



UNIVERSITY HOSPITAL  
**AACHEN**

Medical Faculty  
**RWTHAACHEN**

A N N U A L R E P O R T

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## At a Glance

### The most important figures year-on-year rate

	2007	2008	+/- absolute	+/- percentage
Bed capacity (annual average of beds set up including partial in-patient care)	1,356	1,297	- 59	- 4.35
Capacity utilization in percent (including day hospitals related to in-patient days and regular beds)	82.47	85.72	3.25	3.94
Occupancy days	408,077	395,641	- 12,436	- 3.05
Length of stay (days)	8.28	7.87	- 0.41	- 4.95
Total number of cases	44,538	44,768	230	0.52
Case Mix Index (CMI)	1.509	1.500	- 0.009	- 0.60
Case Mix (CM)	63,501	62,507	- 994	- 1.57
Ambulatory cases including repeated consultations	207,606	225,272	17,666	8.51
Staff (full-time equivalents)	4,706	4,667	- 39	- 0.83
Staff (head count)	5,703	5,658	- 45	- 0.79
Revenue from hospital business (K€)	239,095	238,401	- 694	- 0.29
Personnel expenses (k€)	238,079	239,602	1,523	0.64
Material expenses (K€)	86,215	93,592	7,377	8.56
Overall result (k€)	5,366	3,133	- 2,233	- 41.61
Balance sum (K€)	570,413	577,391	6,978	1.22
Assets (k€)	460,832	468,650	7,818	1.70
Equity (K€)	24,097	27,229	3,132	13.00
Investments (k€)	40,203	52,061	11,858	29.50

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Executive Board of UKA (from left to right): Heinz Pelzer (Nursing Director), Professor Dr. Johannes Noth (Dean of the Medical Faculty), Professor Dr. Henning Saß (Medical Director and Chairman of the Executive Board), Detlef Klimpe (Director of Administration).

## Working on Tomorrow's Healing Prospects

2008 was a good year for the University Hospital Aachen - quantitatively as well as qualitatively. Despite the on-going building reconstruction, the number of inpatients remained stable at about 45,000 patients. The number of outpatients increased from 207,606 (2007) to over 225,000. The average bed occupancy rose from 82.47 to 85.72 percent – a rate that reflects the considerable attractiveness of our medical services. The length of stay further decreased to just under eight days on average. With regard to the case severity, the Aachen University Hospital ranks slightly above average compared to other German university hospitals.

Nowadays, an ever-growing number of patients avoids being admitted to a hospital without thoroughly checking beforehand which hospital might be the best for them. The hospitals are therefore required to allow for a higher degree of transparency, which, for example, is achieved by means of detailed quality reports. We welcome this development and are well prepared for this competition on the merits.

This trend strengthens our resolve to always see the status quo as an intermediate step towards a further improvement of quality – be it about medical care, research or teaching. Adhering to accomplishments would contradict the future-oriented medicine that German university hospitals have always stood for.

Our staff's competence and readiness for duty, as well as the readiness to cooperate beyond disciplinary and professional limits, take us a step further on this path. I would like to express my heartfelt gratitude to this.

In the past year, the University Hospital managed to fill important positions with outstanding people, such as the head of the Department of Urology and the Department of Intensive Care. We sharpened our profile in the main research areas, which lead to an increase in third party funding of 25 percent since 2006. In 2008, third party funding amounted to 23.3 million Euros.

Additionally, we took an important step regarding our cooperation with the University Hospital in Maastricht: In July 2008, the results of a feasibility study ordered by both university hospitals were presented, creating a lot of media attention. Conclusion: Legally and economically the merger of the two hospitals into the first European University Hospital is feasible. The supervisory boards of both hospitals have already ordered their executive boards to set the course for implementation of this plan.

We have emphatically drawn up a business plan to review the general framework within which a cardiovascular center will be able to work across borders. This will provide us with the opportunity to optimize our health services and to strengthen our profile at an international level. It also gives us a clear margin when it comes to competing for the best minds and the allocation of funding. This development will, in turn, be beneficial for the patients, who may rightly expect that we do not settle for what we have accomplished as university hospital, but keep on improving the healing prospects of tomorrow.

On behalf of the Executive Board



Univ.-Prof. Dr. med. Henning Saß  
Chairman of the Board / Medical Director

### Tracing Liver Cancer

Dr. Tom Lüdde, Department of Gastroenterology, Hepatology and Metabolism, was awarded the Ernst-Jung-Karriere promotion award. Together with other young scientists, the 35-year-old Lüdde conducts research at the interface between chronic liver infections (Hepatitis) and liver cancer.



### New Magnetic Resonance Tomograph

With the new 3-Tesla-MRT, the Department of Psychiatry and Psychotherapy is given an equipment of 2.6 million Euros, which enables scientists to better understand certain brain diseases.

### Preventing Heart Attacks

Professor Christian Weber, Director of the Institute for Molecular Cardiovascular Research (IMCAR) was awarded the Hauss Prize 2008 for his research in the area of atherosclerosis. Weber works on clarifying the role of chemokine receptors in the genesis of atherosclerosis.

### Interior View of the Heart

A new state-of-the-art Magnetic Resonance Tomograph (MRT) was introduced at the UKA. This equipment serves the x-ray-free presentation of structures and functions of tissues and organs. It will be used by the Department of Cardiology, Angiology and Pneumology for work on heart and tissues.

CALENDAR > FEBRUARY 2008 > APRIL

> JANUARY

> MARCH

### Help with Taboo Issue

A new point of contact for people suffering from incontinence is the Incontinence Center of the UKA, where medical doctors from different disciplines work closely together, in particular urologists, gynecologists, and surgeons.



### Light at the End of the Tunnel

Retina surgeons and engineers working with Professor Peter Walter, Director of the Department of Ophthalmology at the UKA have implanted the first full optical prosthesis for blind persons successfully at patients.

### Strategic Partnership

The university hospitals of Aachen and Maastricht, together with the healthcare organization of the Philips Corporation are planning to consolidate their experience in modern high performance medicine and know-how of research conducted by university and industry through cooperation even more in the future. A corresponding agreement was signed by the executive managers at the Life Science Conference "Biomedica 2008" in Maastricht.



### The Silent Danger

On a regular basis, the Department of Nephrology and Immunology offers a four-day seminar for people with high blood pressure, to train patients to competently manage their illness. The topics range from genesis, cause and consequent damage, via correct measurement of blood pressure to subsequent damage to medicamentous and non-medicamentous treatments.



### Visit of Dutch Minister of Interior

Guusje ter Horst, Dutch Minister of Interior, visited the UKA to be informed on the cooperation between the University Hospital Aachen (UKA) and the Maastricht Universitair Medisch Centrum (Maastricht UMC+). The Chairmen of the Executive Boards, Professor Henning Saß (UKA) and Drs. Guy Peeters (Maastricht UMC+), explained the development of the cooperation.

### Information on Nontropical Sprue

The Department of Gastroenterology, Hepatology and Metabolism informs on the domestic nontropical sprue, which is a chronic illness of the mucosa of the small intestine. A meeting take place in August, this time on the topic "Nontropical sprue manifested during childhood".

> J U N E

> A U G U S T

> M A Y

> J U L Y

### Breast Center Certified

The Breast Center Aachen-Stadt, a cooperation between the University Hospital Aachen, the Luisenhospital Aachen and the resident radiologists at the Kapuzinerkarree, was certified by the State of North Rhine-Westphalia for its work. On this occasion, an informative meeting was held with the Federal Minister of Health, Ulla Schmidt.



### European University Hospital Feasible

The foundation of a joint European University Hospital by the University Hospital Aachen and the Maastricht Universitair Medisch Centrum is convenient to strengthen the quality and international competitiveness of both hospitals in the areas of patient care, research and teaching. This is the result of a feasibility study carried out by the consulting company KPMG on behalf of the two university hospitals.

### Offer for Caring Relatives

In order to support people who care for and accompany their relatives after hospital stays in their homes, the UKA offers the program "Familial Care" with comprises classes on patient care. These courses are designed to provide instruction on nursing activities and to improve personal skills within patient care.

### Promotion Day "Clean Hands"

The Germany-wide promotion "Clean Hands" is designed to sharpen the awareness for a thorough and proper hand disinfection, which the UKA also participates in. The UKA has pointed out the importance of careful disinfection of hands for patient safety to staff, patients and visitors.



### New Director of the Department of Urology

Professor Alex Heidenreich resumes his new position as Director of the Department of Urology at the UKA. Prior to this new post, the 45-year-old professor headed the area Urological Oncology of the university hospital in Cologne. He is a designated expert in the area of treatment of cancerous urological diseases. His core competences are pediatric urology and plastic reconstructive urology.

C A L E N D E R > O C T O B E R 2 0 0 8 > D E C E M B E R

> S E P T E M B E R

> N O V E M B E R



### New Chairman of the Supervisory Board

Dr. Robert Georg Gossink is the new Chairman of the Supervisory Board of the UKA. The professional career of the 64-year-old Dutchman has been bound to the research activities of the Philips Corporation for many decades, meaning in the area of medical engineering.

### UKA under Monument Protection

The UKA was entered into the registry of monuments of the City of Aachen. The building is one of the most important worldwide and one of the largest high-tech-buildings in Europe. As far as building history is concerned, the Aachen hospital ranges in the same group with the Centre Pompidou in Paris or the Lloyd Building in London. North Rhine-Westphalia therefore owns one of the largest and most impressive testimonies of the architecture characteristic for the last third of the 20th century.



### Boundless Cardiovascular Research

The Dutch pathologist Professor Esther Lutgens was awarded the Sofja-Kovalevskaja Award of the Alexander von Humboldt Foundation. This award honors the outstanding performance of the 33-year-old researcher in the area of atherosclerosis. The award money of 1.65 million Euros enables to conduct a cross-boarder research project of five years. With this, Professor Lutgens will set up and coordinate a research group at the Institute for Cardiovascular Research at the UKA.



Q U A L I T Y



## Quality Assurance in Accordance with Legal Requirements

The legislator has provided the hospitals with certain specifications to ensure the quality in medical treatment in every case and at all times. For example, hospitals have to publish a quality report according to § 137 of the German Social Security Code (SGB) and subject to strict terms, every two years. The quality report of 2008 contains extensive information on the frequency of diagnosis, consultations and surgeries, as well as the number and training of doctors and nursing staff, and the quality management of the hospital and its departments. The report is available to everybody on the homepage of the UKA or on request by mail.

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## Compulsory Advanced Training for Medical Specialists

As of 2006, all medical specialists – whether resident doctors or doctors at a hospital – are bound to getting advanced training in their specialist field on a continuous basis. Each physician with a completed medical specialist training must acquire 250 advanced training credit points by participating in accredited advanced training measures within five years. On December 31, 2010 all medical doctors of the University Hospital Aachen must present an advanced training certificate to the medical association for the first time.

Although the total number of clinical doctors at the UKA has decreased, the number of medical specialists has slightly increased. On the call date of December 31, 2008 726 medical doctors were employed at the UKA, 401 of them with specialist certification.

Start of duty to advanced training Call date Dec 31, 2008	Number of medical specialists at the UKA
Jan 1 – June 30, 2006	237
July 1 – Dec 31, 2006	26
Jan 1 – June 30, 2007	31
July 1 – Dec 31, 2007	31
Jan 1 – June 30, 2008	41
July 1 – Dec 31, 2008	35
<b>Total</b>	<b>401</b>



## Patient Safety and Satisfaction

The UKA is continuously working on improving patient safety and satisfaction. The hospital therefore thoroughly analyzed internationally certified indicators for patient safety for its own establishment. The UKA was able to improve in some areas, but there is still need for improvement in other areas.

The patient safety indicators, together with other indicator systems, show where there is the greatest need for improvement and action. For a tabular overview, please see page 57.

## Organ Shortage: Waiting for Transplantation

In Germany, people have to wait a long time for transplantation due to organ shortage. One reason for the shortage is the lack of willingness to donate organs. Only three to five percent of the population owns an organ donor card.

For relatives, who have just lost a loved one, the question of the assumed will of the deceased regarding organ donation often represents an unreasonable and excessive demand. In addition, various medical requirements must be met in order to ensure that the organ reaches the patient, who usually is not located at the same hospital in "functional condition". This means also for the UKA, that the number of organ donations is a single digit figure, although it could be much higher, given the number of brain-dead patients.

For this reason, the UKA introduced a full-time commissary for transplantations mid-year 2008: Anesthesiologist Dr. Melanie Schäfer is always on-site at the intensive wards that supervise organ donors who meet the donation requirements. She talks to relatives, doctors and health care staff, working closely together with the German foundation for organ transplantation. In addition, she coordinates measures such as the European Program on Organ Donation (ETPOD), an advanced training which 59 staff members of the UKA and regional hospitals participated in during the last year.

### CONTACT

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**Dr. Melanie Schäfer, Transplantation Commissary and Doctor at the Department of Anesthesiology:**

"As transplantation commissary I really am able to save lives. In addition, I can see from talks with relatives, that an organ donation can bring comfort."

## Seriously Injured at the UKA: Everything Must Run Smoothly

A call coming in from the fire department. A severe accident on the highway – a seriously injured person is expected in ten minutes. At the patient's arrival, besides a multidisciplinary team of physicians and experienced health care personnel, there is also a trauma room, a computer tomograph (CT) and a surgery room ready. Within 30 minutes, all necessary consultations are carried out and the patient is operated.

This emergency situation can be simulated in the class "Advanced Trauma Life Support" which is designed to instruct the participants on diagnostic and therapeutic strategies for trauma room management of seriously injured persons. The physician is provided with systematic concepts and techniques of early clinical diagnosis and urgent treatment, and works with modern training models which can simulate case-based scenarios. Four tutors of the German association for trauma surgery (DGU) supervise 16 physicians. As the waiting times for the courses are very long, regardless of the considerable costs, the UKA conducted its first in-house course for 16 physicians of various specialist departments.

The trigger of innovation was the trauma network "Traumanetzwerk Regio Aachen", founded at the end of 2008. The goal of the network is to ensure an as swift and adequate as possible treatment for injured persons in the region. To this end, hospitals of the region, rescue services and centers for the treatment for special injury consequences such as burns or spinal cord damage have entered into a cooperation. All network members participate in internal and external quality assurance measures and benefit from telemedical consultation systems. Joint rules for a structured and rapid transfer of patients with complex injury patterns and on later return transfer of the patient enable hospitals with basic health care and regional and extra-regional trauma centers such as the UKA to meet their health care talks.

### CONTACT

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Univ.-Prof. Dr. med. Hans-Christoph Pape, Director of the Department of Orthopedics and Trauma, Focus: Trauma Surgery:

"35,000 people get injured in Germany every year, a great number of them with life-threatening injuries. The chance of survival drops with each quarter of an hour. Decisive factors for the result are: On the one hand, the duration of the rescue and the as soon as possible treatment at a specialist department. On the other hand, a gradual fracture treatment, which must take place at all costs to ensure that the injured patient can recover in the most complete manner".

## Interdisciplinary Address for Incontinence

Urinary- and fecal incontinence are defined as inability to control urine or bowels. Those affected may feel the urge to have to void or to have a bowel movement, but may not be able to hold it until they get to a toilet. Incontinence is still a taboo today and those affected often do not even tell their family doctor about it.

According to the German continence society (Deutsche Kontinenz Gesellschaft e. V.) five to six million people in Germany suffer from urinary- or fecal incontinence.

Causes of Incontinence can be quite different and need a thorough evaluation. Underlying causes can be storage as well as emptying problems. Urinary incontinence in middle aged woman is often due to pelvic floor dysfunction and prolaps. Men are sometimes affected after having had surgery mostly for prostate cancer. In the elderly often muscle or nerve damage are a major reason for urinary incontinence. Common causes of fecal incontinence are constipation, muscle and nerve damage, loss of storage capacity, diarrhea or pelvic floor dysfunction. Incontinence is often linked to major socioeconomic or psychosocial problems. Due to decreased self-esteem and shame people affected tend to withdraw socially.

The new continence center for urinary and fecal incontinence of the University Hospital Aachen is focused on helping those affected. In close relationship with the doctors in private practice, primary care givers as well as specialists and in close relationship with pharmaceuticals, physiotherapists, nursing homes and other health care providers we are able to provide optimal diagnosis and competent help for the individual.

Since June 2008 the Continence Center Aachen was certified by the German continence society and has since then deepened its working relationship with physicians of different disciplines – in particular urologists, gynecologists and general surgeons. Further cooperating departments are the continence counseling center of the Department of Pediatrics and Gastroenterology, Hepatology and Metabolism / Section Endocrinology and Diabetology. Further partners are neurologists, radiologists and dermatologists. The patients benefit of co joint consultation hours. With national and internationally acknowledged experts the continence center sees itself as a partner with special competence in diagnostics, prevention and therapy urinary and fecal incontinence.



PD Dr. Ruth Kirschner-Hermanns, Head of the Continence Center Aachen:

“Already starting at the 50th year of life, continence discomfort is becoming more frequent. The reasons for urinary- and anal incontinence may be very different. The most common ones are pelvic floor impairment or infections. Little-known is that the symptoms may be aggravated by overweight, diabetes, medical drugs or psychological pressure. Essential for a successful treatment is an early diagnosis and consequential therapy. Here in Aachen, we have promising surgical and non-surgical therapeutic methods for almost every type of incontinence.”

### C O N T A C T

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## Feedback Welcome: How Satisfied Are Our Patients?



In the past years, the UKA has conducted regular surveys on patient satisfaction either throughout the hospital or in partial sections. These surveys, however, only provide an insight into a momentary situation. The UKA therefore introduced a regular satisfaction survey over a longer period of time in May 2008.

Prior to their discharge, the patients are given a questionnaire to evaluate aspects of customer orientation, medical and nursing competence and service offers. They are also asked whether they would recommend the UKA.

During the last year, over 1,000 questionnaires were assessed. The best grades were assigned to the physicians and nursing personnel for their competence and friendliness. On the other hand, a lot of patients have expressed their wish for more consultation time, which confirms the subjective perception of the situation of doctors and nursing personnel: They often work under great strain and time pressure. The process of patient admission and quality of services are also evaluated in relation to medical and nursing competence with worse grades.

Wherever one can deduce a need for action from these results, the UKA works on an as soon as possible improvement. The measures taken include construction remodeling such as the establishment of handicapped accessible cash machines at the multimedia terminals or the labeling of standard wards. Classes for customer orientation are also part of the improvement program. The introduction of a

case management (for more information see page 40) or the relief of nursing personnel through a re-structuring of transport services shall contribute to improve to patient satisfaction.

### CONTACT

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### Learning from Complaints

In addition to patient surveys, the UKA has conducted a complaint management for several years now. Patients, relatives, resident doctors and other customers may direct their complaints, improvement suggestions and proposals to the UKA either in writing via an internet form, by phone or in person. Most of the complaints during the year 2008 concerned the treatment (22 percent), inappropriate conduct of staff (21 percent) and long waiting hours (19 percent). The number of complaints has slightly increased in the past years. Beside the results of the satisfaction survey, the complaints provide important information for improvement measures.

### CONTACT

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The complaint management team: Gabriele Máj (administration), Peter Bosbach (nursing), sitting: Silke Theisen and Götz Hemicker (both medicine)

R E S E A R C H



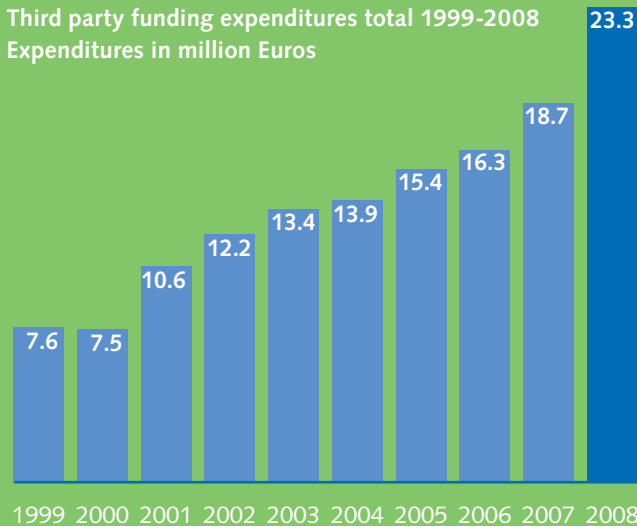
## Third Party Funding Increased by 25 Percent

### Medical Faculty Draws Optimistic Research Balance



Univ.-Prof. Dr. med. Johannes Noth  
Dean of the Medical Faculty

Third party funding expenditures total 1999-2008  
Expenditures in million Euros



The research efforts of the Medical Faculty of RWTH Aachen University are paying off: „The Medical Faculty succeeded in using the momentum and the spirit of optimism of the Excellence Initiative to further intensify and improve research in the core competences of the Faculty”, says Professor Johannes Noth, Dean of the Medical Faculty. Again, the expenditures for third party funding projects have increased. In figures: After 16.3 million Euros in 2006 and 18.6 million Euros in 2007, 23.3 million Euros made available by external funding institutions for research at the Medical Faculty were spent in 2008, which corresponds to an increase of 25 percent.

It is gratifying that all research competences have equally contributed to this success:

- In the core area **Medicine and Technology** one should mention the development of an optic implant which considerably facilitates the day-to-day life of patients with retinitis pigmentosa already after a few years. This subject is covered in detail on page 18 et seq.

In addition an endowed professorship of the Florindon Foundation with focus on experimental molecular imaging was filled. Here, researchers are developing methods of modern imaging to better understand the genesis of illnesses and to develop new therapeutic methods from this understanding.

- The focus **Clinical Neurosciences** has profited in particular from the Excellence Initiative: Four junior professorships were established, which deal with the prevention, diagnosis and therapy of psychic and neurological diseases. With Univ.-Prof. Dr. rer. soc. Ute Habel, the field of neuropsychological gender research is receiving special attention. Her professorship was established to shed more light on the often uncared question of gender-specific differences in neurosciences and medicine. For more on this topic, see page 20 et seq.
- The focus **Infection and Implications** has been strengthened by an additional large research cooperation, the so-called Transregio Collaborative Research Center (SFB TRR 57) of the German Research Foundation. It is entitled “Organ Fibrosis - from Mechanism of Injury to Modulation of Disease”. Since autumn 2008, scientists from Aachen and Bonn have



researched together which mechanism lead to a scaring of kidneys and liver. With this, the existing research cooperation in this area of competence – the Collaborative Research Center “Molecular mechanism of zycotin-driven infection processes (“Molekulare Mechanismen Zytokin-gesteuerter Entzündungsprozesse”) were complemented in an ideal manner. For more on this topic, see page 22.

- For the core area **Cardiovascular Research** the emphasis in 2008 was on the cooperation with researchers in Maastricht: an international Research Training Group, which comprises doctoral candidates at the locations Aachen and Maastricht who work on the topic “Arterial Reconstruction Processes”, resumed work. Univ.-Prof. Dr. med. Esther Lutgens made a decisive contribution to this Group. She received the Sofja-Kovaleskaja Award of the Alexander von Humboldt Foundation. She has invested the prize money to coordinate her own research group at the Institute for Molecular Cardiovascular Research for five years, which complements the research conducted at the Maastricht Cardiovascular Research Institute (CARIM) in a reasonable manner. For more on this topic, see page 23 et seq.

In view of the development and success of the year 2008, Dean of Research Univ.-Prof. Dr. med. Jürgen Floege is optimistic regarding the future: The many research-focused new appointments of the last years and the improving cooperation with the technical disciplines of RWTH Aachen University are clear evidence that we can expect outstanding research at our Faculty also in the upcoming years.

#### CONTACT

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- > The core research area of **Medicine and Technology** stands for the connection of medical research with the disciplines of engineering and natural sciences at RWTH Aachen University. The research activities comprise a biological and technological vascular substitute, miniaturized medical products and implants, and diagnostic and therapeutic imaging procedures.
- > **Clinical Neurosciences** deal with research on neuropsychiatric issues, mainly the development of imaging procedures.
- > The core research area of **Infection and Implications** deals with basic research. The focus is on chronic infections and their consequences, for example atherosclerosis, organ fibrosis and genesis of malignant tumors.
- > The core area of **Cardiovascular Research** deals with new diagnostic and therapeutic strategies to treat cardiologic and vascular diseases. Goals: An improved pathophysiological understanding and resulting new approaches for diagnostic and therapy. The projects are based on a cooperation of various institutes and departments within the Medical Faculty and the engineering and science faculties of RWTH Aachen University, together with external research partners.

## Medicine and Technology

### Retina Research: Electronic Implant for Blind Persons



Univ.-Prof. Dr. Peter Walter, Director of the Department of Ophthalmology

The progress in ophthalmology is impressive. Nevertheless, there are people becoming blind today due to various reasons. One of these causes is "retinitis pigmentosa" (RP). This genetic disease leads to a decay of the light-sensitive cells of the retina. In Germany, about 15,000 RP patients are blind.

Retinitis pigmentosa is a lingering process. Patients become night-blind at an early stage of adulthood. Later, the field of vision, is getting constricted. Blindness occurred between the age of 30 and 50.

The cause of this disease is a genetic change of the proteins, which usually ensure the function of light-sensitive retinal cells. The protein transformation leads to a dissolution of the retina cells. Ganglion cells survive up to 30 percent even in advanced cases of RP. This is the starting point of a newly-developed pacemaker technology, which enables blind persons to perceive light, brightness and colors in a limited manner.

### Just Like a Pacemaker inside the Eye

Engineers of RWTH Aachen University and the Fraunhofer Institute in Duisburg have developed the electronic implant EpiRet III. The system consists of a miniature camera outside the eye and a receptor chip and stimulation electrodes inside the eye. The miniature camera is inserted in an eyeglass frame and it records the image from the environment, calculates the data and transmits it wirelessly to the receiver chip inside the eye. This chip in return transfers the information to the electrodes which are affixed to the retina. The partially healthy ganglion cells of the retina absorb the impulses precisely as if they came from the light-sensitive retina cells. The pacemaker EpiRet therefore assumes the function of light-sensitive cells which have died off.

As the implant lies on the retina it is also called "epiretinal implant". The prosthesis is implanted into the eye in a two-hour surgery. Up till now, this surgery has been performed on six blind patients suffering from retinitis pigmentosa. All patients have recovered from the implantation without complications or reactions of rejecting the implant. After four weeks, the implant was removed from all patients for safety reasons.

## Success of Many Disciplines

The Department of Ophthalmology, the Neuropathological Institute of the UKA, as well as the Institute for Materials of Electronic Engineering participated in the development of EpiRet. The experts consisted of specialists in neuroinformatics, and Microsystems engineering, as well as of retina surgeons and physiologists. They developed the actual implant, downsized it and developed a gentle surgery method. The idea of the project was considerably funded by the Federal Ministry of Research between 1995 and 2006.

The Fraunhofer Institute IMS in Duisburg, the Department of Ophthalmology of the University Essen, as well as the Institute for Neurophysics of the University of Marburg are the external partners participating in the project. Industrial partners are the companies Thomas Recording in Gießen, Bytec Medizintechnik in Stolberg and Dr. Schmidt Intraokularlinsen in St. Augustin.

Upon the technological realization of the implant, tests were performed on cell cultures and animals to evaluate the compatibility on surgical techniques later applied to humans. When the system was finally implanted in six patients, all of them reported visual perception which depended on the electrode group activated and the output performed at the electrodes. The patients did not capture a realistic image of their environment but they saw light spots and light lines – spots and lines of hope.

Since the Federal Ministry of Research is not supporting this research program any longer, newly-founded companies will support and finance the further development. The next generation of implants is to be tested at the Departments of Ophthalmology in Aachen and Essen. The new system will contain more pacemaker electrodes than before. A camera interface will feed real images via the retina into the central nerve system. The researchers anticipate that an applicable implant will be available within two years.

### CONTACT

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- > Retina implants are microelectronic systems which are inserted into the eye in order to stimulate the remaining nerve cells and to re-activate the optic system.
- > EpiRet is the only system worldwide that transmits data and energy wireless from outside into the eye in a safe manner.
- > Small titan pins are employed to fasten the EpiRet to the retina. With these pins, the implant is attached to the retina on eyelets. They can stay in the eye if the implant has to be removed.

## Clinical Neurosciences

### Modern Imaging in Psychiatry



View into the brain: Doctoral student Nils Kohn and Univ.-Prof. Dr. rer. soc. Ute Habel perform a study with functional magnetic resonance imaging.

How does the brain process emotions? What are the differences between men and women? What kind of changes are featured in the brain through certain external stimulation? RWTH Aachen University and the research center in Jülich ( Forschungszentrum Jülich GmbH) are getting to the bottom of these questions together. In this process, modern imaging is an important tool that provides precise images of structure and function of the brain.

Since the end of 2008, Professor Ute Habel is head of the teaching and research area "Neuropsychological Gender Research" at the Department of Psychiatry and Psychotherapy of the UKA. The research group generates visible images of brain activities with the help of modern functional imaging. Functional Magnetic Resonance

Imaging (fMRI) enables insight into which regions of the brain are active during the processing of emotional stimuli. With this, it is possible, for example, to predict a higher risk for certain diseases, possibly at a very early stage.

More and more voluntary candidates are needed for gender research at the UKA. The candidates solve different tasks during an fMRI test. For example, they have to solve math exercises, recognize emotional states of faces or put themselves into the position of other persons. The tasks are conveyed to the participants via video eyeglasses. Ear plugs protect them from considerable noise of the fMRI-measurements. By means of an olfactometer, the participants can also perceive odors, for example vanilla or rotten yeast. Everything is observed in detail and recorded by the MRI. The result of the gender study: The behavior of men and women is mostly equal; however different brain areas are activated.

## Studies on Humorous Life

With the help of fMRI brain activities of healthy candidates and people with psychiatric diseases may be compared. The effect of a therapy can also be validated by the use of fMRI.

The candidates of the “study on humorous life” receive a special humor therapy. At the end of the study, one can compare the fMRI images taken prior to the humor therapy and see whether there have been any changes to the brain and if so, what they look like. Such an evaluation might be of importance when testing the repercussion of different therapeutic methods in the case of depression. Of course, the effect of medication can also be recorded by fMRI. In these studies too, the UKA focuses on the differences between men and women.

## Excellent Material

The functional MRI is a relatively new method. It has been employed for about 20 years and continuously developed. The University Hospital Aachen (UKA) and the Medical Faculty of RWTH Aachen University have made it their business with the research area “Clinical Neurosciences” to conduct research on the basis of mental illnesses. In 2008, the Department of Psychiatry and Psychotherapy received financial support from the Federal Ministry for Education and Research for the implementation of a new Magnetic Resonance Tomograph. This equipment is reserved exclusively for neuroscientific research and therefore an important element of the translational research approach of JARA-BRAIN. This means, that the results of basic research are applied in a swift manner. With this, the UKA will hopefully be able to offer innovative therapies particularly fast.

### CONTACT

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- > Gender research through functional imaging studies for instance to which extent men and women react to emotional impulses, and whether different brain areas are affected during processing.
- > The result: Men and women provide the same outcome – but they use different strategies.
- > These findings on gender differences are now also integrated in the diagnosis and therapy of psychologically ill men and women.



The study also shows how the brain reacts to odors.

## Infection and Implications

### Infection Research Using the Example of Liver Fibrosis

Many chronic diseases of the liver and kidneys lead to a scarring of the organs. At scarring, also called "fibrosis", the normal organ tissue is replaced by connective tissue. Thereby, the functional efficiency of the organ degenerates more and more.

In the liver, the increasing scarring leads to a so-called cirrhosis which can only be treated effectively through a liver transplant. If the kidneys are affected by scarring, it also leads to a loss of function – the patient can only survive with a renal dialysis treatment.

Liver transplantation and dialysis involve enormous costs. In addition, the prognosis for the patients are bad. Tens of thousands of people in Germany die annually due to complications from chronic liver and kidney diseases.

### Better Understanding of Organ Fibrosis

Therapies have often failed to succeed because the mechanisms of multiplication of connective tissue on smallest molecular level are only partially known. The RWTH Aachen University has set itself the goal to better understand processes during the generation of organ fibrosis. To this end, it established the Collaborative Research Center (SFB) "Transregio 57" entitled "Organ Fibrosis – from Mechanisms of Injury to Modulation of Disease", which deals with methods to slow down the formation or even degenerate scarring tissue and to find novel therapeutic options.

The funding volume amounts to 8.3 million Euros. Twelve projects will be located in Aachen, six in Bonn, and the Saarland University Hospital will also participate. The genetic preconditions of fibrosis will be researched as well



Professor Christian Trautwein and senior physician Dr. Hermann Wasmuth performing a liver scan.

as the immunological process and molecules directly participating in the disease process. The scientists are working on deciphering both common and organ-specific processes that lead to scar formation in particular in liver and kidney.

Speaker of the SFB/ Transregio 57 is Professor Christian Trautwein, Director of the Department of Gastroenterology, Hepatology and Metabolism at the University Hospital Aachen.

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## Cardiovascular Research

### Aachen and Maastricht: Fighting Together Against Atherosclerosis

Cardiovascular diseases, namely myocardial infarction and stroke, are the leading cause of death with 30 percent worldwide, killing seven million victims each year in Europe and North America alone. Most commonly, this is the result of atherosclerosis – a chronic inflammation of the inner vascular wall layers, which leads to arterial occlusion, plaque rupture and thrombosis. Research teams at the University Hospitals Aachen and Maastricht are exploring new methods to prevent and resolve vascular plaques.

To this end, a Research Training Group called “EuCAR (European Cardiovascular Research School) – Arterial Remodeling” was established in 2008. The spokesperson Professor Christian Weber, Director of the Aachen Institute for Molecular Cardiovascular Research (IMCAR), and Professor Mat Daemen of the Cardiovascular Research Institute Maastricht (CARIM) initiated EuCAR. The project is funded by the German Research Foundation with more than two million Euros.

### Research for New Therapeutic Options

Essential goals of EuCAR are to investigate how vulnerable plaques can be detected and stabilized and how arterial stenosis can be treated by vascular interventions, including biocompatible stents and grafts. The research findings shall be rapidly implemented in diagnostic and therapeutic practice. The first clinical applications are introduced within the “European Cardiovascular Centre of Excellence (ECCE)”, which was founded at the same time as EuCAR. This center is an important component for the first European



Professor Christian Weber and Professor Esther Lutgens are searching for possibilities to dissolve vascular deposits.

University Hospital, pursued in cooperation of the University Hospital Aachen and the Maastricht Universitair Medisch Centrum (MUMC).

The Maastricht pathologist Professor Esther Lutgens has established a research group at IMCAR in the end of 2008. This group investigates molecular signals leading to plaque rupture and optimally complements the scientific profile between IMCAR and CARIM. The work is funded by the Sofja Kovalevskaja prize awarded for this cross-boarder research and endowed with 1.65 million Euros.

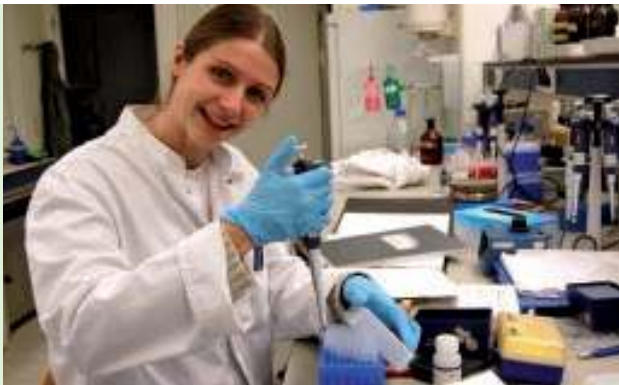
It is well established that inflammatory macrophages, so-called scavenger cells, accumulate in the vascular wall and participate in plaque progression. The IMCAR team

was able to show that the immigration of these cells can be prevented in a targeted manner with a protein component (peptid). This peptid blocks the activity of chemokines, important messengers for cell traffic, so that the progression of atherosclerosis can be selectively impaired: Only these inflammatory processes in the vascular wall are stopped without interfering with the normal immune system.

The research findings of IMCAR have received several awards: The European Society of Cardiology presented an Outstanding Achievement Award to Professor Christian Weber in 2008. Together with Professor Jürgen Bernhagen, Head of the Institute for Biochemistry and Molecular Biology, Weber also received the Paul-Martini Award 2008.

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Professor Esther Lutgens received an award money of 1.65 million Euros for her cross-border research on atherosclerosis.



N E W M I N D S





## Univ.-Prof. Dr. med. Gernot Marx

### Department of Intensive Care

As of November 1, 2008 Professor Gernot Marx was appointed Director of the interdisciplinary Department of Intensive Care and temporary Director of the Department of Intermediate Care (Surgical Part). The 43-year-old physician graduated at the Medical Faculty in Hannover. He is a specialist in both, anesthesiology and intensive care medicine. The clinical and research focus of Marx is centered on sepsis, which is the third most common cause of death in Germany. Scientifically Professor Marx is working on improving diagnosis and on molecular and cellular mechanism of the sepsis-induced organ failure.

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## Univ.-Prof. Dr. med. Axel Heidenreich

### Department of Urology

Professor Axel Heidenreich assumed his position as Director of the Department of Urology at the University Hospital Aachen on December 1, 2008. He is the successor of emeritus Professor Gerhard Jakse. The 45-year-old medical doctor, who is a native of Hanau in Hesse, had previously headed the area of Urological Oncology of the University Hospital in Cologne. Axel Heidenreich is an expert in the treatment of urological cancerous diseases. He is the chairman of the Prostate Carcinoma Guideline Commission of the European Society of Urology, Chairman of the European Society of Oncologic Urology and of the Working Group Urological Oncology of the German Cancer Society. Professor Heidenreich is also head of the second opinion center „Testicle Cancer“ in the greater region of Aachen and Head of the Euro Prostate Center Aachen which was recently established in cooperation with a group of resident urologists in Aachen, the Netherlands and Belgium.

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## Univ.-Prof. Dr. med. dent. Stefan Wolfart

### Department of Prosthodontics and Dental Materials

Professor Stefan Wolfart was appointed Director of the Department of Prosthodontics and Dental Materials on October 15, 2008. The 41-year-old studied dentistry at the Philipps-University in Marburg and was accepted by the German National Academic Foundation in 1993. From 1998 to 2008 he worked at the Department of Prosthodontics, Propaedeutics and Dental Materials at the Christian-Albrechts-University in Kiel. In May 2006 he finished his PhD Thesis.

In his core area, prosthodontics, Wolfart's scientific and clinical focus is on implantology, dental esthetics, the clinical reliability of full ceramic materials and the related improvement in the quality of life.

#### C O N T A C T

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## Univ.-Prof. Dr. med. Thorsten Orlikowsky

Department of Pediatrics (section Neonatology)

Professor Thorsten Orlikowsky was appointed Director of section Neonatology of the Department of Pediatrics on February 2008. The 46-year-old is originally from Tübingen and spent two years of his expert training in New York with Professor Michael Hoffmann within a fellowship of the German Cancer Aid. From this work developed his new research areas "Infection Immunology" and "Neonatal Immunology". He deals with the question of how the immunological system develops, why premature babies easily contract infections and which consequence infections have on the immune system.

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## Institutes and Teaching and Research Areas



**Univ.-Prof. Dr. rer. nat. Stefan Gründer** (45) was appointed Director of the Institute for Physiology on January 1, 2008. His research focus is on ionic channels.

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**Univ.-Prof. Dr. med. Fabian Kießling** (36) was appointed Head of the area "Experimental Molecular Imaging" at the Institute for Biomedical Technologies on May 1, 2008.

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**Prof. Dr. med. Rudolf Leube** (49) was appointed Director of the Institute for Molecular and Cellular Anatomy on January 1, 2008. He conducts research on the information exchange of neurons.

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**Univ.-Prof. Dr. med. Andreas Schober** (38) was appointed Director of the area "Cardiovascular Biochemistry" at the Institute for Molecular Cardiovascular Research on October 1, 2008.

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**Univ.-Prof. Dr. rer. nat. Ralf Weiskirchen** (45) was appointed Head of the research area „Molecular Pathobiochemistry and Experimental Genetic Therapy“ at the Institute for Clinical Chemistry and Pathobiochemistry on July 1, 2008.

### CONTACT

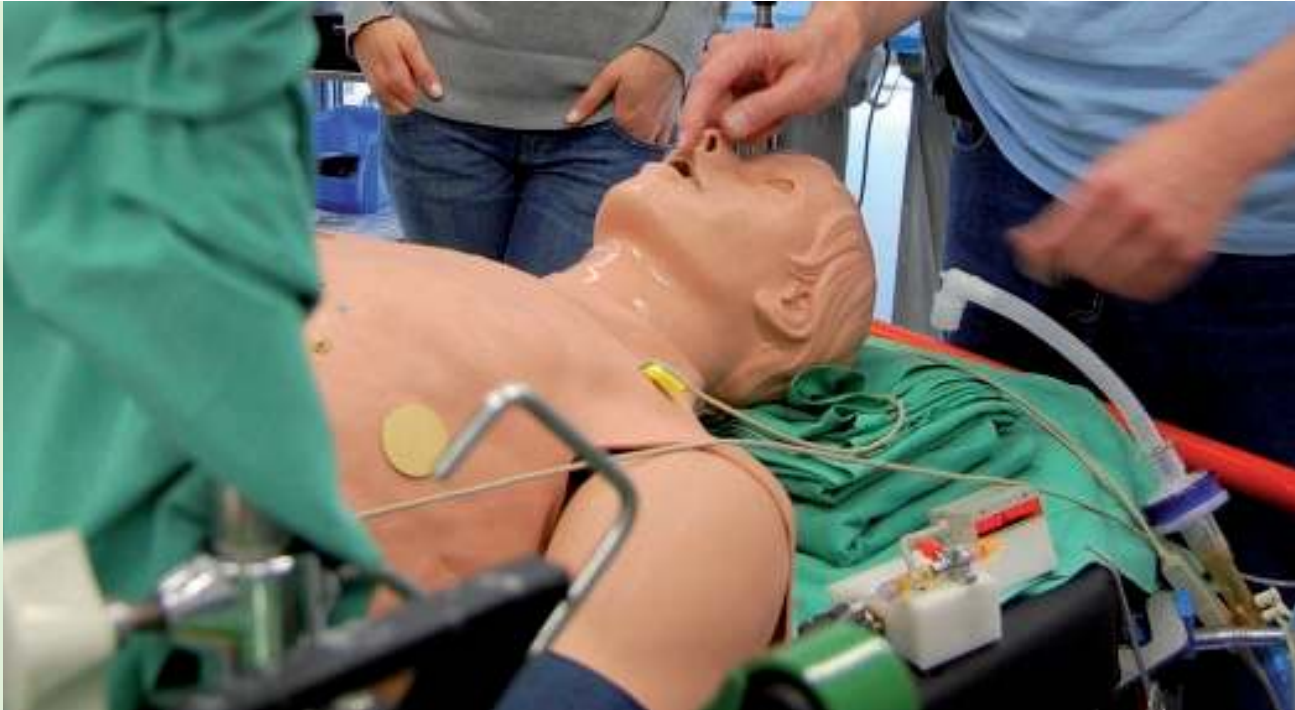
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T E A C H I N G A N D  
T R A I N I N G



## New Medical Students Curriculum

Attractive Location for Currently 2,500 Students



Former Practice, own focal areas: Aachen medicine students study according to a new curriculum.

Around 2,500 students are currently enrolled at the Medical Faculty of RWTH Aachen University. The majority – 1,900 students – is enrolled in Human Medicine, 1,504 of which have been registered in a new medical students curriculum, the “Aachener Modellstudiengang Medizin” since 2003/04. The remaining 396 students will finish their studies within the conventional curriculum.

Already starting in the third semester, the students of the new curriculum get to know practice and clinic. In organized systematic programs the interdisciplinary classes are complemented by practical projects and problem-oriented studies: chosen case examples illustrate connections and consolidate knowledge acquired. In addition the General Medicine is represented in several parts of the

curriculum. Special features of the curriculum are the qualification profiles which comprise about ten percent of the classes. Here, the students may set their own focus and they will acquire scientific skills and additional competences in the areas of communication and ethics, basic research, implant research, clinical examinations and public health system.

The medical training is rounded off with a “quality offensive practical year”: Preparatory courses, in-house revision courses to revise theoretical specialist knowledge, and mentoring in chosen units complement the clinical training at wards of the UKA in the sixth and last year of studies. As a matter of fact, a considerably increasing number of students opt for the practical year at the UKA when having the free choice between academic hospitals, practical years abroad and the UKA.



After five years of the "Aachener Modellstudiengang", the Medical Faculty drew a positive balance in 2008: "The new range of freedom which the approbation regulation offers medical doctors are used in Aachen to considerably improve the training of medical doctors", says Dean Professor Johannes Noth.

## Dentistry

The dentistry curriculum in Aachen is still divided in foundation and main course (pre-clinic and clinic). However, there are also innovations in the program: The clinical training is structured more interdisciplinary. 382 students were enrolled in the curriculum Dentistry in Winter Semester 2008/2009, 59 of which were freshmen.

## Bachelor Logopedics and Master Teaching and Research Logopedics

49 students enrolled in these first and only curriculum in Germany in Winter Semester 2008/2009. A total of 128 students were enrolled at this time. The Bachelor's curriculum addresses graduates of a professional logopedics training; the Master's degree program builds on it and provides the qualification to conduct research and teaching. Both programs were accredited successfully for the recast from Diplom to the Bachelor/Master system.

## Biomedical Engineering

Under lead management of the Medical Faculty, four faculties of RWTH Aachen University are offering the English-taught degree program Biomedical Engineering: The broad range of teaching reflects the qualification of the students, as they require a first degree in medicine, engineering or the natural sciences in order to be admitted to the program. 68 applications were submitted for Winter Semester 2008/2009, 45 of which were from abroad and 23 from within Germany.

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- > The "Aachener Modellstudiengang" is characterized by a new didactical concept which connects theory and practice at a very early stage of the academic career.
- > In addition, the curriculum is organ-focused and interdisciplinary. To this end, new interdisciplinary and thematically structured classes were implemented.
- > Students already make contact with patients in the first semester.
- > Towards the end of the curriculum, the students absolve a practical year. During this training element, they directly participate in patient care under instruction and supervision of experienced physicians.

## Training Center for Prospective Physicians

### Medical Students Can Train Their Practical Skills Optimally in Aachen

Insertion of a central-venous catheter, intubation or saturation: these and many other tasks should not be “rehearsed” directly with the patient. In Aachen, the Interdisciplinary Training Center for Medical Training – in short: AIXTRA – offers students an abundance of opportunities to learn and improve important practical skills.

Alongside curricular events, about 200 facultative courses took place in 2008, with a total of 1,100 participants in the classrooms of AIXTRA (2007: 100 courses, 420 participants). AIXTRA is headed by a team of four: The managing directors Dr. Stefan Beckers and Dr. Saša Sopka, as well as Professor Irmgard Classen-Linke and Dr. Michaela Weishoff-Houben.

### New Classrooms

In the last year, new classrooms were built for practical projects and seminars of small groups. In one room, the participants can, for example, realistically simulate situations typical for a hospital, as for instances scenes of the operating room, the trauma room or the intensive care. The simulations are coordinated from a “stage direction” room next to the training room.

Another novelty: working with a video feedback system, which is suited for rehearsing physician-patient-talks to train the communicative skills.

### Training with Simulation Patients

Simulation patients are actors, who were trained in the role of a specific disease. So far, the trainees are able to simulate about 35 medical roles and disease patterns.

Beside a video feedback, the students receive a feedback on how the simulation patient perceived the talk with the (prospective) physician. This feedback is to sharpen the sensitivity for the needs of the patients and the need for a language which is easy to be understood by laypersons. In addition, the students are given content-related medical feedback by the medical teacher.



Students in an AIXTRA-course practicing an abdomen-sonography.

### Central Service Unit

AIXTRA serves as “service unit” for the departments and institutes of the Medical Faculty in order to enable practical education with optimal equipment. In the upcoming years, AIXTRA will grow further. In addition, the established and innovative teaching methods and concepts are to be evaluated scientifically in cooperation with the Institute for Medical Psychology.

#### C O N T A C T

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## E-Learning

### Virtual Microscopy and Video Podcasting

The teaching project “Virtual Microscopy and Video Podcasting” of the Institute for Pathology supports the acquisition of knowledge of histology – meaning the science of microscopic anatomy of tissue samples. Additionally it forms a bridge between clinical expertise and fundamental knowledge of organ pathology.

The project was planned by Dr. Alberto Perez-Bouza and implemented with the involvement of student assistants. A total of 100,000 Euros have flown into this service offer in the past years. In January 2009, it was honored with the teaching award of RWTH Aachen University.

The subject Pathology offers integrative teaching by using modern methods such as video podcasting and virtual microscopy, which provides the essential basics for the medical profession and pre-clinic, and connects pre-clinical fundamentals with clinical disease patterns. Thus, the students may use short videos and digitalized histological specimen for different disease patterns and preparation for exams. About 1,200 students of three age-groups and two semesters of the regular curriculum have used the offer to complement the practical projects and lectures.

### iTunes University as Didactic Supplement

Since January 2009, there has been a so-called iTunes-University existing in Germany, an internet platform which publishes audiovisual material of the university via the free Apple software “iTunes”. It has been employed successfully by American universities such as Harvard, Yale or Stanford for years. RWTH Aachen University, Ludwig Maximilian University Munich, and the University Freiburg are the first universities in Germany to participate in the program. The offer from the Institute for Pathology is strongly represented with 60 videos. The videos can be looked at from a computer or iPod with video function or iPhone. The videos are designed as complement to the existing textbooks.



Learning at any place: Pathology video via iPod.

#### CONTACT

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## Promising Professional Training

### The UKA provides qualification in different healthcare professions

Several schools of the most different health care professions which have a state certification belong to the UKA:

- The health, nurse's and pediatric nurse's training school with a total of 183 students of three year-groups
- The school for medical-technical assistance (MTA) with 66 students
- The school for physiotherapy with currently 72 students and
- The school for logopedics (speech therapy) with 64 students

(as of October 15, 2008)

The great interest in these schools is reflected by the high number of applications: 2,452 applications were submitted for the professional training course in 2008. In the same year, 134 students absolved their school successfully and found employment in their area of expertise.

Besides specialist knowledge, the schools also convey social, communicative, methodical and personal skills, whereas theory and practice are always closely connected, in particular by the intensive cooperation with numerous departments of the University Hospital. In addition, the schools work together with external social-pedagogical and medical institutions and outpatient nursing and therapy institutions.

### Interdisciplinary Learning

All schools develop and evaluate school-based curricular concepts based on new professional training guidelines of the State of North Rhine-Westphalia. There is interdisciplinary cooperation going on between the schools. One example of this cooperation is a joint class unit of the physiotherapists and speech therapists on the topic development of diagnostic findings. The prospective physiotherapist raise the liability status of the future speech therapists, in return these raise the voice status of their fellow students.



Practice-related professional training at a ward under supervision of experienced nursing staff.

The school for logopedics cooperates with the Bachelor's degree program "Logopedics" of RWTH Aachen University. The trainees are given the opportunity to access the school for logopedics in the fourth semester of the Bachelor's degree program.

Practical classes partially take place in demonstration rooms, in which the students learn the fundamentals of their respective professions. There are also open days offered at the ward and departments, where the students can apply their knowledge. In such projects, they learn how to estimate their skills and limitations. For example, the nurse's school students are given the opportunity to take over the coordination of a complete ward for trial purposed in the third year of professional training. During the entire professional training, the students are lead through profession-specific tasks by practice supervisors at the ward. Mentoring and instructive exercises are partially recorded on video and analyzed.

### CONTACT

[www.ukaachen.de](http://www.ukaachen.de) > Unsere Einrichtungen > Schulen am UKA

N U R S I N G



## Pilot Project Familial Care

### Improving Transition from Hospital to Familial Care



Under supervision of physiotherapist Gabriela Kleinen (right) the participants of the nursing course exercise different bedding techniques.

A society growing older, changes in family structures, but also the need to balance efficiency reserves in the hospital: Everything requires the development of strategies for the transition of hospital to familial care. The pilot project "Familial Care" bets on the support of nursing relatives in cooperation with hospitals, adult education centers (VHS) and catholic family education centers.

The project is funded by the Ministry for Work, Health and Social Matters of the State of North Rhine-Westphalia, and the health insurance agencies AOK Rheinland/Hamburg and AOK Westfalen-Lippe. A cooperation contract between AOK Rheinland/Hamburg, Regional Board Aachen, University Bielefeld and the University Hospital

Aachen was closed on May 30, 2008. Based on this agreement, the University Hospital Aachen was able to start with the implementation of the project.

The pilot project contains the following mentoring and educational offers for nursing relatives:

- **Individual Case Nursing Training**

Within the individual case nursing training, the relatives are individually trained and supervised by professional nursing staff at the patient's bed. The scope and contents of the training is oriented on the demands of the patient and is arranged beforehand with the relatives, the nursing staff of the ward and the nursing trainers. Depending on the demand, the relatives receive up to five training units of 30 to 45 minutes.

#### • Initial Nursing Course

The nursing course serves to train nursing relatives in dealing with the patients requiring the care and it is carried out by qualified professionals in three class units. Practical tips with regard to nursing and mobilization are in the fore. Many participants find it especially helpful to exchange information with people in similar situations. There are four initial nursing courses planned at the UKA for the year 2009. In addition, the UKA has offered a discussion group for nursing relatives since March 2009.

#### • Nursing Training at Home

The UKA plans to carry out nursing training at home up to six weeks after the hospital stay in which the relatives receive instructions on nursing at the patient's homes. This is necessary as the short hospital stays often do not allow for sufficient training at the patient's bed and the situation at home is sometimes different as the one experienced at the hospital.

#### C O N T A C T

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- > July through December 2008: Two initial nursing courses (comprising three four-hour classes)
- > July through December 2008: 36 individual case nursing classes (45 minutes each)
- > July through December 2008: Formation of a working group comprising staff of the various hospitals in Aachen and Düren. The meetings, which take place every eight weeks, serve to exchange experiences and to develop reciprocal support opportunities. A first result is a regular, monthly offer of initial nursing courses for all interested relatives of the different hospitals.



Dorothee Ewald coordinates the activities of the project "Familial Care" at the UKA.

## Case Managers

### Pilots in Everyday Life at a Hospital

The prospects of modern medicine lead to an increasing complexity of processes and structures of a hospital. It is therefore necessary that someone knows about the paths the patients have to take and helps them to stay oriented. This task is assumed by the hospital pilot, also called "case manager", who does not only serve the patients: The case manager contributes to carry out more economic procedures while at the same time strengthening patient and staff satisfaction. The introduction of a case manager enables the consolidation of strengths, a new definition of work procedures and optimization of processes.

The project is being implemented gradually at the UKA since April 2008. Andrea Kurz and Jutta Esser were employed at the Department of Nephrology and Immunology as the first case managers who accompany the treatment procedure of their patients in consideration of aspects such as optimization of processes, quality and costs. They coordinate the treatment process of patients in such a way that a better provision is supplied. They serve as the link between patients, resident physicians and specialists and the different service areas of the UKA.

### Support Even After Discharge

The case managers make contact with the patients prior to the in-patient stay, make arrangements for consultations and surgeries, compile the required diagnostic findings and sort out needs for support after the hospital stay. On the admission day, the case managers are always the first persons of contact and ask where there are special needs to be considered during the in-patient stay. "This naturally happens in close coordination with the physicians and in accordance with their specifications", says Andrea Kurz. Experience made at other institutions has shown that the period of stay at the hospital can be shortened considerably.



Case Manager Jutta Esser (left) discusses with the patients, what kind of requirements have to be met during the hospital stay.

In more than half of the cases the patients need support and help after the hospital stay. The case managers help them and their relatives in organizing rehabilitation measures or meals on wheels, in finding outpatient nursing services, in applying for nursing allowance and in securing a nursing home place. Important partners, among others are the Social Service of the UKA and health insurances.

By now, case management has been introduced in four departments: Nephrology and Immunology, Cardiac and Thorax Surgery, Oncology and Haematology and Neurosurgery. Many staff members have given positive feedback and support. It is the goal of the UKA to introduce case management hospital-wide, and therefore continually offers training for further staff members, as this challenging task can only be managed after a certified advanced training. Six case managers are currently working at the UKA - and additional seven candidates are waiting to assume their task.

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## The Electronic Patient File

### Nursing Documentation and Planning

The nursing staff of the University Hospital Aachen have recorded and planned their work by means of electronic assistants for several years. A comprehensive computing program, with the help of which the UKA has assumed a leading position in Germany, supports nurses from establishing a case history via decubitus scoring all the way through planning and carrying out nursing measures.

In addition, the electronic file also contains daily hand-over reports which record the condition of each patient when handed over to the next shift. It is also possible to evaluate work results and set up special documentation with the electronic file system, as for example the description of a wound.

Furthermore, the electronic patient file allows for access to diagnostic findings, such as lab results, operation reports, physicians' letters, x-ray pictures, etc. The results are not only available to nursing staff but to the entire therapeutic team, meaning also physicians, physiotherapists and other professional groups participating in the treatment.

The electronic nursing documentation will be available to all wards at the UKA and all computers with corresponding authorization by the end of 2009. It enables a flawless documentation with regard to legal aspects. On demand documentations are submitted to the medical service of the health insurance agencies by email or fax, whenever there are questions with regard to the stay of the patient. Another benefit that must not be underestimated: A clearly improved legibility in comparison with handwritten solutions.

#### CONTACT

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Better documentation based on electronic patient file.



## REMODELING THE NURS

### “Just Like a Lego House“

#### Around 100 Million Euros Invested in the Modernization

If one did not know it, one would probably not notice the major refurbishment under way when visiting the UKA. From the main entrance only a large hoisting crane on the Northwest end of the building is visible, and on the inside, the construction waste and noise goes unnoticed.

The demolition work started in June 2008, after five years of planning. “The entire refurbishment entails a massive relocation of functionalities”, explains nursing director Heinz Pelzer, who has assumed the position of construction coordinator for the executive board. “Old structures are broken open, the wards and other units are being adjusted to current needs”. The first departments and wards relocated in April 2008, in order to free up the space of the upper floor levels of the west-wing of the building. After that, the space utilization was optimized, old wards reactivate and finally, the core of the construction section on floor levels 7, 8 and 9 were completely removed starting in June. Only the external walls and supporting walls remained. “Here, we benefited from the modular construction design of the building” says Herbert Pfeiffer, head of the construction commission at the real estate center. “It is a little bit like a Lego house”.

#### Improved Energy Balance, Improved Comfort

Until the end of 2008 the major part of the storefronts of the building were replaced in the remodeled building skeleton. Modules with new windows that can be opened, with sun shades and better heat insulation were introduced. “The existing complex air conditioning system in these rooms is therefore not necessary anymore. The UKA saves a lot of energy in the future”, says Dr. Andrea Stelkens, head of the real estate center.



## ING AREA

However, not only the energy balance is improved with the refurbishment, but also the comfort for patients, staff and students. For example, the bathrooms in the single and double bed patient rooms are clearly larger, lighter and more disabled-friendly. And for the students there are new classes and space for lockers planned; the staff is looking forward to improved and more working space.

The construction of three areas with skylight was started in August 2008. To this end, large pieces of concrete were extracted from the roof with a hoisting crane. "The new skylight areas also provide light for those rooms which did not have windows up till now – doctor's rooms and other duty rooms, for example", explains Stelkens. Since summer 2009, the first newly-created green area is directly accessible from the patient area on the seventh floor.

Staff and patients barely notice the implementation of the refurbishment, as the construction site is completely separated from the daily operations by temporary walls. This separation was a crucial issue as all power lines, air conditioning and supply chutes, fire alarm systems and gas lines had to be separated while the normal hospital operations continued running. Workers and materials entered the construction site only through specially set up builder's hoists on the outside. The remodeling of the UKA will cost around 100 million Euros and six years. By the end of 2009, the first of six construction sections will be completed and staff and patients will have moved in. Then the next section will be remodeled. "The efforts put into the refurbishment will diminish the more we progress into the East wing", explains Heinz Pelzer. This is because the West wing will mainly host wards with complex technical systems such as intensive care and intermediate care.



## REMODELING THE NURS

### Glance into the Future

In addition to the remodeling of the nursing area, two further major building projects will be implemented at the UKA in late summer of 2009. On the Northern side of the building a new four-storey annex building is planned for the pediatric intensive care and intensive care for burn patients (two care floors and two supply floors). 40 patients will receive intensive medical services on about 1,400 square meters of floor space according to state-of-the-art medicine and technology. This includes six beds for severely injured burn victims in individually accessible single rooms, 20 pediatric intensive care beds, and eight intensive care beds for adults. A maternity room with view to the hospital park is also planned for the annex building.

Furthermore, an ultramodern helicopter base close to the main entrance will contribute to providing faster and improve care to severely injured patients. The heliport which will have room for two helicopters will basically "float" like an open hand around 15 meters above the forecourt of the UKA. An inclined elevator will transport the patients directly to emergency and the attached operating rooms – completely without loss of time and strenuous transfer to the emergency room, which can be lifesaving in the case of heart attacks or strokes.

#### C O N T A C T

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B U S I N E S S I N  
F I G U R E S



## With Cost Efficiency and Increased Performance to Economic Stability

Health care belongs to the most exciting sector of the 21st century. The demands of the market have changed considerably and together with health-political decisions they influence development of the University Hospital Aachen. The increased consolidation process in the inpatient area and the continually changing legal conditions demand for an adjustment of the range of services, the optimization of internal processes and financing of necessary investments.

In the fiscal year 2008, the fourth year of the convergence phase, the decrease of budget of the hospitals amounted to 2.5 percent (Cap § 4 Article 6 KHEntgG – Law for payment of services provided by hospitals). This additional step towards adjustment of the base rate for each individual hospital to the base rate state-wide has also led this year to loss of revenues. The change rate of 0.64 percent was also not able to make up for the increase of costs for tariff contracts, energy and other costs.

The extra costs for hospital through the law on strengthening competitiveness enforced in 2007 continued during the fiscal year 2008. The University Hospital Aachen must therefore make a contribution to its financial recovery and also take a deduction from the revenues for integrated supply.

### Differentiated DRG-System

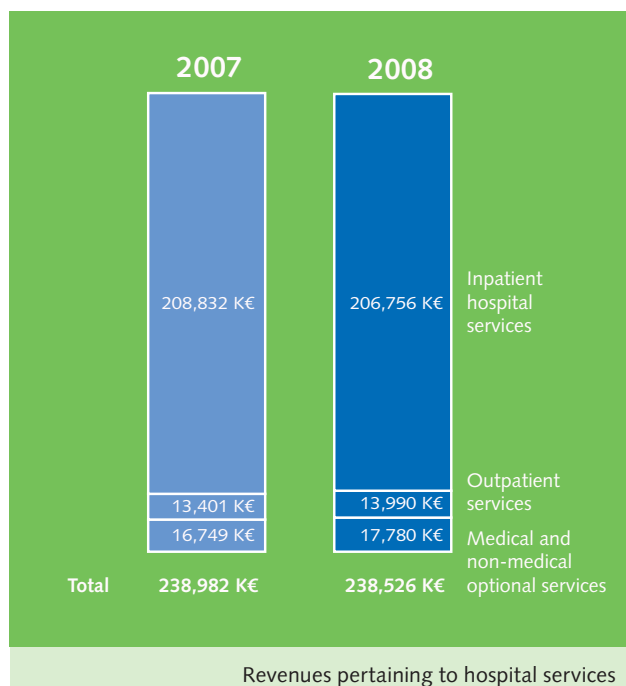
The Diagnosis Related Groups (DRG)-System attained a greater transparency and traceability. This was reached by 55 additional DRGs, in particular in the areas of intensive care medicine, pediatrics and stroke treatment. Furthermore, 115 additional remunerations – ten more than in 2007 – were agreed on. Due to disproportionately high participation in complex services, the UKA could increase the evaluation of these services.

### Stagnating Revenue Situation

The number of patients has increased at the University Hospital Aachen in the fiscal year: In 2008, 44,768 patients received inpatient treatment, which corresponds to an increase of a total of 230 cases compared to the prior year. 41,764 of these cases related to the daily remunerations (federal law on hospital per diem charge, palliative medicine and day clinics).

As the Case-Mix-Index (CMI) has however decreased slightly (- 0.009) and the base rate was adjusted to the state-wide base rate, revenues have decreased from a stationary point of view despite of the increased base rate compared to the prior year (- 2.08 million Euros).

In the outpatient sector, a total of 144,583 cases – including privately insured patients – were treated. This corresponds to an increase of 2,728 cases or 1.92 percent in comparison to 2007. This situation and the changed revenues for polyclinic treatments resulted in an increase of revenues from outpatient services in comparison to the prior year from 13.4 to 14 million Euros (+ 4.48 percent).



Development of inpatient cases, case mix index and case mix	2007	2008	+/- absolute	+/- in percent
DRG cases inclusive dialysis	41,675	41,764	89	0.21
Cases of per diem fees				
Hospital operating cost area	1,950	2,101	151	7.74
Palliative medicine	273	212	- 61	- 22.34
Partially inpatient area	640	691	51	7.97
<b>Subtotal cases per diem fees</b>	<b>2,863</b>	<b>3,004</b>	<b>141</b>	<b>4.92</b>
<b>Total number inpatient cases</b>	<b>44,538</b>	<b>44,768</b>	<b>230</b>	<b>0.52</b>
Occupancy days (inpatient, partially inpatient, dialysis)	408,077	395,641	- 12,436	- 3.05
CMI with overlay patients	1.509	1.500	0	- 0.60
Case mix with overlay patients	63,501	62,507	- 994	- 1.57

### Increasing Public Benefits

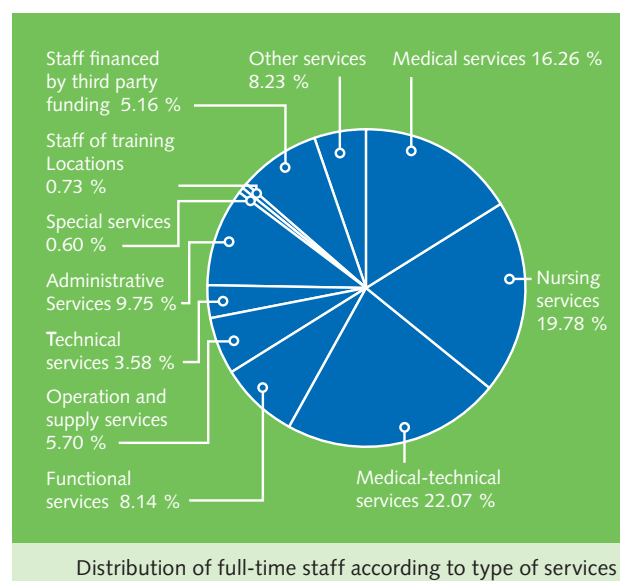
In relation to the prior year, the University Hospital Aachen received public benefits in the amount of 150.5 million Euros, 10.1 million Euros or 7.17 percent more than in 2007. The herein contained feed into research and teaching at the Medical Faculty has increased slightly (+ 0.91 percent). The benefits of the state for large construction measures have increased considerably to 28.3 million Euros in the course of the continued refurbishment measures of the ward floors.

### Slight Increase of Personnel Expenses

The largest expenditure item is the personnel expenses with 239.6 million Euros.

In the year 2008, there was a number of 4,667 full-time staff employed at the University Hospital Aachen. The costs thereby incurred for salaries and wages were 193.24 million Euros, and for social benefits and pension funds 46.36 Million Euros. At the same time that the number of full-time staff decreased (- 1.27 percent), the expenditures for benefits, salaries and wages increased 0.16 million Euros (+ 0.07 percent). The costs for staff financed with third party funding, which are covered by corresponding income from third party funding projects increased to 1.36 million Euros, i. e. 13.39 percent.

The increase of costs in medical services (+ 3.01) could be balanced mainly by savings in the economic and supply services (- 11.07 percent), technical services (- 5.41 percent), special services (- 4.78 percent) and training locations (- 3.65 percent).



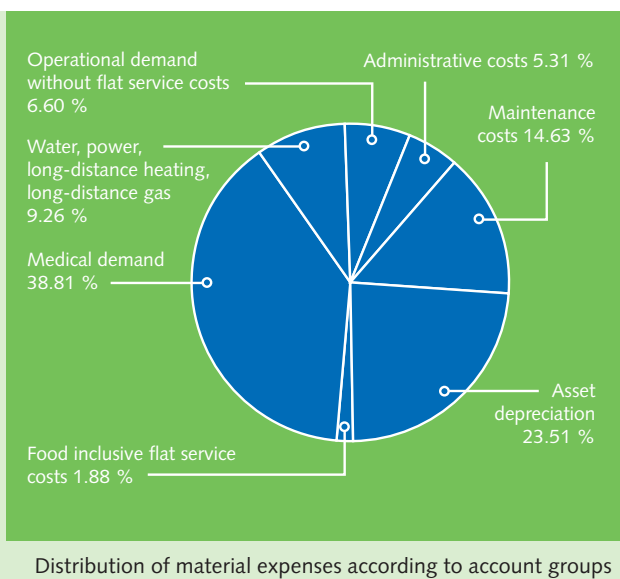
Personnel expenses according to type of services	2007 in €	2008 in €	+/- absolute	+/- percentage
Medical services	65,200,294	67,162,548	1,962,254	3.01
Nursing services	43,855,407	43,401,234	- 454,173	- 1.04
Medical-technical services	47,842,323	48,564,548	722,225	1.51
Functional services	17,734,490	17,999,063	264,573	1.49
Operational and supply services	11,022,187	9,801,862	- 1,220,325	- 11.07
Technical services	8,665,973	8,196,965	- 469,008	- 5.41
Administrative services	23,348,254	23,105,698	- 242,556	- 1.04
Special services	1,532,338	1,459,075	- 73,263	- 4.78
Training locations	1,879,353	1,810,833	- 68,520	- 3.65
Other salaries and wages inclusive contributions LUK and change of pension accruals	6,841,538	6,583,174	- 258,364	- 3.78
<b>Subtotal</b>	<b>227,922,157</b>	<b>228,085,000</b>	<b>162,843</b>	<b>0.07</b>
Staff financed by third party funding	10,156,847	11,516,899	1,360,052	13.39
<b>Total</b>	<b>238,079,004</b>	<b>239,601,899</b>	<b>1,522,895</b>	<b>0.64</b>

## Slight Decrease of Material Expenses

Material expenses have slightly increased in the fiscal year 2008 by 0.5 million Euros. Particular savings could be made in the areas of administrative needs (- 16.88 percent) and maintenance costs (- 23.52 percent). Another equally important group of accounts in the area of material expenses is the medical demand: In 2008, the medical material costs amounted to 64.23 million Euros, which

corresponds to 38.81 percent of all expenses and an increase of 5.97 percent in comparison with last year. The increased costs are reflected in particular in medical expendable materials. The increase in the areas of blood, blood preservation and blood plasma is attributed to the worldwide shortage and therefore increased prices.

Hospitals with a number of major technical equipment require a lot of energy. If the energy costs of a hospital in the basic supply area (up to three specialist departments) comparatively low, the costs of a hospital with top medical care are considerably higher. In a hospital with maximum supply such as the University Hospital Aachen, the costs for water, electric power, long-distance heating and long-distance gas make up about 9.26 percent of the material expenses. In comparison to the fiscal year 2007, the expenses increased by a total of 2.6 million Euros (+ 20.03 percent). At the same time, there has been an increase in particular of the electric power costs of 1.8 million Euros, which resulted from the increase of power costs by 17.58 percent at almost the same procurement quantity. The procurement quantity of long-distance heating has increased by 10.79 percent and the procurement price by 8.89 percent. With this, the expenses increased by 0.7 million Euros (+ 23.25 percent). A further quantity and price increase could be recorded for water, which lead to a cost increase of 0.1 million Euros (+ 25.75 percent).





In order to counteract the constantly increasing energy costs, the UKA is planning a combined heat and power unit. With this investment, the UKA plans to use the energy saving effects of power-heat-cold-linkage and to be more independent from external energy suppliers and prices.

The food costs which have increased above estimations could be balanced for the greater part, thus the food expenses only increased by 1.13 percent.

The deductions increased by 3.64 percent, which basically higher investments in institutions and equipment were responsible for.

In the area of operational demand a higher utilization of services by third parties, for example, increase of cleaning services by third parties, to an increase of 12.22 percent.

The expenses for administrative services decreased in comparison with last year by 18.34 percent.

### Investments Clearly Increased

In the reporting year, the investments for immaterial goods and materials and tangible assets increased by 11.86 million Euros (+ 29.5 percent). They were financed by appropriations and subsidies as well as equity capital available.

Investments in €	2007	2008	+/- absolute	+/- in %
Total	40,203	52,061	11,858	29.50

### Liquidity Ensured

In the fiscal year, the liquidity of the University Hospital Aachen is again ensured, without the utilization of bank loans to ensure liquidity. The holdings of means of payment and short term receivables exceeded the holdings of short term commitments and accruals (without pension commitments and partial retirement).

### Sustainable Cost Controlling

The increasing number of cases confirm the continuing demand made by patients for medical services of the University Hospital Aachen. At the same time, the UKA strives to ensure and develop this basis for the future. It is important to ensure the provision for patients from the area, and to remain an attractive employer for well-trained personnel. Although the UKA expects a stagnating budget in the upcoming years, it works on increasing the returns and on an efficient design of the hospital operation.

#### CONTACT

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## Balance

Assets	Dec. 31, 2008 in €	Dec. 31, 2007 in €
<b>A. Capital assets</b>		
I. Intangible assets and advance payments	2,003,592	1,838,656
II. Fixed assets		
1. Property and property-like rights with business buildings including business buildings on external property	383,598,067	379,024,551
2. Property and property-like rights with domestic buildings including domestic buildings on external property	4,593,557	4,798,965
3. Technical systems	3,917,811	5,672,098
4. Furnishings and equipment	58,214,718	44,421,552
5. Advance payments and constructions under way	14,362,521	23,116,610
<b>Subtotal fixed assets</b>	<b>464,686,674</b>	<b>457,033,776</b>
III. Financial Assets		
1. Shares with cooperating businesses	1,400,050	1,400,050
2. Advance payments to shares with cooperating businesses	0	0
3. Loans receivables with cooperating businesses	0	0
4. Shares	12,500	12,500
5. Securities of fixed assets	547,403	547,403
<b>Subtotal financial assets</b>	<b>1,959,953</b>	<b>1,959,953</b>
<b>Total fixed assets</b>	<b>468,650,219</b>	<b>460,832,384</b>
<b>B. Circulating assets</b>		
I. Stocks on hand		
1. Raw materials, supplies and utilities	11,913,682	11,187,717
2. Unfinished payments	3,202,548	3,348,657
<b>Subtotal stocks on hand</b>	<b>15,116,230</b>	<b>14,536,374</b>
II. Receivables and other assets		
1. Receivables from deliverable and performance	40,449,970	41,879,936
2. Receivables from the State of North Rhine-Westphalia	11,277,094	7,967,509
3. Receivables in accordance with the hospital financing law	996,459	1,257,825
4. Receivables from earmarked funding for individual projects	3,184,011	1,726,041
5. Other assets	2,249,869	1,838,594
<b>Total receivables and other assets</b>	<b>58,157,404</b>	<b>54,669,904</b>
III. Checks, cash assets, federal bank balance, bank balance with credit institutes	33,754,814	39,070,462
<b>Total circulating assets</b>	<b>107,028,448</b>	<b>108,276,740</b>
<b>C. Accounts receivable and payable</b>	1,712,032	1,303,638
<b>Total assets</b>	<b>577,390,699</b>	<b>570,412,763</b>

Liabilities	Dec. 31, 2008 in €	Dec. 31, 2007 in €
<b>A. Equity</b>		
1. Fixed assets	3,476,785	3,476,785
2. Capital reserve	15,145,558	15,145,558
3. Revenue reserve	4,997,475	
4. Accumulated profits	476,660	107,428
5. Annual surplus	3,132,935	5,366,707
<b>Subtotal equity</b>	<b>27,229,412</b>	<b>24,096,478</b>
<b>B. Special items from contributions to finance tangible fixed assets</b>		
1. Special items from funding in accordance with the university construction funding law (HBFG)	385,136,885	392,136,593
2. Special items from public contributions and benefits	67,057,606	55,786,382
3. Special items from other contributions and benefits	8,071,760	4,850,349
<b>Subtotal special items</b>	<b>460,266,251</b>	<b>452,773,323</b>
<b>C. Accruals</b>		
1. Accruals for pensions and other responsibilities	1,623,256	1,450,613
3. Other accruals	35,244,631	46,911,421
<b>Subtotal accruals</b>	<b>36,867,887</b>	<b>48,362,034</b>
<b>D. Payables</b>		
1. Advance payments received	277,596	118,327
2. Payables from deliverables and performance	26,315,661	23,677,054
3. Payables to the State of North Rhine-Westphalia	9,262,256	5,256,165
4. Payables in accordance with the hospital financing law	0	95,769
5. Payables from earmarked funding from individual projects not yet employed	14,807,995	13,056,822
6. Other payables	1,935,000	1,557,064
<b>Subtotal payables</b>	<b>52,598,506</b>	<b>43,761,201</b>
<b>E. Accounts receivable and payable</b>	<b>428,642</b>	<b>1,419,726</b>
<b>Total liabilities</b>	<b>577,390,699</b>	<b>570,412,763</b>

## Profit and Loss Statement

From January 1 through December 31, 2008

	2008 in €	2007 in €
1. Revenue from hospital services	206,756,477	208,832,191
2. Revenue from optional services	551,877	641,059
3. Revenue from outpatient services of the hospital	13,990,337	13,401,058
4. Compensation fees of physicians	17,248,058	16,107,925
5. Increase/reduction of holdings from unfinished services	- 146,109	113,260
6. Other active internal labor	0	462,676
7. Public contributions and benefits if not listed under no. 11	101,896,503	109,609,759
8. Other operating income	46,392,190	41,467,130
9. Personnel costs		
a) Salaries and wages	193,243,200	191,429,697
b) Social contributions, pension fund expenses and costs for support	46,358,699	46,649,307
10. Material expenses		
a) Expenses for raw materials, supplies and utilities	83,264,965	77,176,079
b) Expenses for related services	10,327,186	9,038,754
11. Revenue from contributions to finance investments	57,353,964	35,454,458
12. Revenue from cancellation of special items/liabilities to finance capital assets	44,103,774	35,388,398
13. Expenses from allocation of special items/liabilities to finance capital assets	57,353,964	35,454,458
14. Consumption of intangible assets of capital assets and material assets	36,480,096	35,405,888
15. Other operating expenditures	60,904,274	64,671,209
16. Revenue from securities of the financial assets	0	0
17. Other interests and similar revenues	2,956,798	3,752,934
18. Interest and similar expenditures	0	0
<b>19. Result of ordinary business</b>	<b>3,171,487</b>	<b>5,405,457</b>
20. Other taxes	38,553	38,750
<b>21. Annual surplus</b>	<b>3,132,935</b>	<b>5,366,707</b>

## Total Result after Taxes

	2007 in €	2008 in €	+/- absolute	+/- percentage
Surplus	5,366,707	3,132,935	- 2,233,772	- 41.62

## Personnel

Type of services	Full-time staff 2007	Full-time staff 2008	+/- absolute	+/- percentage
Physicians	771	759	- 12	- 1.56
Nursing	937	923	- 14	- 1.49
Medical-technical services	1,027	1,030	3	0.29
Functional services	384	380	- 4	- 1.04
Operational and supply services	299	266	- 33	- 11.04
Technical services	176	167	- 9	- 5.11
Administrative services	471	455	- 16	- 3.40
Special services	29	28	- 1	- 3.45
Staff of training locations	34	34	0	0.00
Others	355	384	29	8.17
<b>Subtotal</b>	<b>4,483</b>	<b>4,426</b>	<b>- 57</b>	<b>- 1.27</b>
Third party funding	223	241	18	8.07
<b>Total</b>	<b>4,706</b>	<b>4,667</b>	<b>- 39</b>	<b>- 0.83</b>

## Patient Care

### Capacities

	2007	2008	+/- absolute	+/- percentage
Number of beds inclusive day care	1,356	1,297	- 59	- 4.35
Case numbers inclusive inpatients and partial inpatients	44,538	44,768	230	0.52
Accounted days	408,077	395,641	- 12,436	- 3.05
Utilization inclusive day care	82,47	85,72	3,25	3.94
Period of stay, full inpatients only (in days)	9,04	7,87	- 1,17	- 12.94
CMI	1,509	1,500	- 0,009	- 0.60
CM	63,501	62,507	- 994	- 1.57
<b>Cases</b>				
<b>Inpatient cases</b>	<b>44,538</b>	<b>44,768</b>	<b>230</b>	<b>0.52</b>
Outpatient cases	122,879	125,745	2,866	2.33
Private outpatient cases	18,976	18,838	- 138	- 0.73
<b>Total outpatient cases</b>	<b>141,855</b>	<b>144,583</b>	<b>2,728</b>	<b>1.92</b>
<b>Total</b>	<b>186,393</b>	<b>189,351</b>	<b>2,958</b>	<b>1.59</b>

## Departments

Departments with beds	Inpatient cases	Average Length of Stay	Outpatient cases	Physicians <sup>1</sup>	There of specialists <sup>1</sup>
Ophthalmology	2,040	4.1	10,198	18.5	8.0
Surgery	2,704	8.9	2,508	25.5	17.0
Gynecology – Breast Surgery and Senology	183	7.3	920		
Gynecology – Endocrinology and Reproductive Medicine	88	3.8	3,211		
Gynecology and Obstetrics	2,458	5.4	1,998	17.4	12.4
Dermatology	1,234	6.6	6,451	12.6	7.4
Vascular Surgery	661	9.6	790	7.3	7.3
Oto-Rhino-Laryngology and Plastic Head and Neck Surgery	2,093	5.9	4,531	14.0	5.0
Pediatrics inclusive Section Neonatology	4,674	5.5	6,138	42.4	21.4
Child and Adolescent Psychiatry and Psychotherapy	408	31.2	286	15.5	5.5
Pediatric Cardiology	403	6.5	1,533	10.3	5.5
Nuclear Medicine	237	3.4	2,026	7.0	3.0
Orthopedics and Trauma – Focus: Orthopedics	1,515	9.0	6,812	17.0	9.0
Orthopedics and Trauma – Focus: Trauma Surgery	1,160	10.1	4,344	13.0	5.0
Palliative Medicine	212	12.6	21	5.7	5.7
Plastic Surgery, Hand Surgery/Burn Center	901	11.6	2,693	15.0	7.0
Psychiatry and Psychotherapy	1,693	24.5	1,069	31.5	16.0
Radiology	782	13.8	391	10.0	5.7
Thorax, Cardiac and Vascular Surgery inclusive Section					
Pediatric Cardiac Surgery	1,296	18.4	357	21.5	15.5
Cardiology, Pneumology and Angiology	7,040	6.3	9,692	52.8	23.3
Infection/TBC Ward	20	17.8			
Nephrology and Immunology	1,453	11.9	3,521	20.6	12.9
Gastroenterology, Hepatology and Metabolism	3,116	8.0	6,018	31.0	11.0
Oncology and Haematology	1,677	7.6	1,290	9.8	5.0
Neurosurgery	1,227	12.5	3,581	14.6	11.3
Neurology	2,697	8.6	3,385	21.3	7.8
Urology	1,323	7.7	4,049	12.5	6.8
Operative Dentistry and Plastic Facial Surgery	676	6.4	4,028	18.5	7.0

<sup>1</sup> As of call date December 31, 2008

Departments without beds	Outpatient cases	Physicians <sup>1</sup>	There of specialists <sup>1</sup>
Anesthesiology	971	77.2	48.2
Orthodontic	2,449	9.0	3.5
Phoniatrics, Pedaudiology and Communication Disorders	791	3.8	
Radiological Diagnostics	953	36.0	
Prosthodontics and Dental Materials	3,705	11.0	4.0
Operative and Preventive Dentistry and Endodontics	3,264	12.2	5.0

Departments with day care	Cases
Dermatology	231
Psychiatry	302
Pediatric and Adolescent Psychiatry	158
Dialysis	106

Interdisciplinary Departments and other Divisions	Outpatient cases	Physicians <sup>1</sup>	There of specialists <sup>1</sup>
Intensive Care		30.7	15.0
Intermediate Care		2.0	2.0
Standard Care		17.2	
Emergency Room	20,208	18.2	

<sup>1</sup> As of call date December 31, 2008



## Indicators for Patient Safety

PSI	Quality Indicator	UKA				Indicator cases 2008 (counter)	Total number of cases 2008 (denominator)
		2005 %	2006 %	2007 %	2008 %		
1.	Complications within Anesthesia	0.1	0.2	0.3	0.2	30	14,986
2.	Fatal cases with low lethality	0.1	0.1	0.1	0.1	13	13,374
3.	Decubitus	3.3	2.9	4	4.3	765	17,679
4.	Fatal cases with special treatment complications	16.6	15.2	17.4	15.7	184	1,170
5.	Remaining intraoperative foreign particles	0	0	0	0	1	41,698
6.	Infective pneumothorax	0.1	0.1	0.2	0.1	30	36,967
7.	Selected infections in relation to medical treatment	0.1	0.1	0.4	0.4	99	26,982
8.	Postoperative femoral neck fracture	0	0	0	0	2	10,313
9.	Postoperative bleeding and postoperative hematoma	0.4	0.3	0.3	0.3	47	14,853
10.	Postoperative physiological and metabolic lapse	0.3	0.5	0.5	0.6	59	10,591
11.	Postoperative respiratory insufficiency	0.6	1	0.9	0.9	76	8,259
12.	Postoperative pulmonary embolism and deep venous thrombosis	1.3	1.1	1	0.9	128	14,977
13.	Postoperative sepsis	1.1	2	1.8	1.2	64	5,390
14.	Postoperative wound dehiscence	1.4	1.4	1.7	1.3	24	1,918
15.	Unintentional puncture or wound	0.1	0.1	0.2	0.1	53	40,243
16.	Reaction to transfusion	0	0	0	0	0	41,700
17.	Birth trauma of neonates	1.5	0.2	0	0	0	488
18.	Extremely severe obstetric injuries during vaginal birth with instrumentation	20.7	8	10.7	6.7	2	30
19.	Extremely severe obstetric injuries during vaginal birth without instrumentation	9.7	2.3	0.9	1.8	6	334
20.	Extremely severe obstetric injury during caesarean birth	0.2	0	0	0	0	420

## Research

### Third Party Funding Projects

Donator Group	As of January 1, 2008	Start of project in 2008	End of project in 2008	As of December 31, 2008	+/- absolute	+/- percent- age
State	18	2	1	19	1	5.56
DFG, SFBs (Collaborative Research Centers)	156	67	53	170	14	8.97
EU, federal funds, foundations	206	58	60	204	- 2	- 0.97
Industrial contracts	546	76	82	540	- 6	- 1.10
Donations, free funds	222	31	13	240	18	8.11
<b>Total</b>	<b>1,148</b>	<b>234</b>	<b>209</b>	<b>1,173</b>	<b>25</b>	<b>2.18</b>

### Third Party Funding Revenue and Expenses

Revenues	2007 in K€	2008 in K€	+/- absolute	+/- percentage
State	1,120	92	- 1,028	- 91.79
DFG, SFBs (Collaborative Research Centers)	6,456	8,005	1,549	23.99
EU, federal funds, foundations	8,232	9,652	1,420	17.25
Industrial contracts	3,846	6,328	2,482	64.53
Donations, free funds	553	1,000	447	80.93
<b>Total</b>	<b>20,207</b>	<b>25,077</b>	<b>4,870</b>	<b>24.10</b>

Utilization of third party funding	2007 in K€	2008 in K€	+/- in K€	+/- percentage
Personnel	10,201	11,587	1,386	13.59
Material expenses	5,879	6,847	968	16.47
Investments	3,580	4,896	1,316	36.76
<b>Total</b>	<b>19,660</b>	<b>23,331</b>	<b>3,671</b>	<b>18.67</b>

## Teaching and Professional Training

### Teaching

Number of students at the Medical Faculty of RWTH Aachen	Academic year 2007	Academic year 2008	+/- absolute	+/- percentage
Human Medicine	2,103	2,108	5	0.2
Dentistry	441	475	34	7.7
Teaching and Research Logopedics	117	149	32	27.4
Biomedical Engineering	74	57	- 17	- 23.0
<b>Total</b>	<b>2,735</b>	<b>2,789</b>	<b>54</b>	<b>2.0</b>
Thereof international students	373	384	11	2.9

Development of graduates in medical degree programs, doctorates and habilitations	Academic year 2007	Academic year 2008	+/- absolute	+/- percentage
Human Medicine	264	220	- 44	- 16.7
Dentistry	29	60	31	106.9
Teaching and Research Logopedics	11	15	4	36.4
Doctorates	216	241	25	11.6
Habilitations	17	17	0	0.0

### Professional Training

Trainees at the UKA	2007	Head count on December 31, 2008	+/- absolute	+/- percentage
Healthcare professionals and nurses	137	177	5	2.91
Healthcare professionals and pediatric nurses	35			
Physiotherapists	74	71	- 3	- 4.05
Speech therapists	65	64	- 1	- 1.54
Medical-technical assistants	67	67	0	0.00
Mathematical-technical assistants	15	14	- 1	- 6.67
Medical specialist staff	23	26	3	13.04
Dental specialist staff	26	24	- 2	- 7.69
Mechanics Precision mechanics	5	5	0	0.00
Others	7	7	0	0.00
<b>Total</b>	<b>454</b>	<b>455</b>	<b>1</b>	<b>0.22</b>

## Investments

Investments (gross)	2007 in €	2008 in €	+/- absolute	+/- percentage
Intangible assets	915,357	1,965,560	1,050,203	114.73
Technical facilities	676,723	87,374	- 589,349	- 87.09
Furnishings and equipment	16,475,151	28,501,214	12,026,063	73.00
Advance payments and building constructions under way	12,984,186	8,482,133	- 4,502,053	- 34.67
Property with business buildings	9,151,279	13,024,480	3,873,201	42.32
<b>Total</b>	<b>40,202,696</b>	<b>52,060,761</b>	<b>11,858,065</b>	<b>29.50</b>

## Subsidies and Contributions

Investments/ Building maintenance	2007 in €	2008 in €	+/- absolute	+/- percentage
Subsidies from the state for building maintenance and smaller construction investments (891 17)	20,000,000	20,000,000	0	0.00
Subsidies from the state for large construction investments (891 30)	14,049,000	28,300,400	14,251,400	101.44
Subsidies from the state for furnishings and equipment inclusive IT (891 10)	7,470,200	7,470,200	0	0.00
Investments for major equipment in accor- dance with the university building funding law (HBFG) (without own contribution)	2,950,203	2,113,782	- 836,421	- 28.35
<b>Subtotal subsidies for investments/building maintenance</b>	<b>44,469,403</b>	<b>57,884,382</b>	<b>13,414,979</b>	<b>30.17</b>

Other Subsidies from the Ministry of Innovation, Science, Research and Technology	2007 in €	2008 in €	+/- absolute	+/- percentage
Contribution for research and teaching (682 10)	88,239,400	89,045,900	806,500	0.91
Subsidies for operational costs (682 20)	6,523,312	3,364,600	- 3,158,712	- 48.42
Subsidies for change of the tariff law and strike-based additional costs	0	0	0	0.00
Subsidies for persons performing civilian service in lieu of military service	76,096	62,953	- 13,143	- 17.27
Revenues from central funds	58,485	107,808	49,323	84.33
Funding from state budget for specific projects	1,122,022	92,079	- 1,029,943	- 91.79
<b>Subtotal other subsidies</b>	<b>96,019,315</b>	<b>92,673,340</b>	<b>- 3,345,975</b>	<b>- 3.48</b>
<b>Total subsidies</b>	<b>140,488,718</b>	<b>150,557,722</b>	<b>10,069,004</b>	<b>7.17</b>

O R G A N S   A N D  
I N S T I T U T I O N S



## Organs of the University Hospital Aachen

### Supervisory Board

**Dr. Robert G. Gossink**

Since August 27, 2008, Chairman, external expert from the area of economy

**Christa Herrmann**

Until August 27, 2008, Chairwoman, Ministry for Innovation, Science, Research and Technology of the State of North Rhine-Westphalia

**Univ.-Prof. Dr.-Ing. Ernst M. Schmachtenberg  
(Executive Chairman)**

Since August 1, 2008, Rector of RWTH Aachen University

**Univ.-Prof. Dr. rer. nat. Burkhard Rauhut**

Until July 31, 2007, Rector of RWTH Aachen University

**Manfred Nettekoven**

Chancellor of RWTH Aachen University

**MR Manfred Witt**

Since October 2008, Ministry for Innovation, Science, Research and Technology of the State of North Rhine-Westphalia

**MR Doris Mansdorf**

Ministry for Finances of the State of North Rhine-Westphalia

**Dipl.-Kfm. Michael Prym**

External business expert

**Dipl.-Volkswirt Bernd Huber**

Until May 26, 2008, external business expert

**Univ.-Prof. Dr. med. Richard Hautmann**

External expert on medical science

**Prof. Dr. Marja Pauline van Dieijen-Visser**

Since May 25, 2008, external expert on medical science

**Univ.-Prof. Dr. med. Eike Otrom Martin**

Until May 25, 2008, external expert on medical science

**Univ.-Prof. Dr. med. Malte Kelm**

Representative of professors

**Dr. med. Max Hendrik Skorning**

Representative of scientific staff

**Dipl.-Verw.-Wirt Paul Kuckelkorn**

Representative of non-scientific staff

**Dipl.-Ing. (FH) Marlies Diepelt**

Equal Opportunities Commissioner

### Executive Board

**Univ.-Prof. Dr. med. Henning Saß**

Chairman and Medical Director

**Detlef Klimpe**

Administrative Director

**Heinz Pelzer**

Nursing Director

**Univ.-Prof. Dr. med. Johannes Noth**

Dean of the Medical Faculty

### Executive Board Office

**Assessor iur. Alexander Werz**

## Publication in Accordance with § 17 Corruption Prevention Act

Paragraph 17 of the law to improve corruption prevention (CKorruptionsbG) commits the members of the organs which are public-law institutions subordinate to the state to report their professional and part-time professional occupations to the head of the institution. The list below contains the persons working in the Supervisory and Executive Boards of the UKA in 2008.

**Specifications must be provided regarding the following items:**

1. Occupation held and consulting contracts
2. Membership in supervisory boards and other controlling panels pursuant to § 125 Clause 1, Article 3 of the companies act
3. Members in organs with independent public-law or private tasks of the authorities and institutions named in § 1 Clause 1 and Clause 2 of the State Organization Act
4. Membership in organs of other businesses
5. Function in associations and comparable panels.

### Supervisory Board

#### **Dr. Robert Gossink (Chairman since August 27, 2008)**

- On 1. Consultant of Philips Research (until June 30, 2008)
- On 2. through 4. Nothing to report
- On 5. Chairman of the life sciences platform LifeTec Aachen-Jülich r.a.

#### **Christa Herrmann (Chairwoman until August 26, 2008)**

- On 1. Civil servant at the Ministry of Innovation, Science, Research and Technology of the State of North Rhine-Westphalia (MIWFT), no consulting contracts
- On 2. Nothing to report
- On 3. Chairwoman of the Supervisory Board of the University Hospital Münster  
As representative of the MIWFT Member of the Supervisory Board of the University Hospital Bonn  
As representative of the MIWFT Member of the Supervisory Board of the University Hospital Köln
- On 4. through 5. Nothing to report

#### **Univ.-Prof. Dr.-Ing. Ernst M. Schmachtenberg (Deputy Chairman since August 1, 2008)**

- On 1. Rector of RWTH Aachen University
- On 2. Member of Advisory Body of JENOPTIK AG

- On 3. and 4. Nothing to report
- On 5. Member of the scientific working group of polymer technology WAK  
Member of the scientific working group of materials technology WAW

#### **Univ.-Prof. Dr. rer. nat. Burkhard Rauhut (Deputy Chairman until July 31, 2008)**

- On 1. Rector of RWTH Aachen University
- On 2. Nothing to report
- On 3. Member of the Advisory Body of the Centrum für eCompetenz in Hochschulen NRW (CeC)
- On 4. Member of the Administrative Board of the Max-Planck Institute for Iron Research GmbH  
Member of the Steering Committee of Provendis GmbH, the patent exploitation agency of the State of North Rhine-Westphalia  
Member of the scientific-technical committee of the Advisory Board of the research center Forschungszentrum Jülich GmbH
- On 5. Member of Board of Trustees of the award foundation Aachener und Münchener Preis für Technik und angewandte Naturwissenschaften, Doktor Carl-Arthur Pastor-Stiftung  
Member of Advisory Body of ACCESS r.a. (materials research)  
Chairman of the Board of the accreditation agency ASIIN  
Member of Steering Committee of the Catalytic Center (CAT)  
Board of Director of the Conference of European Schools for Advanced Engineering, Education and Research (CESAER)  
Member of Board of Trustees und Deputy Chairman of Deutsches Wollforschungsinstitut RWTH Aachen University  
Member of the Board (Deputy) official, is continuously represented, Fördergemeinschaft Historisches Ingenieurwesen (sponsorship association in historic engineering)  
Member of Administrative Board, to be represented by the Vice-rector for research or by the Chancellor, of the research association of electricity supply industry and electrical industry (FGH)  
Member of Senate of the Research Establishment for Applied Science (FGAN)  
Deputy Chairman of the Board of Trustees of the Energy Research Institute at RWTH Aachen University (FGE) r.a.  
Deputy Chairman of the Assembly of Members and the Executive Committee and Member of the Board

of the Research Institute for Operations Management at RWTH Aachen University (FIR)  
 Member of Research Board of the Research Institute for Water and Waste Management FIW  
 Member of the Research Board of the Research Institute for Ecosystem Analysis and Assessment (gaiaac), continuously represented by the Vice-rector for research  
 Member of Board of Trustees of the Fraunhofer Institute for Applied Information Technology (FIT), Sankt Augustin and Aachen  
 Member of Board of Trustees of the Fraunhofer Institute for Molecular Biology and Applied Ecology (IME)  
 Deputy Chairman (by virtue of office) of the Freundeskreis des Instituts für Schweißtechnik  
 Deputy Chairman of the Board of Trustees (by virtue of office) of the Friedrich-Wilhelm Foundation  
 Deputy Chairman of the Board and Member of Board of Trustees (by virtue of office) of the international management network Gesellschaft zur Förderung der Forschung und Ausbildung auf dem Gebiet der internationalen technischen und wirtschaftlichen Zusammenarbeit an der RWTH Aachen (GFTZ) r.a.  
 Member of Board of Trustees of the Grünenthal Palliative Medicine Foundation  
 Member of the Executive Board (by virtue of office) of the Haus der Technik, Essen  
 Member of the Board of Trustees (by virtue of office) of the Haus der Technik, Essen  
 Member of the Scientific Board of Trustees of the Institute for Cybernetics for Business (IFU)  
 Member of the Board of Trustees (by virtue of office) of the Lohmann-Hellenthal Foundation  
 Member of the Executive Board (by virtue of office) of ProRWTH  
 Member of the Advisory Body (by virtue of office) of Development and Assessment Institute in Waste Water Technology at RWTH Aachen University (PIA)  
 Member of the Executive Board as Vice President of the Foundation for the Promotion of the German Rector's Conference (HRK)  
 Chairman of the Foundation Board of the Bürgerstiftung für die Region Aachen  
 Member of Advisory Body of the platform for Turkish and German students and academics TD-Plattform  
 Deputy Chairman of the Advisory Body of the Technical Academy Wuppertal r.a.  
 Member of Executive Board (by virtue of office) of

the association to promote the institute for process and application engineering for ceramics  
 Deputy Chairman of the Executive Board (by virtue of office) of the association to promote the Institute for Plastics Processing at RWTH Aachen University

#### **Manfred Nettekoven**

- On 1. Chancellor of RWTH Aachen University; no consulting contracts
- On 2. and 3. Nothing to report
- On 4. Member of the Advisory Body of the research for energy engineering and combustion engines FEV Motorentchnik GmbH  
 Founder of Start GmbH
- On 5. Member of Senate of the Leibniz-Gemeinschaft

#### **Dipl.-Volkswirt Berno Huber (member until May 26, 2008)**

- On 1. Administrative managing director (and shareholder) of all enterprises of the NGH Group. Their holding company is the NGH Beteiligungs GmbH, Bad Münstereifel  
 Consultant of EMB Eifeler Maschinenbau GmbH, Euskirchen
- On 2. through 4. Nothing to report
- On 5. Chairman of the Board of sporting association Turnverein Morbach e. V. 1909, Morbach (Hunsrück)

#### **Alfred Witt (member since October 1, 2008)**

- On 1. Deputy Assistant Under-Deputy of the Ministry for Innovation, Science, Research and Technology of the State of North Rhine-Westphalia
- On 2. Member of the Supervisory Board of the University Hospital Essen  
 Member of the Supervisory Board of the University Hospital Münster
- On 3. through 5. Nothing to report

#### **Doris Mansdorf**

- On 1. Deputy Assistant Under-Deputy of the Ministry for Finances of the State of North Rhine-Westphalia
- On 2. through 4. Member of the Administrative Board of the film evaluation authority Filmbewertungsstelle (FBW), Wiesbaden  
 Member of the Administrative Board of Gollwitzer-Meier-Klinik (GMK), Bad Oeynhausen
- On 5. Nothing to report

#### **Dipl.-Kfm. Michael Prym**

- On 1. Independent Consultant – among others consulting contract with William Prym GmbH & Co. KG
- On 2. and 3. Nothing to report
- On 4. Advisory Body member of the Rüggeberg GmbH &



Co. KG PFERD Werkzeuge, Marienheide  
Member of the Supervisory Board of the Otto  
Junker GmbH, Lammersdorf  
Chairman of the Executive Committee of the  
Research Institute for Operations Management at  
RWTH Aachen University (FIR)

- On 5. Member of the expanded Board of Trustees of the  
Stiftung Familienunternehmen  
International Council Board Member of INSEAD,  
Fontainebleau

**Univ.-Prof. Dr. med. Richard Hautmann**

- On 1. Director of the Department of Urology at the  
University Hospital Ulm, Professor and Specialist for  
Urology  
On 2. through 5. Nothing to report

**Univ.-Prof. Dr. med. Eike Otrom Martin (member until  
May 26, 2008)**

- On 1. Director of the Department of Anesthesiology at  
the University Hospital Heidelberg; Executive  
Medical Director and Chairman of the Board of the  
University Hospital Heidelberg; no consulting  
contracts  
On 2. through 5. Nothing to report

**Prof. Dr. Marja Pauline van Dieijen-Visser (member since  
June 25, 2008)**

- On 1. Director of the laboratories and Director of Depart-  
ment of the Clinical Chemical Lab at the Maastricht  
University Medical Center (MUMC), Professor for  
Clinical Chemistry at the University Hospital Aachen  
On 2. through 5. Nothing to report

**Univ. Prof. Dr. med. Malte Kelm (member since February  
18, 2008)**

- On 1. Director of the Department of Cardiology, Pneu-  
mology and Angiology of the University Hospital  
Aachen; no consulting contracts  
On 2. through 4. Nothing to report  
On 5. Tasks at the German Association for Cardiology:  
a) Chairman of the project group "Longterm  
strategic planning"  
b) Member of the planning group "Integrative  
Management"  
c) Chairman of the Cluster "Gefäße" (vascular  
matters)  
Member, Central Program Committee (CPC)  
Member, European Society for Cardiology (ESC)  
Member, Expert and Consultant in scientific  
journals, international societies and institutions of  
research funding

**Dr. med. Max Hendrik Skorning**

- On 1. Physician in training/ research assistant at the UKA  
Aachen at the Department of Anesthesiology  
On 2. Nothing to report  
On 3. Project leader of the research project Med-on-@ix  
(SimoBIT-Funding of the Federal Ministry for  
Science and Technology, executing body DLR) at  
the Chair for Anesthesiology  
On 4. Nothing to report  
On 5. Course Director at the European Resuscitation  
Council (ERC)  
Member of the Marburger Bund, Bezirksvorstand  
Aachen; Delegate for the state assembly NRW/RLP  
Representative of the physicians in training at the  
executive committee of the German Society for  
Aneesthesiology and Intensive Care Medicine  
(DGAI)  
Member of the Executive Committee of the  
German Resuscitation Council (GRC)  
Member of the Association Notärzte im Rettungs-  
dienst der Stadt  
Speaker of the physicians at the Department of  
Anesthesiology at the UKA  
Member of the steering committee of the consor-  
tium „AC:TIV“ for BMBF funding: Gesundheits-  
regionen der Zukunft

**Dipl.-Verw.-Wirt Paul Kuckelkorn**

- On 1. Administrative Officer, company manager of  
Environmental Services and Logistics at the  
Operational Center of the UKA  
On 2. through 4. Nothing to report  
On 5. Departmental Chairman of the labor union vdlA at  
the dbb of UKA

**Dipl.-Ing. (FH) Marlies Diepelt (consulting member)**

- On 1. Equal Opprtunities Commissioner of the UKA; no  
consulting contracts  
On 2. through 4. Nothing to report  
On 5. Member of the Executive Board (official as Equal  
Opportunities Commissioner)  
"Uni + Kind" Chairwoman

## Executive Board

**Univ.-Prof. Dr. med. Henning Saß**

- On 1. Medical Director and Chairman of the Executive  
Board of the UKA, no consulting contracts  
On 2. Nothing to report  
On 3. Member of the scientific advisory body of the  
University Hospital Hamburg-Eppendorf

Chairman of the scientific advisory body and member of the supervisory boards of the Zentralinstitut für Seelische Gesundheit, Mannheim  
 Representative of the shareholder of ACA-Ambulanz Centrum Aachen Medizinisches Versorgungszentrum GmbH  
 Representative of the shareholder of ACA-Ambulanz Centrum Aachen Medizinisches Versorgungszentrum Management GmbH, Aachen  
 Representative of the shareholder of ACA Centrum Aachen GmbH  
 VIMS/DRG-Betriebskonzept GmbH  
 Member of the Board of the Tumorzentrum Aachen r.a.  
 Representative of the shareholder of PTC Euregio Rhein-Maas GmbH

On 4. Member of publishing panel of scientific journals:  
 Der Nervenarzt (lead management)  
 European Psychiatry  
 International Journal of Behavioral Sciences and the Law

On 5. 2007/2008 Past-President of the Association of European Psychiatrists (AEP)

#### **Detlef Klimpe**

On 1. Administrative Director of UKA  
 On 2. Member of the Supervisory Board of Rhön-Klinikum AG, Bad Neustadt (Saale)  
 Member des supervisory board of the University Hospitals Gießen und Marburg GmbH, Marburg

On 3. Representative of the shareholder of ACA-Ambulanz Centrum Aachen Medizinisches Versorgungszentrum GmbH  
 Representative of the shareholder of ACA-Ambulanz Centrum Aachen Medizinisches Versorgungszentrum Management GmbH, Aachen  
 Representative of the shareholder of ACA-Augen Centrum Aachen GmbH  
 Representative of the shareholder of IMS/DRG-Betriebskonzept GmbH  
 Representative of the shareholder of PTC Euregio Rhein-Maas GmbH  
 Member of the Board of the Tumorzentrum Aachen r.a.

On 4. Nothing to report

On 5. Member of the commission for law and contracts of the DKG  
 Member of the main commission for hospital organization of the KGNW  
 Member of the state arbitrary board of the KGNW  
 Member of the arbitrary board of the KGNW  
 Chairman of Arge of the university hospitals NRW r.a., Bonn

Member of the board of the hospital administration union Krankenhauszweckverband Köln, Bonn und Region – Berufsverband – r.a.

#### **Heinz Pelzer**

On 1. Nursing Director of the UKA, no consulting contracts  
 On 2. through 5. Nothing to report

#### **Univ.-Prof. Dr. med. Johannes Noth**

On 1. Director of the Department of Neurology, Chair of Neurology at the Medical Faculty of RWTH Aachen University, Dean of the Medical Faculty, Medical Director of the professional training institution for logopedics at the UKA; no consulting contracts  
 On 2. through 4. Nothing to report  
 On 5. Standing evaluator of the Gutachterkommission für ärztliche Behandlungsfehler der Landesärztekammer Nordrhein

## Facilities

### Departments

#### **Anesthesiology**

Univ.-Prof. Dr. med. Rolf Rossaint

#### **Child and Adolescent Psychiatry and Psychotherapy**

Univ.-Prof. Dr. med. Beate Herpertz-Dahlmann

#### **Dermatology and Allergology**

Univ.-Prof. Dr. med. Hans F. Merk

#### **Gynecological Endocrinology and Reproductive Medicine**

Univ.-Prof. Dr. med. Joseph Neulen

#### **Gynecology and Obstetrics**

Univ.-Prof. Dr. med. Werner Rath until July 3, 2008

Univ.-Prof. Dr. med. Joseph Neulen (temporary from July 4, 2008 until November 30, 2008)

Prof. Dr. med. Nicolai Maass (temporary since December 1, 2008)

#### **Cardiology, Pneumology and Angiology**

Univ.-Prof. Dr. med. Malte Kelm

#### **Nephrology and Immunology**

Univ.-Prof. Dr. med. Jürgen Floege

#### **Gastroenterology, Hepatology and Metabolism**

Univ.-Prof. Dr. med. Christian Trautwein

**Oncology and Haematology**

Univ.-Prof. Dr. med. Rainhardt Osieka

**Neonatal and Conservative Children's Intensive Care**

PD Dr. med. Tobias Wenzl (temporary until January 1, 2008, after that, the Department was transferred back to the Department of Pediatric and Adolescent Medicine)

**Neurology**

Univ.-Prof. Dr. med. Johannes Noth

**Neurosurgery**

Univ.-Prof. Dr. med. Joachim Michael Gilsbach

**Nuclear Medicine**

Prof. Dr. med. Dr. Dipl.-Phys. Wolfgang Schäfer (Temporary)

**Operative and Preventive Dentistry and Endodontics**

Univ.-Prof. Dr. med. dent. Friedrich Lampert

**Operative Dentistry and Plastic Facial Surgery**

Univ.-Prof. Dr. med. Dr. med. dent. Dieter Riediger

**Ophthalmology**

Univ.-Prof. Dr. med. Peter Walter

**Orthodontics**

Univ.-Prof. Dr. med. Dr. med. dent. Peter Diedrich

**Orthopedics and Trauma, Focus: Orthopedics**

Univ.-Prof. Dr. med. Fritz-Uwe Niethard

**Orthopedics and Trauma, Focus: Trauma Surgery**

Univ.-Prof. Dr. med. Fritz Uwe Niethard since January 1, 2008 (temporary)

**Oto-Rhino-Laryngology and Plastic Head and Neck Surgery**

Univ.-Prof. Dr. med. Martin Westhofen

**Palliative Medicine**

Univ.-Prof. Dr. med. Lukas Radbruch

**Pediatrics**

Univ.-Prof. Dr. med. Norbert Wagner

**Pediatric Cardiology**

Univ.-Prof. Dr. med. Eberhard G. Mühler (temporary)

**Phoniatrics, Pedaudiology and Communication Disorders**

Univ.-Prof. Dr. med. Christiane Neuschaefer-Rube

**Plastic Surgery, Hand Surgery/Burn Center**

Univ.-Prof. Dr. Dr. med. Prof. h.c. Norbert Pallua

**Prosthodontics and Dental Materials**

Univ.-Prof. Dr. med. Dr. med. dent. Dr. h. c. Hubertus Spiekermann until February 29, 2008  
Univ.-Prof. Dr. med. dent. Friedrich Lampert from March 1, 2008 until October 10 (temporary)  
Univ. Prof. Dr. med. dent. Stefan Wolfart since October 15, 2008

**Psychiatry and Psychotherapy**

Univ.-Prof. Dr. med. Dr. rer. soc. Frank Schneider

**Diagnostic and Interventional Radiology**

Univ.-Prof. Dr. med. Rolf Günther

**Radiotherapy**

Univ.-Prof. Dr. med. Michael Eble

**Surgery**

Univ.-Prof. Dr. med. Dr. h.c. Volker Schumpelick

**Thorax, Cardiac and Vascular Surgery**

Univ.-Prof. Dr. med. Rüdiger Autschbach

**Urology**

Univ.-Prof. Dr. med. Gerhard Jakse until September 30, 2008  
Frau Prof. Dr. med. Dorothea Rohrmann from October 1, 2008 until November 30, 2008 (temporary)  
Univ.-Prof. Dr. med. Axel Heidenreich since December 1, 2008

**Vascular Surgery**

Univ.-Prof. Dr. med. Michael Jacobs

## Institutes

### Institutes with Patient Care Tasks

#### Occupational and Social Medicine

Univ.-Prof. Dr. med. Thomas Kraus

#### Human Genetics

Univ.-Prof. Dr. med. Klaus Zerres

#### Hygiene and Environmental Medicine

Univ.-Prof. Dr. rer. nat. Wolfgang Dott

#### Clinical Chemistry and Pathobiochemistry and Clinical-Chemical Central Lab

Univ.-Prof. Dr. med. Prof. h. c. (RCH) Axel M. Gressner

#### Medical Microbiology

Univ.-Prof. Dr. med. Rudolf Lütticken until February 29, 2008

Univ.-Prof. Dr. med. Klaus Ritter since March 1, 2008 (temporary)

#### Neuropathology

Univ.-Prof. Dr. med. Joachim Weis

#### Pathology

Univ.-Prof. Dr. med. Ruth Knüchel-Clarke

### Institutes without Patient Care Tasks

#### Neuroanatomy

Univ.-Prof. Dr. rer. biol. hum. Cordian Beyer

#### Anatomy and Cell Biology

Univ.-Prof. Dr. rer. nat. Thomas Pufe

#### Molecular and Cellular Anatomy

Univ.-Prof. Dr. med. Rudolf Leube

#### Biochemistry and Molecular Biology

Univ.-Prof. Dr. rer. nat. Bernhard Lüscher

#### Biomedical Technologies

##### Applied Medical Engineering

Univ.-Prof. Dr. med. Dipl.-Ing. Thomas Schmitz-Rode

##### Cell and Molecular Biology at Interfaces

Univ.-Prof. Dr. rer. nat. Wilhelm Jahnen-Dechent

##### Cytology

Univ.-Prof. Dr. rer. nat. Martin Zenke

#### Experimental Molecular Imaging

Univ.-Prof. Dr. med. Fabian Kiessling

#### Flight Medicine

Univ.-Prof. Dr. med. Rupert Gerzer

#### History, Theory and Ethics of Medicine

Univ.-Prof. Dr. med. Dr. dent. Dr. phil. Dominik Groß

#### Immunology

Univ.-Prof. Dr. rer. nat. Lothar Rink

#### Molecular Cardiovascular Research

Univ.-Prof. Dr. med. Christian Weber

#### Medical Informatics

Univ.-Prof. Dr. med. Dr. rer. nat. Dipl.-Math. Klaus Spitzer

#### Medical Psychology and Medical Sociology

Univ.-Prof. Dr. phil. Dipl.-Psych. Siegfried Gauggel

#### Medical Statistics

Prof. Dr. rer. nat. Ralf-Dieter Hilgers

#### Pharmacology and Toxicology

Univ.-Prof. Dr. med. Stefan Uhlig

#### Physiology

Univ.-Prof. Dr. rer. nat. Stefan Gründer

### Interdisciplinary Departments and Other Areas

#### Intensive Care

Univ.-Prof. Dr. med. Rolf Rossaint until October 31, 2008 (temporary)

Univ.-Prof. Dr. med. Gernot Marx since November 1, 2008

#### Intermediate Care

Dr. med. Ralf Kubini until October 31, 2008 (temporary)

Univ. Prof. Dr. med. Gernot Marx for the surgical area, since November 1, 2008 (temporary)

Univ.-Prof. Dr. med. Malte Kelm for the medical area, since November 1, 2008 (temporary)

#### Standard Care

Prof. Dr. med. Karl Zilkens

#### Emergency Care

Dr. med. Peter-Friedrich Petersen

## Central Services

### **Institute for Laboratory Animal Science**

Univ.-Prof. Dr. med. René Tolba

### **Transfusion Medicine**

Dr. med. Gabriele Hutschenreuter

### **Hospital Hygiene**

Prof. Dr. med. Sebastian Lemmen

## Business Divisions

### **Financial Management**

Dipl.-Kfm. Werner Kemper

### **IT Management**

Dipl.-Math. Volker Lowitsch

### **Commercial Controlling, Project Management**

Dipl.-Kfm. Thorsten Klein

### **Medical Controlling**

Executive Medical Director

Prof. Dr. med. Walter Behrendt

### **Patient Management**

Director of Administration

Franz-Josef Hansen until March 31, 2008

(division dissolved)

### **Supply Structures and Cooperation**

Dipl.-Kfm. Stephan Leng since September 1, 2008

### **Nursing Management**

Heinz Pelzer

### **Quality and Environmental Management**

Dr. rer. nat. Ralf Lenz

### **Legal Department**

Executive Director of Administration Hermann Jennessen

## Logistics Centers

### **Pharmacy Center**

Karin Zengel until March 31, 2008

Dr. rer. nat. Albrecht Eisert since April 1, 2008

### **Operational Center**

Director of Administration Ulrich Fleitmann

### **Real Estate Center**

Dr. med. Dipl.-Ing. Andrea Stelkens

### **Materials Center**

Dipl.-Kfm. Werner Kemper until March 31, 2008

(temporary)

Dipl. Ing. Karl-Heinz Küpper since April 1, 2008

### **Personnel Center**

Executive Director of Administration Hermann Jennessen

until September 30, 2008 (temporary)

Dipl. Psych. Volker Gläser, MBA, since October 1, 2008

## Staff Units

### **Staff Unit Communication**

Angelika Christ, M.A.

### **Staff Unit Medical Product- and Quality Management**

Dr. med. Ursula Fabry, MPH



The function titles used in this Annual Report do not necessarily suggest the sex of the holder of the position. For reasons of legibility and practicability it has been avoided to consistently use female and male forms throughout the Report.



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