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VIENNA GENERAL HOSPITAL ANNUAL REPORT 2017



Cityof + Vienna Vienna is special. VIENNA GENERAL HOSPITAL — MEDICAL UNIVERSITY CAMPUS



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INTRODUCTIONS

The Austrian healthcare sector is characterized by a particularly high quality. This best possible medical care of the population is to be maintained in the future. At the same time, the needs of patients are important indicators and benchmark for the services provided by our healthcare system.

Vienna offers first-class services for all Viennese, irrespective of their income, gender, age or origin. To ensure that these services can continue to be provided at the highest level, special efforts are required from all those involved. The Vienna General Hospital is an important cornerstone of outstanding



medical care and a flagship for Austria as a health location. Together with the Medical University of Vienna, the Vienna General Hospital stands for medical excellence in patient care, research and teaching.

A particular highlight of 2017 was the founding of the Vienna Cancer Center, with which an innovative and important step was taken in the treatment and research of cancer diseases. The cooperation of the Medical University, the Vienna General Hospital and all other oncological departments of the municipal hospitals with the Vienna Regional Health Insurance Fund, the Vinzenz Group, the Hospital of St. John of God and the Franziskus Hospital not only combines the existing expertise, but also offers the possibility of common standards at all institutions. With the Vienna Cancer Center, Vienna is taking an important step to position itself as a leader in Europe-wide cancer research and is promoting a faster and more efficient treatment of cancer patients.

These successes reflect the achievements of the staff of the Vienna General Hospital and the Medical University. I thank you for your commitment to a health service that benefits all people in our city. Thanks to this tireless commitment, the people of Vienna can be sure that they receive the best possible health-care. And I am convinced that the successful path taken by the Vienna General Hospital and the Medical University of Vienna in the care of patients, research and teaching will be continued in the coming years.

Sandra Frauenberger

City Councillor for Social Affairs, Public Health and Women's Affairs

Cooperation is the order of the day in our modern healthcare system, where developments and innovations are progressing faster and faster, while efficient management is becoming increasingly important. Only those who cooperate will be able to actively shape changes and implement improvements for the well-being of the patients. The joint operational management of the Vienna General Hospital and the clinical area of the Medical University of Vienna is a role model for successful cooperation, which — for the best possible patient care, research and teaching — is continuously deepened.

Thus, the joint management structure — a strategic supervisory board and an operational management board — is already well established and is working intensively on further developments to make optimum use of available resources. The common alignement also includes the medical master plan, which is the basis for all further planning. This is evaluated jointly at regular intervals and adjusted if necessary.

In addition, the Vienna General Hospital and the Medical University of Vienna are promoting the formation of interdisciplinary centers. A core element of the Comprehensive Center for Cardio-Vascular Medicine is the hybrid OR opened at the Vienna General Hospital in 2017. This high-tech operating room with a powerful, state-of-the-art angiography system, embedded in a highly sterile room, offers experts in cardiology and cardiac surgery the opportunity to jointly apply and further develop state-of-the-art hybrid procedures that combine elements of classic and buttonhole surgery.

But also the present annual report is a sign of the deepening cooperation. Thus, this year's medical innovations, which include not only examples regarding the clinical routine but also findings from the clinical research, have their own chapter. And you can read a contribution by Oswald Wagner, Vice-Rector for Clinical Affairs at the Medical University of Vienna, in this annual report.

Finally, I would like to emphasize that all these achievements and much more can only be attributed to the commitment and competence of the staff of the Vienna General Hospital and the Medical University of Vienna. They provide medical and human excellence on a daily basis under sometimes challenging conditions while always keeping the patients in focus.

Herwig Wetzlinger Director of the Business Unit Vienna General Hospital





SHORT PROFILE

The Vienna General Hospital – Medical University Campus is Austria's biggest hospital. With its 9,000 employees, it provides medical excellence. At the Vienna General Hospital in 2017, around 54,000 surgeries were performed, including 103 lung and 46 heart transplants.

Since 2015, the Vienna General Hospital and the clinical areas of the Medical University of Vienna have been jointly managed by the two institutions. The Medical University of Vienna is one of the most important biomedical research institutions in Europe. In addition, with around 8,000 students, it is the largest medical training center in the German-speaking world.

An essential element of the Vienna General Hospital and the Medical University of Vienna is the combination of patient care, research and teaching. In 2017, 120,000 patients were hospitalized at the Vienna General Hospital and the ambulances were visited 1.1 million times. In the field of medical research, the Vienna General Hospital and the Medical University of Vienna have repeatedly achieved internationally recognized results. The research laboratories of the clinics and institutes are stateof-the-art. They cover an area of 24,500 square meters.

A Student's Center featuring the Lecture Center and the Study Center is provided for teaching amongst other facilities. The Lecture Center has a large lecture hall with 500 seats and four additional lecture halls as well as 33 team work and seminar rooms. The Study Center consists of an up-to-date collection of textbooks and the University Library. Furthermore, there is a Further Training and Special Training Academy for nursing and for

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medical, therapeutic and diagnostic healthcare professions. And there is a school for nursing, a school for pediatric and adolescent nursing and a school for medical assistance professions, located at the Florido Tower.

The history of the Vienna General Hospital reaches as far back as the 17th century. It was created on the basis of the Großarmen- und Invalidenhaus (home for the poor and disabled) that was founded by Emperor Leopold I in 1693 and built on the area delimited by Alser Strasse, Spitalgasse and Garnisongasse starting in 1694. Emperor Joseph II converted it to a hospital. It was opened to the public on 16 August 1784. The Vienna General Hospital at its current location, Währinger Gürtel 18-20, was inaugurated in a more recent period on 7 June 1994.

The Vienna General Hospital's premises house an entrance building, a main building, the South Garden Departments as well as several attached buildings on 240,000 square meters. The main building consists of an 11-storey flat building and, on top of it, two 14-storey ward blocks - the green ward block and the red ward block. The green ward block accommodates mainly the surgical departments, while the red ward block mainly houses the departments of internal medicine. Altogether, the hospital provides 1,769 systemized

beds.





MEDICAL INNOVATIONS

The focus regarding innovations and research at the Vienna General Hospital and the clinical area of the Medical University of Vienna is always the patients. Being innovative means that improvements will benefit the patients without detours. Participation in clinical trials is a way for many patients to have the latest medication as early as possible. The further expansion and promotion of research at the Vienna General Hospital and the Medical University of Vienna is an essential strategic goal in the context of the joint operational management.

New Surgical Method for Tumor Removal: Patient Can Hear Again

For the first time in Austria, a patient with a vestibular schwannoma (benign tumor in the inner ear) was treated at the Vienna General Hospital and the Medical University of Vienna in such a way that she can hear again. Thanks to the latest technologies and the special expertise of the ENT doctors and neurosurgeons, the function of the auditory nerve could be maintained during tumor removal. In the same procedure, the patient was given a cochlear implant to restore hearing.

Aggressive Leukemia Form: Drug Identified

T-prolymphocytic leukemia (T-PLL) is a rare but the most malignant of all known leukemia types. Previous therapies were only slightly successful. Researchers at the Medical University of Vienna and the Vienna General Hospital have now identified a potentially promising drug with researchers from the Center for Molecular Medicine using a screening procedure. Recently approved for the

treatment of another form of leukemia, Venetoclax binds to the bcl-2 protein of T-PLL cells and inhibits its action. Venetoclax causes death of the tumor cells. The clinical effect was demonstrated as a "proof of principle" on two patients at the Vienna General Hospital and now has to be confirmed in a prospective international study, which begins in the fourth quarter of 2018. The head of the research group at the Vienna General Hospital and the Medical University of Vienna, who is responsible for the identification of the active substance, will preside over this study.





Brain Tumor in Children: New Biomarker **Could Individualize Therapy**

Whether or not a more intensive therapy is indicated for cancer treatment depends very much on the expected course of the disease. To distinguish between aggressive and less aggressive ependymomas, the third most common malignant tumors of the central nervous system in early childhood, researchers from the Vienna General Hospital and the Medical University of Vienna have identified a biomarker in collaboration with the German Cancer Research Center. However, before it can be used clinically, further studies are needed.

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3 | Medical Innovations



Small Cell Lung Cancer: The Cause of Chemo-Resistance Decoded

In advanced small cell lung cancer, about one year after successful treatment with chemotherapy and radiation, tumor relapses usually occur that are resistant to further chemotherapy. The life expectancy of the patients then is usually only a few months. So far, it was unknown what is responsible for this chemo-resistance. Researchers at the Vienna General Hospital and the Medical University of Vienna have now discovered that circulating tumor cells join together, thereby turning chemosensitive cells into chemoresistant cell aqgregates. If these cell connections broke up, e.g. with the help of enzymes, patients would respond to chemotherapy.

Therapy Against Gastric Mucosa in the Esophagus

Chronic coughing, throat scratching, permanent foreign body sensation and a feeling of dryness in the throat are widespread complaints, which are often trivialized. However, these are also characteristic symptoms of patients who suffer from the presence of a dislocated gastric mucosa in the esophagus (ectopic mucosa). The ectopic mucosa produces acid and mucus, which causes chronic damage to the larynx. With pronounced forms, there has hitherto been no effective and at the same time safe treatment option. A recent study by researchers at the Vienna General Hospital and the Medical University of Vienna has now brought a breakthrough: the new method of radiofrequency

ablation was successfully used worldwide for the first time in pronounced cases of ectopic mucosa. Radiofrequency ablation allows a controlled release of energy, which can lead to the eradication of pathological tissue with low side effects. The application led to a significant improvement in complaints. A large-scale study confirming the results started in early 2018.

Hope regarding Previously Incurable Liver Disease

The primary sclerosing cholangitis is a currently incurable liver disease that affects mainly younger people between 30 and 40 years. Now, in a European multicenter Phase 2 study led by the Medical University of Vienna and the Vienna General Hospital, in close cooperation with the University of Graz and the Hannover Medical School, it has been shown that this disease could be cured with the help of a synthetically produced bile acid. The

A heart pump like this helps patients who have severe heart failure. With the help of a new analysis system, the interaction of the heart and the pump should be even better controlled.

active ingredient Nor-Urso revolves between bile and liver and flushes the bile duct from toxins by increasing the bile flow. Based on the promising results of the Phase 2 study, a Phase 3 study was initiated, also under the direction of the Medical University of Vienna and the Vienna General Hospital. More than 80 centers are involved in this study across Europe. This makes it the largest study to date for primary sclerosing cholangitis.

Heart Pumps Optimally Adapted

Heart pumps help patients while waiting for a heart transplant. Researchers at the Medical University of Vienna and the Vienna General Hospital have developed an analysis system so that the interaction of pump and heart works best. This is integrated into the heart pump and allows for the first time worldwide exactly the recording of the performance of the pump and heart and their interaction. Thus, among other things, rhythm



3 | Medical Innovations

disturbances, clot formations and blood pressure crises can be measured. Based on this data, the heart pump can be adapted and optimally adjusted for the patient. The further development of prototypes into an approved medical device is in the works.

Kidney Removal for the First Time with Surgical Robot

If you donate a kidney, this can be removed by buttonhole surgery. 95 percent of these interventions result in a successful removal. In 2017, in the Vienna General Hospital, such an operation was carried out Austria-wide for the first time with the help of a surgical robot. It is hoped that the benefits of robotic surgery will increase the success rate of such procedures. In the robotic procedure, the surgeon steers an operating robot over a console while receiving an enlarged, three-dimensional image of the operating area. The optimal viewing conditions and the mobility of the robot arms in 7 degrees of freedom enable a particularly precise procedure. Kidney removal and subsequent transplantation at the Vienna General Hospital were successfully performed. The kidney was well received by the donor.



Robotic surgery opens up new possibilities for minimally invasive surgery, now also for kidney withdrawals. Surgical robot: two control panels in the middle of the picture, the robot arms on the right.





NEW HIGH-TECH DEVICES

The rapid development of modern medicine goes hand in hand with technical progress. This is particularly evident in the hybrid OR, which was opened in 2017 in the Vienna General Hospital. This high-tech facility opens up completely new ways of cooperation between cardiology and cardiac surgery. In addition, two new SPECT-CT devices, a new magnetic resonance tomograph and two new electron microscopes will expand the diagnostic excellence at the Vienna General Hospital.

State-of-the-Art Technology in the Hybrid OR

With the new hybrid OR (picture left and above), the Vienna General Hospital has a high-tech operating room in which minimally invasive heart catheter procedures as well as cardiac surgery operations can be performed. Cardiologists and cardiac or vascular surgeons and interventional radiologists work side-by-side and apply state-ofthe-art hybrid procedures or further develop them. The central element of the hybrid OR is a powerful, state-of-the-art angiography system — embedded in a highly sterile room, at more than 100 square meters.



Using the large screens of the angiography system, the physicians can monitor their endoscopic procedures in real time and superimpose the images with existing computed tomography, magnetic resonance tomography and ultrasound images using image fusion technology. This gives surgeons the greatest possible security and control during surgeries. Patients also benefit from the lowest possible radiation exposure.

SPECT-CT of the Latest Generation

Two state-of-the-art SPECT-CT devices open up further possibilities for diagnostic imaging at the Vienna General Hospital. This high-end SPECT-CT device, used at the University Department of Radiology and Nuclear Medicine, allows full integration of single-photon emission computed tomo-

diagnostic improvements, e.g. in oncology.



4 | New High-Tech Devices

graphy (SPECT) and conventional computed tomography (CT). Functional information from the SPECT can be optimized by integrating the CT morphological information, which, among other things, allows for absolute quantification of injected radiopharmaceuticals in the study volume. In addition, the CT information can provide excellent anatomical localization or even a diagnostic CT scan, allowing for improved characterization of benign and malignant lesions.

The combination of image data from CT and SPECT represents a significant technical improvement in oncological issues in pretherapeutic diagnostics (staging) as well as in therapy monitoring, for example regarding breast, prostate, and thyroid cancer. Also, the therapeutic success of modern radio peptide therapies, for example regarding prostate cancer can be better evaluated. In addition, the field of application of this hybrid method includes the diagnosis and characterization of a variety of other diseases, such as coronary heart disease (circulation and extent of calcification of the coronary arteries, innervation of the ventricles, amyloid deposits), unclear bone changes (infections, necroses and osteoarthritis) or kidney disease.

MR with Extra Large Opening

At the Department of Radiology and Nuclear Medicine, a new 3-Tesla magnetic resonance tomograph has been put into operation. This model has the largest opening available on the market. This facilitates examinations for pregnant women, obese and claustrophobic patients. In addition, the new MR provides improved image quality, for example, in perfusion sequences used to examine the blood flow to the organs. For certain MR examinations, it is necessary for the patients to hold their breath on command. The new device has such a high shooting speed that artifact-free imaging is possible even when patients cannot follow breathing commands.

New Electron Microscopes

While light microscopes can display details that are as small as 200 nanometers, the resolution of electron microscopes is even less than 0.1 nanometers. For comparison, a virus typically measures between 15 and 440 nanometers. The Institute of Pathology now has two new, state-of-the-art devices that have improved optics and are used, among other things, for examining renal biopsies.



The new MR also benefits patients who cannot follow breathing commands.



The new electron microscopes have significantly improved optics compared to their predecessors.





FURTHER HIGHLIGHTS

n order to be well prepared for the challenges of the future, the Vienna General Hospital is constantly evolving. For example, the formation of interdisciplinary centers and local cancer therapy was promoted, a new offer for expectant mothers was introduced, innovation management was expanded and the parking garage was made even more user-friendly. In addition, new research buildings are planned to continue to make the latest scientific findings available to patients as soon as possible. The special commitment of the Vienna General Hospital for its patients and its staff was honored with two awards: the care management award "cura" and the BGF seal of approval from the Austrian Network for Workplace Health Promotion.

Center Formation Ensures Excellence

In order to provide excellent, internationally competitive services in patient care, research and teaching in an increasingly complex medical environment, well-organized interdisciplinary cooperation is required. With the formation of centers, this interdisciplinary cooperation should be effectively designed and structured. The centers enable targeted, stable networking according to important topics and areas of excellence. Thus, the Comprehensive Center for Pediatrics will improve the cooperation of all departments providing medical services for pregnant women, newborns, infants, children and adolescents at the Vienna General Hospital or conducting research in these areas. Firstly, this should be ensured by establishing new communication structures — analogous to the tumor boards and research units in the Comprehensive Cancer Center of the Vienna General Hospital and the Medical University of Vienna,

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which has been operating successfully for many

Secondly, new building structures are created. The goal is that the specialists come to the patients. For example, further interior works in the children's surgery center will make it possible to concentrate most of the surgeries on children at the Vienna General Hospital in a state-of-the-art and childfriendly location. In addition, a perinatal center will be built adjacent to the Department of Pediatrics and Adolescent Medicine, bringing together all areas of obstetrics and feto-maternal medicine with delivery rooms, pre-parturition and maternity wards and neonatology with intensive and intermediate care stations as well as all obstetric and neonatal outpatient clinics. The strengthening of the cooperation between the St. Anna Children's Hospital and the Department of Pediatrics and Adolescent Medicine is also part of the project.

The development of the Comprehensive Center for Cardiovascular Medicine is also progressing. As a lighthouse project, the hybrid OR was opened in 2017, in which cardiologists and cardiac surgeons and interventional radiologists jointly apply and develop state-of-the-art hybrid procedures (see also p. 13). The Center for Perioperative Medicine, for its part, is working on patient blood management to better prepare patients for surgical procedures, minimizing surgical risk as much as possible. For example, patients with iron deficiency anemia should be identified and treated prior to surgery. Anemic patients require a foreign blood donation more often, which statistically has a negative effect on the further course of the treat-



Vienna Cancer Center Combines **Oncological Competence**

The Vienna Cancer Center (VCC) was founded in 2017 based on the experiences from the Comprehensive Cancer Center of the Vienna General Hospital and the Medical University of Vienna. The VCC unites the oncological facilities of the Vienna General Hospital and the Medical University of Vienna, of six other KAV hospitals, the Vinzenz Group, the Hanusch Hospital of the Vienna Regional Health Insurance Fund, the Hospital of St. John of God and the Franziskus Hospital.

In this way, in Austria a unique network in the sense of a qualitatively uniform, local treatment of patients with cancer was created. The patients benefit from quick, evidence-based decisions, from short distances, and have the certainty that they are looked after and supported by the best specialists in medicine and nursing.

The offer to voluntarily participate in a clinical trial to the highest ethical standards broadens the spectrum of therapies to include access to highly innovative drugs that are still in clinical trials. The pooling of resources from the various healthcare facilities enables joint clinical trials to be carried out, thereby making the latest medical developments in the field of cancer available for the Viennese.

At the same time, Vienna, as a science location in the field of oncology, is being upgraded to become one of the largest international partners in the development of new cancer therapies. Another goal of the VCC is to deepen a comprehensive, consistent and global education of physicians in cancer diagnostics and therapy to ensure the internationally competitive quality of this important discipline for future generations.

New Offer: Midwifery Birth

Pregnant women who want to be accompanied by midwives through pregnancy and childbirth, but do not want to forego the safety and infrastructure of a large hospital, can now register for a midwifery birth at the Vienna General Hospital. Whether a midwifery birth can actually take place is decided on the basis of specified criteria. The woman must be healthy, risk pregnancies are excluded. The change to a medically guided birth in the course of pregnancy is possible, if suggested by examinations. The discharge from the hospital takes place usually a few hours after birth (outpatient birth). Prerequisite is further support by established specialists.

Innovation Management

The Vienna General Hospital, together with its technical operations manager VAMED-KMB, has initiated an innovation management system that will support the design of a successful hospital operation taking into account the latest technological developments. It is based on an IT platform on which the employees of both organizations can present their ideas and exchange views on their suggestions. After two successful pilot phases, all employees of the Vienna General Hospital and VAMED-KMB have been able to participate in the joint innovation management via this IT platform since 2017. Several ideas created in this way are already being implemented. For better control, an innoboard defines certain focal points. In 2017, these so-called innovation search fields were the topics of "digitization" and "workplace of the future".

Underground Parking Optimized

Since 2017, the in-house underground parking has been operated by the Vienna General Hospital itself. In this context, some optimizations were

performed. For example, a comprehensive video surveillance system was installed for greater security. Other improvements include lighting and cleaning. The lighting fixtures and bulbs are constantly maintained and replaced as soon as possible in the event of a failure. In addition, the signage was renewed if necessary, and the cleaning intervals shortened.

Award for Workplace Health Promotion

An essential prerequisite for a successful hospital operation is the health of the employees. For this reason, the Vienna General Hospital promotes this in a consistent, goal-oriented and demandoriented way. The Vienna General Hospital was awarded the BGF seal of approval for its special commitment to workplace health promotion. The awarding body is the Austrian Network for Work-



The Vienna General Hospital received a seal of approval for its workplace health promotion. The Medical Director Gabriela Kornek (2nd from left), the head of the Competence Center for Occupational Safety and Health (CCAG) Jasminka Godnic-Cvar (center) and Beate Zettl (2nd from the right), also CCAG, attended the award ceremony.

place Health Promotion, an association of the statutory health insurance, the statutory accident insurance, the association of the Austrian social security institutions, the Chamber of Labor, the Chamber of Commerce, the Federation of Trade Unions and the Federation of Industrialists as well as the "Fonds Gesundes Österreich" as a supporting partner.

Nursing Prize for Pain Management

A project of the Vienna General Hospital for the design of a systematic, multiprofessional and sustainable process in the treatment of pain by the implementation of the DNQP expert standard "pain management in the care of acute pain" was awarded with the care management award "cura". In the project, acute pain is recorded through clinic-wide, target group-specific assessment instruments.

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5 | Further Highlights



The Vienna General Hospital has been awarded the nursing management award "cura". Pictured: Roman Breuer, Christine Nemeth, Sonja Schneeweiss, Karl-Heinz Weber, Head of Nursing Sabine Wolf, Vlastimil Kozon (from left).

In addition to recording the intensity of pain, perceiving signs of pain and recognizing typical risk factors that can trigger pain, the focus is also on side effects management and the education of patients and relatives. The "cura" award recognizes innovative and new ideas in nursing management. The project of the Vienna General Hospital won the first prize in the category of acute care.

Research Building for the Future of Medicine

The planning for new research buildings of the Medical University of Vienna on the grounds of the Vienna General Hospital is progressing. Three research centers are to be built on an area of around 60,000 square meters: the Center for Precision Medicine, the Center for Translational Medicine and Therapies, and the Center for Technology Transfer. The Center for Precision Medicine will be dedicated to researching customized therapies for diseases such as cancer, cardiovascular disease, rheumatism and more. Innovative, molecular, diagnostic and therapeutic methods such as genome examinations, molecular imaging and high-throughput screening are used. These techniques can be used to predict how patients will respond to specific medications or therapies so that they can best be tailored to their needs. More information about the Center for Precision Medicine can be found on the Internet: www.zpm.at

Oswald Wagner Vice-Rector for Clinical Affairs at the Medical University of Vienna and member of the Management Board

The Medical University of Vienna and the City of Vienna have been jointly managing the Vienna General Hospital for two years now. An important goal of the joint operational management is the focus of the Vienna General Hospital on academic medicine. To achieve this goal, relief was defined in other areas. The well-established operation of the general medical acute care makes a noticeable contribution in the field of emergency medicine. In order to achieve this effect in other ambulance areas, the establishment of an ambulatory at the Vienna General Hospital appears to be the most suitable solution after discussions with the departments that are particularly affected. For this, first discussions with the health insurance companies, the Medical Chamber and the City of Vienna were held. In addition, discussions were held with the AUVA and the Vienna Hospital Association on how this goal can be supported in the context of improved cooperation.

A milestone for academic medicine at the Vienna General Hospital is also the finalization of the decision to establish a Center for Translational Medicine and Therapies, for which the architecture bidding process will take place in 2018. This research center, which will also include a clinical trial Phase 1 and 2 center, will be flanked by a Center for Precision Medicine, which will focus on new, so-called "omics" technologies and digital medicine. A fundraising project has been set up for this building, whose activities you most probably have already noticed in the Vienna General Hospital, in the streets of Vienna and in various media.

Noteworthy is the not simple, but conflict-free implementation of the "Krankenanstalten-Arbeitszeitgesetz" at the Vienna General Hospital, for which I would like to sincerely thank all participants.

Allow me to take this opportunity to thank all employees of the Vienna General Hospital and the Medical University of Vienna for their outstanding commitment to ensuring that the Vienna General Hospital develops excellently and once again has become a flagship of the Viennese and Austrian healthcare.



In addition, a Center for Technology Transfer will be set up to provide space for Ludwig Boltzmann, Christian Doppler and start-up laboratories. Together, these buildings will build a bridge between pre-clinical research in the coming Medical University Campus Mariannengasse and clinical research at the Vienna General Hospital.

The well-advancing establishment of clinical centers also serves the academic medicine at the Vienna General Hospital. Thus, a Comprehensive Center for Pediatrics has been commissioned at the beginning of 2018. A Comprehensive Center for Cardiovascular Medicine and a Center for Perioperative Medicine are in preparation, a Neurocenter is decided. A Task Force Centers Formation discusses which additional fields should become clinical centers.



OVERVIEW OF THE VIENNA GENERAL HOSPITAL

Inpatient Treatment





Inpatients admitted: 120,186 Inpatient days: 623,279 Average number of days spent: 4.3 1-day-stays: 56,581







6 | Overview of the Vienna General Hospital



Operating theatres:	48
Intervention rooms:	11
Wake-up rooms:	8

6 | Overview of the Vienna General Hospital

Transplants

Kidney:	160
Liver:	54
Heart:	46
Lung:	103
Pancreas:	3
Bone marrow:	387

Staff

Staff total: 8,764

Interns not included; part-time employees are calculated on a basis of 40 hours a week



Management

Director of the Business Unit: Herwig Wetzlinger

Medical Director: Gabriela Kornek

Functional Head of Economical and Administrative Affairs (Administrative Directorate): Claudia Scharm-Groicher

Head of Nursing: Sabine Wolf

Technical Director: Siegfried Gierlinger



Directorates

Directorate of the Business Unit	Med
Competence Center for Health	Bed
and Safety Issues	Clinio
Hospital Hygiene	Direc
Human Resources	Healt
Information Center and PR	and I
Operating Theatre Management	Hosp
Quality and Risk Management	Incid
Special Assistant to the Director	Medi
Strategic Human Resources Development	Medi
Technology and Information Technology	Midw

dical Directorate

- Management
- ical Psychology
- ctor's Assistant
- Ithcare Professions in Medicine, Therapy
- Diagnosis
- pital Pharmacy
- dent Handling and Prevention
- dical Operations
- dico-Economics
- wifery

6 Overview of the Vienna General Hospital

Nursing Directorate

Director's Assistant Documentation and Information Technology Nursing Quality Assurance Organizational Development Human Resources Management in the Nursing Sector Special Tasks

Technical Directorate

Authorities and Documentation Controlling & Multi-Project Management Director's Assistant Facility Management Health and Safety and Fire Prevention Kitchen and Staff Restaurant Logistics Medical Technology Operations Department

Projects and Project Controlling Safety Issues Technical Infrastructure Technical Operations Management

Economical and Administrative Affairs (Administrative Directorate)

Central Office Clinical Administration Controlling Director's Assistant/Contract Management Finance and Business Administration Medical Documentation Center



Clinical Structure

Departments:

Department of Anesthesia, General Intensive					
Care Medicine and Pain Medicine	D				
Division of General Anesthesia	D				
and Intensive Care Medicine	N				
Division of Cardiothoracic and Vascular	D				
Anesthesia and Intensive Care Medicine	D				
Division of Specialist Anesthesia	Ľ				
and Pain Medicine	Dep				
Department of Blood Group Serology	D				
and Transfusion Medicine	D				
	D				
Department of Child and Adolescence					
Psychiatry	Dep				

Department of Clinical Pharmacology

Department of Dermatology

Division of General Dermatology and Dermato-Oncology

Division of Immuno-Dermatology and Infectious Diseases of the Skin

Department of Neurosurgery

Department of Ear, Nose and Throat Diseases

Division of General Ear, Nose and Throat Diseases

Division of Speech and Language Therapy

Department of Emergency Medicine

Department of Hospital Hygiene and Infection Control

Department of Medicine I

- Division of Hematology and Hemostaseology
- Division of Infectious Diseases and Tropical Medicine
- Division of Oncology
- Division of Palliative Care

partment of Medicine II

- Division of Angiology
- Division of Cardiology
- Division of Pulmonology

partment of Medicine III

- Division of Endocrinology and Metabolism
- Division of Gastroenterology and Hepatology
- Division of Nephrology and Dialysis
- Division of Rheumatology

Department of Neurology

Department of Obstetrics and Gynecology

- Division of General Gynecology
- and Gynecologic Oncology
- Division of Obstetrics and Feto-Maternal Medicine
- Division of Gynecologic Endocrinology and Reproductive Medicine

6 Overview of the Vienna General Hospital

Department of Ophthalmology and Optometrics

Department of Oral, Maxillary and Facial Surgery

Department of Orthopedics

Department of Pediatrics and Adolescent Medicine

Division of Neonatology, Pediatric Intensive Care Medicine and Neuropediatrics

Division of Pediatric Cardiology

Division of Pediatric Nephrology and Gastroenterology

Division of Pediatric Pulmonology, Allergology and Endocrinology

Division of Pediatrics and Pediatric Hematology-Oncology (St. Anna Children's Hospital)

Department of Physical Medicine, Rehabilitation and Occupational Medicine

Department of Psychiatry and Psychotherapy

Division of General Psychiatry Division of Social Psychiatry

Department of Psychoanalysis and Psychotherapy

Department of Radiology and Nuclear Medicine

Division of General and Pediatric Radiology Division of Cardiovascular and Interventional Radiology Division of Neuroradiology and Musculoskeletal Radiology

Division of Nuclear Medicine Department of Radiotherapy

Department of Surgery

Division of General Surgery Division of Vascular Surgery Division of Cardiac Surgery Division of Pediatric Surgery Division of Plastic and Reconstructive Surgery Division of Thoracic Surgery Division of Transplantation

Department of Trauma-Surgery

Department of Urology

Clinical Institutes:

Institute of Laboratory Medicine Division of Clinical Microbiology Division of Clinical Virology Division of Medical-Chemical Laboratory Diagnostics

Institute of Neurology

Institute of Pathology

Centers:

Comprehensive Cancer Center



PERFORMANCE DATA

Performance Data Inpatients 2017

Departments	AUF	ENT	TRA	VST	VLA	VLE	BT	EPF	PFT	VWDBT	VWDPFT	BS
Department of Anesthesia, General Intensive Care Medicine and Pain Medicine	140	8	104	103	2,728	2,811	14,401	9	14,512	4.89	4.92	4
Department of Child and Adolescence Psychiatry	335	334	5		154	160	7,898	11	9,850	15.99	19.94	3
Department of Dermatology	6,376	6,367	14	31	425	438	12,618	5,043	19,038	1.85	2.79	(
Department of Ear, Nose and Throat Diseases	3,051	3,092	12	9	150	205	12,309	237	15,410	3.78	4.73	4
Department of Emergency Medicine	4,577	1,407	538	194	3,144	704	1,975	1,263	3,576	0.37	0.68	-
Department of Medicine I	24,079	24,065	68	339	773	1,161	34,742	21,507	59,338	1.38	2.35	17
Department of Medicine II	6,642	7,120	66	115	2,025	2,686	34,871	2,728	42,152	3.74	4.52	13
Department of Medicine III	8,106	8,382	105	250	1,294	1,916	43,155	4,335	51,816	4.30	5.17	15
Department of Neurology	1,927	2,106	8	32	536	756	21,959	136	24,109	8.19	8.99	1
Department of Neurosurgery	1,735	1,584	188	23	1,368	1,438	16,552	23	18,188	5.22	5.74	!
Department of Obstetrics and Gynecology	11,206	11,147	35	19	1,613	1,612	32,528	2,878	43,694	2.54	3.41	13
Department of Ophthalmology and Optometrics	12,905	12,888	14		85	78	3,021	11,588	15,909	0.23	1.23	4
Department of Oral, Maxillary and Facial Surgery	1,688	1,705	8	4	166	185	10,176	33	11,885	5.42	6.33	;
Department of Orthopedics	3,000	2,948	87	9	303	338	19,838	764	22,795	5.94	6.82	(
Department of Pediatrics and Adolescent Medicine	6,659	6,363	229	55	2,096	2,097	39,155	2,355	48,300	4.48	5.52	15
Department of Psychiatry and Psychotherapy	1,383	1,421	8		219	258	41,730	8	45,638	25.38	27.75	13
Department of Radiology and Nuclear Medicine	774	774			7	7	2,298	11	3,072	2.94	3.93	
Department of Radiotherapy	1,838	1,791	41	39	200	216	9,851	223	11,730	4.78	5.69	2
Department of Surgery	11,857	11,590	516	124	5,099	5,466	82,341	2,278	94,057	4.75	5.43	29
Department of Trauma-Surgery	6,831	6,162	400	96	443	271	39,872	314	46,130	5.61	6.50	11
Department of Urology	3,065	3,063	12	22	248	275	11,970	492	15,055	3.58	4.50	Ę
Joint Pediatric Ward	2,012	1,989	18	1	213	211	5,035	345	7,025	2.27	3.16	2
Vienna General Hospital Total	120,186	116,306	2,476	1,465	23,289	23,289	498,295	56,581	623,279	3.5	4.3	1.91

Explanation of abbreviations:

AUF	Inpatient admissions	EPF
ENT	Inpatient discharges	PFT
TRA	Inpatient transfers to other hospitals	VWDBT
VST	Inpatients deceased	
VLA	Inpatient transfers within Vienna General	VWDPF
	Hospital — admissions	BSY
VLE	Inpatient transfers within Vienna General	BBE
	Hospital — discharges	TAB
BT	Inpatient days (value at midnight)	

BBE	TAB
42	42
30	33
50	50
39	40
14	14
147	147
121	121
141	143
73	74
54	54
123	124
35	35
37	37
65	65
130	132
115	125
7	8
35	35
269	271
111	115
40	42
20	20
1,697	1,725

1-day-stays Inpatient days Average length of stay (data base: inpatient days (value at midnight)) Average length of stay (data base: inpatient days) Systemized beds (annual average) Beds available (annual average)

Beds available — including multiple use per day

(annual average)

7 | Performance Data

Performance Data Outpatients 2017

Departments and Clinical Institutes	ABF	AK0	FQSE	FQA	FQS	F	IG LAP	LSP	
Department of Anesthesia, General Intensive Care Medicine and Pain Medicine	9,984	8,346	69	18,399	59,756	78,1	43,765	302,729	346
Department of Blood Group Serology and Transfusion Medicine	1,094	3,348	280	4,722	19,741	24,4	53 77,901	226,831	304
Department of Child and Adolescence Psychiatry	1,804	7,778	12	9,594	8,473	18,0	20,179	33,700	5
Department of Clinical Pharmacology	2			2	5		7	4	
Department of Dermatology	30,324	43,371	52	73,747	6,315	80,0	198,781	20,651	21
Department of Ear, Nose and Throat Diseases	17,212	15,566	48	32,826	14,134	46,9	95,742	37,540	13
Department of Emergency Medicine	43,409	8,358	40	51,807	10,039	61,8	172,089	32,737	20
Department of Hospital Hygiene and Infection Control	192	104		296	1,512	1,8	687	1,603	
Department of Medicine I	15,877	35,998	45	51,920	12,861	64,7	31 119,147	30,697	14
Department of Medicine II	32,753	16,956	73	49,782	19,838	69,6	118,964	89,901	20
Department of Medicine III	31,615	72,513	51	104,179	31,658	135,8	662,755	145,271	80
Department of Neurology	13,858	8,073	8	21,939	13,241	35,1	44,856	30,409	7
Department of Neurosurgery	5,287	3,070	282	8,639	7,701	16,3	14,799	63,636	7
Department of Obstetrics and Gynecology	26,747	33,039	32	59,818	16,329	76,1	7 214,565	125,732	34
Department of Ophthalmology and Optometrics	22,715	28,121	141	50,977	18,006	68,9	33 278,734	60,112	33
Department of Oral, Maxillary and Facial Surgery	7,675	9,834	63	17,572	3,781	21,3	3 49,994	8,051	5
Department of Orthopedics	12,201	11,235	154	23,590	5,795	29,3	62,905	8,459	7
Department of Pediatrics and Adolescent Medicine	34,280	33,278	1,909	69,467	35,143	104,6	0 217,317	110,110	32
Department of Physical Medicine, Rehabilitation and Occupational Medicine	9,377	44,107	75	53,559	112,399	165,9	142,663	272,171	41
Department of Psychiatry and Psychotherapy	5,173	7,145	18	12,336	29,619	41,9	18,216	52,843	7
Department of Psychoanalysis and Psychotherapy	216	1,821		2,037	54	2,0	3,900	82	
Department of Radiology and Nuclear Medicine	91,955	20,088	709	112,752	127,802	240,5	210,787	216,923	42
Department of Radiotherapy	12,549	41,958	856	55,363	13,685	69,0	148,001	38,503	18
Department of Surgery	30,523	37,534	346	68,403	25,800	94,2	128,782	40,780	16
Department of Trauma-Surgery	72,041	53,467	53	125,561	29,670	155,2	201,073	59,143	26
Department of Urology	7,184	12,462	15	19,661	8,475	28,1	61,351	20,661	8
nstitute of Laboratory Medicine	22	1	139	162	7	1	5,065,515	6,950,779	12,01
Institute of Neurology							16,855	11,487	2
Institute of Pathology							187,843	279,381	46
Central Operation Area					59		9	108	
Vienna General Hospital Total	536,069	557,571	5,470	1,099,110	631,898	1,731,0	8 8,578,166	9,271,034	17,84

Explanation of abbreviations:

- ABF Outpatient first visits
- AKO Outpatient check-up visits
- FQSE Frequency inpatients of other hospitals
- FQA Frequency outpatients
- FQS Frequency inpatients
- FQG Total frequency
- LAP Total number of services outpatients
- LSP Total number of services inpatients
- LPG Total number of services



BALANCE OF ACCOUNTS

The 2017 annual financial statement was audited by the audit firm BDO Austria GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft, who issued it with an unqualified auditor's opinion.

The Vienna General Hospital — Medical Univer- Federal State of Austria and the Medical University Campus is a business unit of the Vienna Hospital Association, without an independent legal personality. Its assets are separately administered as part of the miscellaneous assets of the City of Vienna. Apart the City of Vienna, the primary funding is provided by the Vienna Health Fund. The additional clinical expenditure is settled by the Federal State of Austria and the Medical University of Vienna.

The annual financial statement to 31 December 2017 was prepared in accordance with the provisions contained in Section 189 et seqq. of the most recent amendment of the Austrian Commercial Code.



Balance Sheet as of 31 December 2017

The non-current assets (with the exception of low-value assets) of the Vienna General Hospital are financed by investment subsidies provided by the City of Vienna, the Vienna Health Fund, the sity of Vienna. Investments in 2017 totalled 48.7 million euros (2016: 43.1 million euros). The degree of plant wear has risen continuously in recent years. Due to the investment offensive planned in the coming years, however, a reduction in the degree of plant depreciation is to be expected.

As far as estimated at the balance sheet date, the remaining useful life of the buildings affected by the Construction Framework Contract was adjusted. For individual buildings, the useful life had to be shortened after a re-evaluation. This led to an increase in depreciation of 13.5 million euros, which is matched by a release of investment subsidies of the same amount.



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8 | Balance of Accounts



Within debt, liabilities have declined and accruals have remained virtually unchanged. The increase in receivables from affiliated companies and cash and cash equivalents resulted in negative net debt as of the 2017 balance sheet date. As a result, the assets were larger than the debt capital.

Profit and Loss Account for the Business Year 2017

The service revenues were increased by around 24 million euros compared to the previous year and are closely related to the performance improvements in the inpatient area. As in previous years, the share of medical expenses in the oncological fields of treatment (personalized therapies) continued to increase, while the cost trend in other operating expenses could be kept constant.

Despite a salary adjustment of 1.3 percent, personnel expenses recorded a reduction of 2.6 million euros compared to the previous year. This circumstance results from the extraordinary provisions formed in the previous year due to the new calculation methodology according to the Financial Reporting Amendment Act 2014.

Due to the very favorable earnings position and the consistency in development of material and personnel expenses brought about by intensive control measures, a positive operating result of 9.8 million euros was achieved in the 2017 financial year.



8 | Balance of Accounts

Balance Sheet as of 31 December 2017

Assets

		12.31.2017	12.31.2016
٨	Fixed appata	LUN	TLUN
А.			
	1. Rights and advantages	5 570 346 02	5.035
	1. hights and advantages	3,373,340.32	0,000
	II Tannihle assets		
	1 Real estate and buildings including buildings		
	on third party's land	1 510 689 784 87	1 578 213
	2 Technical equipment and machinery	65 347 307 68	66 163
	3. Furniture and fixtures	42,904,788,75	39.091
	4. Advance payments and work in progress	9.586.815.99	13.144
		1.628.528.697.29	1.696.611
		1.634.108.044.21	1.701.646
		, ,,-	, - ,
B.	Current assets		
	I. Inventories		
	1. Raw materials and supplies	27,076,175.63	26,609
	2. Services not yet chargeable	2,401,526.20	2,564
		29,477,701.83	29,172
	II. Receivables and other assets		
	1. Trade accounts receivable	125,107,640.75	127,498
	of which > 1 year	0.00	0
	2. Accounts due from affiliated companies	105,926,879.28	41,957
	of which > 1 year	0.00	0
	3. Other receivables and assets	68,918,785.70	56,008
	of which > 1 year	0.00	0
		299,953,305.73	225,463
	III. Cash and cash equivalents	649,916.69	91
		330,080,924.25	254,727
C	Prenaid expenses	16 688 98	1 214
0.		1.964.205.657.44	1.957.587

Liabilities

A. Negative equity Nominal capita Accumulated loss loss carried forward included: EUR 73,734,011.26 previous year: TEUR 63,433

B. Special item for investment subsidies

- I. Applied investment subsidies
- II. Available investment subsidies

C. Provisions

- I. Provision for severance payments
- II. Other provisions

D. Verbindlichkeiten

- I. Liabilities to banks of which < 1 year
 - of which > 1 year
- II. Advance payments received of which < 1 year
 - of which > 1 year
- III. Accounts payable trade of which < 1 year of which > 1 year
- IV. Liabilities to affiliated companies of which < 1 year</p>
- of which > 1 year
- V. Other liabilities of which, taxes of which, arising from social security of which < 1 year
 - of which > 1 year
 - of which < 1 year of which > 1 year

E. Deferred income

12.31.2017 TEUR	12.31.2016 TEUR
26,299,838.54	26,300
-63,889,299.63	-73,734
-37,589,461.09	-47,434
1,634,108,044.21	1,701,646
94,761,644.89	24,292
1,728,869,689.10	1,725,938
40,820,600.00	40,708
107,417,759.11	110,429
148,238,359.11	151,136
49,462,350.90	47,799
49,462,350.90	47,799
0.00	0
3,552,871.53	4,792
2,553,432.67	4,792
999,438.86	0
44,105,988.42	48,692
44,105,988.42	48,692
0.00	0
708,688.80	593
708,688.80	593
0,00	0
26,333,403.18	25,935
0.00	0
171,508.26	181
26,273,930.86	25,870
59,472.32	65
124,163,302.83	127,812
123,104,391.65	127,746
1,058,911.18	65
523,767.49	135
1,964,205,657.44	1,957,587

8 | Balance of Accounts

Profit and Loss Account for the Business Year 2017

		12.31.2017	12.31.2016
1	Revenues	LUN	TLON
	a) Revenue from operating activities	644 249 343 23	620 271
	h) Beimhursed operating expenses	117 227 648 00	131 371
	c) Contributions to the additional clinical expenses	36,363,636,36	36,364
		797 840 627 59	788,006
		101,010,021.00	100,000
2.	Change in services not yet chargeable	-162,295.15	123
3.	Other operating income		
	a) Income from the disposal of fixed assets	71,382.02	104
	b) Income from the release of provisions	2,567,904.71	623
	c) Income from the release of investment subsidies	112,621,681.45	94,906
	d) Income from the reimbursement of expenditures for pensions paid	65,044,942.95	62,373
	e) Other	120,713,156.48	117,116
		301,019,067.61	275,122
4.	Cost of materials and outside services		
	a) Cost of materials	217,946,493.71	206,851
	b) Cost of outside services	32,071,286.34	32,375
		-250,017,780.05	-239,225
F			
э.	a) Wages	36 302 813 05	30.031
	a) wayes	212 052 811 55	215 200
	c) Social exponent	121 527 040 50	100,290
	of which expenses for pensions	67 0/7 701 00	64 310
	of which expenses for severance navments	07,047,791.90	04,019
	and navments to the employee welfare fund	1 111 063 11	8 770
	of which expenses for mandatory social security contributions	4,141,000.44	0,770
	and other mandatory contributions depending on compensation	50 339 085 16	49 337
		-371 873 566 00	-376 747
		071,070,000.00	010,141
6.	Depreciation of intangible and tangible assets		
	a) Planned	113,763,899.57	97.809
	b) Unplanned	1,902,929.67	253
		-115,666.829.24	-98,062
7.	Other operating expenses		
	a) Taxes, other than income taxes	74,148,292.71	74,433
	b) Other	277,003,496.43	285,055
		-351,151,789.14	-359,488
8.	Earnings before interest and tax (subtotal)	9,987,435.62	-10,272

- 9. Other interest and similar income
- 10. Interest and similar expenses
- 11. Financial result (sub-total of items 9 and 10)
- 12. Surplus for the year/shortfall (subtotal)
- 13. Loss carried forward from previous year 14. Accumulated loss (total)

12.31.2017 EUR	12.31.2016 TEUR
10,133.05	1
-152,857.04	-30
-142,723.99	-29
9,844,711.63	-10,301
-73,734,011.26	-63,433
-63,889,299.63	-73,734

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