003 Honda Memorial Award, Tohoku University, Sendai (Japan); Member of Acatech (Council for Technical Sciences of the Union of German Academies of Sciences and Humanities)

2004 Heyn-Denkmünze (highest award of the Deutsche Gesellschaft für Materialkunde)

2005 International Award of Materials Engineering of Resources, Akita (Japan)

Editorial Service

Editor of Acta Materialia

Editorial Boards: Materials Transactions, Interfaces, Zeitschrift für Metallkunde, Materials Science Foundations

Other Scientific Activities

Chairman of the referees of the DFG (since 2001) and referee of the

Alexander von Humboldt Foundation (since 1997) in the area of materials science

Coordinator of the DFG Collaborative Research Centres (SFB 345 / SFB 602)

“Festkörper weit weg vom Gleichgewicht” (1996-2001) and “Complex Structures in Condensed Matter from Atomic to Mesoscopic Scales” (2002-2006)

German Physical Society (Chairman of the Metal Physics Committee, 1990-1998)

and Deutsche Gesellschaft für Materialkunde (Member of the Education Committee)

Selected publications (up to five since 2000)

- Bohlen J. and Kirchheim R.: “Macroscopic volume changes versus changes of free volume as determined by positron annihilation spectroscopy for polycarbonate and polystyrene”. *Macromolecules* 34 (2001) 4210-4215.
- Kirchheim, R.: “Grain coarsening inhibited by solute segregation”. *Acta mater.* 50 (2002) 413-419.
- Sachs C., Pundt A., Kirchheim R., Winter M., Reetz, M.T. and Fritsch D.: “Solubility of hydrogen in single-sized palladium clusters”. *Phys. Rev. B* 64 (2001) 075408.
- Kirchheim, R.: “Solid solutions of hydrogen in complex materials”. *Solid State Phys.*, eds. H. Ehrenreich and F. Spaepen, Elsevier, Amsterdam (2004), Vol. 59, 203-305.
- Ene C.B., Schmitz G., Kirchheim R. and Hütten A.: “Stability and thermal reaction of GMR NiFe/Cu thin films”. *Acta mater.* 53 (2005) 3383.

Professor Dr. Klasen, Stephan

Department of Economics, Faculty of Economic Sciences

Born: 1966

Education and Employment

1987-1990 Studies in Economics (B.A. 1990), Harvard University (USA)

1990-1991 Studies in Economics (M.A. 1991), Harvard University

1991-1994 PhD in Economics (1994), Harvard University

1994-1996 Economist, World Bank, Washington, DC (USA)

1996-1998 Research Fellow and Associate Director, Centre of History and Economics, King's College, Cambridge (Great Britain)

1998-2003 Professor (C3) of Empirical Economics, University of Munich

Since 2003 Professor (C4) of Development Economics, University of Göttingen (W3 since April 2006)

Honours and Awards

1991 Allyn Young Prize for best thesis in Economics Faculty, Harvard University

2002 Elected to European Development Research Network (election-only association of leading development economists in Europe)

2006 World Bank "Green Award"

2007 Member of the Akademie der Wissenschaften zu Göttingen

Editorial Service

Managing Editor: Review of Income and Wealth (since 2004)

Editorial Board: Economic Systems, Applied Economics Quarterly, Journal of Human Development

Other Scientific Activities

Scientific Advisory Council, Federal Ministry for Economic Cooperation and Development; GIGA German Institute of Global and Area Studies, Hamburg; DIAL Développement Institutions & Analyses de Long terme, Paris (France)

Research Professor, ifo Institute for Economic Research, Munich

Research Fellow, Institute for the Study of Labor (IZA), Bonn

Research Fellow, Centre for Development Research (ZEF), Bonn

Founding Member of International Poverty Reduction, Equity, and Growth Network

Referee for over 20 economics journals as well as the German, the Swiss, and the British national science foundations

Selected Publications (up to five since 2000)

- Klasen S.: "Measuring Poverty and Deprivation in South Africa". Rev. Income Wealth 46:33-58 (2000).
- Klasen S.: "Semiparametric Analysis of the Socio-Demographic and Spatial Determinants of Chronic Undernutrition in Two African Countries". With Ngianga-Bakwin Kandala, Ludwig Fahrmeir and Stefan Lang. Res. Off. Stat. 4(1): 81-100 (2001).
- Klasen S.: "Low Schooling for Girls, Slower Growth for All?" World Bank Econ. Rev. 16: 345-373 (2002).
- Klasen S.: "Undernutrition in Benin: An Analysis based on Graphical Models". With Angelika Caputo, Ronja Foraita and Iris Pigeot. Soc. Sci. Med. 56: 1677-1691 (2003).
- Klasen S.: "Income Mobility and Household Poverty Dynamics in South Africa". With Ingrid Woolard. J. Dev. Stud. 41: 865-897 (2005).

Professor Dr. Kratz, Reinhard G.

Department of Old Testament and Department of Qumran Studies, Faculty of Theology

Born: 1957

Education and Employment

1987 Dr. theol. at University of Zurich (Switzerland)

1990 Habilitation at University of Zurich

1994-1995 Heisenberg Fellowship of the DFG

Since 1995 Full Professor of Old Testament at University of Göttingen

Since 2002 Director of the Department of Qumran Studies

Offers declined: Kiel, Munich (1995), and Heidelberg (2003)

Honours and Awards

Since 1999 Member of the Akademie der Wissenschaften zu Göttingen

2002-2003 Fellow of the Wissenschaftskolleg zu Berlin

2006-2007 Fowler Hamilton Visiting Research Fellow
at Christ Church College, Oxford (Great Britain)

Editorial Service

Co-editor: Altes Testament Deutsch (ATD), Altes Testament Deutsch Apokryphen (ATDA),
Grundrisse zum Alten Testament (GAT), Beihefte zur Zeitschrift für die Alttestamentliche
Wissenschaft (BZAW), Wissenschaftliche Monographien zum Alten und Neuen Testament
(WMANT), Zeitschrift für Theologie und Kirche (ZThK)

Other Scientific Activities

Chairman of the Septuaginta Committee of the Akademie der Wissenschaften
zu Göttingen und Head of Septuaginta (since 2002)

Head of the long-term project "Qumran-Lexikon" (since 2002)

Director of Centrum Orbis Orientalis (CORO) – Centre of Semitic and Related Studies
(since 2005)

University Representative for the partnership with Israel (since 2005)

Foreign Member of the British Society for Old Testament Study (since 2004)

Selected Publications (up to five since 2000)

- Kratz R. G.: "Die Komposition der erzählenden Bücher des Alten Testaments. Grundwissen der Bibelkritik".
UTB 2157, Göttingen 2000; English edition: "The Composition of the Narrative Books of the Old Testament".
Translated by J. Bowden, Continuum (T&T Clark), London/New York 2005.
- Kratz R. G.: "Die Propheten Israels". Beck'sche Reihe "Wissen", Munich 2003.
- Kratz R. G.: "Reste hebräischen Heidentums am Beispiel der Psalmen". Nachr. Akad. Wiss. Göttingen,
Phil.-Hist. Kl., 2004/2, 25-65, Göttingen 2004.
- Kratz R. G.: "Das Judentum im Zeitalter des Zweiten Tempels". Forschungen zum Alten Testament 42,
Tübingen 2004, Study edition 2006.
- Kratz R. G.: "The Growth of the Old Testament". J. W. Rogerson/J. M. Lieu (eds.), The Oxford Handbook
of Biblical Studies, Oxford University Press 2006, 459-488.

Professor Dr. Lauer, Gerhard

Institute of German Philology, Faculty of Philosophy

Born: 1962

Education and Employment

1989 M.A. (German studies, Philosophy), University of Munich

1992 Dr. phil., University of Munich

1992-2000 Assistant professor of German studies (W. Frühwald), University of Munich
Studies at Princeton University (USA) and at the Hebrew University of Jerusalem (Israel)

2000 Dr. habil. (German studies), University of Munich

Since 2002 Chair for German studies (literature), University of Göttingen

Since 2005 Director of the Institute of German Philology

Founding Director of the Centre of Modern Humanities

Visiting Professor at Bergamo (Italy), Coimbra (Portugal), Geneva (Switzerland), Trieste (Italy)

Honours and Awards

1990-1992 Scholarship of the Cusanuswerk, Bonn

2002 Award of the University of Munich

Editorial Service

Editor: Journal of Literary Theory, Palaestra, Revisionen

Boards: Arbitrium, ZVDD, Open-Access Germany, ViFA Germanistik

Other Scientific Activities

Advisory for the German-Israeli Foundation (since 2002)

Member of the German Research Foundation Subcommittee on Electronic Publications
(since 2006)

Selected publications (up to five since 2000)

- Lauer G.: "Regeln der Bedeutung. Zur Theorie der Bedeutung literarischer Texte". Ed. with Fotis Jannidis, Matias Martinez und Simone Winko. Berlin, New York: de Gruyter 2003.
- Lauer G.: "Exile, Science, and Bildung: The Contested Legacies of German Emigre Intellectuals". Ed. with David Kettler. (Studies in European Culture and History) New York: Palgrave Macmillan 2005.
- Lauer G.: "Lyrik im Verein. Zur Mediengeschichte der Lyrik des 19. Jahrhunderts als Massenkunst", in: Steffen Martus / Stefan Scherer / Claudia Stockinger (eds.): Lyrik im 19. Jahrhundert. Gattungspoetik als Reflexionsmedium der Kultur. Bern u.a. 2005, 183-204.
- Lauer G.: "Die Erfindung einer kleinen Literatur. Kafka und die jiddische Literatur", in: Manfred Engel / Dieter Lamping (eds.): Franz Kafka und die Weltliteratur. Göttingen 2006, 125-143.
- Lauer G.: "Spiegelneuronen. Über den Grund des Wohlgefallens an der Nachahmung", in: Karl Eibl / Rüdiger Zymner (eds.): Im Rücken der Kultur. Paderborn 2007, 133-159.

Professor Dr. Leuschner, Christoph

Department of Ecology and Ecosystems Research, Faculty of Biology

Born: 1956

Education and Employment

1982 Diploma (Biology), University of Göttingen

1983 Diploma (Geography), University of Göttingen

1986 Dr. rer. nat., University of Göttingen

1994 Habilitation (Botany), University of Göttingen

1996-2000 Professor of Ecology, University of Kassel

Since 2000 Professor of Plant Ecology, University of Göttingen, declined offers of Chairs in Plant Ecology at the Universities of Halle, Greifswald, and Münster

Editorial Service

Co-editor: Journal of Vegetation Science

Editorial Board: Several international journals (Basic and Appl. Ecol., Eur. J. For. Res. etc.)

Other Scientific Activities

1991-1992: Visiting Scientist at the University of Hawaii (USA)
and University of La Réunion (France)

Current duties: Coordinator of the DFG Research Training Group (GRK 1086) "The Role of Biodiversity for Biogeochemical Cycles and Biotic Interactions in Temperate Deciduous Forests"

Director of the New Botanical Garden in Göttingen

Director of the Göttingen Centre for Biodiversity and Ecology

Selected Publications (up to five since 2000)

- Leuschner Ch.: "Are high elevations in tropical mountains arid environments for plants?" Ecology 81: 1425-1436, 2000.
- Coners H. and Leuschner Ch.: "Water absorption by tree fine roots measured in situ with miniature sap flow gauges". Funct. Ecol. 16: 696-703, 2002.
- Aspelmeier S. and Leuschner Ch.: "Genotypic variation in drought response of silver birch (*Betula pendula* Roth): leaf water status and carbon gain". Tree Physiol. 24: 517-528, 2004.
- Leuschner Ch., Hertel D., Muhs A., Schmid I. and Koch O.: "Stand fine root biomass and fine root morphology in old-growth beech forests in response to rainfall height and soil acidity". Plant Soil 258: 43-56, 2004.
- Schipka F. and Leuschner Ch.: "Regional variation in canopy transpiration of Central European beech forests". Oecologia 143: 260-270, 2005.

Prof. Dr. Melchior, Frauke

Department of Biochemistry I, Faculty of Medicine

Born: 1962

Education and Employment

1987 Diploma (Chemistry), University of Marburg

1990 Dr. rer. nat. (Biochemistry), University of Marburg

1990-1992 Postdoc (Laboratory of V. Gerke, Göttingen)

1992-1998 Postdoc (Laboratory of L. Gerace, La Jolla/USA)

1998-1999 Group leader, University of Munich
and Max Planck Institute of Biochemistry, Martinsried

1999-2004 BioFuture group leader, Max Planck Institute of Biochemistry, Martinsried

Since 2004 Full Professor of Biochemistry, Faculty of Medicine, University of Göttingen

Since 2005 Faculty member, International MSc/PhD Programme Molecular Biology

Since 2006 co-opted member, Faculty of Biology, University of Göttingen

Honours and Awards

1984-1985 Undergraduate Fellowship, German Academic Exchange Service (DAAD)

1992-1994 Postdoctoral Fellowship, German Research Foundation (DFG)

1995-1997 Senior Postdoctoral Fellowship, American Cancer Society

1998 BioFuture – Young Investigator Award,
Federal Ministry of Education and Research (BMBF)

2005 Binder Award, German Society for Cell Biology

Editorial Service

Editorial Board: *Targeted Proteins Database* UPS Virtual Faculty and *Ubiquitin Journal*

Ad hoc reviewer: Cell, Nature, Nature Cell Biology, Science, EMBO J., Journal of Cell Biology, Trends in Cell Biology, Current Biology, Deutsche Forschungsgemeinschaft, Cancer Research Campaign, The Wellcome Trust, BARD, and others

Other Scientific Activities

Coordinator: DFG Collaborative Research Centre (SFB 523)

“Protein and Membrane Transport between Cellular Compartments” (since 2005)

Advisory board: Leibniz-Institut für Molekulare Pharmakologie (FMP), Berlin (since 2006)

Selection committee: Alexander von Humboldt Foundation (since 2007)

Co-organizer: EMBO Practical Course on Ubiquitin and SUMO, Split (Croatia) (2006)

Selected publications (up to five since 2000)

- Pichler A., Gast A., Seeler J.S., Dejean A. and Melchior F.: “The nucleoporin RanBP2 is a SUMO1 E3 Ligase”. Cell 108, 109-120, 2002.
- Swaminathan S., Kiendl F., Körner R., Lupetti R., Hengst L. and Melchior F.: “RanGAP1*SUMO-1 is phosphorylated at the onset of mitosis and remains associated with RanBP2 upon NPC disassembly”. J. Cell Biol. 164, 965-971, 2004.
- Pichler A., Knipscher P., Saitoh H., Sixma T. and Melchior F.: “SUMO E3 ligase RanBP2 is neither Hect- nor Ring-type”. Nat. Struct. Mol. Biol. 11, 984-991, 2004.
- Pichler A., Knipscheer P., Oberhofer E., van Dijk W.J., Körner R., Olsen J.V., Jentsch S., Melchior F. and Sixma T.K.: “SUMO modification of the ubiquitin conjugating enzyme E2-25K”. Nat. Struct. Mol. Biol. 12, 264-269, 2005.
- Bossis G. and Melchior F.: “Regulation of SUMOylation by reversible oxidation of SUMO conjugating enzymes”. Mol. Cell 21, 349-357, 2006.

Professor Dr. Meyer, Franc

Institute of Inorganic Chemistry, Faculty of Chemistry

Born: 1965

Education and Employment

1989 Visiting Scientist, CNRS Toulouse (France)

1991 Diploma (Chemistry), RWTH Aachen University

1993 Dr. rer. nat., RWTH Aachen University

1994-1995 Postdoctoral Associate (DFG Fellowship)

University of Utah, Salt Lake City (USA)

1995-2000 Habilitand (Liebig Fellowship and DFG Habilitation Fellowship)

Institute of Inorganic Chemistry, University of Heidelberg

2000-2001 Privatdozent (Heisenberg Fellowship of the DFG)

Institute of Inorganic Chemistry, University of Heidelberg

2000-2001 Guest Professor, Institute of Inorganic Chemistry, University of Vienna (Austria)

2001 Offer of the Chair of Inorganic Chemistry, University of Basel (Switzerland) (declined)

Since 2001 Professor of Inorganic Chemistry, University of Göttingen

2004 Offer of the Chair of General and Inorganic Chemistry

University of Erlangen-Nuremberg (declined)

Honours and Awards

1991 Springorum-Denkmünze, RWTH Aachen University

1994 Borchers-Plakette, RWTH Aachen University

2001 Dozentenstipendium, Fonds der Chemischen Industrie

2001 Freudenberg-Preis, Heidelberg Academy of Sciences and Humanities

2004 Steinhöfer Lecturer, Faculty of Chemistry, University of Freiburg

Other Scientific Activities

German representative for the management committee of the

European COST D21 action (2004-2006)

Member of the Steering Committee of the

ESF-Conferences in Inorganic Chemistry (since 2004)

Dean of Studies of the Faculty of Chemistry in Göttingen (since 2005)

Member of the Scientific Advisory Board of the

Max Planck Institute for Bioinorganic Chemistry, Mülheim an der Ruhr (since 2006)

Coordinator of the International DFG Research Training Group (GRK 1422)

"Metal Sites in Biomolecules: Structures, Regulation and Mechanisms" (since 2006)

Selected publications (up to five since 2000)

- Ackermann J., Meyer F., Kaifer E. and Pritzkow H.: "Tuning the Activity of Catechol Oxidase Model Complexes by Geometric Changes of the Dicopper Core". *Chem. Eur. J.* 8, 247-258, 2002.
- Demeshko S., Dechert S. and Meyer F.: "Anion- π Interactions in a Carousel Copper(II)-Triazine Complex". *J. Am. Chem. Soc.* 126, 4508-4509, 2004.
- Bauer-Siebenlist B., Meyer F., Farkas E., Vidovic D. and Dechert S.: "Effect of Zn...Zn Separation on the Hydrolytic Activity of Model Dizinc Phosphodiesterases". *Chem. Eur. J.* 11, 4349-4360, 2005.
- Leibel G., Demeshko S., Dechert S. and Meyer F.: "Hysteretic Magnetic Bistability Based on a Molecular Azide Switch". *Angew. Chem.* 117, 7273-7276, 2005; *Angew. Chem. Int. Ed.* 44, 7111-7114, 2005.
- Noël G., Röder J.C., Dechert S., Pritzkow H., Bolk L., Mecking S. and Meyer F.: "Pyrazolate-Based Dinuclear α -Diimine-Type Palladium(II) and Nickel(II) Complexes – a Bimetallic Approach in Olefin Polymerisation". *Adv. Synth. Catal.* 348, 887-897, 2006.

Professor Dr. Munk, Axel

Institute for Mathematical Stochastics, Faculty of Mathematics

Born: 1967

Education and Employment

1987-1992 Study of Mathematics, University of Göttingen

1992 Diploma, University of Göttingen

1994 PhD in Mathematics, University of Göttingen

1995-1999 Assistant Professor, University of Bochum

1999-2000 Associate Professor, University of Siegen

2000-2001 Associate Professor, University of Paderborn

Since 2002 Professor, Chair for Stochastics, University of Göttingen

Offers declined: 2001 Chair for Stochastics (C3), Saarland University, Saarbrücken

2002 Chair for Statistics, Eindhoven University of Technology (Netherlands)

2002 Chair for Mathematical Statistics, University of Dortmund

2005 Chair for Mathematical Statistics, Humboldt-Universität zu Berlin

Honours and Awards

1992 Gustav Adolf Lienert Award of the International Biometric Society, German Section

1992-1994 Studienstiftung des deutschen Volkes

1994/1995 DFG Fellowship

2005/2006 DFG Research Semester:

Inverse statistical problems under qualitative prior information

Editorial Service

Guest Editor: *Statistica Neerlandica*, *Drug Information Journal*, *Biometrical Journal*

Other Scientific Activities

Organisation of conferences:

“At the Frontier of Research in Theoretical Statistics” (with J. Einmahl)

17.8.-19.8.2000, EURANDOM, Eindhoven (Netherlands)

Joint Statistical Meeting 2003. Section “New Methods of Model Selection and Testing”

3.8.-7.8.2003, San Francisco, California (USA)

“Statistical and Probabilistic Methods of Model Selection” (with J. Berger,

H. Dette and G. Lugosi), Mathematisches Forschungsinstitut Oberwolfach, 2005

Selected Publications (up to five since 2000)

- Munk A.: “Testing the goodness of fit of parametric regression models with random Toeplitz forms”. *Scand. J. Stat.* 29(3), (2002) 501-535.
- Bissantz N., Hohage T. and Munk A.: “Consistency and rates of convergence of nonlinear Tikhonov regularisation with random noise”. *Inverse Probl.* 20, (2004) 1773-89.
- Munk A., Bissantz N., Wagner T. and Freitag G.: “On difference based variance estimation in nonparametric regression when the covariate is high dimensional”. *J. R. Stat. Soc. B* 67, (2005) 19-41.
- Freitag G., Lange S. and Munk A.: “Nonparametric assessment of noninferiority with censored data”. *Stat. Med.* 25, (2006) 1201-1217.
- Bissantz N., Dümbgen L., Holzmann H. and Munk A.: “Nonparametric confidence bands in deconvolution density estimation”. *J. R. Stat. Soc. B* (2007). In print.

Professor Dr. Nesselrath, Heinz-Günther

Institute of Classical Philology, Faculty of Philosophy

Born: 1957

Education and Employment

1981 PhD (Classics), University of Cologne

1987 Habilitation (Classics), University of Cologne

1981-1989 Assistant Professor of Classics at the University of Cologne

1992-2001 Full Professor for Classics at the University of Bern (Switzerland)
(after declining an offer of Chair at the University of Münster)

Since 2001 Full Professor for Classics at the University of Göttingen
(after declining an offer of Chair at the University of Jena)

Honours and Awards

1981 Dissertation Award of the Friends and Alumni of the University of Cologne
for "Lukians Parasitendialog. Untersuchungen und Kommentar"

1989-1992 Heisenberg Fellowship of the DFG

1991 Award of the Nordrhein-Westfälische Akademie der Wissenschaften
for "Die Attische Mittlere Komödie" (Habilitation thesis)

Member of the Akademie der Wissenschaften zu Göttingen (since 2002)

Editorial Service

Co-editor of UaLG "Untersuchungen zur antiken Literatur und Geschichte" (since 2000)

Co-editor of SAPERE "Scripta Antiquitatis Posterioris ad Ethicam Religionemque
pertinentia" (since 2000, editor-in-chief 2001-2003)

Co-editor of "Glotta. Zeitschrift für griechische und lateinische Sprache" (since 2001)

Other Scientific Activities

2004 (summer term) Visiting Fellow at All Souls College, Oxford (Great Britain)

Selected Publications (up to five since 2000)

- Ebner M., Gzella H., Nesselrath H.-G. and Ribbat E.: "Lukian: Die Lügenfreunde". Eingel., übersetzt und mit interpr. Essays versehen, Darmstadt 2001.
- Nesselrath H.-G.: "Platon und die Erfindung von Atlantis". Munich/Leipzig 2002.
- Nesselrath H.-G., Bäbler B., Forschner M. and de Jong A.: "Dion von Prusa. Menschliche Gemeinschaft und göttliche Ordnung: Die Borysthenes-Rede". Darmstadt 2003.
- Bäbler B. and Nesselrath H.-G.: "Ars et Verba. Die Kunstbeschreibungen des Kallistratos". Einführung, Text, Übersetzung, Anmerkungen, archäologischer Kommentar. Munich/Leipzig 2006.
- Nesselrath H.-G.: "Platon, Kritias: Übersetzung und Kommentar". Göttingen 2006.

Professor Dr. Ostner, Ilona

Institute of Sociology, Faculty of Social Sciences

Born: 1947

Education and Employment

1974 Magister Artium (Sociology), University of Munich

1978 Dr. phil., University of Munich

1974-1983 DFG Collaborative Research Centre (SFB 101)

“Theoretische Grundlagen sozialwissenschaftlicher Berufs- und Arbeitskräfteforschung”

University of Munich (1978-1983 project group leader)

1983-1989 Professor (Sociology, Community Action Research)

Fulda University of Applied Sciences

1989 Habilitation (Sociology), University of Hanover

1989-1994 Associate Professor of Sociology and Gender Studies

Centre for Social Policy Research, University of Bremen

1990 Offer of Associate Professorship (Sociology and Gender Studies)

University of Bochum (declined)

Since 1994 Professor of Comparative Social Policy, University of Göttingen

Editorial Service

Editorial Board memberships: European Societies, Zeitschrift für Familienforschung,

Zeitschrift für Soziologie (2000-2003)

Other Scientific Activities

Coordinator of DFG Research Training Group (GRK 407)

“The Future of the European Social Model” (1997-2007)

Boards: Vice President European Sociological Association (2003-2005)

German Sociological Association (since 2005)

Selected publications (up to five since 2000)

- Ostner I.: “Cohabitation in Germany – Rules, Reality and Public Discourses”. Int. J. Law Pol. Fam. 15, 88-101, 2001.
- Ostner I.: “Individualisation – The Origins of the Concept and Its Impact on German Social Policies”. Social Policy & Society 3(1), 47-56, 2003.
- Ostner I.: “Gleichstellungspolitik: neu, oktroyiert, ungeliebt?” In: Manfred G. Schmidt and Reimut Zohlnhöfer (eds.), Regieren in der Bundesrepublik Deutschland, Wiesbaden: VS Verlag für Sozialwissenschaften, 260-278, 2006.
- Knijn T., Ostner I. and Schmitt C.: “Men and (Their) Families: Comparative Perspectives on Men’s Roles and Attitudes Towards Family Formation”, in: Jonathan Bradshaw and Aksel Hatland (eds.), Social Policy, Employment and Family Change in Comparative Perspective, Cheltenham: Edward Elgar, 179-197, 2006.
- Knijn T. and Ostner I.: “The meaning of children in Dutch and German Family Policy”. Comp. Soc. Res. 25, 2007 (reviewed, in print).

Professor Dr. Patterson, Samuel J.

Mathematical Institute, Faculty of Mathematics

Born: 1948

Education and Employment

1960-1967 Secondary schooling: Grosvenor High School, Belfast (Northern Ireland)

1967-1970 Undergraduate, Degree B.A. (First Class), Clare College, Cambridge (Great Britain)

1970-1971 Part III completed with distinction, Clare College, Cambridge

1971-1973 Doctoral Student, Clare College, Cambridge

1975 PhD, Clare College, Cambridge

1973-1976 Research Fellow, Clare College, Cambridge

1975 on leave with a Royal Society Postdoctoral Fellowship in Göttingen

1976-1979 Teaching Fellow and University Assistant Lecturer, Clare College, Cambridge

1979-1981 B. Pierce Lecturer, Harvard (USA)

Since 1981 Professor (C4), University of Göttingen

Honours and Awards

1998 Member of the Akademie der Wissenschaften zu Göttingen

Editorial Service

Editor: Journal für die Reine und Angewandte Mathematik (1982-1994)

Other Scientific Activities

Coordinator: DFG Collaborative Research Centre (SFB 170)

“Geometry and Analysis” (1990-1995)

Council, Mathematisches Forschungsinstitut Oberwolfach (1988-1994)

Advisory council, Emmy Noether Institute, Bar-Ilan University, Tel Aviv (Israel) (1994-2002)

Chairman: Academy Commission for Mathematicians' Estates (since 2002)

Chairman: Academy Commission for the Gauss Professorship (since 2002)

Member: Inter-academy Commission for the Leibniz Edition (since 2006)

Dean of the Faculty of Mathematics (1998-2000)

Expert referee: DFG (2000-2003); DFG Review Board “Mathematics” (2004-2007)

Selected Publications (up to five since 2000)

- Patterson S.J.: “Divisor of the Selberg zeta function for Kleinian groups” (with P.A. Perry). Duke Math. J. 106 (2001) 321-390.
- Patterson S.J.: “On the first moment of cubic exponential sums” (with R. Livné). Invent. Math. 148 (2002) 79-116.
- Patterson S.J.: “On the distribution of certain Hua sums, II”. Asian J. Math. 6 (2002) 719-730.
- Patterson S.J.: “The asymptotic distribution of exponential sums, I”. Exp. Math. 12 (2003) 135-153.
- Patterson S.J.: “The asymptotic distribution of exponential sums, II”. Exp. Math. 14 (2005) 87-98.

Professor Dr. Polle, Andrea

Department of Forest Botany and Tree Physiology, Faculty of Forest Science and Ecology

Born: 1956

Education and Employment

1981 Diploma (Biology), University of Cologne

1986 Dr. rer. nat., University of Osnabrück, Department of Biophysics

1987 Post-Doc, DFG Collaborative Research Centre (SFB 171)

“Membrane-Bound Transport Processes in Cells”, University of Osnabrück

1988-1992 Scientist and Group Leader at the Fraunhofer Institute of Atmospheric Environmental Research, Garmisch-Partenkirchen

1992-1996 Lecturing and Research Scientist at the Institute of Forest Botany and Tree Physiology, University of Freiburg

1995 Habilitation (Tree Physiology and Ecophysiology)

Faculty of Forest Sciences, University of Freiburg

Since 1996 Professor of Forest Botany and Tree Physiology, University of Göttingen

Director of the Forest Botanical Garden and Arboretum

Since 2002 Associated Member of the Faculty of Biology

Honours and Awards

Member of the Akademie der Wissenschaften zu Göttingen

Editorial Service

Editor: New Phytologist and Oecologia

Advisory Board Member: Plant, Cell & Environment

Other Scientific Activities

Member of the DFG Review Board “Agriculture, Forestry, Horticulture and Veterinary Medicine” (Vice Chairperson)

Coordinator of EU-project ESTABLISH (2001-2005)

Coordinator of DFG Research Unit (FOR 496)

“Poplar – a Model to Address Tree-Specific Questions” (2003-2009)

Coordinator of the Cooperative BMBF Project

“Sustainable Utilisation of Grand Fir and Beech” (2005-2009)

Selected Publications (up to five since 2000)

- Schützendübel A., Schwanz P., Teichmann T., Gross K., Langenfeld-Heyser R., Godbold D. and Polle A.: “Cadmium-induced changes in antioxidative systems, H₂O₂ content and differentiation in pine (*Pinus sylvestris*) roots”. *Plant Physiol.* 127, 887-898, 2001.
- Polle A.: “Dissecting the superoxide dismutase-ascorbate-glutathione pathway by metabolic modeling: computer analysis as a step towards flux analysis”. *Plant Physiol.* 126, 445-462, 2001.
- Ottow E.A., Brinker M., Teichmann T., Fritz E., Kaiser W., Brosché M., Kangasjärvi J., Jiang X. and Polle A.: “*Populus euphratica* displays apoplastic sodium accumulation, osmotic adjustment by decreases in calcium and soluble carbohydrates, and develops leaf succulence under salt stress”. *Plant Physiol.* 139, 1762-1772, 2005.
- Brosché M., Vinocur B., Alatalo E.R., Lamminmäki A., Teichmann T., Ottow E.A., Djilianov D., Afif D., Triboulot-Bogeat M.B., Altman A., Polle A., Dreyer E., Rudd S., Paulin L., Auvinen P. and Kangasjärvi J.: “Gene expression and metabolite profiling of *Populus euphratica* growing in the Negev desert”. *Genome Biol.* 6: R101, 2005.
- Bogeat-Triboulot M., Brosché M., Renaut J., Jouve L., Le Thiec D., Fayyaz P., Vinocur B., Witters E., Laukens K., Teichmann T., Altman A., Hausman J.F., Polle A., Kangasjärvi J. and Dreyer E.: “Gradual Soil Water Depletion Results in Reversible Changes of Gene Expression, Protein Profiles, Ecophysiology and Growth Performance in *Populus Euphratica*, a Poplar Growing in Arid Regions”. *Plant Physiol.* 10.1104/pp.106.088708 online December 8, 2006.

Professor Dr. Reitner, Joachim

Department of Geobiology, Faculty of Geosciences and Geography

Born: 1952

Education and Employment

1980 Diploma in Geology/Palaeontology, University of Tübingen

1980-1984 Doctoral Research Fellow, University of Tübingen

1984 Dr. rer. nat. in Geology/Palaeontology, University of Tübingen

1984-1988 Postdoctoral Research Fellow, Freie Universität Berlin

1989-1994 Assistant Professor, Freie Universität Berlin

1991 Habilitation in Geology/Palaeontology, Freie Universität Berlin

1993 Visiting Professor, University of Paris-Sud 11, Orsay (France)

Since 1994 Full Professor (C4) in Palaeontology and Geobiology, University of Göttingen

2006 Visiting Professor, Northwest University, Xian (China)

Honours and Awards

1996 Gottfried Wilhelm Leibniz Prize of the DFG

1998 Member of the Akademie der Wissenschaften zu Göttingen

Editorial Service

Editor-in-Chief: Lecture Notes in Earth Sciences (Springer)

Co-editor: Facies (Springer)

Associate Editor: Geomicrobiology Journal (Taylor & Francis)

Other Scientific Activities

Director of the Geoscience Museum at the Faculty of Geosciences and Geography

Dean of the Faculty of Geosciences and Geography (2002-2004)

Vice Dean of the Faculty of Geosciences and Geography (2001-2002 and 2005-2007)

Member of the Steering Committee of Göttingen Centre for Biodiversity and Ecology

Vice President of the Paläontologische Gesellschaft (since 2005)

DFG Selection Committee for the Heinz Maier Leibnitz Prize (since 2005)

Referee for Funding Agencies: DFG, NERC, ARC, NSF (USA), Humboldt Foundation, et al.

Referee for Scientific Journals: *Geochimica et Cosmochimica Acta*, *Palaeo3*, *Facies*, *Jour. Paleontology*, *Geomicrobiology Journ.*, *Geology*, et al.

Selected Publications (up to five since 2000)

- Reitner J., Thiel V., Zankl H., Michaelis W., Wörheide G. and Gautret P.: "Organic and Biochemical Pattern in Cryptic Microbialites", in: Riding, R.E., & Awramik, S.M., *Microbial Sediments*, 149-160, (Springer) 2000.
- Arp G., Reimer A. and Reitner J.: "Photosynthesis-induced biofilm calcification and Calcium concentrations in Phanerozoic Ocean". *Science* 292, 1701-1704, 2001.
- Reitner J. and Wörheide G.: "Non-Lithistid fossil Demospongiae – Origins of their Palaeobiodiversity and Highlights in History of Preservation", in: Hooper, J.N.A. & Van Soest, R. (eds.), *Systema Porifera: A Guide to the Classification of Sponges*, 52-68, (Kluwer) New York, 2002.
- Reitner J.: "Organomineralisation: A clue to the understanding of meteorite-related "Bacteria-shaped" carbonate particles", in: J. Seckbach (ed.), *Origins*, 195-212, (Kluwer) New York, 2004.
- Reitner J., Peckmann J., Blumenberg M., Michaelis W., Reimer A. and Thiel V.: "Anatomy of methane-derived carbonates and associated microbial communities in Black Sea sediments". *Palaeogeogr. Palaeoclimatol.* 227, 18-30, 2005.

Professor Dr. Rexroth, Frank

Institute of Medieval and Modern History, Faculty of Philosophy

Born: 1960

Education and Employment

1986 Magister Artium in History and German Language and Literature, University of Freiburg

1986 Staatsexamen in History and German Language and Literature, University of Freiburg

1988 PhD, University of Freiburg

1989-1991 Fellow at German Historical Institute London (Great Britain)

1991-1992 Postdoctoral Research Fellow at Max Planck Institute for History, Göttingen

1992-1998 Hochschulassistent at Humboldt-Universität zu Berlin

1999-2000 Professor of Medieval and Early Modern History at University of Bielefeld

Since 2000 Professor of Medieval and Modern History at University of Göttingen

Honours and Awards

1991-1992 Postdoctoral Fellow at Max Planck Institute for History, Göttingen

1992 Heinz Maier Leibnitz Prize of the DFG (for dissertation)

1998 Prize of the Historikerverband (for Habilitationsschrift)

1999 Heisenberg Fellowship of the DFG

2003 Konstanzer Arbeitskreis für mittelalterliche Geschichte

2004 Member of the Akademie der Wissenschaften zu Göttingen

2006 H-Soz-u-Kult: Second Place, Book of the Year

(section "Medieval History" for Deutsche Geschichte im Mittelalter)

Editorial Service

Editorial Board: Historische Zeitschrift

Editorial Board: Campus Historische Studien

Other Scientific Activities

Centre for Medieval and Early Modern Studies, Göttingen (Board 2001-2004, Chair 2002)

Board of Monumenta Germaniae Historica, Munich

Board of German Historical Institute London (Vice chair)

Board of Clio online

Gesellschaft für Universitäts- und Wissenschaftsgeschichte

Referee for (inter al.): Berlin-Brandenburgische Akademie der Wissenschaften, German Academic Exchange Service, DFG, Austrian Science Fund, Fritz Thyssen Stiftung, Alexander von Humboldt Foundation, Studienstiftung des deutschen Volkes, Volkswagen Foundation

Selected Publications (up to five since 2000)

- Rexroth F.: "Ritual and the Creation of Social Knowledge: The Opening Celebrations of Medieval German Universities". In: Courtenay/Miethke (eds.), Universities and Schooling in Medieval Society, Leiden/Boston/Cologne 2000, 65-80.
- Rexroth F.: "Rituale und Ritualismus in der historischen Mittelalterforschung. Eine Skizze", in: Götz/Jarnut (eds.), Mediävistik im 21. Jahrhundert, Munich 2003, 391-406.
- Rexroth F.: "Tyrannen und Taugenichtse. Beobachtungen zur Ritualität europäischer Königsabsetzungen im späten Mittelalter", in: Hist. Z. 278, 2004, 27-53.
- Rexroth F.: "Deutsche Geschichte im Mittelalter". 2nd edition, Munich 2007.
- Rexroth F.: "Power and Deviance in Late Medieval London, Past and Present Publications". Cambridge. Forthcoming in June 2007.

Professor Dr. Richter, Diethelm W.

Department of Neuro- and Sensory Physiology, Faculty of Medicine

Born: 1943

Education and Employment

1963-1969 Studies in Medicine, University of Munich

1969 State Examination in Medicine, University of Munich

1969-1972 Post-Doc, Neurophysiology, Saarland University, Saarbrücken
(Prof. R. Stämpfli, Prof. A.C. Nacimiento)

1970 Dr. med. in Physiology, University of Munich (summa cum laude)

1972-1974 Assistant Professor, Institute of Physiology, University of Munich (Prof. H. Seller)

1974 Habilitation Physiology, University of Munich (Prof. K. Kramer)

1975-1988 C2 Professorship, Physiology, University of Heidelberg

Since 1988 Full Professor, Neurophysiology and Sensory Physiology, University of Göttingen

Honours and Awards

1995 Lambert Lectureship of Neuroscience, Seattle University (USA)

Editorial Service

Editor: Journal of Physiology (Great Britain) (1986-1992)

Editor: Pflügers Archiv (1990-2006)

Other Scientific Activities

1981 Visiting Professor of the Medical Branch at Galveston, University of Texas (USA)

1983 Associate Member of the Physiological Society (Great Britain)

1985-1989 Visiting Professor of the Department of Physiology, University College London
(Great Britain); Department of Animal Biology, University of Pennsylvania, Philadelphia (USA)

1995 Visiting Professor of the Department of Physiology, University College London

1995-2006 Coordinator of the DFG Collaborative Research Centre (SFB 406)

"Synaptic Interaction in Neuronal Networks"

2002 Coordinator of the DFG Research Centre (FZT 103)

"Molecular Physiology of the Brain" (CMPB)

2006 Chairman of the European Neuroscience Institute Göttingen (ENI-G)

2006 Coordinator of the Cluster of Excellence (EXC 171) "Microscopy at the Nanometer Range"

Selected Publications (up to five since 2000)

- Manzke T., Günther U., Ponimaskin E.G., Haller M., Dutschmann M., Schwarzacher S. and Richter D.W.: "5-HT_{4(a)} Receptors avert opioid-induced breathing depression without loss of analgesia". *Science* 301: 226-229 (incl. News and Views), 2003.
- Richter D.W., Manzke T., Wilken B. and Ponimaskin E.: "Serotonin receptors: guardians of stable breathing". *Trends Mol. Med.* 9: 542-548; (Review), 2003.
- Gomeza J., Hülsmann S., Ohno K., Eulenburg V., Szöke K., Richter D.W. and Betz H.: "Inactivation of the Glycine Transporter 1 Gene Discloses Vital Role of Glial Glycine Uptake in Glycinergic Inhibition". *Neuron* 40: 785-796, 2003.
- Gomeza J., Ohno K., Hülsmann S., Armsen W., Eulenburg V., Richter D.W., Laube B. and Betz H.: "Deletion of the Mouse Glycine Transporter 2 Results in a Hyperekplexia Phenotype and Postnatal Lethality". *Neuron* 40: 797-806, 2003.
- Kvachnina E., Liu G., Dityatev A., Renner U., Dumuis A., Richter D.W., Dityateva G., Schachner M., Voyno-Yasenetskaya T.A. and Ponimaskin E.G.: "5-HT₇ receptor is coupled to G α subunits of heterotrimeric G12-protein to regulate gene transcription and neuronal morphology". *J. Neurosci.* 25(34): 7821-30, 2005.

Professor Dr. Röckelein, Hedwig

Institute of Medieval and Modern History, Faculty of Philosophy

Born: 1956

Education and Employment

1981 MA (History), University of Freiburg

1985 PhD (History), University of Freiburg (published in 1987)

1985-1989 Catalogue of Latin manuscripts at the Tübingen University Library
within the Research Project "Cataloguing Medieval Manuscripts"

German Research Foundation (DFG) (published in 1991)

1990-1998 Assistant Professor, University of Hamburg

1998 Habilitation, University of Hamburg (published in 2002)

Since 1999 Professor of Medieval History, University of Göttingen

2003 Offer of the Chair for Medieval History, Freie Universität Berlin (declined)

Honours and Awards

1996 Scholarship of the Aby M. Warburg Prize of the Freie und Hansestadt Hamburg

2003-2004 Guest professor at the

École des Hautes Études en Sciences Sociales, Paris (France)

Editorial Service

Editorial board memberships: Historische Einführungen, Beiträge zur Hagiographie,
Essener Forschungen zum Frauenstift

Other Scientific Activities

Director (2001-2002) and Vice Director (since 2006)

of the Centre for Medieval and Early Modern Studies, Göttingen

Boards: International Max Planck Research School for the History and
Transformation of Cultural and Political Values in Medieval and Modern Europe

DFG Research Training Group (GRK 1024) "Interdisciplinary Environmental
History: Natural Environment and Societal Behaviour in Central Europe"

Göttingen Graduate School of Humanities

Memberships: Centre d'études médiévales, Auxerre (CNRS Burgundy/France)

Research Centre for the Comparative History of Religious Orders, Eichstätt

Selected publications (up to five since 2000)

- Röckelein H.: "Reliquientranslationen nach Sachsen im 9. Jahrhundert. Über Kommunikation, Mobilität und Öffentlichkeit im Frühmittelalter". (Beihefte der Francia; 48) Stuttgart 2002.
- Röckelein H. (ed.): "Der Kult des Apostels Jakobus d.Ä. in norddeutschen Hansestädten". (Jakobus-Studien; 15) Tübingen 2005.
- Carqué B. and Röckelein H. (eds.): "Das Hochaltarretabel der St. Jacobi-Kirche in Göttingen". (Veröffentlichungen des Max-Planck-Instituts für Geschichte, Göttingen; 213 / Studien zur Germania Sacra; 27) Göttingen 2005.
- Hoernes M. and Röckelein H. (eds.): "Gandersheim und Essen. Vergleichende Untersuchungen zu sächsischen Frauenstiften". (Essener Forschungen zum Frauenstift, Band 4) Essen 2006.
- Röckelein H.: "Just de Beauvais alias Justin d'Auxerre: l'art de dédoubler un saint". Avec l'édition de la *Passio s. Iustini* (BHL 4579) par François Dolbeau et Hedwig Röckelein, in: Livrets, collections et textes. Études sur la tradition hagiographique latine. Ostfildern 2006, 323-360 (Beihefte der Francia; 63).

Professor Dr. Salditt, Tim

Institute for X-Ray Physics, Faculty of Physics

Born: 1965

Education and Employment

1987-1993 Studies of Physics, University of Munich
and Université Joseph Fourier, Grenoble (France)

1993 Diploma in Physics, University of Munich (with honours)

1995 Doctoral thesis in Physics under supervision of Prof. Dr. J. Peisl
University of Munich (summa cum laude)

1996 Postdoc in Prof. Safinya's lab, University of California, Santa Barbara (USA)

2000 Habilitation (experimental physics), University of Munich

2000 Associate Professor (C3), Saarland University, Saarbrücken

2002 Offer of full professorship in Experimental Physics
Saarland University, Saarbrücken (declined)

2002 Offer of full professorship in Experimental Physics
Technische Universität Darmstadt (declined)

Since 2002 Full Professor of Experimental Physics (C4), University of Göttingen

Honours and Awards

1995 Ernst-Eckhard Koch Award, Förderverein BESSY
(thesis award synchrotron radiation)

1997 NATO/DAAD Postdoctoral Fellowship

Other Scientific Activities

Coordinator of proposed DFG Collaborative Research Center (SFB 755)
"Nanoscale Photonic Imaging"

Advisory board member of

Max Planck Institute for Dynamics and Self-Organisation, Göttingen

Associated membership at European Neuroscience Institute Göttingen (ENI-G)

Member of the Scientific Advisory Committee, European Synchrotron Radiation Facility

Member of the Komitee Forschung mit Synchrotronstrahlung

Co-organizer of several international workshops and conferences in the field of x-ray science

Selected publications (up to five since 2000)

- Pfeiffer F., David C., Burghammer M., Riekel C. and Salditt T.: "Two-dimensional x-ray waveguides". Science 297, 230, 2002.
- Salditt T.: "Liquid-peptide interaction in oriented bilayers probed by interface-sensitive scattering methods". Curr. Opin. Struct. Biol. 13:467-478, 2003.
- Jarre A., Fuhse C., Ollinger C., Seeger J., Tucoulou R. and Salditt T.: "Two-Dimensional hard x-ray beam compression by combined focussing and waveguide optics". Phys. Rev. Lett. 94, 074801, 2005.
- Rheinstädter M.C., Häußler W. and Salditt T.: "Dispersion Relation of Lipid Membrane Shape fluctuations by Neutron Spin-Echo Spectrometry". Phys. Rev. Lett. 97, 048103, 2006.
- Fuhse C., Ollinger C. and Salditt T.: "Waveguide-based off-axis holography with hard x-rays". Phys. Rev. Lett. 97, 254801, 2006.

Professor Dr. Samwer, Konrad

I. Physical Institute, Faculty of Physics

Born: 1952

Education and Employment

1975 Diploma in Physics, University of Göttingen

1981 Dr. rer. nat., University of Göttingen

1987 Habilitation in Physics, University of Göttingen

1978-1983 Research Fellow, University of Göttingen and Caltech, Pasadena (USA)

1983-1989 Akademischer Rat, University of Göttingen

1989-1999 Professor of Physics (C4), University of Augsburg

Since 1999 Professor of Physics (C4), University of Göttingen

Honours and Awards

1983 Heinz Maier Leibnitz Prize of the DFG

1990/1992/1995/1998/2000/2002 Forschungsbeihilfe des Fonds der Chemischen Industrie

2003 Honda Memorial Award of the Tohoku University, Sendai (Japan)

2004 Gottfried Wilhelm Leibniz Prize of the DFG

Since 2004/2006 Member and Secretary General
of the Akademie der Wissenschaften zu Göttingen

Editorial Service

Editor: Physik Journal, New Journal of Physics (since 2006)

Other Scientific Activities

Chair of Consultants of the Deutsche Gesellschaft für Materialkunde (DGM) (1992-1996)

Member COST-EU Commission for Technology Driven Physics (1995-1997)

Member of Heisenberg Committee of the DFG (1996-2001)

Dean of the Faculty of Mathematics and Natural Sciences, University of Augsburg
(1992-1994) and Member of the Senate of the University of Augsburg (1994-1996)

Deputy Chair of Advisory Board of Experts of the
Max Planck Institute for Metals Research, Stuttgart (since 1997)

Chair of Stern-Gerlach Prize Committee of the German Physical Society (DPG) (since 2003)

Deputy Coordinator of the DFG Collaborative Research Centre (SFB 602)

"Complex Structures in Condensed Matter from Atomic to Mesoscopic Scales" (since 2002)

Member of the Selection Committee of the Alexander von Humboldt Foundation (since 2003)

Member of the DFG Grants Committee on Collaborative Research Centres (since 2004)

Executive board of the German Physical Society (since 2006)

Selected Publications (up to five since 2000)

- Mayr S. and Samwer K.: "Model for Intrinsic Stress Formation in Amorphous Thin Films". Phys. Rev. Lett. 87, 036105 (2001).
- Becker T., Streng C., Luo Y., Moshnyaga V., Damaschke B., Shannon N. and Samwer K.: "Intrinsic Inhomogeneities in Manganite Thin Films Investigated with Scanning Tunneling Spectroscopy". Phys. Rev. Lett. 89, 237203-1 (2002).
- Moshnyaga V., Damaschke B., Shapoval O., Belenchuk A., Faupel J., Lebedev O., Verbeeck J., van Tendeloo G., Müksch M., Tsurkan V., Tidecks R. and Samwer K.: "Structural Phase Transition at the Percolation Threshold in Epitaxial $(\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3)_{1-x}(\text{MgO})_x$ Nanocomposite Films". Nat. Mater. 2, 247 (2003).
- Rösner P., Samwer K. and Lunkenheimer P.: "Indications for an 'Excess Wing' in Metallic Glasses from the Mechanical Loss Modulus in ZrAlCu ". Europhys. Lett. 68, 226 (2004).
- Johnson W.L. and Samwer K.: "A Universal Criteria for Plastic Yielding of Metallic Glasses with a $(T/T_g)^{2/3}$ Temperature Dependence". Phys. Rev. Lett. 95, 195501 (2005).

Professor Dr. Sauter, Martin

Department of Applied Geology, Faculty of Geosciences and Geography

Born: 1956

Education and Employment

1976-1980 Diploma in Geology, University of Tübingen

1980-1981 MSc in Hydrogeology, University of Birmingham (Great Britain)

1982-1983 Hydrogeologist, Water Research Centre, Medmenham (Great Britain)

1983-1987 Consultant, Ingenieurgesellschaft Dr. C. Zimmermann, Kelkheim

1987-1990 PhD on characterisation and modelling of highly heterogeneous carbonate aquifers, Applied Geology, University of Tübingen

1990-1998 Assistant Professor, Habilitation on coupled processes in karst systems, Applied Geology, University of Tübingen

1999-2002 Professor of Hydrogeology, University of Jena

Since 2002 Professor of Applied Geology, University of Göttingen

Honours and Awards

1990 Summa cum laude for PhD thesis

Editorial Service

Editorial Board Memberships: Grundwasser (Journal of the German Hydrogeologists)

Ground Water (Journal of the National Ground Water Association, USA)

Other Scientific Activities

Member of the DFG Review Board "Water Research"

Vice President of the Geothermische Vereinigung

Selected publications (up to five since 2000)

- Birk S., Liedl R., Sauter M. and Teutsch G.: "Hydraulic boundary conditions as a controlling factor in karst genesis: A numerical modelling study on artesian conduit development in gypsum". Water Resour. Res. 39, doi:10.1029/2002WR001308, 2003.
- Liedl R., Sauter M., Hückinghaus D., Clemens T. and Teutsch G.: "Simulation of the development of karst aquifers using a coupled continuum pipe flow model". Water Resour. Res. 39, doi: 10.1029/2001WR001206, 2003.
- Bauer S., Liedl R. and Sauter M.: "Modeling the influence of epikarst evolution on karst aquifer genesis: A time variant recharge boundary condition for joint karst - epikarst development". Water Resour. Res. 41, W09416, doi: 10.1029/2004WR003321, 2005.
- Geyer T., Birk S., Licha T., Liedl R. and Sauter M.: "Multi-tracer test approach to characterize reactive transport in karst aquifers". Ground Water 45, 36-45, 2007.
- Birk S., Liedl R. and Sauter M.: "Karst spring responses examined by process-based modeling". Ground Water (available online, to appear in the theme issue "Understanding through Modeling", Jan/Feb 2007). doi: 10.1111/j.1745-6584.2006.00175.x, 2007.

Professor Dr. Sheldrick, George M.

Institute of Inorganic Chemistry, Faculty of Chemistry

Born: 1942

Education and Employment

1961/1962 First class in prelim. to part I and part I of the Natural Sciences Tripos

1963 First class in part II Chemistry

1966 PhD thesis "N.M.R. Studies of Inorganic Hydrides"
with Prof. E.A.V. Ebsworth, Cambridge (Great Britain)

1966-1971 University Demonstrator

1971-1978 University Lecturer in Department of
Inorganic, Organic and Theoretical Chemistry, Cambridge

1966-1978 Fellow of Jesus College, Cambridge

Since 1978 Professor of Structural Chemistry, University of Göttingen

Honours and Awards

1970 Meldola Medal of the Royal Society of Chemistry (Great Britain)

1978 Corday Morgan Medal of the Royal Society of Chemistry

1981 Royal Society of Chemistry Award for Structural Chemistry

1988 Gottfried Wilhelm Leibniz Prize of the DFG

1993 Patterson Prize of the American Crystallographic Association

1996 Mineral Sheldrickite named after Prof. Dr. George M. Sheldrick

1999 Carl Hermann Medal of the Deutsche Gesellschaft für Kristallographie

2001 Fellow of the Royal Society (Great Britain)

2004 Dorothy Hodgkin Prize of the British Crystallographic Association

2004 Max Perutz Prize of the European Crystallographic Association

Since 1989 Member of the Akademie der Wissenschaften zu Göttingen

Selected Publications (up to five since 2000)

- Lehmann C., Bunkóczi G., Vértesy L. and Sheldrick G.M.: "Structures of Glycopeptide Antibiotics with Peptides that model Bacterial Cell-Wall Precursors". J. Mol. Biol. 318 (2002) 723-732.
- Sheldrick G.M.: "Macromolecular Phasing with SHELXE". Z. Kristallogr. 217 (2002) 644-650.
- Schneider T.R. and Sheldrick G.M.: "Substructure Solution with SHELXD". Acta Crystallogr. D58 (2002) 1772-1779.
- Debreczeni J.É., Bunkóczi G., Ma Q., Blaser H. and Sheldrick G.M.: "In-house Measurement of the Sulfur Anomalous Signal and its Use for Phasing". Acta Crystallogr. D59 (2003) 688-696.
- Bunkóczi G., Sheldrick G.M. and Vértesy L.: "The Antiviral Antibiotic Feglymycin: First Direct-Methods Solution of a 1000+ Equal-Atom Structure". Angew. Chem. 117 (2005) 1364-1366.

Professor Dr. Spieckermann, Hermann

Department of Old Testament, Faculty of Theology

Born: 1950

Education and Employment

1975 Diploma (Theology), University of Göttingen

1982 Dr. theol., University of Göttingen

1987 Habilitation (Old Testament), University of Göttingen

1989-1992 Professor of Ancient Near Eastern Religions and Old Testament at University of Zurich (Switzerland)

1992-1999 Professor of Ancient Near Eastern Religions and Old Testament at University of Hamburg

1999 Guest Professorship at the Pontifical Biblical Institute, Rome (Italy)

Since 1999 Professor of Old Testament at University of Göttingen

Honours and Awards

2000 Honorary doctorate of the Lund University (Sweden)

Editorial Service

Editorial Board Memberships: Theologische Realenzyklopaedie (TRE), Encyclopedia of the Bible and Its Reception (EBR), Vetus Testamentum (VT), Forschungen zum Alten Testament (FAT), Altes Testament Deutsch (ATD), et al.

Other Scientific Activities

Since 2002 Member of the Akademie der Wissenschaften zu Göttingen

Since 2004 Member of the board of the

“International Organization for the Study of the Old Testament” (IOSOT)

Since 2004 Coordinator of DFG Research Training Group (GRK 896) “Images of Deities – Images of God – Images of the World. Polytheism and Monotheism in the Ancient World”

Since 2004 Member of the Steering Committee of the Nordic-German Doctoral Programme “Old Testament Studies: Epistemologies and Methods” (OTSEM)

Since 2005 Member of the Göttingen Graduate School of Humanities

Selected publications (up to five since 2000)

- Spieckermann H.: “Gottes Liebe zu Israel. Studien zur Theologie des Alten Testaments”. Forschungen zum Alten Testament 33, Studienausgabe Tübingen 2004.
- Spieckermann H.: “The Conception and Prehistory of the Idea of Vicarious Suffering in the Old Testament”, in: D. P. Bailey (ed.), The Suffering Servant. Isaiah 53 in Jewish and Christian Sources, Grand Rapids MI, 2-17, 2004.
- Spieckermann H.: “Gott und Mensch am Markt. Krise des Glaubens und Sprache der Ökonomie in der Bibel”. Berliner Theologische Zeitschrift 21, Beiheft, 32-49, 2004.
- Spieckermann H.: “Gottes Lob aus dem Staube. Psalm 103 und die Theologie des Psalters”. Bursfelder Universitätsreden 21, 2005.
- Spieckermann H.: “Des Herrn ist die Erde. Ein Kapitel altsyrisch-kanaanäischer Religionsgeschichte”, in: R. G. Kratz/H. Spieckermann (eds.), Götterbilder – Gottesbilder – Weltbilder. Polytheismus und Monotheismus in der Welt der Antike, Forschungen zum Alten Testament 17, Tübingen, 283-301, 2006.

Professor Dr. Spindler, Gerald

Institute of Commercial Law, Faculty of Law

Born: 1960

Education and Employment

Studies: Law (University of Frankfurt, Universities of Geneva and Lausanne/Switzerland); Economics (University of Hagen), Holder of Master degrees, both in Law and in Economics
1985-1986 Research Fellow in the project "International Law of Resources" (DFG funded)
University of Frankfurt

1993 PhD in Law, University of Frankfurt

1996 Habilitation in Law (Commercial Law, Civil Law, Comparative Law, Conflict of Laws)
University of Frankfurt

Since 1997 Full Professor at the University of Göttingen

Offers declined: University of Bielefeld (1997), University of Cologne (2002),
and University of Frankfurt (2006)

Honours and Awards

Member of the Akademie der Wissenschaften zu Göttingen

Editorial Service

Editor of Multimedia und Recht (law journal, peer reviewed)

Editor-in-Chief of Computer und Recht

Editor of Zeitschrift für Bankrecht und Bankwirtschaft (law journal, peer reviewed)

Editor-in-Chief of three book series

Other Scientific Activities

Member of the Steering Committee DG Enterprise/EU Commission – E-Commerce

Guest Professor at Autonomous University of Madrid (Spain)

Trinity College Dublin (Ireland)

Pompeu Fabra University, Barcelona (Spain)

Doshisha University, Kyoto (Japan)

Selected Publications (up to five since 2000)

- Spindler G.: "Unternehmensorganisationspflichten – zivilrechtliche und öffentlich-rechtliche Regulierungskonzepte". Cologne 2001.
- Spindler G.: "Vertragsrecht der Internet-Provider". 2nd edition, Cologne 2004 (editor and author).
- Spindler G.: "Rechtsfragen bei Open Source". Cologne 2004 (editor and author).
- Spindler G. et al.: "Kommentar zum Teledienstegesetz, Teledienstedatenschutz- und Signaturgesetz – EGG (Gesetz zum elektronischen Geschäftsverkehr)". Munich 2004 (editor and author).
- Spindler G. and Wiebe A.: "Internet-Auktionen und Elektronische Marktplätze". 2nd edition, Cologne 2005 (editor and author).

Professor Dr. Suhm, Martin A.

Institute of Physical Chemistry, Faculty of Chemistry

Born: 1962

Education and Employment

1985 Diploma (Chemistry), Universität Karlsruhe (TH)

1986 Research year (German Academic Exchange Service)

Australian National University, Canberra

1990 Dr. sc. nat., Swiss Federal Institute of Technology (ETH) Zurich, Laboratory of M. Quack

1991/1992 JILA, Boulder (USA), Laboratory of D. Nesbitt

1995 Habilitation (Physical Chemistry), ETH Zurich

Since 1997 Professor of Physical Chemistry (C4), University of Göttingen

Honours and Awards

1983-1989 Scholarships of the Studienstiftung des deutschen Volkes

1990 ETH Medal for PhD thesis

1995 Latsis Prize, International Latsis Foundation

1995 ADUC Prize, German Chemical Society

1997 Dozentenstipendium of the Fonds der Chemischen Industrie

2006 Fellow of the Royal Society of Chemistry (Great Britain)

Editorial Service

Since 2006 Editorial board member of Phys. Chem. Chem. Phys.

Other Scientific Activities

Coordinator of the DFG Research Training Group (GRK 782)

“Spectroscopy and Dynamics of Molecular Coils and Aggregates” (since 2002)

Dean of Studies of the Faculty of Chemistry (2003-2005)

Board member of the German Bunsen Society for Physical Chemistry (2003-2006)

Selected publications (up to five since 2000)

- Häber Th., Schmitt U., Emmeluth C. and Suhm M.A.: “Ragout-jet FTIR spectroscopy of cluster isomerism and cluster dynamics: from carboxylic acid dimers to N₂O nanoparticles”. Faraday Discuss. 118, 331-359, 2001.
- Borho N. and Suhm M.A.: “Self-organization of lactates in the gas phase”. Org. Biomol. Chem. 1, 4351-4358, 2003.
- Adler T.B., Borho N., Reiher M. and Suhm M.A.: “Chirality-Induced Switch in Hydrogen-Bond Topology: Tetrameric Methyl Lactate Clusters in the Gas Phase”. Angew. Chem. Int. Ed. 45, 3440-3445, 2006.
- Zielke P. and Suhm M.A.: “Concerted proton motion in hydrogen-bonded trimers: A spontaneous Raman scattering perspective”. Phys. Chem. Chem. Phys. 8, 2826-2830, 2006.
- Larsen R.W. and Suhm M.A.: “Cooperative organic hydrogen bonds: The librational modes of cyclic methanol clusters”. J. Chem. Phys. 125, 154314, 2006.

Professor Dr. Tietze, Lutz F.

Institute of Organic and Biomolecular Chemistry, Faculty of Chemistry

Born: 1942

Education and Employment

1966 Diploma in Chemistry, University of Kiel

1968 PhD, University of Kiel under the guidance of B. Franck
on "Selective oxidation of Laudanosolin derivatives"

1969-1971 Research Associate with G. Büchi, MIT, Cambridge (USA)

1974 Visiting Scientist with A. R. Battersby, University of Cambridge (Great Britain)

1975 Habilitation, University of Münster with a thesis on "Secologanin,
key intermediate in the biosynthesis of indole, ipecacuanha and cinchona alkaloids"

1977-1978 Professor at the University of Dortmund

Since 1978 Professor and Director of the Institute of Organic and Biomolecular Chemistry,
University of Göttingen

1992 Offer of a Chair at the University of Münster (declined)

Honours and Awards

1976 Karl Winnacker Award (Hoechst)

1982 Publication award for a book on Synthetic Organic Chemistry together with T. Eicher,
which has been translated into five languages (Fonds der Chemischen Industrie)

1990 Member of the Akademie der Wissenschaften zu Göttingen

1991 Fellow of the Japan Society for the Promotion of Science

1991 Fellow of the Royal Society of Chemistry (Great Britain)

1994 Dr. h.c., University of Szeged (Hungary)

2002 Grignard Wittig Award of the French Chemical Society (SFC)

2004 Emil Fischer Medal of the German Chemical Society (GDCh)

Six visiting professorships; six named lectureships

Other Scientific Activities

President of the Steering Committee of the German Chemical Society

Coordinator of the DFG Collaborative Research Centre (SFB 416)

"Chemical and Biological Synthesis and Transformation of Natural Products and Analogues"

Member of the DFG Review Board "Organic Molecular Chemistry"

Member of two advisory boards

Dean and Vice Dean of the Faculty of Chemistry, University of Göttingen

Selected Publications (up to five since 2000)

- Tietze L.F., Chandrasekhar S. and Bell H.: "Natural Product Hybrids as New Leads for Drug Discovery". *Angew. Chem.* 2003, 115, 4128-4160; *Angew. Chem. Int. Ed. Engl.* 2003, 42, 3996-4028.
- Tietze L.F., Sommer K. M., Zinngrebe J. and Stecker F.: "Palladium-Catalyzed Enantioselective Domino Reaction for the Efficient Synthesis of Vitamin E". *Angew. Chem., Int. Ed.* 2005, 44, 257-259.
- Tietze L.F., Brasche G., Stadler C., Grube A. and Böhnke N.: "Multiple Palladium-Catalyzed Reactions for the Synthesis of Analogues of the Highly Potent Insecticide Spinosyn A". *Angew. Chem.* 2006, 118, 5137-5140; *Angew. Chem., Int. Ed.* 2006, 45, 5015-5018.
- Tietze L.F., Major F. and Schuberth I.: "Antitumor Agents: Development of Highly Potent Glycosidic Duocarmycine Analogues for Selective Cancer Therapy". *Angew. Chem.* 2006, 118, 6724-6727; *Angew. Chem., Int. Ed.* 2006, 45, 6574-6577.
- Tietze L.F., Krewer B., Frauendorf H., Major F. and Schuberth I.: "Investigation of Reactivity and Selectivity of DNA-Alkylating Duocarmycin Analogues by High-Resolution Mass Spectrometry". *Angew. Chem.* 2006, 118, 6720-6724; *Angew. Chem., Int. Ed.* 2006, 45, 6570-6574.

Professor Dr. Troe, Hans Jürgen

Institute of Physical Chemistry, Faculty of Chemistry

Born: 1940

Education and Employment

1959-1964 Studies of Physics and Chemistry at the Universities of Göttingen and Freiburg

1964 Diploma at the University of Göttingen

1965 Dr. rer. nat. at the University of Göttingen

1968 Habilitation in Physical Chemistry at the University of Göttingen

1971-1975 Full Professor of Physical Chemistry
at the École Polytechnique Fédérale de Lausanne (Switzerland)

Since 1975 Full Professor of Physical Chemistry at the University of Göttingen

Since 1990 Director at the Max Planck Institute for Biophysical Chemistry, Göttingen

Honours and Awards

1971 Nernst Haber Bodenstein Award, German Bunsen Society for Physical Chemistry

1976 Honorary Professor, École Polytechnique Fédérale de Lausanne (Switzerland)

1980 Centenary Medal, Royal Society of Chemistry (Great Britain)

1992 Polanyi Medal, Royal Society of Chemistry (Great Britain)

1993 Max Planck Research Award, Max Planck Society

1995 Dr. h.c., Bordeaux (France), Dr. h.c., Karlsruhe

1995 Carus Medal, Deutsche Akademie der Naturforscher Leopoldina

1996 Bernard Lewis Gold Medal, Combustion Institute, Pittsburgh (USA)

1998 Walther Nernst Medal, German Bunsen Society for Physical Chemistry

Member of the Akademie der Wissenschaften zu Göttingen, Berlin-Brandenburgische Akademie der Wissenschaften, Leopoldina, Academia Europaea, American Academy of Arts and Sciences

Editorial Service

Editorial services of many journals

Other Scientific Activities

Chairman of the Physical Chemistry and Chemistry Sections of the DFG (1984-1992)

Member of the Senate of the DFG (2002-2007)

Coordinator of the DFG Collaborative Research Centres (SFB 93 / SFB 357) "Photochemie mit Lasern" and "Molecular Mechanisms of Unimolecular Processes" (1978-2004)

Member of the Wissenschaftsrat (1993-1998)

Chairman of the German Bunsen Society for Physical Chemistry (1999-2002)

Chairman of the Laser-Laboratorium Göttingen (since 1987)

Selected Publications (up to five since 2000)

- Troe J. and Ushakov V. G.: "Theoretical studies of the $\text{HO}+\text{O} \rightleftharpoons \text{HO}_2 \rightleftharpoons \text{H}+\text{O}_2$ reaction. II. Classical trajectory calculations on an ab initio potential for temperatures between 300 and 5000 K". J. Chem. Phys. 115, 3621-3628 (2001).
- Troe J.: "Toward a quantitative analysis of association reactions in the atmosphere". Chem. Rev. 103, 4565-4575 (2003).
- Miller J. A., Pilling M. J. and Troe J.: "Unravelling combustion mechanisms through a quantitative understanding of elementary reactions". P. Combust. Inst. 30, 43-88 (2005).
- Fernandez A. I., Viggiano A. A., Maergoiz A. I., Troe J. and Ushakov V. G.: "Thermal decomposition of ethyl benzene cations ($\text{C}_8\text{H}_{10}^+$): experiments and modelling of falloff curves". Int. J. Mass Spectrom. 214, 305-313 (2005).
- Troe J.: "Temperature and pressure dependence of ion-molecule association and dissociation reactions: The $\text{N}_2^+ + \text{N}_2(+\text{M}) \rightleftharpoons \text{N}_4^+ (+\text{M})$ reaction". Phys. Chem. Chem. Phys. 7, 1560-1567 (2005).

Professor Dr. Tscharntke, Teja

Department of Agroecology, Faculty of Agricultural Sciences

Born: 1952

Education and Employment

1973-1981 Studies in Sociology and Biology at the Universities of Marburg and Gießen

1978 Diploma (MSc) in Sociology, University of Marburg

1981 Diploma (MSc) in Biology, University of Marburg

1986 PhD in Biology, University of Hamburg

1992 Habilitation in Zoology, Universität Karlsruhe (TH)

1992 Offers of appointment as professor: C4 Ecology (Hamburg),

C3 Zoology (Gießen), C4 Agroecology (Göttingen)

1993 Head of the Agroecology Research Group at the University of Göttingen

Faculty Member in Agricultural Sciences and in Biology

Editorial Service

Editor-in-Chief of Basic and Applied Ecology

Member of the Editorial Boards of *Oecologia* (1996-2004), *J. Appl. Ecol.* (2000-2006),

Entomol. Exp. Appl. (since 2002)

Other Scientific Activities

Member of the Governmental Scientific Board for Biodiversity and Genetic Resources,
Federal Ministry of Food, Agriculture and Consumer Protection (since 2002)

Coordinator of the DFG Collaborative Research Centre (SFB 552)

“STORMA: Stability of Rainforest Margins in Indonesia” (since 2004)

Selected Publications (up to five since 2000)

- Tscharntke T., Steffan-Dewenter I., Kruess A. and Thies C.: “Contribution of small habitat fragments to conservation of insect communities of grassland-cropland landscapes”. *Ecol. Appl.* 12, 354-363, 2002.
- Tscharntke T., Klein A.M., Kruess A., Steffan-Dewenter I. and Thies C.: “Landscape perspectives on agricultural intensification and biodiversity-ecosystem service management”. *Ecol. Lett.* 8, 857-874, 2005.
- Tylianakis J., Klein A.-M. and Tscharntke T.: “Spatiotemporal variation in the diversity of Hymenoptera across a tropical habitat gradient”. *Ecology* 86: 3296-3302, 2005.
- Rand T.A., Tylianakis J.M. and Tscharntke T.: “Spillover edge effects: the dispersal of agriculturally subsidized insect natural enemies into adjacent natural habitats”. *Ecol. Lett.* 9: 603-614, 2006.
- Tylianakis J.M., Tscharntke T. and Lewis O.T.: “Habitat modification alters the structure of tropical host-parasitoid food webs”. *Nature* 445: 202-205, 2007.

Professor Dr. Tschinkel, Yuri

Mathematical Institute, Faculty of Mathematics

Born: 1964

Education and Employment

1990 Diploma, Moscow State University (Russia)

1992 PhD, Massachusetts Institute of Technology, Cambridge (USA)

1992-1995 Junior Fellow, Society of Fellows, Harvard University, Cambridge (USA)

1995-1996 Leibniz Fellow of the European Commission, ENS Paris (France)

1996-1999 Assistant and Associate Professor, University of Illinois at Chicago (USA)

1999-2003 Visiting Associate Professor, Princeton University (USA)

Since 2003 Professor of Mathematics, University of Göttingen

Honours and Awards

2001-2002 Clay Mathematics Institute Fellow

2005 Wolfe Lecturer, Rice University, Houston (USA)

2005 Kempf Lecturer, Johns Hopkins University, Baltimore (USA)

Editorial Service

Editor: Central European Journal of Mathematics

Editor: Research Notes in Mathematics Series, AK Peters LTD

Editor: Bulletin of the American Mathematical Society

Board Member: Göttingen University Press

Other Scientific Activities

Member of Canada Research Chairs Advisory Board

Member of "Friends of Mathematics Board", Harvard University, Cambridge

Organized 15 conferences since 2002, a special semester at the Mathematical Sciences Research Institute, Berkeley (USA), and three summer schools

Selected Publications (up to five since 2000)

- Harris J. and Tschinkel Y.: "Rational points on quartics". Duke Math. J. 104 (2000), no. 3, 477-500.
- Chambert-Loir A. and Tschinkel Y.: "On the distribution of points of bounded height on equivariant compactifications of vector groups". Invent. Math. 148 (2002), no. 2, 421-452.
- Bogomolov F., Petrov T. and Tschinkel Y.: "Rationality of moduli of elliptic fibrations with fixed monodromy". Geom. Funct. Anal. 12 (2002), no. 6, 1105-1160.
- Hassett B. and Tschinkel Y.: "Integral points and effective cones of moduli spaces of stable maps". Duke Math. J. 120 (2003), no. 3, 577-599.
- Hassett B. and Tschinkel Y.: "Weak approximation over function fields". Invent. Math. 163 (2006), 171-190.

Professor Dr. Zippelius, Annette

Institute for Theoretical Physics, Faculty of Physics

Born: 1949

Education and Employment

1977 PhD at the Technische Universität München

1978-1980 Postdoctoral Associate at Harvard University, Cambridge (USA)

Scholarship of the German Research Foundation (DFG)

1980-1981 Postdoctoral Associate at Cornell University, Ithaca (USA)

1981-1983 Assistant Professor at the Technische Universität München

1983 Habilitation in Physics at the Technische Universität München

1983-1988 Research Position at the Research Centre Jülich

Since 1988 Full Professor at the University of Göttingen

Honours and Awards

1998 Gottfried Wilhelm Leibniz Prize of the DFG

Since 1993 Member of the Akademie der Wissenschaften zu Göttingen

Editorial Service

Co-Editor of Europhys. Lett (1997-2000)

Advisory Board of Annalen der Physik (since 2002)

Other Scientific Activities

Sabbatical year at the University of Illinois at Urbana-Champaign (USA),

Guest Professor at the Beckman Institute (1992-1993)

Vorstandsmitglied of the German Physical Society (DPG) (2002-2006)

Member of the Wissenschaftsrat (since 2005)

Max Planck Fellow at the

Max Planck Institute for Dynamics and Self-Organisation, Göttingen

Selected Publications (up to five since 2000)

- Broderix K., Bhattacharya K., Cavagna A., Zippelius A. and Giardina I.: “Energy Landscape of a Lennard Jones Liquid: Statistics of Stationary Points”. Phys. Rev. Lett. 85, p. 5360 (2000).
- Trommershäuser J., Schneggenburger R., Zippelius A. and Neher E.: “Heterogenous presynaptic release probabilities: Functional relevance for short-term plasticity”. Biophys. J. 84, p. 1563 (2003).
- Mukhopadhyay S., Goldbart P. and Zippelius A.: “Goldstone fluctuations in the amorphous solid state”. Europhys. Lett. 67, p. 49 (2004).
- Wald Ch., Goldbart P. and Zippelius A.: “Glassy States and Microphase Separation in cross-linked Homopolymer Blends”. Europhys. Lett. 70, p. 843 (2005).
- Brilliantov N. V., Pöschel T., Kranz W. T. and Zippelius, A.: “Translations and Rotations Are Correlated in Granular Gases”. Phys. Rev. Lett. 98, p. 128001 (2007).

Younger Researchers

Dr. Andrade, Susana

Department of Molecular Structural Biology, Faculty of Biology

Born: 1972

Education and Employment

1996 Diploma (Biochemistry), University of Lisbon (Portugal), Faculty of Sciences

2001 Dr. phil., New University of Lisbon (Portugal), Faculty of Sciences and Technology

2002 California Institute of Technology, Pasadena (USA), Laboratory of D. C. Rees

2003-2005 Marie Curie Postdoc Fellow, University of Göttingen, Institute of Microbiology and Genetics, Department of Molecular Structural Biology, Laboratory of R. Ficner

Since 2006 Leader of an Independent Junior Research Group

within the DFG Emmy Noether Programme, University of Göttingen

Institute of Microbiology and Genetics, Department of Molecular Structural Biology

Honours and Awards

1995 Undergraduate Research Award, PRODEP/95

1996-1997 Young Scientific Research Grant, Portuguese National Science Foundation (FCT)

1998-2001 PhD Research Grant, FCT

2000 Marie Curie Intra-European Fellowship (FP6)

2006 Emmy Noether Award, German Research Foundation (DFG)

Selected publications (up to five since 2000)

- Andrade S.L.A., Brondino C.D., Feio M.J., Moura I. and Moura J.J.G.: "Aldehyde Oxidoreductase Activity in *Desulfovibrio alaskensis* NCIMB 13491". *Eur. J. Biochem.* 267, 2054-2061, 2000.
- Einsle O., Tezcan F.A., Andrade S.L.A., Schmid B., Yoshida M., Howard J.B. and Rees D.C.: "The Nitrogenase MoFe Protein at 1.16 Å resolution: a Central Ligand in the FeMo Cofactor". *Science* 297, 1696-1700, 2002.
- Andrade S.L.A., Cruz F., Drennan C.L., Ramakrishnan V., Rees D.C., Ferry J.G. and Einsle O.: "Structures of the Iron-Sulfur Flavoproteins from *Methanosarcina thermophila* and *Archaeoglobus fulgidus*". *J. Bacteriol* 187, 3848-3854, 2005.
- Andrade S.L.A., Dickmanns A., Ficner R. and Einsle O.: "Crystal structure of the Archaeal Ammonium Transporter Amt-1 from *Archaeoglobus fulgidus*". *P. Natl Acad. Sci. USA* 102, 14994-14999, 2005.
- Einsle O., Andrade S.L.A., Dobbek H., Meyer J. and Rees D.C.: "Assignment of Individual Redox States in a Metalloprotein by Crystallography Refinement at Multiple X-ray Wavelengths". *J. Am. Chem. Soc.* 129, 2210-2211, 2007.

Dr. Hagenhoff, Svenja

Institute of Business Informatics, Faculty of Economic Sciences

Born: 1971

Education and Employment

1997 Diploma (Management), University of Göttingen

2002 Dr. rer. pol., Faculty of Economic Sciences, University of Göttingen

Since 2002 Junior Research Group Leader and Assistant Professor, Institute of Business Informatics, Department of Information Systems and E-Business, University of Göttingen

2004-2005 Interim Professor, Faculty of Information and Communication Sciences, University of Hildesheim

2006 Research Scholarship, Department of Information Systems, University of California, Los Angeles (USA)

2007 Completion of Habilitation (scheduled for spring 2007)

Editorial Service

Editor of the Göttinger Schriften zur Internetforschung
(Open Access Serial, Göttingen University Press)

Other Scientific Activities

Coordinator of BMBF Project Mediaconomy (2003-2007)

Member of the research committee, Faculty of Economic Sciences, University of Göttingen

Permanent referee: Wirtschaftsinformatik (Journal), Jahrestagung Wirtschaftsinformatik (Conference), Multikonferenz Wirtschaftsinformatik (Conference), E-learning and Education Journal (Open Access Journal), Medienwirtschaft (Journal)

Accreditation Agency for Degree Programmes in Engineering, Informatics/Computer Science, the Natural Sciences and Mathematics (ASIIN), Referee for Information Systems

Selected publications (up to five since 2000)

- Kaspar C. and Hagenhoff S.: "Individualization of a mobile news service - a simple approach", in: Jönsson S. (ed.): Proceedings of the VIth SAM/IFSAM World Congress, Göteborg, 2004.
- Diekmann T., Seidenfaden L., Kaspar C. and Hagenhoff S.: "Web Services over Bluetooth for Embedded Devices", in: Kotsis S., Taniar D., Ibrahim I.K. (eds.): Proceedings of the The Second International Conference on Advances in Mobile Multimedia (MoMM2004), Kuta, Indonesia, 2004, 189-197.
- Schmaltz R., Goos P. and Hagenhoff S.: "Sicherheitsmodelle für Kooperationen", in: Ferstl O., Sinz J., Eckert S., Isselhorst T. (eds.): Wirtschaftsinformatik 2005, Bamberg, 2005, 1247-1266.
- Ortelbach B., Borchert J. and Hagenhoff S.: "Erlösrechnung für verbundene TIME-Produkte", in: ZfCM 49 (2005) Sonderh. 2, 28-41.
- Kaspar C., Seidenfaden L., Ortelbach B. and Hagenhoff S.: "Acceptance of the mobile Internet as distribution channel for paid content", IRMA conference contribution selected for inclusion in the best paper scholarly book: Business Web Strategy: Aligning the Internet with Corporate Design, to be published by Idea Group, Inc, 2007.

Professor Dr. Hohage, Thorsten

Institute of Numerical and Applied Mathematics, Faculty of Mathematics

Born: 1971

Education and Employment

1993 Pre-Diplomas (Mathematics and Physics), University of Marburg

1996 Diploma (Mathematics), University of Göttingen

1999 Dr. techn., University of Linz (Austria)

2000-2002 Research Assistant, Zuse Institute Berlin (ZIB)

2002-2007 Junior Professor, University of Göttingen

2003 Offer of appointment as lecturer at the University of Reading (Great Britain) (declined)

2006 Offer of appointment as professor (W2) at the University of Bielefeld (declined)

2007 Professor (W2) at the University of Göttingen

Honours and Awards

2004 Science Prize, German Aerospace Centre (DLR)

Other Scientific Activities

Coordinator of BMBF Verbundprojekt "INVERS: Entfaltungsprobleme mit Sparsity Constraints in der optischen Nanoskopie und Massenspektrometrie"

Selected publications (up to five since 2000)

- Hähner P. and Hohage T.: "New stability estimates for the inverse acoustic inhomogeneous medium problem and applications". SIAM J. Math. Anal., 62:670-685, 2001.
- Hohage T., Schmidt F. and Zschiedrich L.: "Solving time-harmonic scattering problems based on the pole condition. I: Theory". SIAM J. Math. Anal., 35:183-210, 2003.
- Bauer F. and Hohage T.: "A Lepskij-type stopping rule for regularized Newton methods". Inverse Probl., 21:1975-1991, 2005.
- Hohage T. and Sayas J.: "Numerical solution of a heat diffusion problem by boundary element methods using the Laplace transform". Numer. Math., 102:67-92, 2005.
- Hein S., Hohage T., Koch W. and Schöberl J.: "Acoustic Resonances in High Lift Configuration". J. Fluid Mech. In print.

Dr. Kähler, Lorenz

Institute of History of Law, Philosophy of Law, Comparative Law, Faculty of Law

Born: 1973

Education and Employment

1994-2000 Study of Law and Philosophy at the University of Heidelberg,
King's College, London (Great Britain), and University of Göttingen
Erstes Staatsexamen in Law; English Diploma in Legal Studies with distinction

2000-2001 Research Assistant at the Chair of Philosophy of Law and Social Philosophy
(Prof. von der Pfordten), University of Erfurt

2001-2002 Visiting Researcher at the Harvard Law School, Cambridge (USA)

2002-2004 Law Clerk (Referendariat) in Lower Saxony

2003 Dr. jur., University of Göttingen

Since 2005 Research Assistant at the Chair of Philosophy of Law and Social Philosophy
(Prof. von der Pfordten), University of Göttingen

Selected publications

- Kähler L.: "Strukturen und Methoden der Rechtsprechungsänderung". Baden-Baden: Nomos, 2004.
- Kähler L.: "Decision-Making about Suretyships under Empirical Uncertainty". Eur. Rev. Priv. Law, 13 (2005), 333-355.
- Kähler L.: "Zur Enthymisierung der Geldschuld". AcP 206 (2006), 805-842.
- Kähler L.: "Verjährungshemmung nur bei Klage des Berechtigten?" NJW 2006, 1769-1774.
- Kähler L.: "Mittelbare und unmittelbare Einschränkungen der Vorsatzhaftung". JZ 2007, 18-28.

Privatdozent Dr. Maier, Lars S.

Department of Cardiology and Pneumology, Faculty of Medicine

Born: 1972

Education and Employment

1991-1999 M.D. student, Faculties of Medicine at the Universities of Freiburg and Göttingen

1999 Dr. med., University of Freiburg (summa cum laude)

1999-2000 Clinical fellow, Department of Cardiology and Pneumology, University of Göttingen

2001-2002 Post-doctoral fellow, Department of Physiology, Loyola University Chicago (USA)

Since 2003 Leader of an Independent Junior Research Group within the DFG Emmy Noether Programme, Department of Cardiology and Pneumology, University of Göttingen

2004 Habilitation (Experimental Internal Medicine), University of Göttingen

Honours and Awards

1995 Scholarship of the University of Freiburg (traineeship at University of Sydney/Australia)

1996 Scholarship of Boehringer Ingelheim Fonds (traineeship at Loyola University Chicago)

1998 Ludwig Heilmeyer Award and Goedecke Research Award of the University of Freiburg

1999 Award "Progress in Medicine" of the Universities of Dresden, Halle-Wittenberg, Leipzig

1999 German Heart Foundation Award

1999 Walter Clawiter Award of the University of Düsseldorf

2000 Fellowship within the DFG Emmy Noether Programme (for 6 years)

2003 International Competitive Grants Award for Young Investigators of the GlaxoSmithKline Research & Education Foundation for Cardiovascular Disease

2004 Bruno Kisch Research Award of the German Cardiac Society

Editorial Service

Guest Editor with Donald M. Bers, Loyola University Chicago, for the Review Focus Series "Calmodulin and Ca/calmodulin kinases in the heart – Physiology and pathophysiology" in Cardiovascular Research (March 2007)

Other Scientific Activities

Coordinator of DFG Clinical Research Unit (KFO 155) "The Role of Biomechanics and Ca²⁺ Homeostasis in Heartfailure and Regeneration" (2006-2009)

Collaborating Activities: EU Projects EUGeneHeart (Genomics of Cardiomyocyte Signalling to Treat and Prevent Heart Failure), CONTICA (Control of Intracellular Calcium and Arrhythmias), and in the Foundation Leducq Grant "Alliance for CaMKII signalling in heart disease"

Selected publications (up to five since 2000)

- Hasenfuss G., Maier L.S., Hermann H.P., Lüers C., Hünlich M., Zeitz O., Janssen P.M.L. and Pieske B.: "Influence of pyruvate on contractile performance and Ca²⁺-cycling in isolated failing human myocardium". Circulation 105:194-199, 2002.
- Maier L.S., Zhang T., Chen L., DeSantiago J., Brown J.H. and Bers D.M.: "Transgenic CaMKII δ_c overexpression uniquely alters cardiac myocyte Ca²⁺ handling: Reduced SR Ca²⁺ load and activated SR Ca²⁺ release". Circ. Res. 92:904-911, 2003.
- Wagner S., Dybkova N., Rasenack E.C.L., Jacobshagen C., Fabritz L., Kirchhof P., Maier S.K.G., Zhang T., Hasenfuss G., Heller Brown J., Bers D.M. and Maier L.S.: "Ca/calmodulin-dependent protein kinase II regulates cardiac Na channels". J. Clin. Invest. 116:3127-3138, 2006.
- Guan K., Nayernia K., Maier L.S., Wagner S., Dressel R., Lee J.H., Nolte J., Wolf F., Li M., Engel W. and Hasenfuss G.: "Pluri-potency of spermatogonial stem cells from adult mouse testis". Nature 440:1199-1203, 2006.
- Kohlhaas M., Zhang T., Seidler T., Zibrova D., Dybkova N., Steen A., Wagner S., Chen L., Heller Brown J., Bers D.M. and Maier L.S.: "Increased sarcoplasmic reticulum calcium leak but unaltered contractility by acute CaMKII overexpression in isolated rabbit cardiac myocytes". Circ. Res. 98:235-244, 2006.

Dr. Pukrop, Tobias

Department of Hematology and Oncology, Faculty of Medicine

Born: 1973

Education and Employment

1994-2001 Studies of Medicine, University of Ulm

1997-2002 Medical thesis project "The Regulation of the LEF/TCF transcriptional complex"
Department of Biochemistry, University of Ulm

Since 2001 Medical Doctor, Department of Hematology and Oncology, University of Göttingen

Honours and Awards

2001 Grant from the University of Ulm for the student exchange programme
with the Tufts University, Boston (USA)

2006 Vincenz Czerny Award for Oncology, German Society of Hematology and Oncology

Selected publications (up to five since 2000)

- Pukrop T., Gradl D., Henningfeld K.A., Knöchel W., Wedlich D. and Kühl M.: "Identification of two regulatory elements within the High Mobility Group Box Transcriptional Factor XTcf-4". J. Biol. Chem. 276: 8968-8978 (2001).
- Kühl M., Geis K., Sheldahl C., Pukrop T., Moon R.T. and Wedlich D.: "Antagonistic regulation of convergent extension movements by Wnt/ β -Catenin and Wnt/ Ca^{2+} signalling". Mech. Dev. 106: 61-76 (2001).
- Hagemann Th., Binder C., Binder L., Pukrop T., Trümper L. and Grimshaw M.J.: "Expression of endothelins and their receptors promotes an invasive phenotype of breast tumor cells but is insufficient to induce invasion in benign cells". DNA Cell Biol., 24(11): 777-787 (2005).
- Hagemann Th., Wilson J., Kulbe H., Li N.F., Leinster D.A., Charles K., Klemm F., Pukrop T., Binder C. and Balkwill F.R.: "Macrophages Induce Invasiveness of Epithelial Cancer Cells Via NF- κ B and JNK". J. Immunol. 175: 1197-1205 (2005).
- Pukrop T., Klemm F., Hagemann Th., Gradl D., Schulz M., Siemes S., Trümper L. and Binder C.: "Wnt 5a signaling is critical for macrophage-induced invasion of breast cancer cell lines". P. Natl Acad. Sci. USA 103(14): 5454-5459 (2006).

Dr. Reiners, Ansgar

Institute of Astrophysics, Faculty of Physics

Born: 1973

Education and Employment

2000 Diploma (Physics), University of Heidelberg

2003 Dr. rer. nat., University of Hamburg, Hamburg Observatory

2003 Hamburg Observatory; Guest Researcher at Lund Observatory (Sweden)

2004-2006 Marie Curie Outgoing International Fellow, University of California, Berkeley (USA)

2006-2007 Marie Curie Outgoing International Fellow, Hamburg Observatory

Guest Researcher at Max Planck Institute for Solar System Research, Katlenburg-Lindau

2007 Leader of an Independent Junior Research Group

within the DFG Emmy Noether Programme, University of Göttingen

Honours and Awards

1996 ERASMUS grant of the European Union

2003 Best Dissertations Award of the University of Hamburg

2004 Research Fellowship of the German Research Foundation (DFG) (not realized)

Editorial Service

Referee for *Astronomische Nachrichten* (AN), *Monthly Notices of the Royal Astronomical Society* (MNRAS), *Astronomy & Astrophysics* (A&A), *Astrophysical Journal* (ApJ)

Other Scientific Activities

Board member of the DFG Research Training Group (GRK 1351)

“Extrasolar Planets and their Host Stars” in Hamburg, Göttingen, and Katlenburg-Lindau

Co-Initiator of the “Initiative Zukunft Wissenschaft”

Selected publications (up to five since 2000)

- Reiners A. and Schmitt J.H.M.M.: “Rotation and differential rotation in field F- and G-type stars”. *Astron. Astrophys.* 398, 647-661 (2003).
- Reiners A., Basri G. and Mohanty S.: “Discovery of an M4 Spectroscopic Binary in Upper Scorpius: A Calibration Point for Young Low-Mass Evolutionary Models”. *Astrophys. J.* 634, 1346-1352 (2005).
- Basri G. and Reiners A.: “A Survey for Spectroscopic Binaries Among Very Low-Mass Stars”. *Astron. J.* 132, 663-675 (2006).
- Reiners A.: “Rotation- and temperature-dependence of stellar latitudinal differential rotation”. *Astron. Astrophys.* 446, 267-277 (2006).
- Reiners A. and Basri G.: “The First Direct Measurements of Magnetic Fields on Very Low-Mass Stars”. *Astrophys. J.* 656, 1121-1135 (2007).

Junior Professor Dr. Schicktanz, Silke

Department of Medical Ethics and History of Medicine, Faculty of Medicine

Born: 1970

Education and Employment

1991-1998 Diploma (Biology), University of Tübingen

1998-1999 Institute for Ethics in Life Sciences, University of Tübingen

1999-2000 Interdepartmental Centre for Ethics in the Sciences and Humanities,
University of Tübingen: postgraduate programme "Ethics in the Sciences"

PhD (Dr. rer. nat) on ethical and scientific aspects of xenotransplantation

2000-2001 Deutsches Hygiene-Museum Dresden

Project leader of the first nationwide Citizens Conference on genetic testing

2001-2003 Post-doc at the Max Delbrück Centre for Molecular Medicine, Berlin Buch
Research Group "Bioethics and Science Communication"

2004-2005 Post-doc at the Institute of Ethics, History and Theory of Medicine
University of Münster

2005 Offer of appointment as Junior Professor of History and Ethics in Medicine
University of Mainz (declined)

Since 2006 Junior Professor of History, Theory and Ethics in Medicine
Department of Medical Ethics and History of Medicine, University of Göttingen

Honours and Awards

2001 Young Researcher Award, Academy of Ethics in Medicine, Göttingen

2001 Animal Welfare Award, Erna-Graff-Stiftung für Tierschutz, Berlin

2002 Doctoral Thesis Award (Biology), Reinhold- und Maria-Teufel-Stiftung, Tuttlingen

Other Scientific Activities

Scientific speaker of the EU-Project

"Challenges of Biomedicine – Socio-Cultural Contexts, European Governance and Bioethics"

Member of the "Ethical Review Panel" of European Commission
at the 6th Framework Programme (2005-2006)

Member of the scientific board of the research project "Let's talk about GOLD"
University of Vienna (Austria), Department of Social Studies of Science (2006)

Selected publications (up to five since 2000)

- Schicktanz S.: "Organlieferant Tier? Medizin- und tierethische Probleme der Xenotransplantation". Frankfurt a.M. / New York: Campus (2002), 350 pages.
- Schicktanz S.: "Fremdkörper. Grenzüberschreitungen am Beispiel der Transplantationsmedizin", in: Karafyllis N. (ed.): Biofakte. Versuch über den Menschen zwischen Artefakt und Lebewesen. Paderborn: Mentis (2003), 179-197.
- Schicktanz S.: "Ethical Considerations of the Human-Animal-Relationship under Conditions of Asymmetry and Ambivalence", in: J. Agric. Environ. Ethics 19 (2006), 7-16.
- Schicktanz S., Rieger J.W. and Lüttenberg B.: "Geschlechterunterschiede bei der Lebendnierentransplantation", Transplantationmedizin 18(2) 2006, 83-90.
- Schicktanz S.: "Politikberatung in der Medizin", in: Bröckler S., Schützeichel R. (eds.): Handbuch Beratung der Politik. To appear in 2007. UTB: Lucius & Lucius.

Junior Professor Dr. Terhoeven, Petra

Institute of Medieval and Modern History, Faculty of Philosophy

Born: 1969

Education and Employment

1996 Erstes Staatsexamen in History and German studies, University of Cologne

1997-1999 Fellow of German Archaeological Institute, Rome Department (Italy), German Academic Exchange Service (DAAD), and the Government of Italy

2002 Dr. phil., Technische Universität Darmstadt (summa cum laude)

2004 Assistant Professor, University of Kiel

Since Nov. 2004 Junior Professor of European Cultural and Contemporary History
University of Göttingen

2006/2007 (winter term) Visiting Lecturer, University of Lucerne (Switzerland)

Honours and Awards

2005 Prize for outstanding scientific research,
Vereinigung von Freunden der Technischen Universität Darmstadt

Editorial Service

Co-editor of the series "Italien in der Moderne"

Selected publications (up to five since 2000)

- Terhoeven P.: "Liebespfand fürs Vaterland. Krieg, Geschlecht und faschistische Nation in der Gold- und Eheringsammlung 1935/36". Tübingen 2003 (Bibliothek des Deutschen Historischen Instituts Rom 105). Ital. Übers.: "Oro alla Patria. Donne, guerra e propaganda nella 'giornata della fede' fascista". Bologna 2006.
- Terhoeven P.: "Frauen im Widerstand: Das Beispiel der italienischen Resistenza", in: ZfG 7/2004, 608-625.
- Terhoeven P.: "'Nicht spenden, opfern'. Spendenkampagnen im faschistischen Italien und im nationalsozialistischen Deutschland als Disziplinierungs- und Integrationsinstrument", in: Sven Reichardt/Armin Nolzen (eds.), Faschismus in Italien und Deutschland. Studien zu Transfer und Vergleich. Göttingen 2005, 59-93 (Beiträge zur Geschichte des Nationalsozialismus Bd. 21).
- Terhoeven P.: "Die Giornata della Fede oder die innere Mobilisierung der italienischen Gesellschaft während des Äthiopienkrieges 1935/36", in: Aram Mattioli/Asfa-Wossen Assef (eds.), Der erste faschistische Vernichtungskrieg. Die italienische Aggression gegen Äthiopien 1935-1941. Köln 2006 (Italien in der Moderne Bd. 13), 73-89.
- Terhoeven P.: "Eheringe für den Krieg: Die Geschichte eines faschistischen Gedächtnisorts". VfZ 1/2006, 61-85.

Dr. Werz, Daniel B.

Institute of Organic and Biomolecular Chemistry, Faculty of Chemistry

Born: 1975

Education and Employment

1995-2000 Studies of Chemistry at the University of Heidelberg

1998 Studies at the University of Bristol (Great Britain)

2000 Diploma (with distinction)

2003 Dr. rer. nat. with Prof. Dr. Rolf Gleiter, University of Heidelberg (summa cum laude)

2004-2006 Postdoctoral Studies, Swiss Federal Institute of Technology (ETH) Zurich
with Prof. Dr. Peter H. Seeberger, Laboratory of Organic Chemistry

Since 2006 Junior research group leader at the University of Göttingen,
Institute of Organic and Biomolecular Chemistry

Honours and Awards

1996-2000 Fellow of the Studienstiftung des deutschen Volkes

1997 Otto Hofmann Award of the University of Heidelberg (prediploma)

2000 Sophie Bernthsén Award of the University Heidelberg (diploma)

2001-2003 PhD Fellowship of the Studienstiftung des deutschen Volkes

2004 Ruprecht Karls Award of the Universität Heidelberg (PhD Thesis)

2004-2005 Feodor Lynen Fellowship of the Alexander von Humboldt Foundation

2005-2006 DFG Emmy Noether Fellowship (Phase I) for postdoctoral research

2006 Klaus Grohe Award of the German Chemical Society (GDCh)

2006 Liebig Fellowship of the Fonds der Chemischen Industrie

2007 DFG Emmy Noether Fellowship (Phase II) for an independent research group

Selected publications (up to five since 2000)

- Werz D. B., Gleiter R. and Rominger F.: "Nanotube Formation Favored by Chalcogen-Chalcogen Interactions". J. Am. Chem. Soc. 124, 10638-10639, 2002.
- Werz D. B. and Seeberger P. H.: "Total Synthesis of Antigen Bacillus Anthracis Tetrasaccharide – Creation of an Anthrax Vaccine Candidate". Angew. Chem. 117, 6474-6476, 2005; Angew. Chem. Int. Ed. 44, 6315-6318, 2005.
- Bleiholder C., Werz D. B., Köppel H. and Gleiter, R.: "Theoretical Investigations on Chalcogen-Chalcogen Interactions: What Makes These Nonbonded Interactions Bonding?" J. Am. Chem. Soc. 128, 2666-2674, 2006.
- Tamborrini M., Werz D. B., Frey J., Pluschke G. and Seeberger P. H.: "Anti-Carbohydrate Antibodies for the Detection of Anthrax Spores". Angew. Chem. 118, 6731-6732, 2006; Angew. Chem. Int. Ed. 45, 6581-6582, 2006.
- Werz D. B., Castagner B. and Seeberger P. H.: "Automated Synthesis of the Tumor-Associated Carbohydrate Antigens Gb-3 and Globo-H: Incorporation of α -Galactosidic Linkages". J. Am. Chem. Soc. 129, 2770-2771, 2007.

Annex 7 – Abbreviations

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|------|---|
| BMBF | Federal Ministry of Education and Research / Bundesministerium für Bildung und Forschung |
| CRC | Collaborative Research Centre / Sonderforschungsbereich (SFB) |
| DAAD | German Academic Exchange Service / Deutscher Akademischer Austauschdienst |
| GRC | Göttingen Research Council |
| JRG | Junior Research Group / Forschernachwuchsgruppe |
| MPI | Max Planck Institute / Max-Planck-Institut |
| RTG | Research Training Group / Graduiertenkolleg (GRK) |
| SAB | Scientific Advisory Board / Wissenschaftlicher Beirat |
| WKN | Scientific Commission of Lower Saxony / Wissenschaftliche Kommission Niedersachsen |
| ZEVA | Central Evaluation and Accreditation Agency Hannover / Zentrale Evaluations- und Akkreditierungsagentur Hannover |