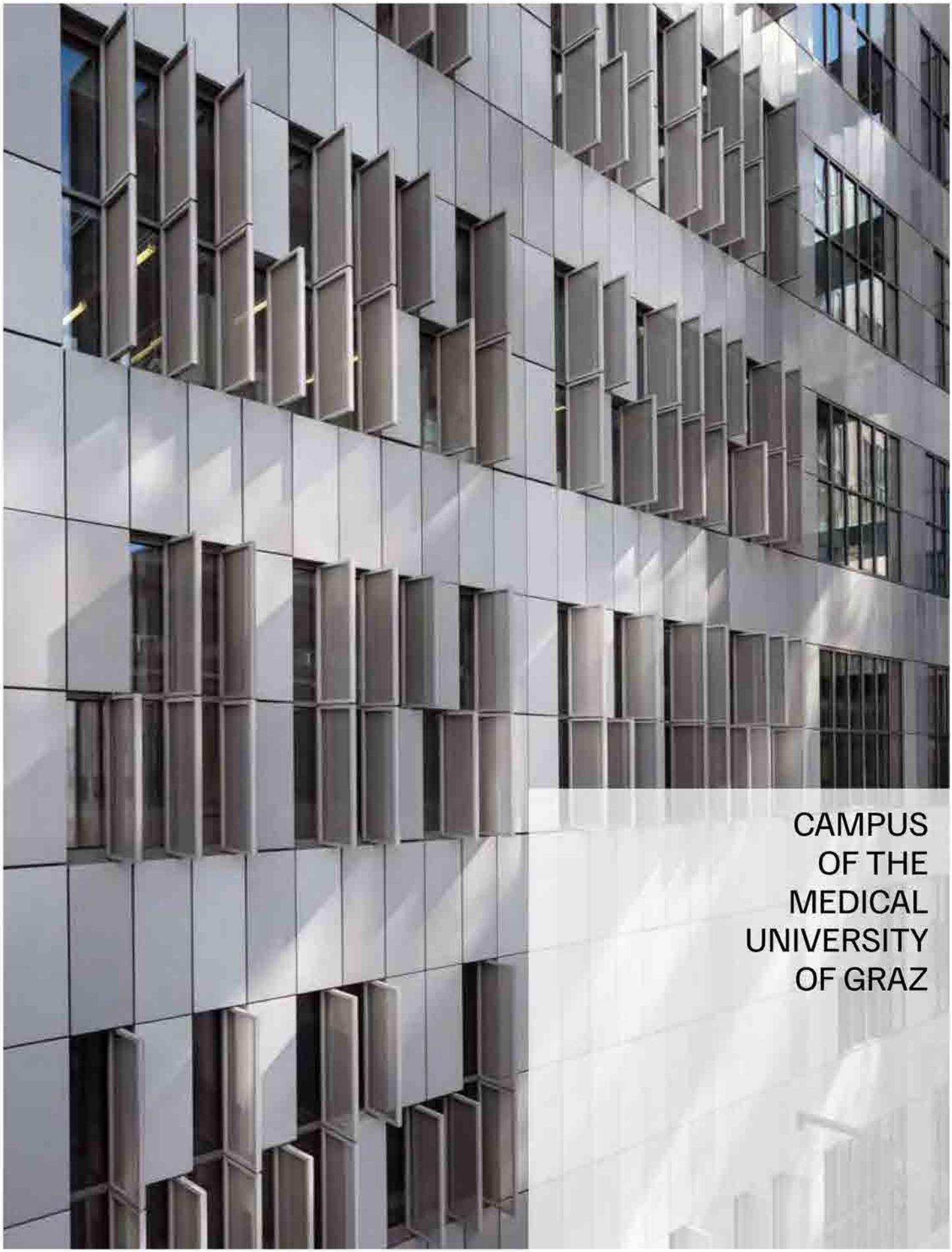


CAMPUS OF THE MEDICAL UNIVERSITY OF GRAZ

CAMPUS OF THE MEDICAL UNIVERSITY OF GRAZ

DEVELOPMENT

© Paolo Rosselli

Open to a future architecture of medicine

The campus of the Medical University of Graz in Neue Stiftingtalstrasse: a project of the century - in terms of its dimensions alone. A project for the 21st century and the third millennium. A milestone for the positioning of the Province of Styria and its capital Graz on the international map of the field of medicine. A quantum leap for the development of teaching and research in medicine with enormous significance for the development of health services in the healthcare location of Graz and beyond.

The campus of the Medical University of Graz: a vision that has now taken shape - architecturally and urbanistically striking, convincing, technically thorough, sustainable in every respect, communicative, permeable, open. Open for flexible uses today and for changing and expanding research and teaching prospects tomorrow. The campus of Med Uni Graz defines a paradigm shift in medical research and its reflection in teaching and clinical care. Well-trodden paths abandoned, existing boundaries crossed, traditional structures breached; spaces for exchange, communication and cooperation are opening up. Bridges connect areas, institutes and divisions network to form centers, and focal areas draw in concentrated medical progress. This is not least an expression of the strategic vision of the Medical University of Graz to apply a spirit of innovation and courage to making research and teaching available for the health and well-being of patients in the most direct way: “Pioneering Minds - Research and Education for Patients’ Health and Well-being” is the claim.

As early as during the planning phase, the original plan to unite at one location all preclinical and non-clinical units of the Medical University of Graz, which had previously been scattered across geographically dispersed locations, was transformed into a vision of an intelligent, open, matrix-like structure for science, teaching and innovation. Against the background of commitment to the project by the Federal Ministry of Education, Science and Research*, the implementation of this forward-looking project at the highest level was only possible through the outstanding cooperation of three project partners: the Medical University of Graz, the current user, which provided the basic areas and defined planning guidelines, the Federal Real Estate Company BIG, the developer and owner of the property, and Riegler Riewe Architektur ZT GmbH, the general planner responsible for planning and execution.

The campus of the Medical University of Graz in its now fully realized form means enhanced quality for students, researchers and teachers, and enhanced quality also and above all for those who benefit from progress achieved here. By bundling university know-how and networking it with neighboring facilities, the campus of the Medical University of Graz takes the healthcare hub of Styria as a whole to a new level, geared towards international excellence and open to a forward-looking architecture of medicine.

* At that time (2007 - 2014) still Federal Ministry of Science and Research (BMWF)

© David Schreyer

Cradle of a vision

With the detachment of the Faculty of Medicine from Karl Franzens University of Graz in order to establish an independent medical university in 2004, a vision took shape. The vision of bringing together in one place all preclinical and non-clinical facilities of the new university, research as well as teaching, which had been scattered over a wide variety of locations, i.e. the Campus of the Medical University of Graz.

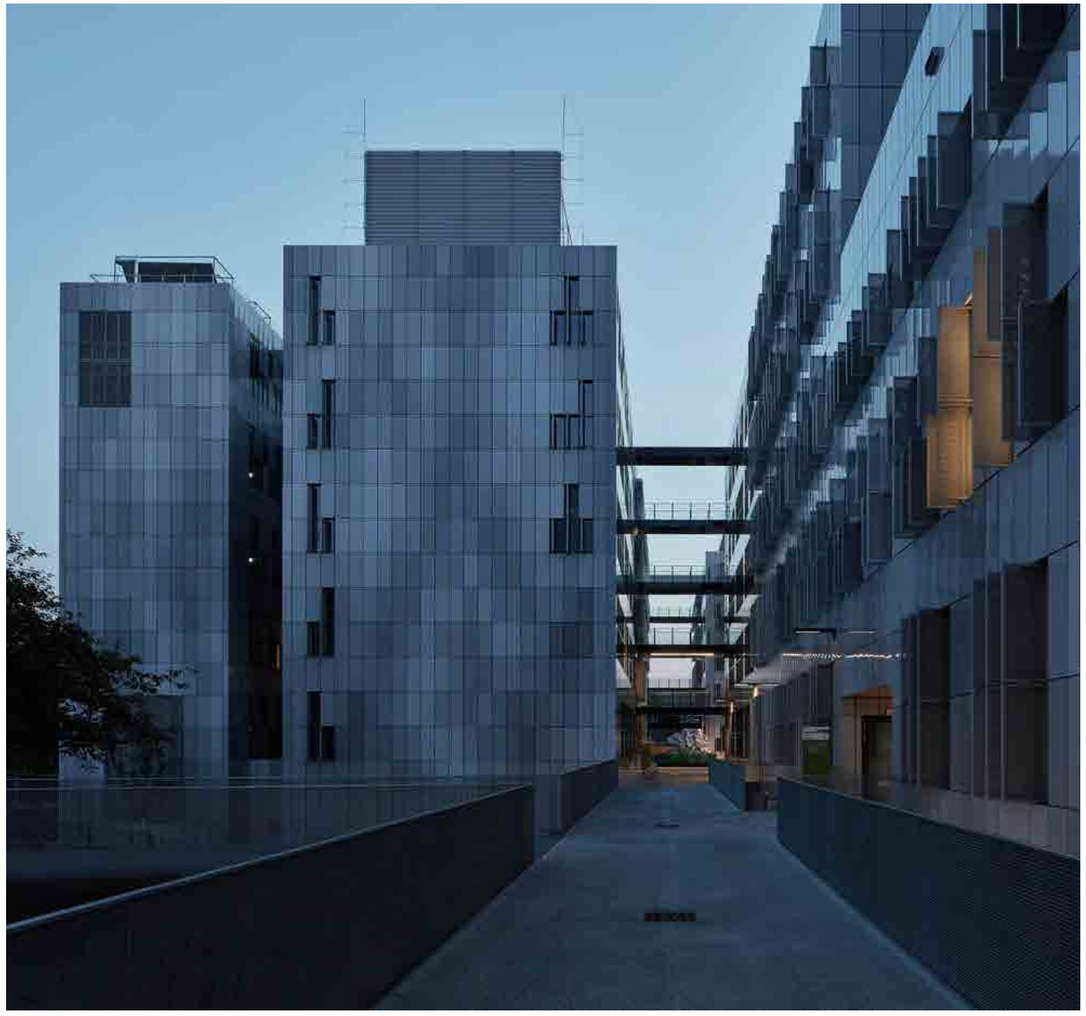
The decision to spin off the Faculty of Medicine to form an independent university was motivated by the desire to give university medical research and teaching more prominence, more impact - and thus to strengthen the institution at the site itself, as well as in national and international competition. After this project for an independent medical university had been realized in 2004, despite resistance and elements of inertia, the next objective took shape, which was to bring together preclinical and non-clinical institutes and administrative units that had been dispersed throughout Graz at one single location.

Not just any place, however, but in the immediate vicinity of, and in connection with, University Hospital Graz. Not only because the Medical University runs its clinical research and training facilities in this hospital, but also because more than 1,000 employees of the university, about half of them physicians, work here. For example, the Medical University provides all hospital and institute heads at University Hospital Graz and thus bears primary responsibility for providing cutting-edge medical care to patients at University Hospital Graz.

The goal was to establish a campus for the Medical University of Graz that would house both preclinical and non-clinical administrative facilities in the immediate vicinity of the clinical facilities, thus giving these interrelated and interdependent areas a specific identity in terms of location and space. The vision was to build a groundbreaking, forward-looking spatial and structural concept for a public medical university on the basis of a new campus of the Medical University of Graz. A concept that re-imagines the links between research, teaching and application in medicine, that dynamizes research and guarantees scientific input at the highest level to both teaching and medical care. A concept building bridges, promoting transparency, generating networks - a visionary concept. A concept that takes Graz as a location for medicine to a new level.

↓

© David Schreyer



↓

© David Schreyer

More than a shared location: concept of the Campus

Not merely to reproduce existing institute and organization structures unchanged in a new, common location, but to rethink them and thus achieve a shift in paradigms in research, teaching and administration towards a dynamic, synergetic overall structure; this was the concept behind the new campus of the Medical University of Graz from the very start. This also defined the requirements for architectural design. Opening up spaces for networking, communication and scientific growth.

To bring together what was scattered simply as it is, and then await the desired effects - quality, dynamics, efficiency, sustainability, communication, exchange, cross-fertilization, synergies, international significance? Or to seize the opportunity of a local realignment and initiate fundamental change processes at the same time? The concept behind the campus of the Medical University of Graz was fuelled from the very beginning by the latter, a visionary, courageous and dynamic world of imagination. Underlying this campus concept are the desire and vision to place university, research, studies and healthcare provision on a new foundation.

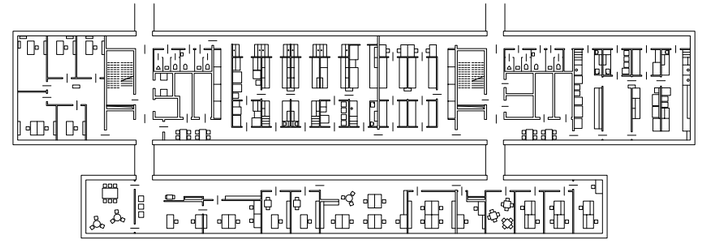
As early as in the course of the spin-off as an independent university, the classical preclinical institute barriers were transcended in terms of organization and personnel. In addition to four independent institutes, three thematically based research centers* were created, in which institutes and divisions were to be bundled into cooperating and corresponding units. The campus aims to take up this concept, bring it to spatial existence and take it into the future. Beyond the boundaries of the research centers and institutes, the Centers of Medical Research (ZMF I and ZMF II) provide space that is allocated on a cross-institutional, competitive and temporary basis for research projects. As Core Facilities, central service units are formed around technically complex and highly specialized research and laboratory processes. They, too, are intended for project-related, temporary use. Efficiency and the avoidance of expensive duplications are just as important as the goal of promoting interdisciplinary networking. The spatial disposition of the campus also eliminates boundaries and locates areas along lines of cooperation, builds bridges and provides for meeting zones and communication points.

Bridges are built not only between the research centers, institutes and divisions, between teaching, research and administration. Bridges connect the preclinical core of the campus with adjacent clinical sites, where patients benefit directly from this new academic mix and the cross-disciplinary spirit of the Campus. And finally, bridges also lead to the connected and imaginatively implemented entrepreneurial research and development center, the two Centers for Knowledge and Technology Transfer in Medicine (ZWT I, ZWT II). In these centers, for example, spin-offs and start-ups, as well as research units of major international companies, find the ideal fertile ground for their development - and achieve feedback of this dynamic work to research and studies in a mutually beneficial fashion.

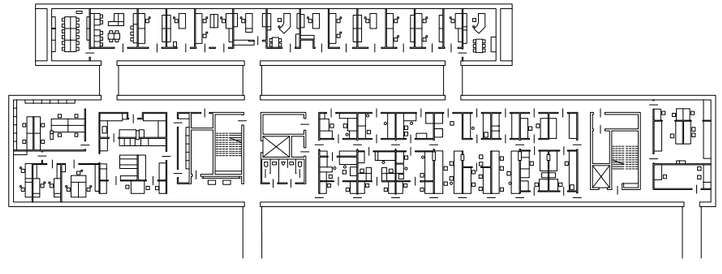
The concept of a campus that embodies sustainability in all its dimensions: ecological, economic, social. The idea of a campus that makes its mark both architecturally and in terms of urban development, that redefines, opens up and enhances spaces. The core and catalyst of a developing Medical Science City as a city within the city and for the city. The idea of a campus that gives space to a new attitude towards life. That gives hope. Confidence. A campus designed for people.

© Med Uni Graz

*Otto Loewi Research Center
for Vascular Biology, Immunology and Inflammation
Gottfried Schatz Research Center
for Cellular Signal Transduction, Metabolism and Aging
Diagnostics & Research Center
for Molecular Biomedicine



Med Uni Graz, Campus
© Riegler Riewe Architekten



Med Uni Graz, Campus
© Riegler Riewe Architekten

Historic window, or how a vision became reality

The window didn't open by itself. In order to make the vision of the Campus of the Medical University of Graz come true, it took more than a mere favorable twist of fate. Rather it took combination of several factors, not least the tenacious commitment of those who were convinced of the vision of a shared home for medicine.

After its foundation as an independent university in 2004, the spatial fragmentation of the Medical University of Graz became all the more clearly perceived as a strategic and organizational disadvantage - a contrast, as it were, in everyday practice to the newly acquired autonomy with its not merely perceived increase in development opportunities. The intention to combine preclinical institutes as well as administration and organization of the Medical University of Graz in one place, preferably with a direct connection to University Hospital Graz, was one thing that resulted from this deficit. Getting the idea of a campus underway was another. Although the creation of a spatial identity through the establishment of a campus could appear to be a logical follow-up step to the founding of the university, such a project first had to be defined and then implemented in a highly competitive environment with regard to the allocation of public funds.

The initiators, including current Rector, Prof. Dr. Hellmut Samonigg, were vindicated by the fact that the traditional and long since legendary home of the preclinical institutes, the so-called Vorklinik (preclinic) in Harrachgasse on the premises of the University of Graz, was now getting on in years and was in great need of renovation. A renovation that would not only have cost enormous amounts of money, but would also have put a stop to the construction of a campus for decades, if not forever, and would have given the Medical University the stigma of being a half-hearted institution.

It was a stroke of luck that, just at this decisive phase, the opportunity arose to utilize land in an ideal location on both sides of Stiftingtalstrasse for the construction of a campus. Initially still owned by third parties, it was the still young Medical University itself that seized this opportunity and was able to secure the land in question for the construction of a campus in lengthy negotiations, assuming, of course, the approval of the financial supporters.

The package that was now available, namely the visionary concept of a campus and the corresponding land to be able to build it, was a compelling solution. After the competition for realization, the Federal Real Estate Company (BIG) took over the land and thus also the auspices over the execution of the project. The Medical University of Graz would use the Campus real estate as a lessee in the future. What was unique and a novelty was the fact that the Medical University of Graz, as the future user, would retain the lead responsibility for the development of the content of the Campus project and would thus also be able to exert a decisive influence on the criteria for the subsequent EU-wide, open, two-phase and anonymous general planner tender for the realization of the Campus.

Graz-based architectural firm Riegler Riewe Architekten ZT Ges.m.b.H. was to ultimately emerge from this competition as the winner, and thus general architect for the Campus project, from among 57 submissions. Thus, the three players responsible for the realization of the Medical University of Graz Campus were on board: the Medical University of Graz, the Federal Real Estate Company BIG and Riegler Riewe Architekten ZT Ges.m.b.H.

The realization of this university beacon project finally followed in two phases with the construction of the two main buildings. Module 1 was handed over for its designated use in 2017, the completion of Module 2 took place in 2022.

© David Schreyer

2004

Med Uni Campus Vision

2005

Persuasion & Feasibility Study

2006

2007

2008

Approval of spatial and functional program by BMWF

2009

2010

Med Uni Campus architectural competition

2011

Med Uni Campus Module 1 project approval by BMWF

2012

2013

Med Uni Campus Module 1 groundbreaking ceremony

2014

2015

2016

2017

Med Uni Campus Module 2 planning approval incl. Anatomy

Opening, Med Uni Campus Module 1 opening and start of operation

2018

Anatomy architectural competition

Med Uni Campus Module 2 project approval by BMBWF

2019

Anatomy project approval by BMBWF

Med Uni Campus Module 2 groundbreaking ceremony

2020

Anatomy foundation stone laying ceremony

2021

2022

2023

Med Uni Campus Module 2 incl. Anatomy, opening and start of full operation

→ Usable area – Module 1

21.000 m²

→ Research areas for researchers and students

17.600 m²

→ Usable area – Module 2

21.000 m²

→ Teaching space (lecture halls, seminar rooms, etc.)

10.000 m²

→ Offices for academics, teaching and research organization, meeting rooms, Austrian National Union of Students and central administration

Students and employees

7.800 m²

→ Usable area – Anatomy

4.000 m²

→ General infrastructure (auditorium, cafeteria, cafés, study areas and communication areas, locker rooms for students etc.)

Students and employees (in the clinical and non-clinical areas)

10.600 m²

Formulating a visionary project

The “more detailed description of the terms of reference” for the EU-wide, open, two-phase, anonymous general planner competition of April 2009 puts the vision of a campus of the Medical University of Graz on paper for the first time: comprehensive, detailed - and clear in its contours and objectives.

The guiding principle of a medical university such as the one in Graz must not be to work away in much-cited ivory towers, strictly separated according to institutes and divisions in supposed comfort zones, but rather to make research and teaching directly serviceable to the health and well-being of people - patients. However, not just any research; and not just any teaching; but research and teaching on the cutting edge and very much of our time. With a view to “humane” medicine, state-of-the-art medicine that serves people - in accordance with the claim of the Medical University of Graz, distilled from its mission statement, to use the spirit of innovation and courage to make research and teaching benefit the health and well-being of patients: “Pioneering Minds - Research and Education for Patients’ Health and Well-being.” The Medical University of Graz is guided by the biopsychosocial model, according to which the human being in his or her entirety, with his or her ailments and his or her entire environment, is at the center of all efforts in research, teaching and care.

This aspiration, this vision, was formulated in all its facets by a development task force of the Medical University of Graz in cooperation with those responsible at the Federal Real Estate Company BIG, under whose organizational aegis the Campus project was to be realized, and formulated, as it were, as a reference manual for the EU-wide realization competition. It is not solely the spatial substrate of a university or scientific structure that is described here. Rather, taking shape are the ground plans of an architecture of medical research and teaching with a view to the future. In our mind’s eye, the foundations of an architecture of medical progress are emerging. A concept, however, that points beyond the purely medical logic, the logic of university research and teaching, and outlines an entire urban neighborhood for medical research and teaching in the service of people, their health and well-being. Corresponding with already existing urban and clinical structures and enriching, reinforcing, and enhancing them. Just as prominent as it is commensurate; communicative. A concept that also understands the claim of sustainability as one that is to be honored in all its aspects over the entire life cycle.

© David Schreyer

© Paolo Rosselli

→ © Med Uni Graz

“We have become visible”

Hellmut Samonigg, Vice Rector for Strategy and Innovation from 2004 to 2008, Rector of the Medical University of Graz since 2016, has played a leading role in the development and implementation of the new Medical University Campus in his various functions from the very beginning.

Professor, as the Rector of the Medical University of Graz and one of the masterminds of this project, when you look out of your office at the new Campus, what do you see?

I see that an idea that was developed and formulated as a vision almost 20 years ago has now taken shape and manifests itself here on both sides of Neue Stiftingtalstrasse in buildings and its own small neighborhood. I see a place where the Medical University is united with its entire preclinical and administrative area, with research and teaching, and where non-university research is also offered development opportunities. All this in the immediate vicinity of University Hospital, our clinical areas, in which our staff fulfill their leading-edge medical tasks within the framework of patient care - here, too, combined with teaching, research and the important area of post-doctoral training. I see a communal place for medicine, for the benefit of people.

How does that make you feel?

This is not about my personal feelings. Of course, I am delighted that a project in which I was able to play a leading role from the very beginning has been implemented in this impressive way. A truly visionary project, by the way; a project of the century, a milestone, a quantum leap. The fact is that the Campus of the Medical University of Graz, as it presents itself today and as it has been planned over the past ten years on the basis of a vision, then realized in two modules, secures and gives Graz a future as a location for cutting-edge medical research, teaching and patient care - with the Medical University as the beating heart of the project. This benefits us all: the researchers and the teachers, the students, Graz as a scientific, medical and business location, Styria, indeed, Austria - but first and foremost the people, the patients, who rightly expect medical quality at the highest level in one of the wealthiest countries in the world.

Univ.-Prof. Dr. Hellmut Samonigg, Rector ←

“A truly visionary project, by the way; a project of the century, a milestone, a quantum leap.”

Is the new Campus a sine qua non, i.e. an indispensable prerequisite for this elite level?

Yes, I’m convinced of that. In a field as research and training-intensive as human medicine, in which the various areas have to interlock like nowhere else, staying at the top and giving the necessary long-term impetus to cutting-edge medical care from research and teaching is an enormous challenge. It isn’t enough simply to insist on what already exists or to extend what is supposedly tried and tested into the future. Staying in comfort zones and maintaining vested interests are the enemies of progress; leaving them behind is a prerequisite for change and progress in research and teaching. This is the deeper insight behind the Campus. The Campus isn’t just a communal place for the Medical University, which was previously scattered over different locations, especially its preclinical and administrative facilities. Just this diversity of locations was already a problem, so overcoming it was, in my eyes, an urgent issue. As a place of encounter, communication, exchange and creativity, the new Campus is the platform from which we, as the Medical University of Graz, can orient ourselves boldly, confidently and with a spirit of innovation going forward - in accordance with our motto “Pioneering Minds - Research and Education for Patients’ Health and Well-being”. I see this Campus as the basis for us to be able fully to live up to our social responsibility within the framework of our “Third Mission” going forward.

Has the new Campus, the first module of which was brought into service in 2017, already had a noticeable effect on the Medical University of Graz?

Despite all the restraint we should show with regard to rankings today, the highly gratifying progress we have already made in several renowned university rankings would certainly not have been possible without the joint Campus. The whole thing is not an end in itself, but brings us international renown and attention, which in turn benefits research and teaching, and ultimately the people.

Let's take a look back almost 20 years. In 2004, the Medical University of Graz, until then a faculty, was separated from Karl Franzens University of Graz as an independent university. This was the prerequisite for even thinking about a campus of its own.

One was the prerequisite for the other - both important and necessary steps to secure Graz as a medical center and to charge its batteries for the future. The idea of a joint preclinical and administrative site in the immediate vicinity of the clinical institutes, where our employees bear the main medical responsibility in terms of personnel and also provide a considerable part of the daily services, had been around for some time. But against the background of our newly acquired independence as a university, this idea could now take on concrete form. Indeed, it positively pushed itself to the fore.

Is that how the bank saw it at that stage?

There were certain reservations between the clinical and non-clinical areas, an alienation probably also reinforced by the spatial separation, which was shared by some of the actors. There was no pronounced communication and interaction, and hardly any interdisciplinary research. So this idea of overcoming this separation for the good of the whole, of medicine and people, also became more and more prominent. But, quite honestly, there was already considerable resistance to the project of an independent university originally - even from within our own ranks. For a state medical university, this step towards independence is not exactly common, at least in German-speaking countries. But the decision to become an independent medical university was certainly a good one. Contrary to predictions that cooperation with the University of Graz, our former sponsoring university, would come to a standstill after the separation, inter-university cooperation projects between the Medical University, the University of Graz and Graz University of Technology have blossomed to unprecedented levels. For example through the BioTechMed-Graz cooperation platform, a lighthouse project through which scientific cooperation in the field of excellence has positively exploded. You can only build a bridge if the foundations on which it is built are firm and strong.

"You can only build a bridge if the foundations on which it is built are firm and strong."

© Paolo Rosselli

© David Schreyer

You've already indicated that the idea of the Campus was similarly exposed in the beginning.

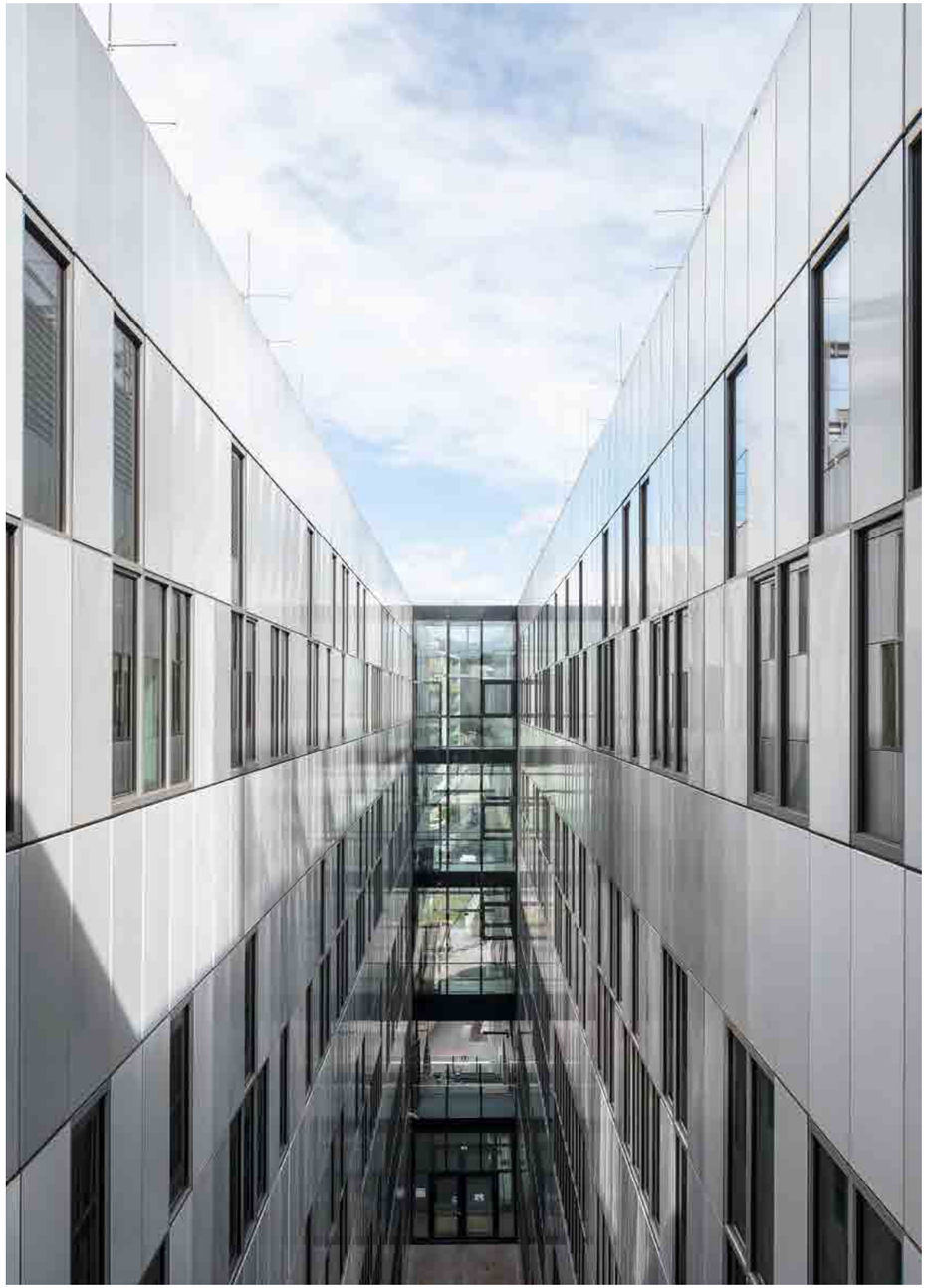
There were hardly any allies for the Campus idea in the beginning either; a handful of people. There were fears. Reservations about change: "We're losing our home." Also concerns that a project of this scale would not be feasible and that the Medical University would remain a non-viable minimal solution. Finally, of course, there were fears that the funds used here would be lacking elsewhere, i.e., a certain competitive spirit. It took persistent persuasion to win over more and more responsible people in politics, but also within the university, for this vision. Finally, the then responsible Federal Minister Elisabeth Gehrer was convinced of the project to unite the locations scattered over half of Graz in one place and to form a whole out of it - the Campus.

What role did you yourself play in this decisive phase?

From 2004 to 2008, I was Vice Rector of the newly founded Medical University of Graz and, in this capacity, responsible for strategy and innovation. I dealt with future scenarios and strategically considered at an early stage what could advance the university in its development. One - significant, but not the only - element in these considerations was the Campus.

Less than 20 years passed from the foundation of the autonomous university to the realization of the Campus with its two expansion stages, Module 1 in 2017 and Module 2 in 2022 or, if the complete relocation is taken into account, 2023.

Of course, it could have gone even faster. On the other hand, in 2004, when the Medical University was founded, there was nothing but an idea. No land, no financing, no plans. No decision. Nineteen years later, the Campus project is largely complete and the remaining parts have been financed and will soon be implemented. All in all, this is a success story - with all the challenges, scares and resistance that inevitably accompany a project of this size and scope. The fact that the land for the construction of the Campus was not only available but could also be secured, that the construction of a new campus proved to be the more convincing option compared with a possible redevelopment of the existing sites, and that finally our owners and potential financiers not only signaled their willingness in principle but also actually provided the necessary funds - the fact that all these gears could mesh together falls into the category of serendipity. Albeit, it's probably also due to the perseverance with which we stuck with this project, of which we were one hundred percent convinced.

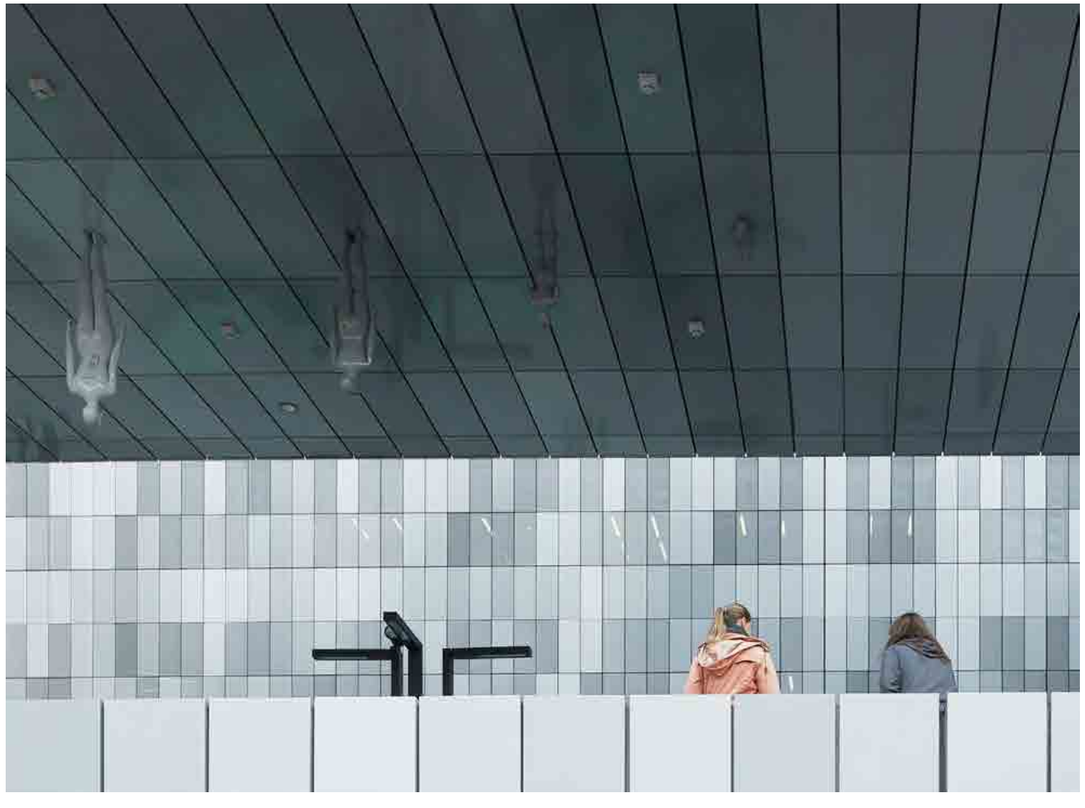


→ © Paolo Rosselli

Achieving the realization of a vision is one thing, implementing it is another.

Persistence, tenacity and continuous persuasion. Keeping at it, not giving up. That was the mix. We had convincing arguments on our side, and subsequently also the necessary patience: one step at a time. First the feasibility study, then the preparation of a detailed space and function program. In the negotiations, we finally succeeded in obtaining a more generous variant than had been envisaged in the first phase. Originally, the new anatomy building was not included. But what was decisive, right from the start, was that awareness was established in the minds of all those involved that the Campus must be more than just a building that merely reflects the current state of the medical teaching and research world and extends it into the future - with the traditional institutes in their traditional specialist boundaries with all their constrictions. It could not merely be a transfer of what had "always been" to a new location. If we really wanted to think into the future, we had to bring about a paradigm shift. Out of that came the vision of giving this Campus, as a building, an extremely interconnected structure, both horizontally and vertically. One of the central pillars of this visionary concept was to take some of the laboratory and research space out of the control of individual institutes and to allocate it competitively and temporarily to promising research projects: These spaces were located in the Center of Medical Research (ZMF). Analogous to these ZMF spaces, Core Facilities were developed, which are assigned under similar conditions - on a project-related and temporary basis. These are independent research units with specially trained technical and scientific staff for very specific research processes and procedures, who in turn have very special equipment, often very expensive to purchase and operate, such as electron microscopes, as well as the corresponding premises. With a double background: on the one hand, to increase the efficiency of research and, on the other hand, to avoid duplication of expensive purchases. There are now several thousand square meters of ZMF space and a number of Core Facilities here.

> “Encounter, interaction, the spontaneous meeting, getting to know each other: this is an enormous boost for scientific advancement and also for imparting skills in teaching.”



© David Schreyer

© David Schreyer

Where did this idea come from?

This concept was first realized when the Center of Medical Research I was established for the clinical area of the Medical University of Graz at University Hospital, which is not formally part of the Campus project, but today synergistically complements it. We subsequently transferred this model, which quickly proved efficient and successful despite initial resistance, to the new Campus as well. The concept was originally introduced by the renowned German consultancy Lohfert & Lohfert, which specializes in medicine. To my knowledge, this is the first time that this concept has been implemented in this form here in Graz. Interventions in existing vested interests often provoke resistance and cause such plans to fail. Fortunately, in the context of the construction of the Campus of the Medical University of Graz, we were able to dispel concerns and overcome resistance and make the competitive approach realized in the ZMF II and the Core Facilities a central mechanism of research. In this way, we have realized - and I believe we can claim this for ourselves - a showcase model for contemporary university research. Something worth mentioning: A scientist working in Germany turned down an appointment to Graz, saying that the research situation here at the Medical University was too competitive for him. I consider this an indirect seal of approval if a German researcher sees it that way. The positive effects of this orientation are now gradually beginning to be felt. I’m convinced that the rise in the rankings also has something to do with this - and that’s just the beginning.

One of the central themes of the Campus is communication.

Yes, communication is the central theme of the Campus. Spatially, the aim was to remain as flexible as possible with regard to horizontal and vertical communication and networking. It has been shown time and again, and has also been documented in studies that, despite all the developments in digital communication, personal encounters - and first and foremost spontaneous encounters - play a central and indispensable role in the generation of scientific knowledge and scientific progress. Encounter, interaction, the spontaneous meeting, getting to know each other: this is an enormous boost for scientific advancement and also for imparting skills in teaching. The basic idea was to set up the Campus as a communication and networking campus and to dock it closely to the University Hospital, so that the clinic and preclinic grow together and there is exchange along with reinforcing, dynamizing effects. This concept has been a success. The overriding motto behind all this is expressed, as already explained, in the claim of the

Medical University: “Pioneering Minds - Research and Education for Patients’ Health and Well-being.” It is about recovery, but also about well-being and quality of life. It is a fact that even the most advanced medicine today and in the future cannot or will not be able to cure everyone, but that the aim is always to enable people who are affected by incurable and often chronic diseases to enjoy a high quality of life. In the sense of the bio-psychosocial model, we place the human being in his or her entirety - with all his or her health problems and his or her entire environment - at the center of our efforts in research, teaching and care. This is the central theme of our work. In fact, everyone involved here, from cleaners to research luminaries, is here to live up to this claim. It’s all about people, individuals and personalities. Pioneering minds - researching, teaching and learning with a spirit of innovation for the health and well-being of patients - that is what the Campus was built and implemented for.

To what extent was this basic theme of the Campus reflected in the submissions to the architectural competition?

Among the 57 submissions from all over Europe were many that didn’t want to bid farewell to the classic individual buildings with their separating floor plans, and which would thus have put a stop to the desired exchange, networking and flexibility rather than enabling them. But with the project now realized by the Graz-based architectural firm Riegler Riewe Architekten ZT, the jury was won over by a design that not only takes the actual basic idea with it, but makes it the central theme of the design.

Will the new Medical University Campus live up to its claim of providing a platform for excellence in medicine?

Yes, we have an attractive environment that enables leading-edge research. With the Campus, we can square up internationally and compete on an equal footing. We’re already noticing this quite clearly in the appointments. The Campus is a project that is attracting attention throughout Europe. Of course, it isn’t just the buildings that determine the attractiveness and future viability of a location. But what we’re already noticing is that our attractiveness for top national and international researchers is increasing significantly with the concept that we’ve implemented here. We’re increasingly succeeding in attracting top-class experts from all over Europe and beyond for leadership positions. Over the past two or three years, we’ve also been able to recruit more researchers with an international background at the levels below. Something is developing that was completely unthinkable just a few years ago. It has to be said quite clearly that, at the turn of the millennium, as a medical faculty in the international context we were on the brink. Nevertheless, let’s not get carried away. There’s an upward trend, a tendency and, at the same time, a mandate for us to continue to develop, to continue to improve. We are on the right track - as shown by the significant improvements in the rankings - and if we keep at it, we have a good chance of playing in the Champions League with this Campus.

↓

© Paolo Rosselli

↓

© Paolo Rosselli

How does the Campus “transport” the findings of research into teaching or into the clinical area, i.e. to patient care?

The clincher is research-led teaching. Today, a university cannot really offer top-class teaching if it isn’t supported by good to very good researchers. The spatial interweaving of the preclinical and clinical areas of activity enables research-led teaching at the highest level, and it is indeed precisely the students at the Medical University who benefit from this. There are also ultra-modern and atmospherically inviting study areas, as well as common rooms. Everything grows together on this Campus and this interaction gives an amazing boost to the quality of research, teaching and medical care. The Campus has a focus on teaching and research, together with the two Centers for Knowledge and Technology Transfer in Medicine (ZWT I and II), these being platforms for medical spin-offs and start-ups, as well as University Hospital, where clinical research and teaching are carried out in addition to patient care. The fact that the Campus of the Medical University of Graz is growing into a Medical Science City - that is the idea that points beyond the Campus. The whole is more than the individual parts. Without wishing to appear arrogant, the Medical University with its Campus is the heart of this Medical Science City.

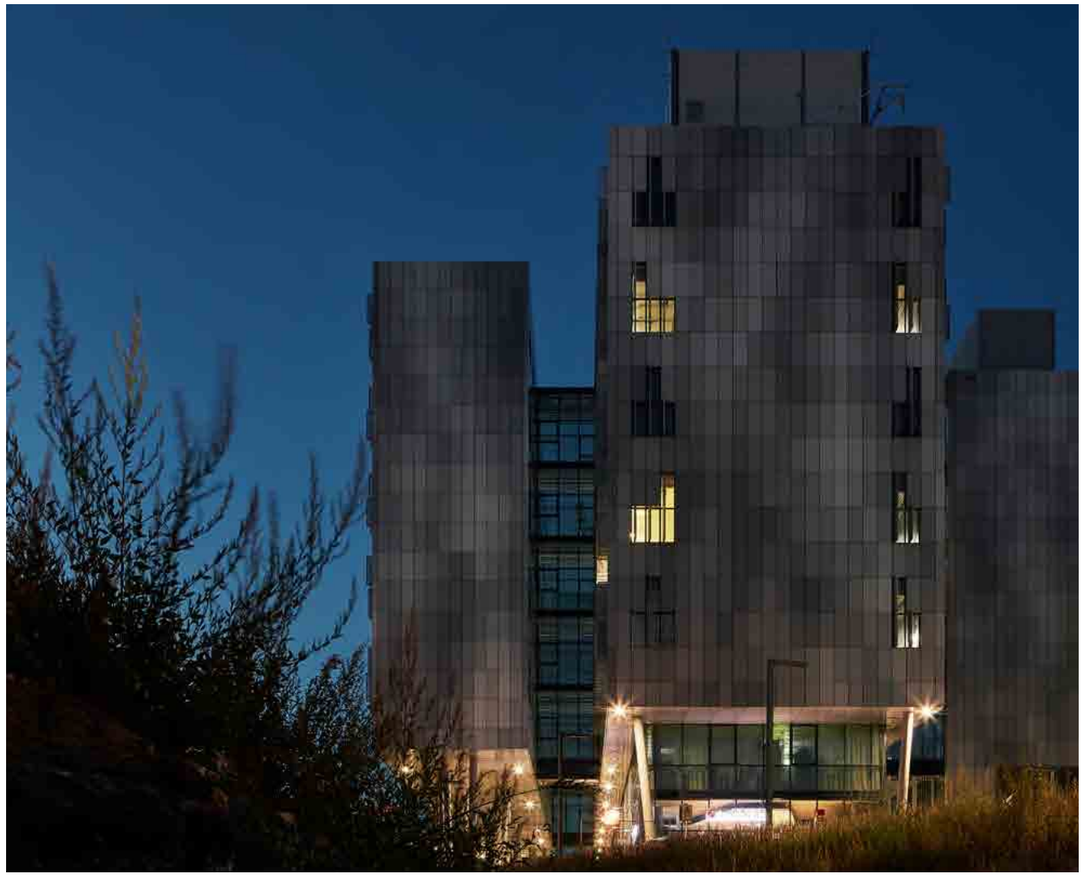
Your (preliminary) résumé?

We have become much more visible as a university and medical competence center, not only in Graz, but far beyond. We have not merely found a new combined location and thus made up for our structural deficits, which tended to threaten our existence, but we have used this unique opportunity to take a giant leap into the future. We have gained in attractiveness for researchers, teachers and students. A new, inviting district has emerged and will continue to flourish in the future. The contribution of the Medical University to the importance of Graz as a location for science, business and medicine has increased massively. We have bundled strengths, overcome separations, eliminated borders and made them permeable, established connections, built bridges. We use synergies, we are networked, we communicate and cooperate. We notice enormous dynamics in all areas. But in the end, it isn't the building. It's the people. The Campus is the strong foundation on which the lighthouse stands. The people make it shine. And let me emphasize something else...

Please!

It took the cooperation of so many people and institutions to be able to realize this project in such an impressive way. We found willingness, support and a listening ear in our owner, the Republic of Austria, among those responsible in the Ministry, but also among the members of our University Council - our highest governing body. We were able to rely on our implementation partners: the Federal Real Estate Company BIG, now the owner of the buildings, with all its executives and their staff; the team of Riegler Riewe Architekten ZT GmbH; the many other companies with their staff who played their part in the realization of this lighthouse project; the supporting partners in the Province of Styria and the City of Graz and their corporate bodies; our healthcare partners in the Styrian Hospital Corporation KAGes. A broad public met our project with good will. However, as Rector of this university, I would like to express my special thanks for the support and backing within and from our own ranks. Without the commitment and understanding of our staff, the realization of this vision in this form would never have been possible. In particular, I would like to mention Dipl.-Ing. Heinrich Schober (Head of the Campus Construction Program), Mag.ª Anke Dettelbacher, MSc (Legal, Finance and Head of Facility Management), Dipl.-Ing. Wolfgang Pfusterer (Project Management Main Building Module 2 of the Campus), Dipl.-Ing. Paul Bitzan (Project Management), Dipl.-Ing. Dietmar Ott (Project Management Anatomy) and Angelika Frech (Office of the Med-Campus Organizational Unit). I would also like to emphasize the important contributions of the user representatives of the organizational units to the planning and relocation process. Thank you to them and to all who have contributed to this Campus.

"But in the end, it isn't the building. It's the people. The Campus is the strong foundation on which the lighthouse stands. The people make it shine."



© David Schreyer

THEMES

© Med Uni Graz

Campus set in the city: architecture that unites

Isabella Marboe

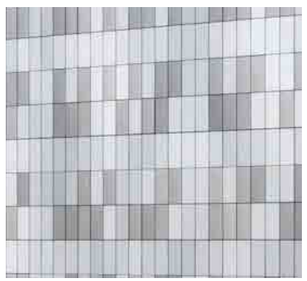
Directly adjacent to the LKH University Hospital Graz lies the Campus of the Medical University of Graz, a city within the city for several thousand students and staff working at the university. Riegler Riewe Architects set it into the terrain in such a way that the Stiftingbachtal valley was preserved as a fresh air corridor for the city of Graz. All buildings are positioned parallel to the direction of the wind. Teaching and research take place in the compact, high building formations of Campus East, while a large lecture hall, seminar rooms, cafeteria and administration are located on the more expansive plateau of Campus West. The continuous campus plateau connects both parts of the campus on the same level with the university hospital. It creates a public space filled with paths, squares, ramps and modern art.

Slim structures, more than 30 meters high, 30 to 160 meters long, broader blocks and low-set cuboids form the campus of the Medical University of Graz. In between, paths, squares, a streetcar line, a creek, art in public space. A total of 18 buildings with gray pixelated facades, all running parallel to each other, almost all connected by air bridges, form a city within the city. The entire campus is built on a grid size of 1.15 meters - the equivalent of a laboratory grid. A human scale and yet, despite its scale and density, the campus never feels oppressive. Here, people conduct research for the benefit of people. This congruency of content and form defines the architecture; it was not lost in ten years of construction. An accomplishment.

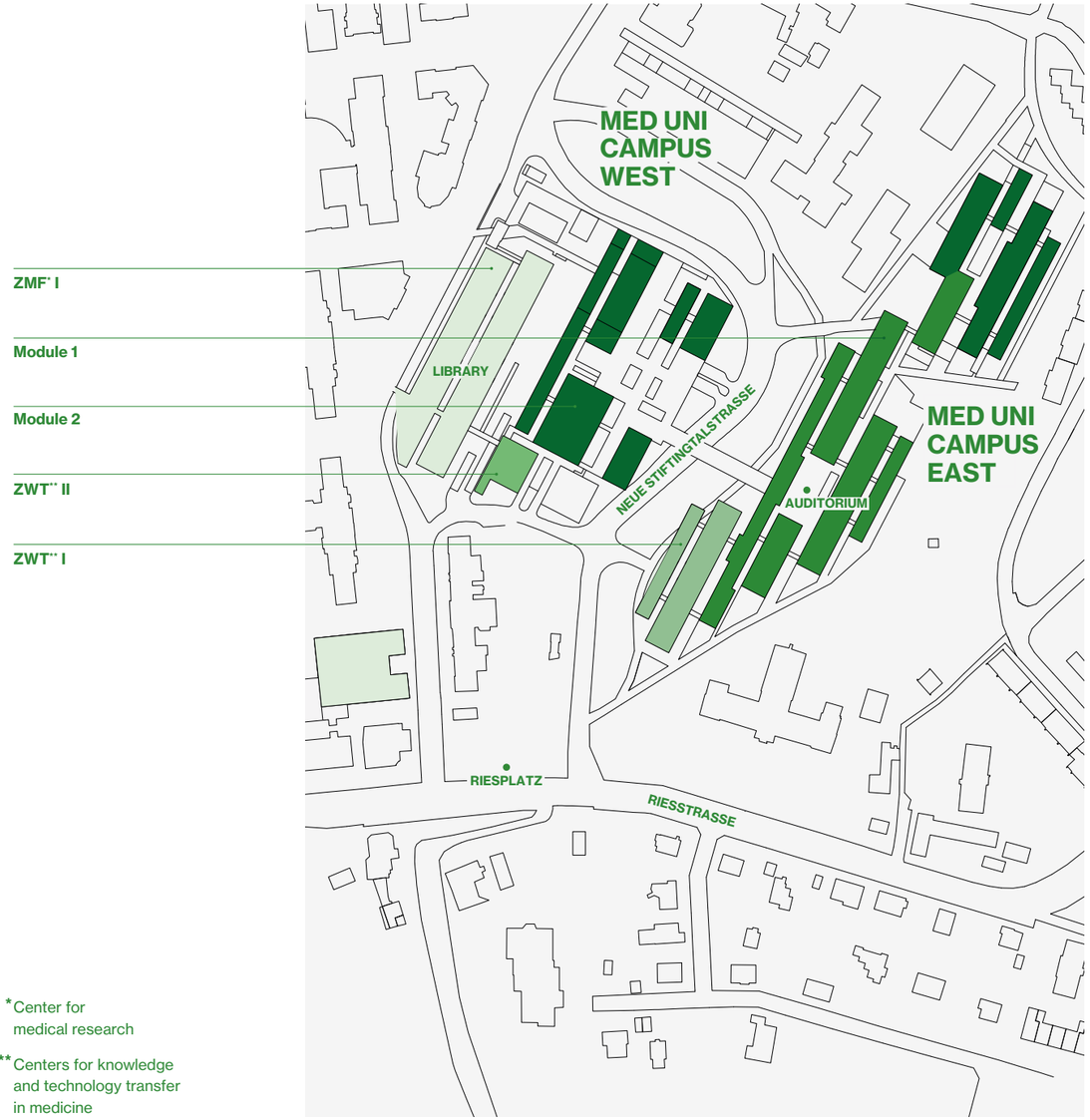
A complex construction task

University Hospital Graz is located on Stiftingtalstrasse street, and the campus of the Medical University of Graz opens to the southeast of the visitor parking garage. To the north it is demarcated by Neue Stiftingtalstrasse which, from the existing University Clinic for Dentistry and Oral Health, vaguely follows the course of Stiftingbach creek in a wide loop. It shaped the valley, which is essential as a corridor of fresh air for the city of Graz. The road and the creek cut a swath through the area, dividing it in two. To the east, it borders the neighboring residential development, which lies around ten meters above street level. To the west, it is adjacent to the parking garage of the university hospital, one level above. Its neighbor to the south is the home for the elderly run by the Barmherzige Schwestern [Sisters of Mercy], who gave part of the property to the university as a leasehold. Complex ownership circumstances, the urban planning situation, urban embeddedness, a highly demanding program and the enormous dimension of 96,000 m² of usable floorspace made the Campus of the Medical University of Graz a very complex building task. In 2009/10, an open, two-stage, EU-wide architectural competition was announced. Fifty-seven architectural studios participated, and the project by Riegler Riewe came out on top.

© David Schreyer



© Paolo Rosselli



*Center for medical research

**Centers for knowledge and technology transfer in medicine

Site plan Med Uni Campus Graz
© Riegler Riewe Architekten

© Paolo Rosselli

© Riegler Riewe Architekten

Plan of the Med Uni Campus
© Riegler Riewe Architekten

Urban Science Landscape

Stiftingtal valley forms an important corridor of fresh air for the city. “For us, the climatological aspect was extremely important,” says Roger Riewe. “In order to preserve the fresh air corridor, we developed very slender building structures.” Their orientation follows the airflow direction of the side-valley winds, which also determined the depth and spacing of the parallel volumes.

Modern research is conducted on a project-by-project basis in different teams, and the requirements for laboratory space and infrastructure are constantly shifting. In the existing building, institutes and laboratories were assigned to each other in a rigid arrangement; Riegler Riewe developed a modular system in which any research clusters can be combined across institutes in a matrix-like manner. The architects broke the functions of institute and laboratory into two parallel structures, the former narrower, the latter wider, connected on one level by bridges. Their number and structure - open or closed - is also oriented around the wind.

Exterior walls and access cores are load-bearing, which creates maximum flexibility inside. The institute and division wings are just eight meters deep, with all offices strung along a corridor and lit from two sides. Like dinghies, they are suspended from the 14-meter-wide laboratory wing. They are connected by walkways, both corridors face each other, offering mutual perception of movement. All workplaces have a bright, expansive view of the outdoors. In front of the institutes and division areas there are niches with standing desks and seating areas. Behind the stairs of the laboratory wings there are swivel chairs and tables. Throughout the campus of the Medical University of Graz, one can find such places for casual conversation, the best environment for innovation and good vibes.

Fluid boundaries

The laboratories fall into three categories and meet the highest hygiene and safety standards. All installations are freely routed and thus easy to adapt. They have 3-meter clearance, and the floor plan is arranged in layers. The corridor leads to the dark zone for equipment, locks for applying protective clothing, showers. The internal corridors enable the connection of neighboring laboratories.

Night black, dove gray, sky blue, deep crimson; weather, position of the sun and daylight constantly color the facades in different ways. They too follow the grid. Their aluminum panels are 1.40 m high and 57.5 cm wide; comprehensive daylight

© Paolo Rosselli

© Paolo Rosselli

simulations determined the number of windows and shading elements of that same size. They can be rotated up to 90 degrees out of the plane of the façade as desired, leaving a mark. In the 1:1 model, expanded metal produced the highest degree of shading; it blends perfectly with the seven shades of gray in the façade, which blur into the clouds like pixels from a distance.

Riegler Riewe organized the campus with great clarity. Institutes, divisions and laboratories are located in the 30-meter-high, slender wings of Campus East, while the auditorium and five lecture halls on Neue Stiftingtalstrasse are located in the basement structure below. The campus plateau runs between them as a square-like bridge leading to Campus West. There, the cafeteria, a day-lit lecture hall, seminar rooms and the office are located on the same level as University Hospital. Together they form a coherent entity.

Sustainability in construction

Sustainability had already been defined as a goal and very comprehensively in the competition. It included mobility concept, microclimate and involved users at a very early stage. Neighboring residents were also regularly kept in the loop and, despite its dimensions, the project did not generate any resistance. The planning was integral and oriented towards the life cycle. The Campus of the Medical University is built of low-pollutant materials, has a geothermal system with 119 deep collectors and 293 active drilling piles. Photovoltaics are prepared and partly already installed, while Module 1 of the Campus is ÖGNI-Platinum-certified.

Construction began in 2013, the topography was a challenge. Twice, the bulkheads of the excavation pit for Module 1 failed to withstand the soil. When the streetcar system began its operation, it became apparent that, despite all calculations and empirical values of the neighboring University Clinic for Dentistry and Oral Health, the highly sensitive electron microscopes in the laboratory were suffering vibrations. So the entire structural analysis had to be recalculated during the planning phase. Ceilings had to be reinforced from 26cm to 38 to 46cm and, as a result, installation levels had to be significantly downscaled.

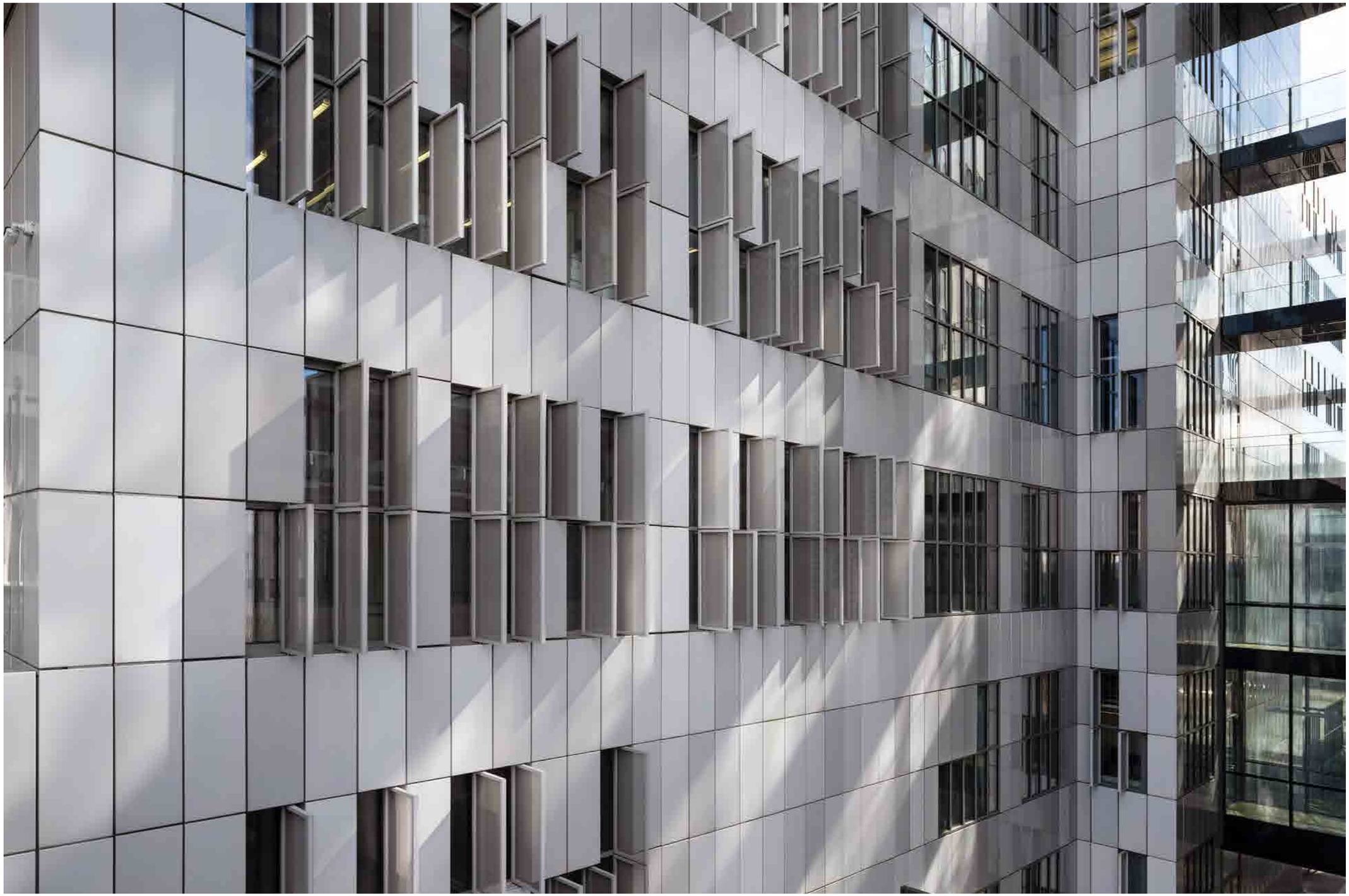
Module 1 is located on the hillside to the east of Neue Stiftingtalstrasse, starting with the two parallel blocks of the ZWT (Center for Knowledge and Technology Transfer). This research hub for start-up companies in the medical field is the interface between university and general public, and synergy effects can be anticipated. Between the columns of the first,

→ © David Schreyer

elevated structure, one can see the university. Its slender, elegant portal structure, more than 160 meters long, also forms a generous entrance at the base. The outdoor space planning was done by Land in Sicht design studio. A planted arena steps up from the bank of Stiftingbach creek to the vestibule with bicycle racks; in summer, students enjoy sitting on the steps along the shady embankment.

© Paolo Rosselli

↑



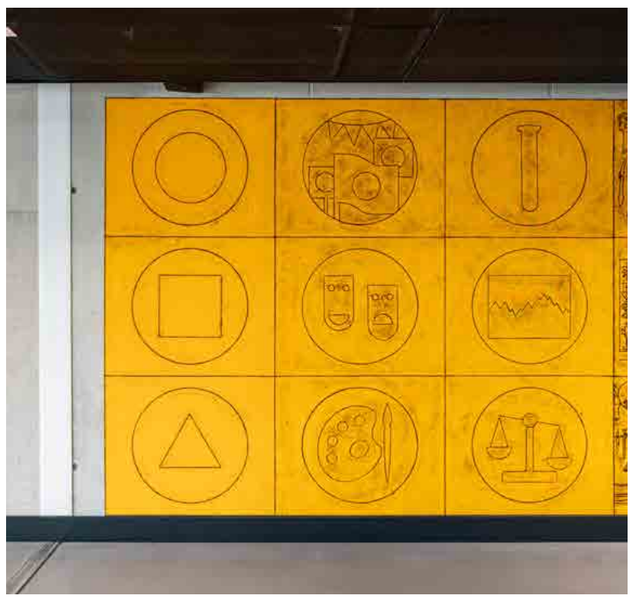
© Paolo Rosselli

© David Schreyer ←

Language of knowledge

One enters the university at the large, two-story auditorium foyer. The word “Aula” is written in white handwriting on the solely turquoise-green exterior wall of the ceremonial hall, reminiscent of a blackboard; all the others are made of glass. A velvet-red curtain darkens the auditorium. The glass of the atrium behind it is green, which both alienates and gives it volume. Five lecture halls with 170, 220, 350 and 500 seats are grouped around the auditorium in the center. Matt Mullican decorated it with a circular mural covering a total of 380 m² and consisting of seventy sun-yellow canvas panels filled with symbolic signs. A cosmos of archaic figures, body parts, organic forms such as bubbles, capsules, cells. His drawings were transferred to the canvas by frottage, by hand and black oil crayon. From the suspended walkway that circles the auditorium on the second floor, the phenomenal mural can be appreciated even better in its entirety.

A broad cascading staircase leads to the right of the entrance to the campus area, where institutes, divisions and laboratories also unfold. The former are open to the public, the latter not; a work of art by Misha Stroy marks the transition. A grid of wooden squares becomes a typesetting box full of found objects, graphics, objects, seed pods. This three-dimensional collage reflects artistic and scientific research methodologies.



→ © Paolo Rosselli

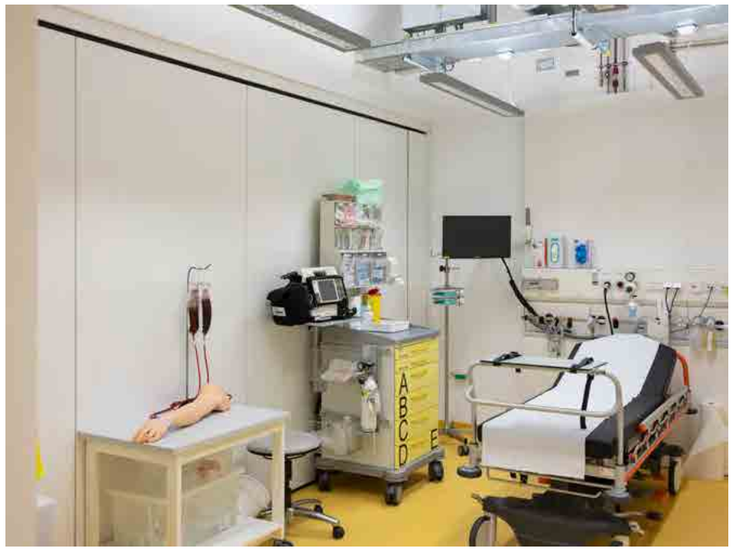
↓ © Paolo Rosselli

© David Schreyer ←

© Paolo Rosselli

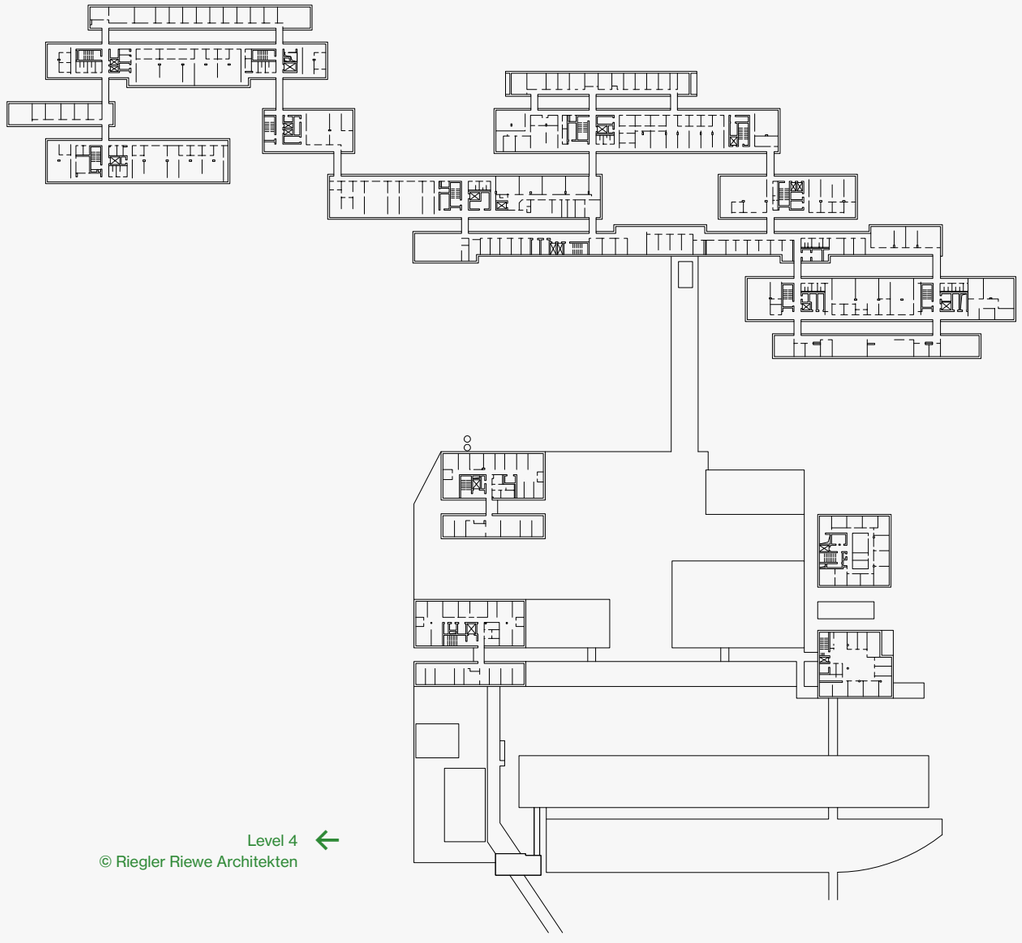
© Paolo Rosselli

© Paolo Rosselli

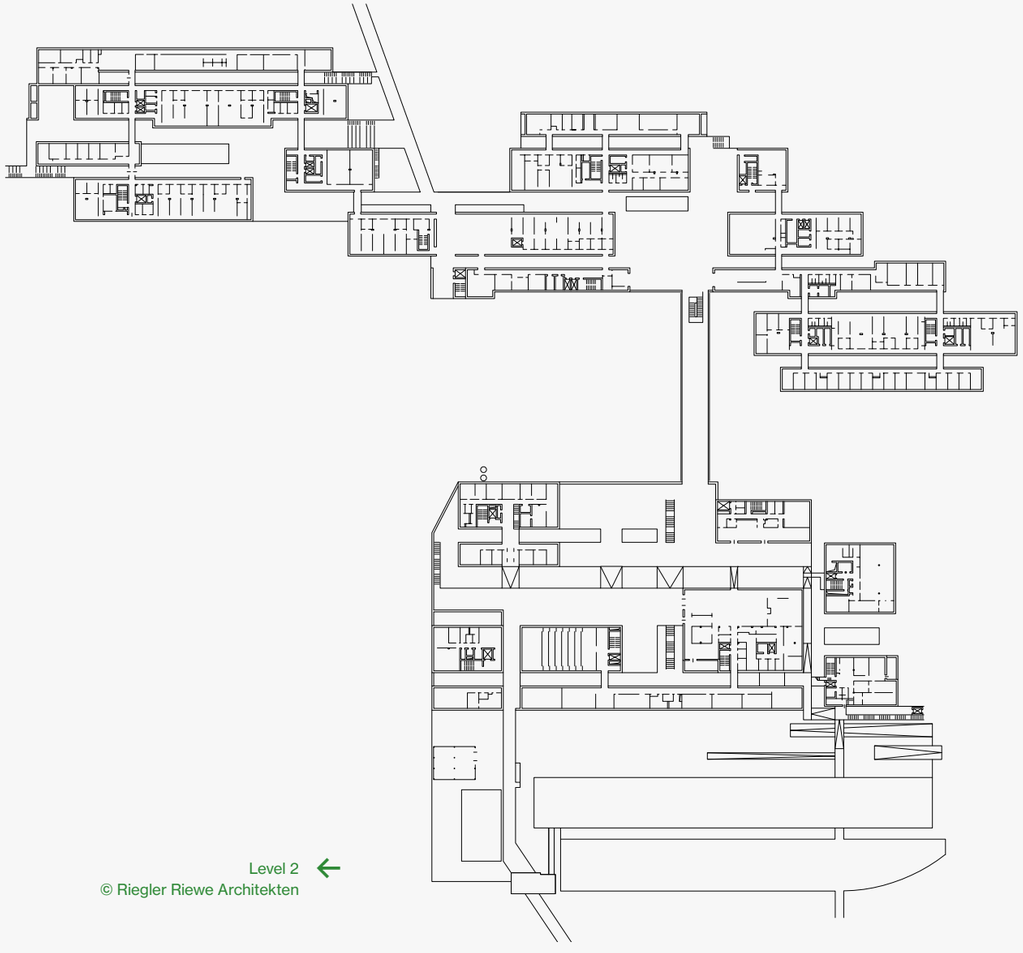


© Paolo Rosselli

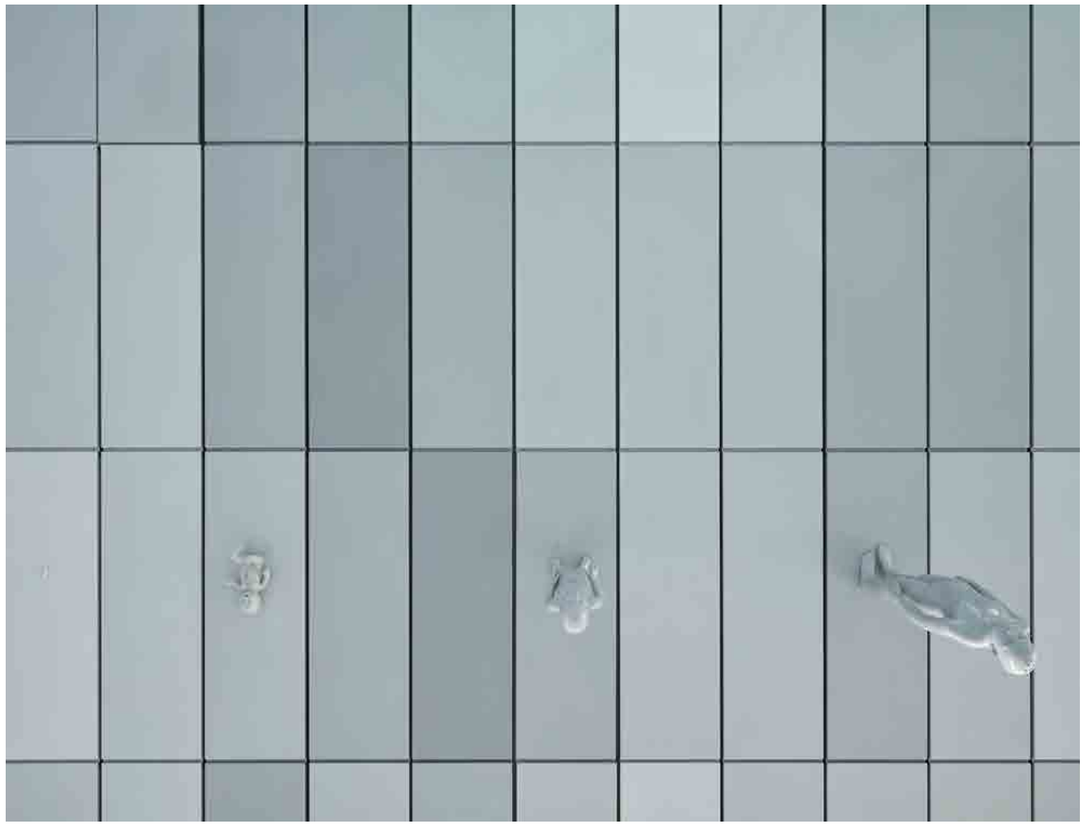
© Riegler Riewe Architekten



Level 4 ←
© Riegler Riewe Architekten



Level 2 ←
© Riegler Riewe Architekten



© David Schreyer

The cycle of life

Outside this space, the campus plateau washes around the frayed blocks that open up to their neighborhoods. It serves as a promenade, a public urban space, and a parcours of art. The large, seven-meter-high, 25-meter-wide passageway in the portal structure celebrates the entrance to the bridge and also acts as a landmark to the street. As if on a huge viewing deck, one is protected from the weather in this recess. Artist Manfred Erjautz arranged seven figures - fetus, baby, child, adolescent, man, pregnant woman, old man - in a row on the underside of the passageway and added a skeleton. Spectacularly, they now hang upside down in the air. Modified mannequins, symbolizing the cycle of life that makes everyone equal. Everyone who passes through here crosses beneath them.

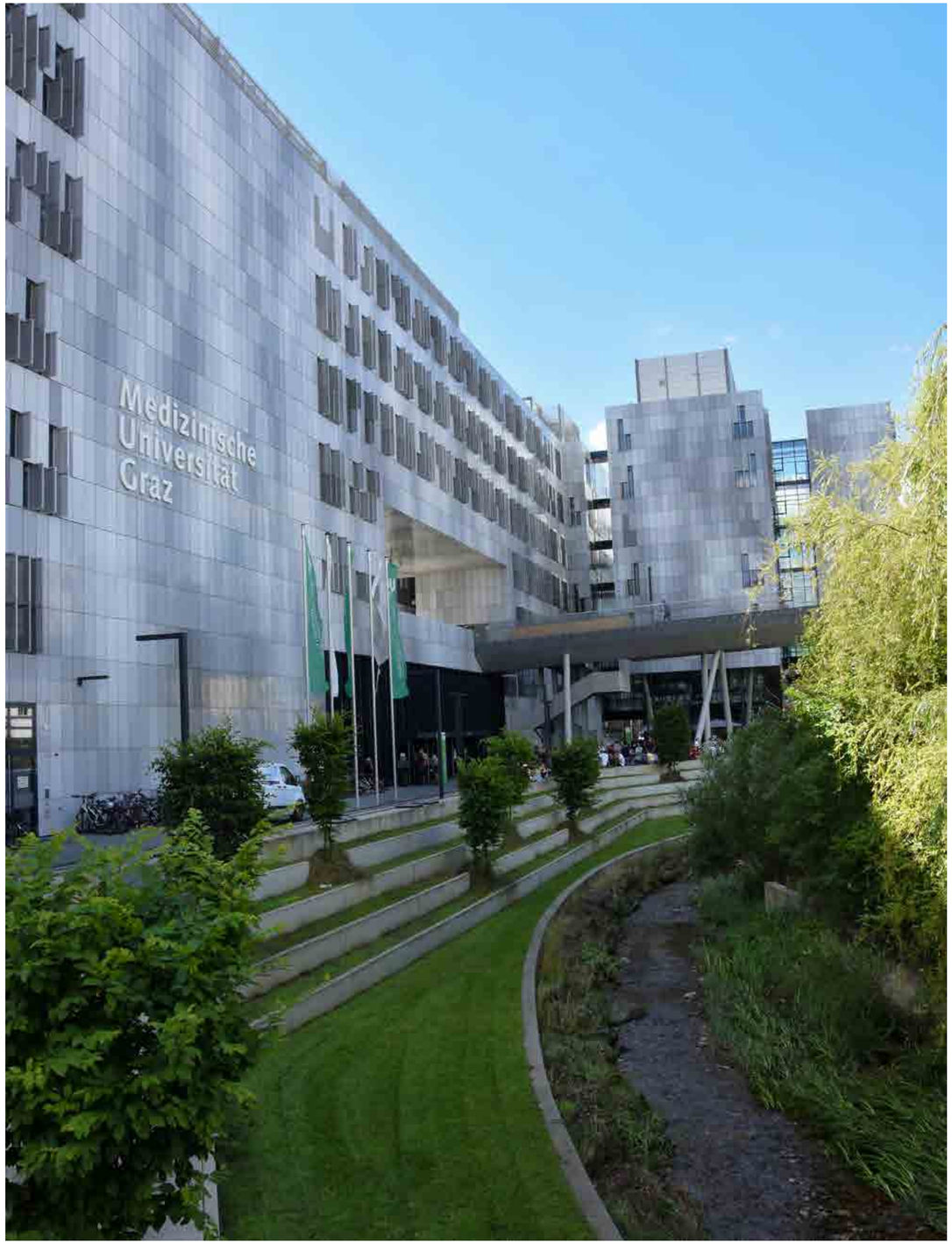
© Paolo Rosselli

Urban space

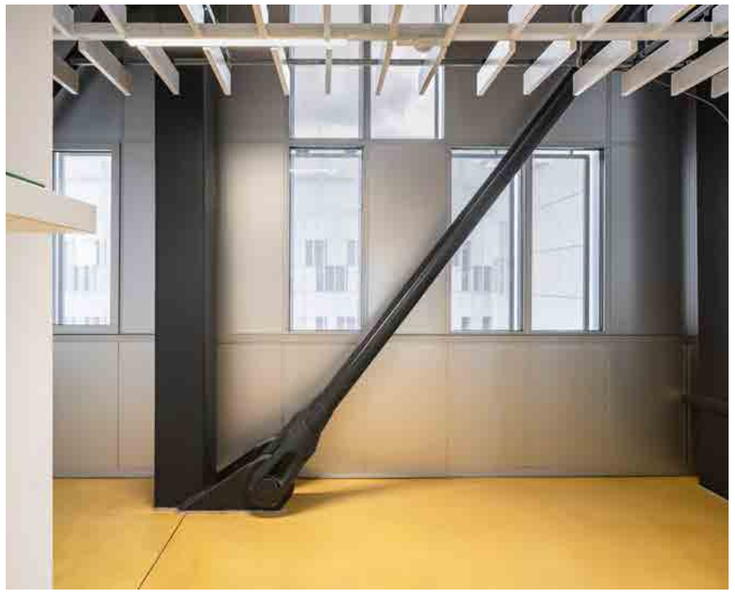
The area of Campus West is bustling with activity. It is somewhat like a chilled-out counterpart to Campus East. A few students stroll to the café, which is also a good place to study. On the large, narrow square in front of it there is a huge ball of crumpled paper. Esther Stocker created this four-meter-high object from an aluminum-steel construction, intended to remind people of discarded ideas on crumpled pieces of paper. It weighs 600 kilograms and is covered with a gridded black-and-white structure typical of Stocker's work, which has become brittle through folding. The ball of paper lends an anchor to the square, with the towers of the administration offices rising up at its edge. Beneath it, there is yet another level, with atria punched in repeatedly. A slit makes the level change to the University Hospital apparent. Ramps lead to the student canteen. The canteen is glazed on all sides, bright and high, the food is organic and inexpensive, and employees of the University Hospital also have their meals here. To the right of the entrance there is the so-called lounge with a small covered terrace in the corner. The only lecture hall in Campus West with daylight is located here while, on the level below, there are seminar rooms, their window strips visible through the passage and the atria, revealing people in motion. Everywhere there are benches, people meet, recognize each other. A city within the city.

© Med Uni Graz

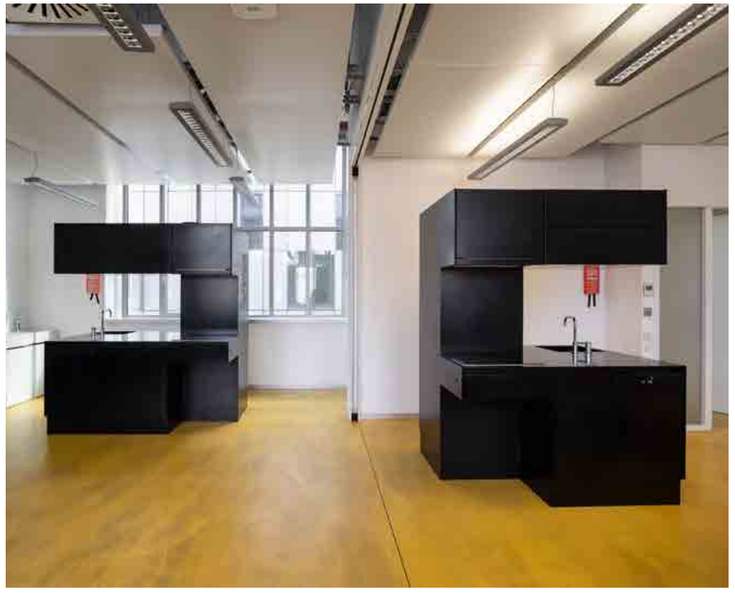
© Med Uni Graz



© Med Uni Graz

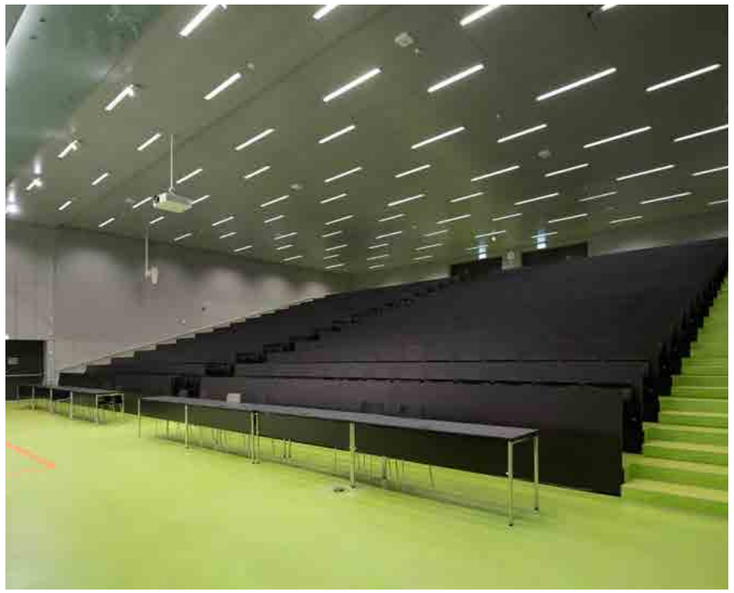


→ © Paolo Rosselli

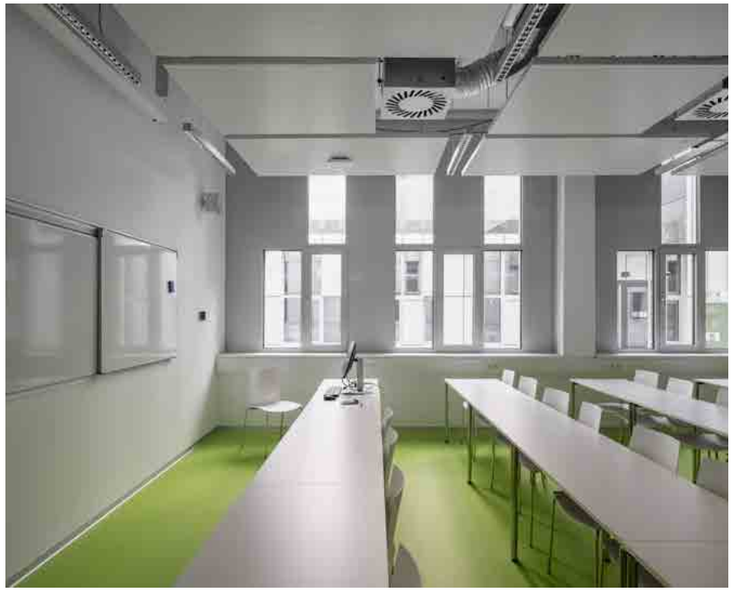


→ © Paolo Rosselli

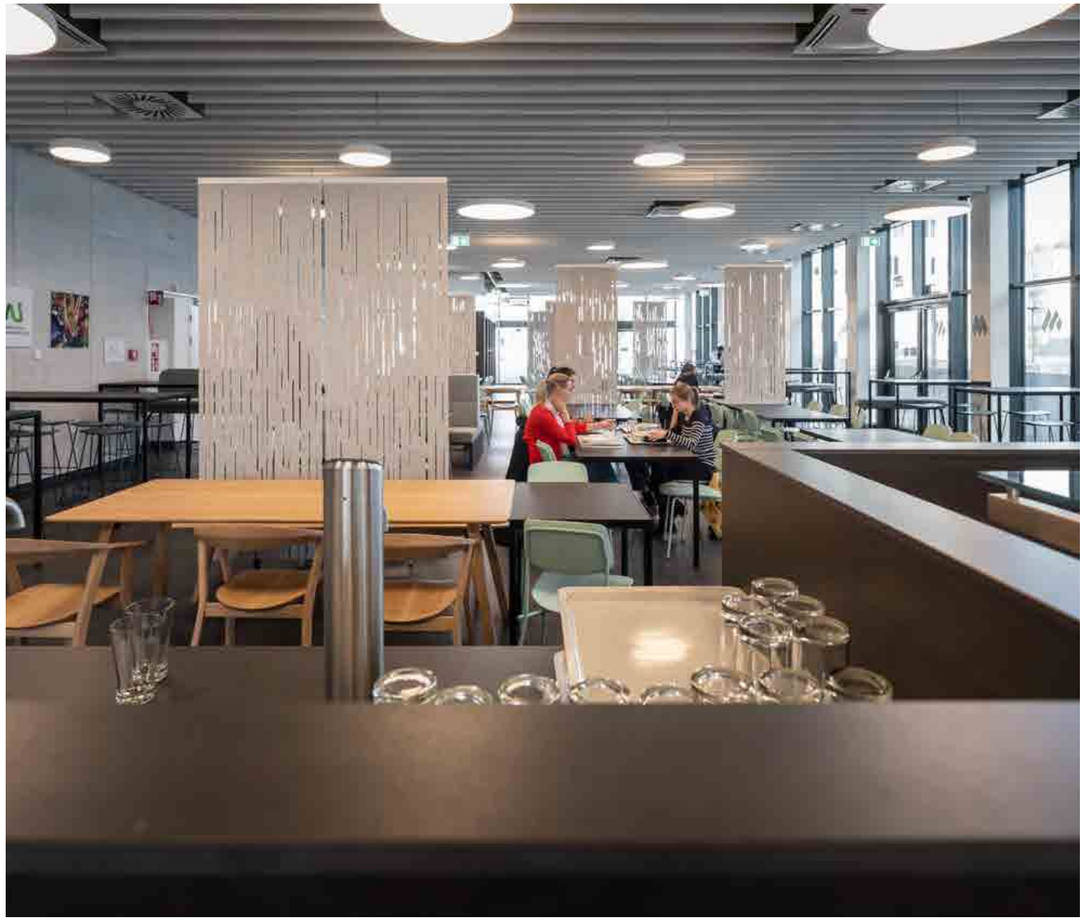
© Paolo Rosselli ←



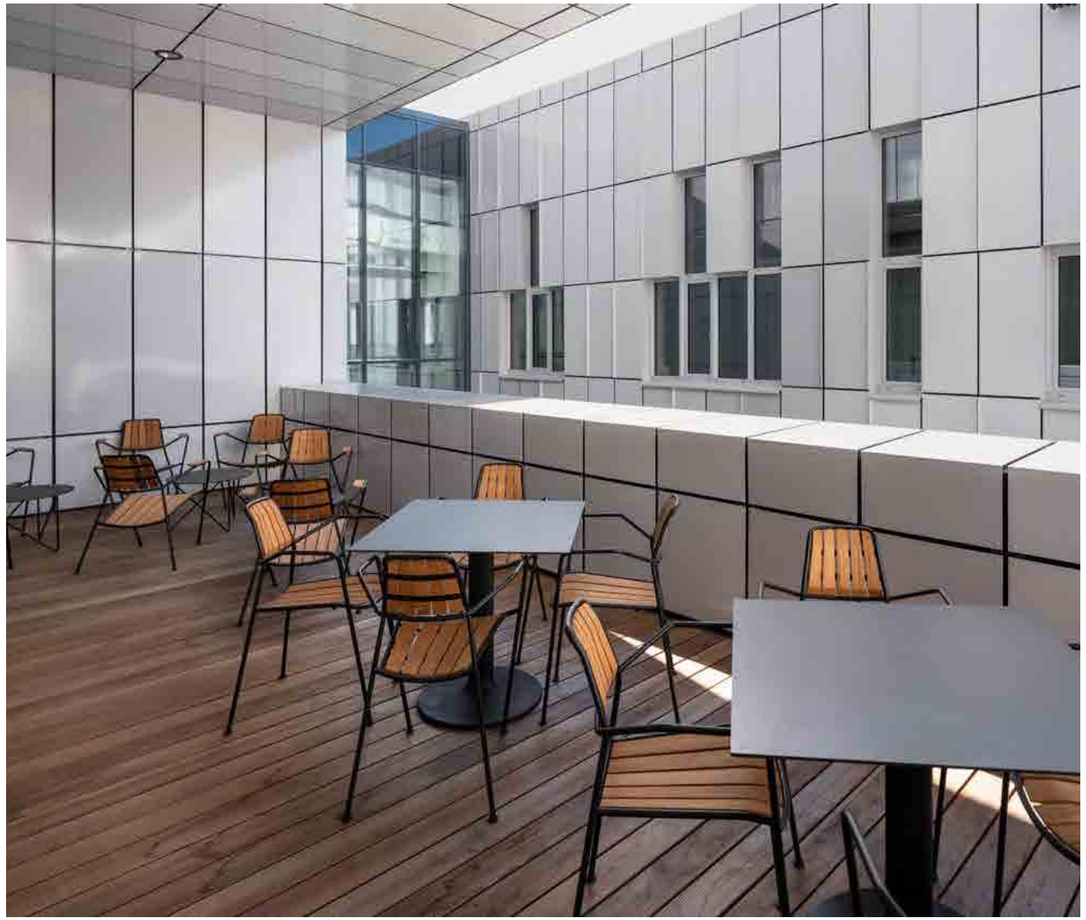
© Paolo Rosselli ←



© Paolo Rosselli

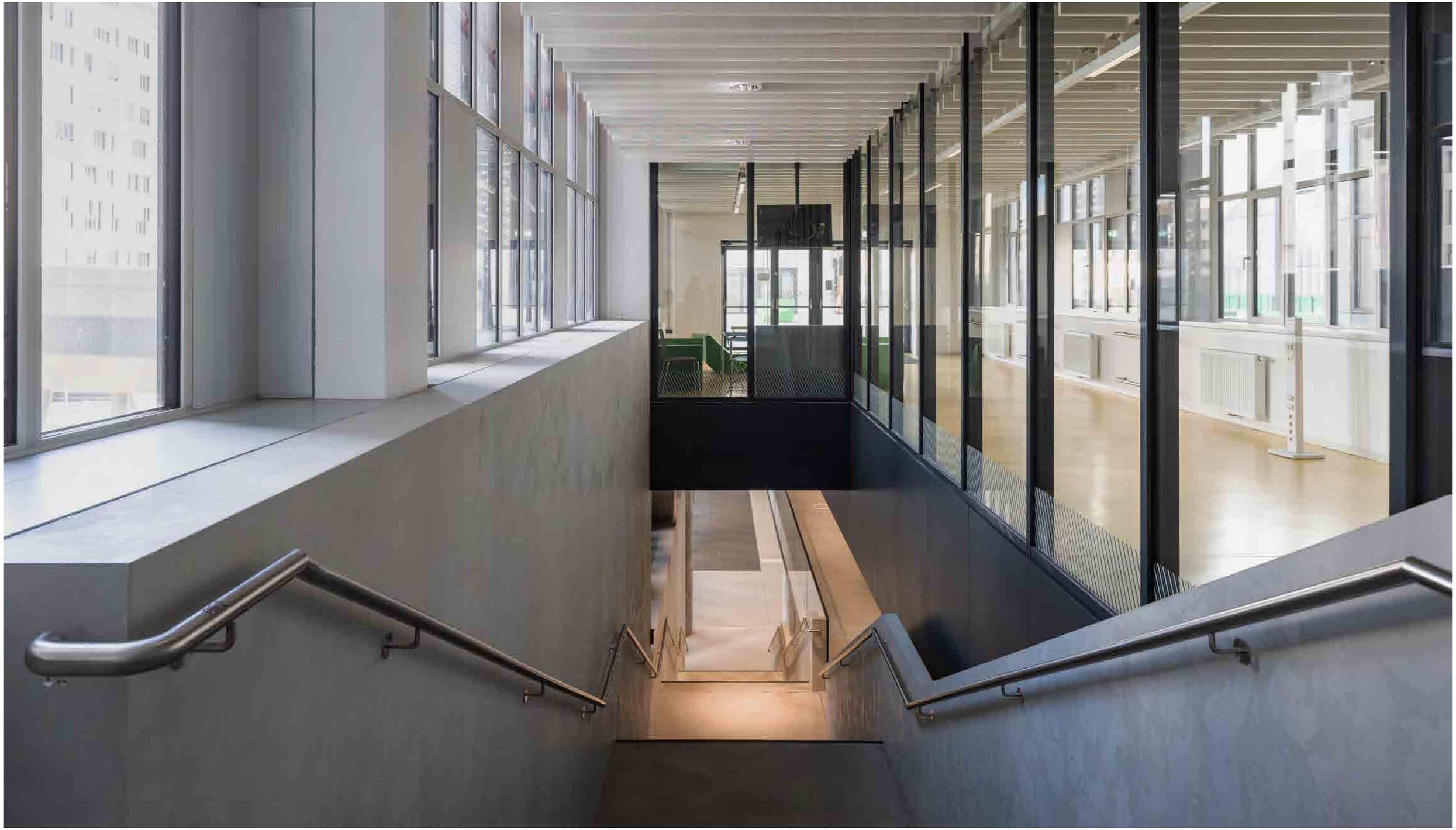


© Paolo Rosselli



© Paolo Rosselli

© Paolo Rosselli



© David Schreyer

© David Schreyer

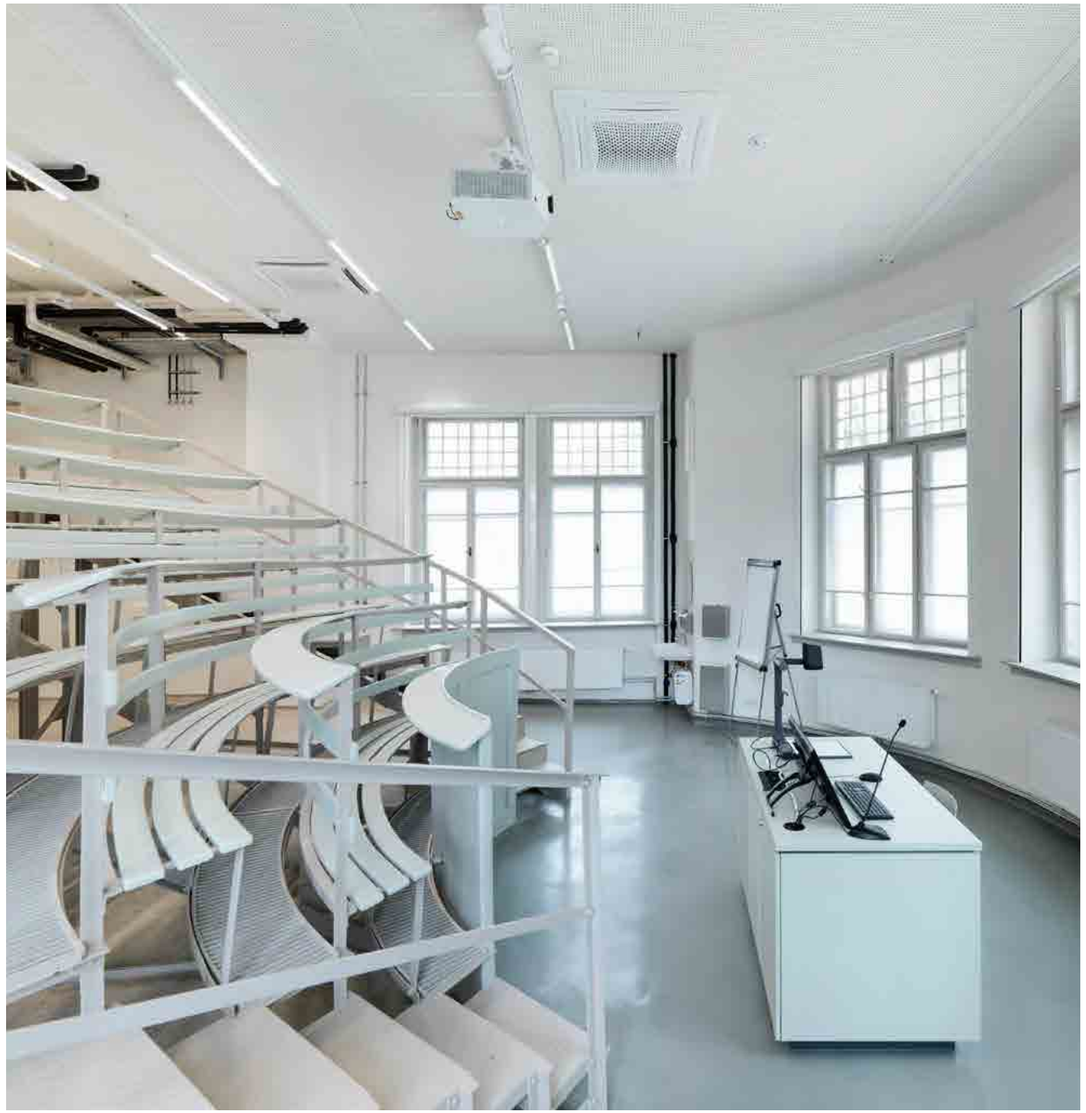
Anatomy: pillar of medical progress

From Pathology to Anatomy: The new location of the Division of Macroscopic and Clinical Anatomy on a plot of land owned by the federal government in the vicinity of University Hospital Graz on the Auenbruggerplatz site (formerly used by the Diagnostic & Research Institute of Pathology) is proof of the symbiotic quality of spatial and personnel adjacency and concentration in a district of the Styrian provincial capital Graz that is entirely dedicated to health and well-being.

Anatomy - science and teaching of the structure of the human body: it is an integral part of medical science. As a university institution, the Division of Macroscopic and Clinical Anatomy is committed to teaching and research in equal measure. In addition to the classical methods of anatomical preparation and model construction, modern imaging techniques as well as digital technologies are used. The main research areas are experimental biomechanics, clinical translational anatomy and teaching research. The basis for the activities of the Anatomy Division is the gift of body donation made during a person's lifetime in the service of medical progress, one received and treated with the utmost respect.

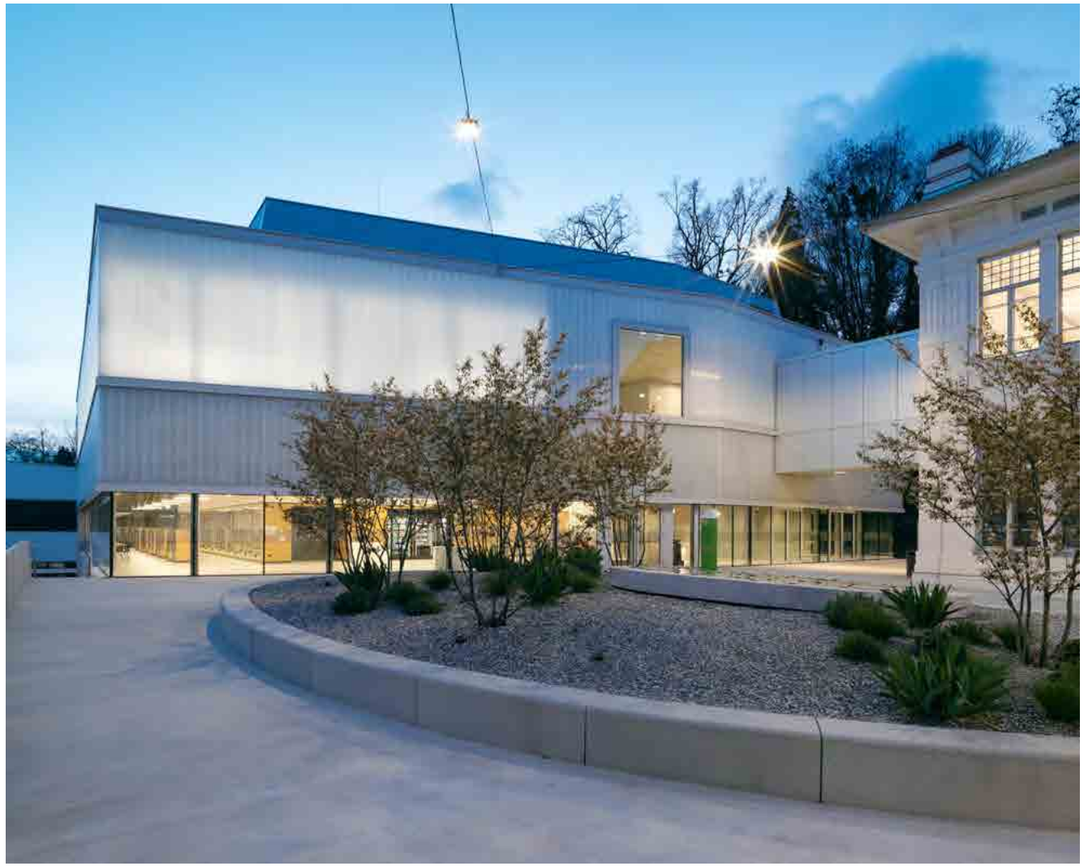
The relocation of the Diagnostics & Research Institute for Pathology to Module 1 of the Campus of the Medical University of Graz made room for the Anatomy Division, housed until 2022 in the so-called Preclinic in Harrachgasse street, which was already getting on in years. Extensive renovation of the listed old building, including conversion and expansion in the form of a modern extension executed according to the plans of the Viennese architectural firm "Franz und Sue ZT GmbH", which had won the competition for realization, has yielded a building complex that presents itself today as a best-practice example of the integration of the highest technical and atmospheric demands in historic, and to a large extent also listed, building fabric. Both teaching and research find the optimal conditions here in every respect.

Strictly speaking, this central component of preclinical research and teaching is not located on the site of the planned new Campus of the Medical University of Graz. This situation, however, is not the result of a conceptual or planning faux pas, but rather emphasizes the special importance of anatomical research and teaching in the overall medical context and thus underscores the factual, professional and personal symbiotic interconnection of the two neighboring and interconnected areas of medical activity - the new Campus of the Medical University of Graz and the constantly renewing University Hospital, both being showcases of medical development dedicated to health and quality of life, i.e. in the service of people.



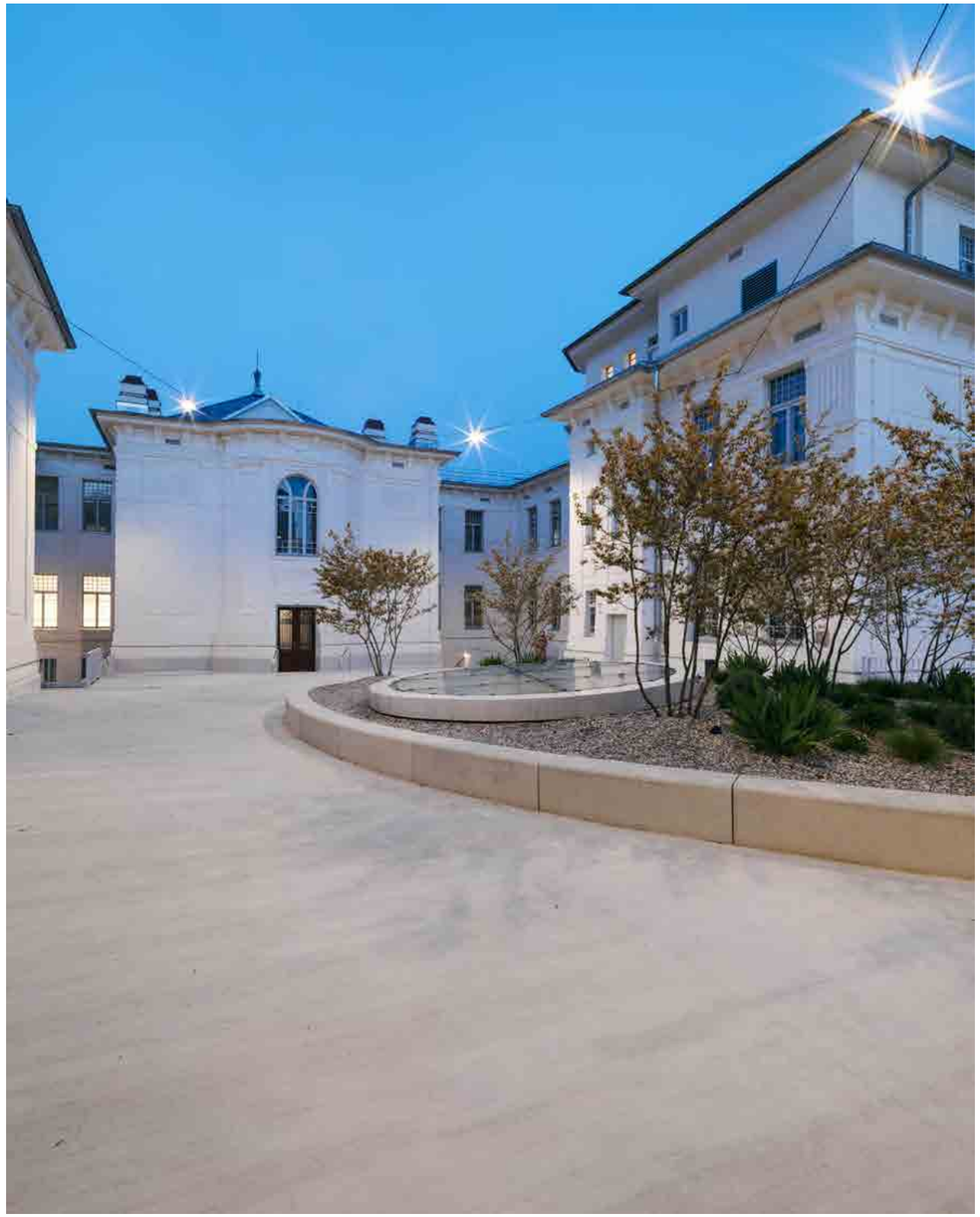
↓

© Paul Ott



↓

© Paul Ott



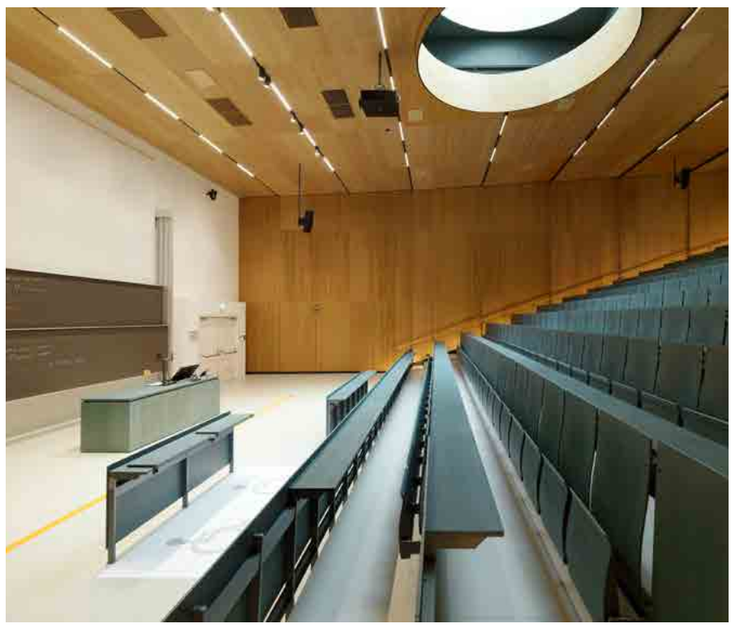
↓

© Paul Ott

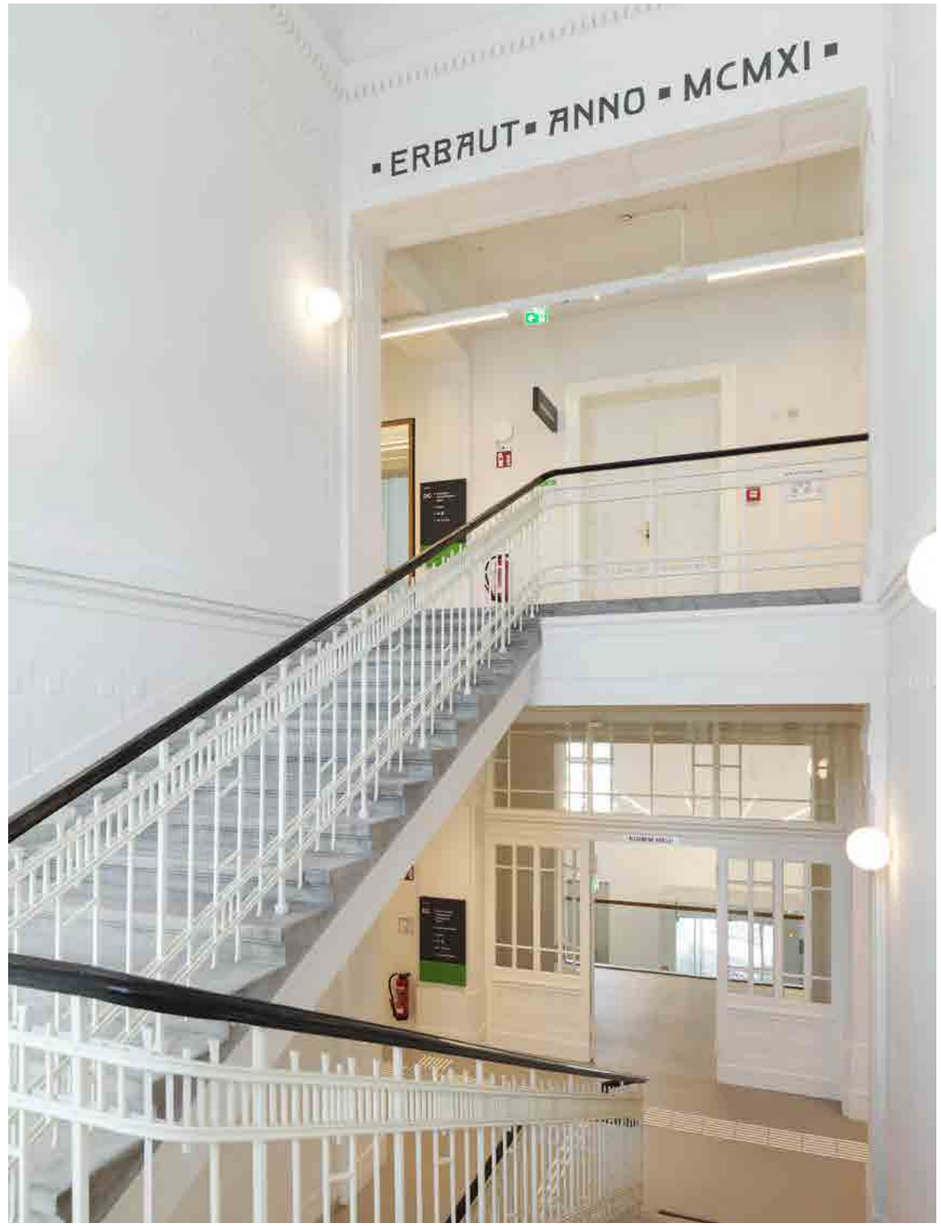
Body of research

The Anatomy Division of the Medical University of Graz is one of the largest European educational institutions in its field. For its new location on the grounds of University Hospital Graz, the Viennese architectural firm “Franz und Sue ZT GmbH” succeeded in developing sophisticated technical solutions combining historical substance with a new building while, at the same time, creating a dignified setting for teaching and research.

Set within the new Medical Science City, the Anatomy Division has now been given a new home and relocated to the former headquarters of the Pathology Division - locally embedded in University Hospital Graz on a plot of land owned by the federal government. Like many urban hospital buildings constructed around the turn of the 20th century, University Hospital is built in the pavilion style typical of the period, with detached individual buildings. The former Pathology building dates from 1912 and is a listed building. In the course of later densification, a new pavilion for a lecture hall was added directly next to it in the 1980s. In its place, “Franz&Sue” have now realized a new building that provides space for two dissection rooms with a total of 78 dissection tables on the upper floor, making it one of the largest facilities of its kind in Europe.



→ © Paul Ott



↓ © Paul Ott

Plenty of space for a sensitive field of research

The two rooms are designed for 480 people, and several students can work at each table in parallel. The basement of the new teaching and research pavilion also houses the areas for storing body donations and specimens.

Between openness and respectful seclusion

In the dissecting areas, “Franz&Sue” deliberately relied on simple and pragmatic detailed architectural solutions to create quiet spaces that are not completely overwhelmed by technology. A profiled glass façade with translucent thermal insulation provides natural lighting while protecting against any unwanted gaze from outside. In this way, the balance between spatial openness and respectful seclusion is achieved.

Underground auditorium

As a connection between new construction and historic building, “Franz&Sue” created a wood-paneled auditorium for 500 students in the space between them. The glazed rear side and a circular skylight provide the large room with plenty of daylight. Above it, an urban, green square was created, offering pedestrian connection between the old and new buildings.

From Wilhelminian era building to laboratory

The listed old building with the administration, seminar and laboratory rooms, the library and a historic anatomy room with cast-iron benches, was gently renovated, painstakingly restored and converted from a Wilhelminian-era building into a laboratory. The largest intervention in the historic building was carried out by “Franz&Sue” with their re-creation of the historically missing and now newly constructed main entrance on the east side. To this end, they demolished parts that had been built later and made space for a bright, inviting foyer; a central entrance area that provides orientation and appropriately welcomes students, staff and visitors to this teaching and research facility, which is inconspicuous from the outside but technically unique on the inside.

Large share of building services

The impressively dimensioned building services system with its mighty ductwork now also characterizes the overall impression of the dissecting rooms. The high proportion of technical services in the entire building ensemble of the new Anatomy Division is illustrated by the quite unusual ratio of 4,000 m² of usable floor space to 2,200 m² of services area in the old and new buildings.

→ © Paul Ott

→ © Paul Ott

© Paul Ott

© Paul Ott

“Trusting partnership”

Hans-Peter Weiss, CEO of the Federal Real Estate Company (BIG), on the challenges of building the Campus of the Medical University of Graz, the sustainability of its construction and the trusting collaboration between those involved in the realization of this centennial project.

What is the significance of the now completed Medical University of Graz Campus project within the comprehensive realization and real estate portfolio of the Federal Real Estate Company (BIG)?

The development of campus locations has been experiencing tremendous dynamism for some years now - also and particularly in the Styrian capital, as impressively demonstrated by the Campus of the Medical University of Graz, as well as those of the University of Graz and the University of Music and Performing Arts Graz.

With the Campus of the Medical University of Graz, a new university district has been created essentially on the drawing board, with more than 80,000 m² dedicated to medical research and teaching. In the immediate vicinity of University Hospital Graz, we have created conditions more than internationally competitive for the training of tomorrow’s physicians. For BIG, it was one of the largest university construction projects ever, but also a lighthouse project in terms of sustainability.

Developing university campus sites is an exciting and responsible task. After all, our university buildings house everything from grand pianos to electron microscopes, from anatomy halls to art galleries, from thousands of first-year students to top international scientists. I wish the students, researchers and all employees of Med Uni Graz a lot of joy and stimulating work on the new Campus.

What were the special challenges that had to be overcome?

Our university buildings are model studies in sustainable construction. With the high technical demands that large-scale construction projects in the university sector present, energy-efficient building is not trivial and often not visible at first glance. In the large reinforced concrete buildings of the Med Uni Campus, a great deal of technology plays out underground or behind the scenes: Geothermal boreholes have been installed a hundred meters underground, harnessing the Earth’s heat for heating and cooling. Outgoing ventilation air - for the first time in Styria now also from the laboratory areas - is used to generate heat.

“The Med Uni Graz Campus is a centennial project for sustainable construction in the university sector and internationally exemplary.”

Hans-Peter Weiss is CEO of BIG, the Federal Real Estate Company. ←

The Med Uni Graz Campus is a centennial project for sustainable construction in the university sector and internationally exemplary. Module 1 was the first research and laboratory building worldwide to be awarded the ÖGNI Platinum sustainability certificate. In the course of the certification process, sustainability standards were developed that are now generally applied to this type of building.

The biggest task facing the planner was to accommodate as much space as possible on the comparatively small footprint along the Stifting valley. Riegler Riewe Architekten elegantly solved this task and accommodated a complex spatial and functional program of lecture halls, laboratories, offices and seminar rooms, cafeteria and café, in a modular structure. The orientation of the buildings along the Stifting valley creates a fresh air corridor for the city. A streetcar line was extended to the Campus, and even the creek had to be slightly relocated because of a high-tension power line.

In any case, the deciding factor was the coordination of the many stakeholders (city of Graz, district, transport department, nature conservation department, neighbor KAGes), with whom it proved possible to reach a good agreement.

How did collaboration with the Medical University of Graz work out?

The new campus is the splendid result of a long-standing, trusting partnership and forward-looking collaboration that has been established between the Medical University of Graz and BIG at all levels. Rector Hellmut Samonigg, with his vision of a Medical Science City in Graz, was the pioneer and a committed advocate for the Campus, and the Ministry of Science made the construction project possible and provided constructive support. On the BIG side of things, our project managers Klaus Grill and Philipp Jereb were responsible for the construction of the Campus, Tina Fellner is currently looking after the Medical University of Graz as Asset Manager, and Richard Schöberl was responsible during the planning and at the beginning of the construction project. I would like to take this opportunity to thank them in particular. Together we have successfully completed one of the largest and most sophisticated university construction projects in Europe.

→ © David Schreyer

“Together we have successfully completed one of the largest and most sophisticated university construction projects in Europe.”

© David Schreyer

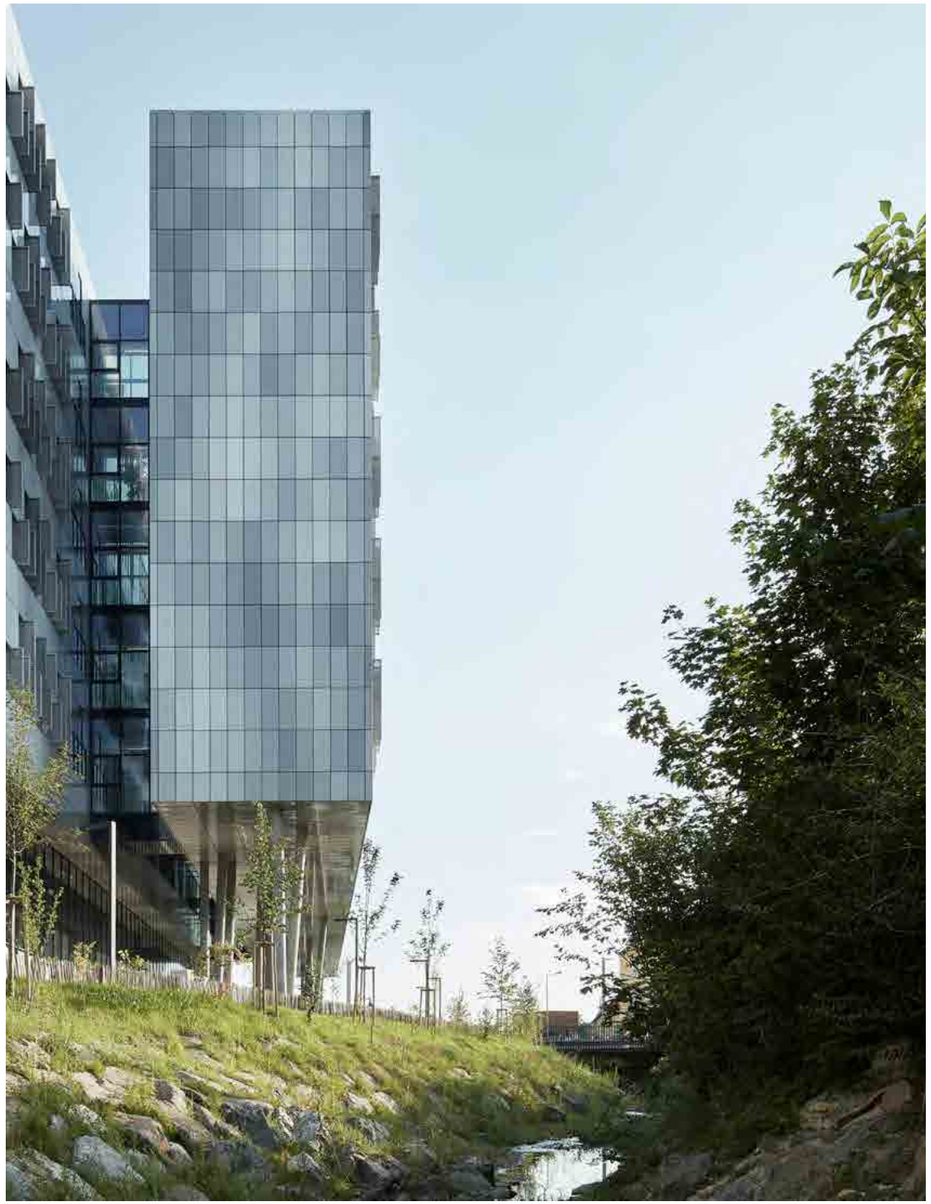
↑

Key conceptual premises

The new Campus brings together the previously dispersed preclinical and administrative facilities of the Medical University of Graz in the immediate vicinity of its clinical units in one place. This spatial consolidation is accompanied by a transformation - restructuring and reorganization - of research and teaching activities. The goal was to create a teaching, research and communication campus - to create something entirely unique.

"Modern infrastructure and sustainable building design with a sophisticated architecture" give leeway to this transformation process, which is geared towards the future, and are "the central elements for the realization of the teaching, research and communication campus" of the Medical University of Graz.

The combination of preclinical, clinical and administrative units in one place not only ensures organizational streamlining, synergies and efficiency benefits which, being mutually reinforcing, have a positive impact on teaching, research and patient care. The spatial identity also strengthens the perception of a separate medical university, which was only established in 2004, and thereby inaugurates a common spirit. In addition to structural and organizational changes, encounters and communication in the specially designed, spacious and inviting areas, such as the cafeteria, the cafés and pubs, but also the meeting zones and communication hotspots in the buildings and open areas, increase the level of interaction. This has a highly favorable impact on the quality and dynamics of research, teaching and patient care.



© David Schreyer

According to the competition manual, the new campus is defined as:

- Place of integration of the clinical and non-clinical areas into one organization, the Medical University of Graz.
- Place for developing teaching and research profiles and focal areas beyond existing structural barriers.
- Place of optimum harnessing of resources for the creation of synergies and the capacity for further development of the Medical University of Graz.
- Space for interaction between teachers, researchers, students and staff of the Medical University of Graz.
- Space for creative exchange between teachers and researchers from different disciplines working in the field of medicine.
- Space for the creation of visions and exemplars, for an orientation towards the future for students, teachers, researchers and other staff.
- Opportunity to promote sustainability, ranging from preventive medicine to university-based healthcare.
- Opportunity for accessibility to the educational, research, and communication campus for students, teachers and researchers.
- Opportunity to establish a university location with sustainable design and use.
- Chance to give momentum to regional economy and to evolve into an internationally acclaimed and highly attractive university.

Cornerstones

“Through the construction and extension of the teaching and research campus, a unique and hitherto non-existent communication infrastructure for teachers, students and researchers will be created for university-based medicine in Graz. By creating formal and informal communication spaces on the one hand and by linking all institutions together on the other hand, the Campus of the Medical University will be an outstanding teaching, research and communication campus,” the competition guidelines state.

* Verbatim quotes from the “detailed description of the terms of reference” for the EU-wide, open, two-phase, anonymous general planner competition of April 2009.

The campus of the Medical University of Graz represents a synergetic spatial consolidation of all previously dispersed preclinical and administrative units in immediate connection with the existing clinical areas. It thus integrates research, teaching, study, administration and healthcare to form a coordinated entity. The campus provides all elements of this newly emerging university structure with the space they require to dynamically develop towards an exciting future, supported by a courageous innovative spirit.

Existing facilities, such as the neighboring University Hospital, the Center of Medical Research I (ZMF I) as well as the library, will be connected and integrated into the new Campus. Connection and integration, communication and exchange, linkage and bridging, transparency and modularity, accessibility and openness, synergy and sustainability, flexibility and functionality - these are some of the fundamental principles that will shape and permeate what is visible, the building structure. This is how the various different areas are set in relation to each other.

The Campus does not divide, it does not separate, it connects, it couples. Teaching with research. Research with teaching and clinical care. And vice versa, care with research, research with teaching - in every direction. Lecture halls, seminar rooms, research facilities, laboratories. Institutes and divisions. These in turn are linked to form centers. Each institute, each division, each inter-institutional research center is provided with its own infrastructure. Indeed between - yes, “between” actually interpreted spatially too - these research centers and institutes, free research areas will be established - the Center of Medical Research II (ZMF II) - as well as highly specialized service units - the Core Facilities. They can be competitively assigned to certain projects. They ensure spatial flexibility, but also require this from their users. Here, too, the lever works both ways.

© David Schreyer

© David Schreyer

In addition to the genuine university clinical and non-clinical research infrastructure in the institutes, the Centers of Medical Research and the Core Facilities, the Campus also brings non-university research into its scope. Here too conversely, the Campus bridges the gap between university and non-university research. At the “Center for Knowledge and Technology Transfer in Medicine” (ZWT), spin-offs can take their first, critical steps as research companies, or - here again both ways - research-based companies from the fields of medicine, biomedicine and life sciences can hook up to the university’s expertise in research. Of course, in this context too, the Campus concept again has an invigorating, stimulating impact on the larger picture, on medicine. Because the Campus of the Medical University of Graz is much more than an architecturally magnificent assemblage of buildings in the service of research, study and healthcare. Rather, it is the critical university mass of know-how, passion, commitment, courage and innovative spirit that gives rise to progress. Progress in medicine. Progress for people. To achieve this, we need bridges, connections, communication channels, open doors, relationships that span vertically and horizontally.

© David Schreyer ←

Laying foundations

Altogether a historical stroke of luck is the circumstance that it was at the most suitable location, in terms of the project vision of connecting what had been separated, that the possibility of realization actually emerged. After extensive preliminary work and the clarification of ownership and usage rights, a contiguous area had been created in the area adjacent to University Hospital between the "old", former Stiftingtalstrasse, Riesstrasse and Billrothgasse, which would provide space for the vision.

Existing buildings, such as the three-story garage and the four-story Center of Medical Research I (ZMF I) had to (and indeed could) be built over and integrated. The area, divided into two sectors - west and east - with its exciting topographical and infrastructural conditions, offered a prospective setting that was urbanistically challenging but also fascinating and highly attractive for compelling, enduring architectural designs that sought to overcome divisions and establish connections.

In the context of urban planning, the spatial identity of the Medical University of Graz in the Campus was to be formulated as an architecturally concise and distinctive statement. Self-assured - not as an end in itself, but pointing to the importance of the services that would be provided here in the service of the progress of medicine and the well-being of people. Offering space to the complex creative interaction between those very people who contribute their share to making this progress possible. The Campus as an urban reflection of the vision of the Medical University of Graz.

The new Campus of the Medical University of Graz: connected at a level of parity, indeed united with University Hospital, multifaceted as it is in its historical fabric and with its contemporary extensions - and yet confronting it as an independent, characteristic, distinctive building with a clear architectural language of form. In order to express its identity; but also to create identity; and in order finally to be able to build bridges of connection from this power of self-assurance. To quote from the competition documents: "Even if the (teaching and research) campus primarily serves the production of knowledge, an 'image' is to emerge through the strong identification and perhaps even the formation of a 'corporate identity'."

The Campus presents as open to its surroundings, permeable, incorporating its surroundings and becoming the nucleation point and driving force of a new urban quarter centered around medical research, teaching and healthcare provision. To quote once more from the competition documents: "The functional elements of the campus are openly 'scattered' on an urban site, which is formulated by functional densification and not spatially demarcated. The integration of urban life into a dynamic place of research and knowledge is, at the same time, intended to promote the urban development of this neighborhood."

↓

© David Schreyer

The urbanistic morphology of the campus is already clearly described in the competition documents. A continuous plane of movement extends on overbuilds and via bridges from the western part of University Hospital to the eastern development areas between Neuer Stiftingtalstrasse and Billrothgasse. The integration of the underlying natural and urban spaces, structured as they are by Stiftingbach valley with its green space accompaniment alongside traffic areas, itself becomes a constitutive element of the urban quality of the new Campus of the Medical University.

The matrix

On its new Campus, the matrix-like structure of the research areas of the Medical University of Graz is also expressed in the architectural arrangement and allocation of the areas and in the conditions of their availability.

Research areas, offices and laboratories belonging solely to the three research centers and the institutes alternate - horizontally and vertically - with areas that are not given over to exclusive use and are temporarily allocated to specific projects. The latter are housed in the two Centers of Medical Research (ZMF I and ZMF II). Additionally, there are also links and reciprocal connections to the Center for Knowledge and Technology Transfer in Medicine, which is formally external to the university though nevertheless located on campus. Furthermore, public circulation zones along with nodes and areas of communication are similarly omnipresent. Reflecting this multidimensional organizational structure, the spatial syntax is transformed into an activity platform for a network of communication and knowledge streams with nodes and sources of impetus that constantly reinvents itself. Here, another dimension of stratification is introduced, i.e., from highly open public areas to ever more exclusive ones - and from the bottom to the top. Lecture halls and seminar rooms, for example, are located at the bottom, whereas increasingly specialized fields of research are accommodated ever higher.

© David Schreyer

Campus of communication

Is communication plannable? Opportunities to meet, openness, transparency, views in, out and through, connections, permeability, bridges, intelligent guidance, places for retreat, lounges, conference rooms, meeting points, pedestrian spaces, ambience, staircases, terraces, a cafeteria, the auditorium, eateries, furnishing. The new Campus of the Medical University provides space for spontaneous as well as scheduled communication. Space for people who teach, research, study and interact, communicate, talk, laugh, debate, exchange ideas. In the service of medicine, for the benefit of people.

Who “visits” the Campus of the Medical University of Graz? Researchers, teachers and students, guests, suppliers, scholarship holders, high-potentials, staff of the university and the Styrian Hospital Corporation KAGes, residents, people interested in architecture, passers-by, more or less by chance, users of the infrastructure, event visitors, fans of the ambience, joggers and cyclists, road users, dogs, birds, possibly also cats, young and old, from near and far, local and international. To all of them, the Campus of the Medical University provides space to connect, verbally and non-verbally. Perception, visibility, interaction, exchange of thoughts, transmission of thoughts, communication, life, experience.

The new Campus of the Medical University is barrier-free. A campus of inclusion, for everyone, a campus for all of us.

© David Schreyer

OUTLOOK

© David Schreyer

Sustainable

What does sustainability mean here - timber-frame architecture, photovoltaics on the roof? And that's about it?! Not at the Campus of the Medical University of Graz. Already at the design phase, sustainability came into focus from a holistic aspect - in a comprehensive manner and over the entire life-cycle of the building, which still remains open in terms of the future development path.

Objects that are held in particularly high esteem by their users, but also by the general public, also tend to enjoy a particularly long "life" - even if their purpose changes in the course of their life-cycle. This was one of the basic assumptions when the new Campus of the Medical University of Graz was conceived. To put it in a nutshell, the goal was to design a campus that would be well-received by people - researchers, teachers, students, those involved in organization and administration, visitors, the people of Graz; well-received because it "meets" them on an equal footing. A broad commitment to the Campus - without having to reveal the complexity of its intrinsic logic. Analogous to human abilities, the new Campus accomplishes such commitment through its soft skills. Beyond its pure functionality, the Campus is a place of openness, accessibility, encounters and communication.

On the other hand, sustainability is derived from the logic of functional aspects, which are to be combined to form a coherent entity. But how to do this? Understanding the whole starting from its parts? Or understanding the parts in relation to the whole? This is a scientific-theoretical dichotomy that needs to be transformed in the practice of planning into a process of "both/and". Keeping an eye on the technical aspects, but never losing sight of the whole. To analyze, evaluate and decide on interests and requirements, ideas and possibilities, parts and the whole.

Consequently, comprehensive sustainability was implemented as a priority agenda by organizational measures and planning specifications right from the start of the project for the Campus of the Medical University of Graz. An integrated planning and consulting team related the diverse needs, elicited in intensive involvement of the users, to the holistic sustainability objective with its alignment to the future-oriented life-cycle. As an additional instrument for quality assurance and specification of the objectives, the planning process was underpinned by certification by the Austrian Society for Sustainable Real Estate (ÖGNI).

© David Schreyer

Sustainability is formulated as a cross-sectional issue - in all its facets and across the entire life-cycle.

"In recent decades, the subject of the new university campus, medicine, has shifted away from mere cure-oriented practice to the art and science of healthcare in the service of health. Against this background, the property of the new Campus must also be a sustainably healthy property in the widest sense; it must convey a sense of comfort, well-being, and commitment. In a structural, ecological and social sense, it should give more to its surroundings and to the urban space than it receives from them. It must be open to its surroundings but, at the same time, focused for those seeking knowledge. The title Campus of Health is meant to unite the aspects of positive energy and exchange and represents a programmatic directive for urban development. Therefore, the Campus should be sustainable in terms of functionality, added value of utilization, environmental impact, consumption of resources, and cost."*

*Quoted from the competition brief

→ © David Schreyer

© David Schreyer

↑

Sustainability in all its many facets:

- in terms of urban development, architectural design, integration into the urban context, accessibility and transport connections, but also in terms of urban ecology - in a nutshell, a corridor of fresh air for Graz and microclimate on the Campus
- in terms of architecture, building structure, spatial program, floor plans, in particular internal access, openness of use, flexibility and potential for development
- in terms of structural engineering and building physics, in terms of building configuration, construction, statics, intelligence of the façade, building physics, building ecology, open space ecology, and finally also building technology and environmental technology
- spatially, concerning indoor quality, especially indoor climate and indoor environment, objectively-physically as well as subjectively-atmospherically
- operationally, in terms of building economics, long-term operating expenses, and overall life-cycle costs.

Success of the sustainability agenda:
Campus earns platinum status

The Campus of the Medical University of Graz is the first laboratory building in Austria to enjoy platinum certification (awarded for Module 1) from the Austrian Society for Sustainable Real Estate (ÖGNI).

In figures, this means:

- reduction of the annual primary energy demand (PEges) and reduction of the global warming potential (GWP) per m^2 net floor area by more than one third
- reduction in life-cycle costs: minus 28.8 percent compared with a virtual benchmark building
- significant and progressive reduction in energy consumption costs over its life-cycle

Campus plus – in pace with the present and future

The Campus of the Medical University of Graz: visionary planning and realization to consolidate all preclinical research centers, institutes and divisions as well as administration in one place. But the Campus is more than that, it is a platform for innovative state-of-the-art medicine, the heart of a Medical Science City and an entire urban neighborhood dedicated to health, recovery, well-being and quality of life, and a source of inspiration for a region of innovation.

With University Hospital and the two Centers for Knowledge and Technology Transfer in Medicine (ZWT I and ZWT II), the Campus has become a Medical Science City in terms of space, content and strategy; from preclinical basic research to clinically applied research and teaching to patient care. The links to the University of Graz have not been lost with the separation, but - quite the opposite - have been renewed. Together with Graz University of Technology and Karl Franzens University of Graz, the Medical University of Graz is integrated in the BioTechMed-Graz initiative - a pioneering cooperation at the interface of biomedical foundations, technological developments and medical application with the goal of joint research for health and well-being. A quantum leap for Graz and the whole of Styria as a location for science and business.

The Campus of the Medical University of Graz is building bridges. It links knowledge and connects people. Pulsating, flexible, responsive, innovative and adaptable; the future belongs to the Campus.

↓

© David Schreyer

This publication is associated with the opening of
the Campus of the Medical University of Graz.

1st Edition 2023
Copyright Med Uni Graz

Media owner, publisher, editor and responsible for the content:

the Medical University of Graz
Neue Stiftingtalstraße 6
A-8010 Graz, Austria

www.medunigraz.at
+43 316 385 0
rektor@medunigraz.at

Rector Univ.-Prof. Dr. Hellmut Samonigg

General planning / architecture of Med Campus Module 1 and Module 2 main buildings:

Riegler Riewe Architekten
rieglerriewe.co.at/de

General planning/architecture of Anatomy building:

Franz&Sue Architekten
www.franzundsue.at

Editorial:

Staff unit for public relations
and event management

Text
Body text and interview:

Dr. Wolfgang Wildner
www.wolfgangwildner.at

Architecture article (Med Uni Campus):

DIin Isabella Marboe
www.isabellamarboe.at

Architecture article (Anatomy):

Franz&Sue Architekten
www.franzundsue.at

Translations and proofreading:

Mag.a Susanne Baumann-Cox, Peter Cox, MA
www.baumann-cox.com

Book design:

Kadadesign, Alexander Kada with Laura Eibeck
www.kadadesign.com

Printing:

Universitätsdruckerei Klampfer, Weiz
www.klampfer-druck.at
Designed and printed in Austria

Picture credits:

© David Schreyer
© Manfred Stangl
© Med Uni Graz
© Paul Ott
© Paolo Rosselli
© Riegler Riewe Architekten