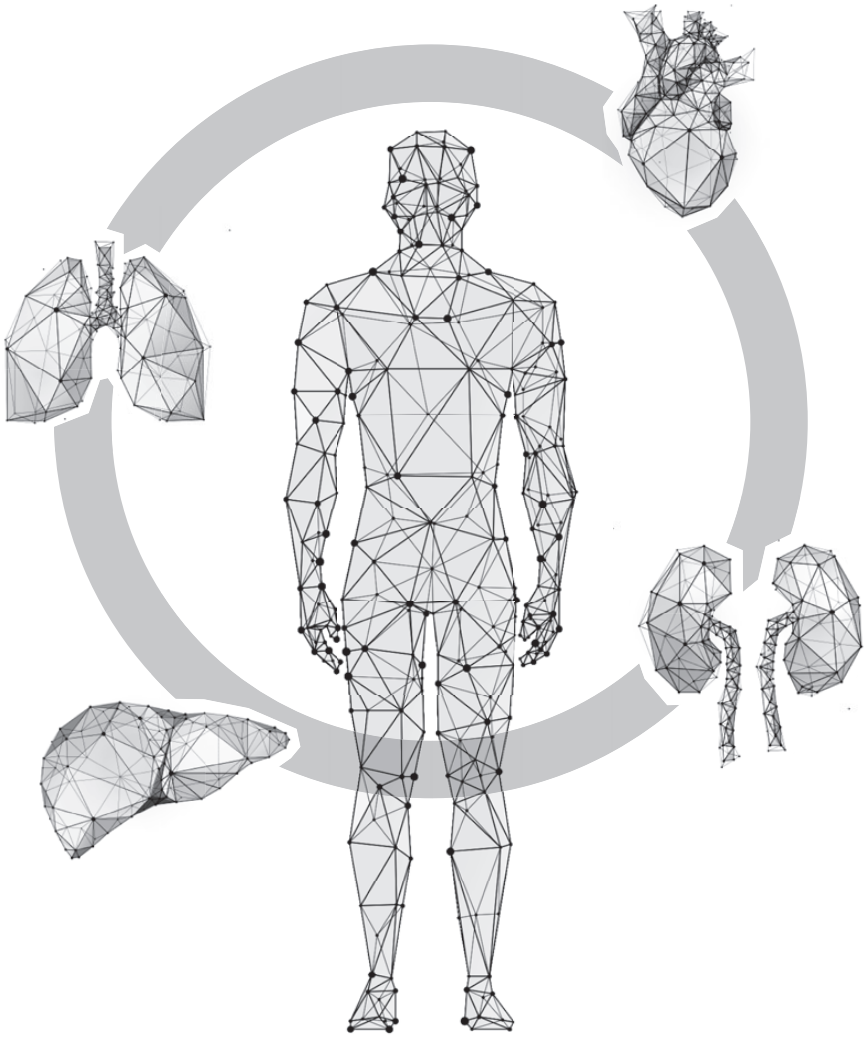
organLife

a new life for organs

ORGAN REGENERATION CENTER OF EXCELLENCE, INNSBRUCK

EX VIVO ORGAN PRESERVATION AND TREATMENT REPRESENTS AN EMERGING FIELD AND A NEW ERA IN MODERN MEDICINE. OUR TEAM AT THE ORGAN REGENERATION CENTER OF EXCELLENCE, INNSBRUCK INTENDS TO TREAT MARGINAL, DISEASED ORGANS TO ENABLE PATIENTS A HEALTHY AND FULFILLED LIFE.



Pioneering
a medical revolution

THE ORGANLIFE – ORGAN REGENERATION CENTER OF EXCELLENCE, INNSBRUCK

THE NEED: Severe organ disease and organ failure display acute life-threatening conditions in humans.
The available therapeutic options are limited and include mechanical replacement with e.g. dialysis, or transplantation with a suitable donor organ.
The long-term function of mechanical devices is limited, and the number of healthy organs suitable for transplantation even more so. Hence, many patients suffer and die due to organ failure.

THE FIX: The ability to treat organs outside the human body offers a novel solution for the treatment of marginal donor organs or even patient's own organs.

THE AIM: A newly developed technique of machine perfusion allows to continuously perfuse organs with oxygenated blood exterior to the human body. This enables the preservation of organs and provides a platform for treatment under close-to-physiologic conditions. Our aim at the newly founded organLife – Organ Regeneration Center of Excellence, Innsbruck is the targeted therapy of damaged organs in order to restore their functionality. This will help to overcome the severe organ shortage in transplantation but also enable treatment of disease-affected organs.

THE OPPORTUNITY: The expertise in transplantation, stem cell therapy and regenerative medicine is united at the organLife center. Our lab, the team and the environment in Innsbruck offer ideal conditions to become international pioneers in this emerging field. As a flagship project of the Medical University of Innsbruck, we aim to be the first to establish the treatment of organs like the heart, liver and kidney.

Experience a revolution in medicine and be part of a novel chapter in medicine!

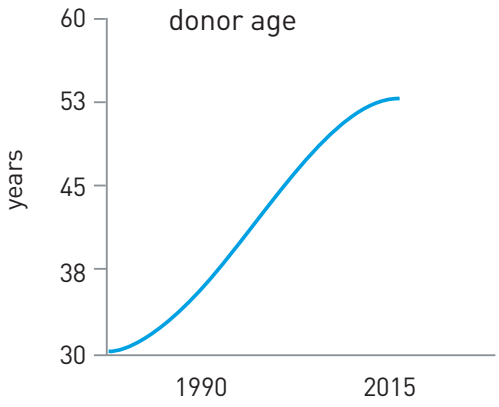
Stefan Schneeberger,
ao. Univ.-Prof. Dr. Executive MBA (HSG), FEBS

Shortage of healthy donor organs
for transplantation

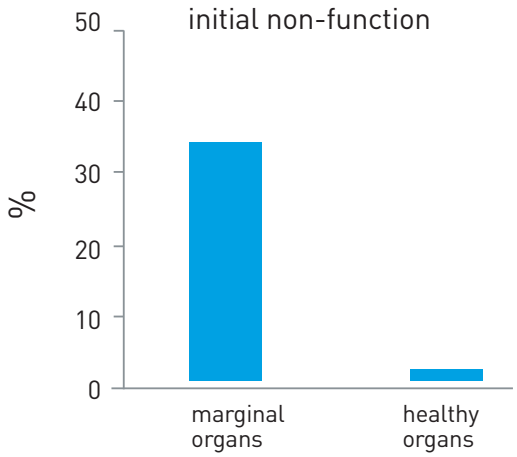
Failure or malfunction of a diseased organ, caused by infection, cancer or chronic disease, displays an acute life-threatening condition. It is one of the most common causes of death.
Since a permanent replacement of organ function by an artificial organ is not available (lung, liver), or not ideal (kidney, heart), transplantation remains the sole option. The discrepancy between demand and supply of organs for transplantation leaves many patients suffering and dying without the chance of treatment.

In the attempt to limit organ shortage, even organs with pre-existing damage or organs taken from older donors are increasingly considered for transplantation. This is associated with serious limitations:

- → **The functionality of organs from older donors is significantly reduced after transplantation.**
- → **Graft survival of organs with preexisting damage is inferior and results in worse recipient survival after transplantation.**
- → **Additional impairment occurs during organ procurement and conventional storage, especially in organs with pre-existing damage.**



The average donor age has risen continuously during the past 30 years. Pre-damaged and older organs are also routinely accepted for transplantation in order to cope with the organ shortage.



About 30 % of older, pre-injured organs show no initial graft function post transplantation, whereas this occurs in merely 2 % of young, healthy organs.

Such problems may be overcome via ex vivo organ treatment. Therapy and regeneration of marginal donor organs as well as of patients' own, diseased organs represent a potential revolution in modern medicine.

Normothermic machine perfusion

A MEDICAL REVOLUTION IN ORGAN TREATMENT

Conventionally, organs are cooled to 4°C in order to limit the damage during the phase of storage after donation. However, marginal and older donor organs are particularly susceptible to damage during cold storage and subsequent rewarming during transplantation. The resulting damage is termed 'ischemia/reperfusion injury'.

Normothermic machine perfusion (NMP) introduces a new era in organ storage and treatment. The benefits include less damage to the donor organs, preserved organ quality, extended storage time, enhanced assessment of organ function, and reduced organ loss.

The donated organ is maintained extracorporeally – on an artificial blood circuit, inside a 'mini intensive care unit'. This enables blood circulation under close-to-physiologic conditions and helps to maintain and monitor organ function.

Major advantages of NMP in contrast to cold storage:

1. **Less organ damage**
2. **Improved assessment of organ quality**
3. **Suitability/eligibility for organ treatment**

Heart

Lung

Liver

Kidney

Successful clinical implementation of machine perfusion has already been achieved for heart, lung, liver and kidney.
Heart: Ardehali A et al, Lancet. 2015;385:2577
Lung: Cypel M et al, N Engl J Med. 2011;364:1431
Liver: Nasralla D et al, Nature. 2018;557:50
Kidney: Weissenbacher A et al. Am J Transplant. 2019;19:178

Organ preservation

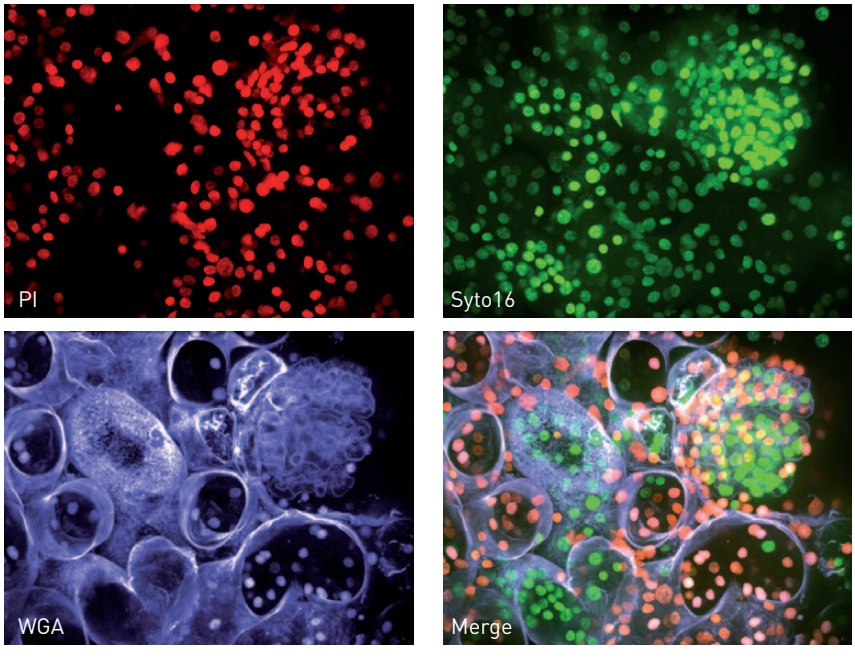
via normothermic machine perfusion

A ROUTINE AT THE TRANSPLANTATION CENTER INNSBRUCK

The Medical University of Innsbruck has a pioneering role in this discipline. Our center is amongst the first worldwide to implement the novel technology of NMP as a clinical routine in liver transplantation. Beyond the clinical utilization, the impact of NMP on organs is heavily investigated in a series of clinical studies. Currently, 50 % of kidneys and livers transplanted in Innsbruck are preserved and assessed prior to transplantation – through machine perfusion. The organs are monitored and treated at the intensive care unit equivalent to patients. Decisions on transplantation-eligibility are supported by the data collected during this period. The standards for this approach have been developed in Innsbruck.

A major advantage of machine perfusion is the option to assess organ quality prior to transplantation.
Our study shows that particularly real-time confocal microscopic assessment provides decisive information to help identify impaired organ function. For this test, tissue samples are taken at regular intervals during machine perfusion and examined for cell viability and damage with a confocal microscope. This method was established in Innsbruck. It is simple and fast, and provides important aspects on both cell viability and integrity. Such information enables the decision-making process on whether to transplant an organ or not.

Confocal microscopy

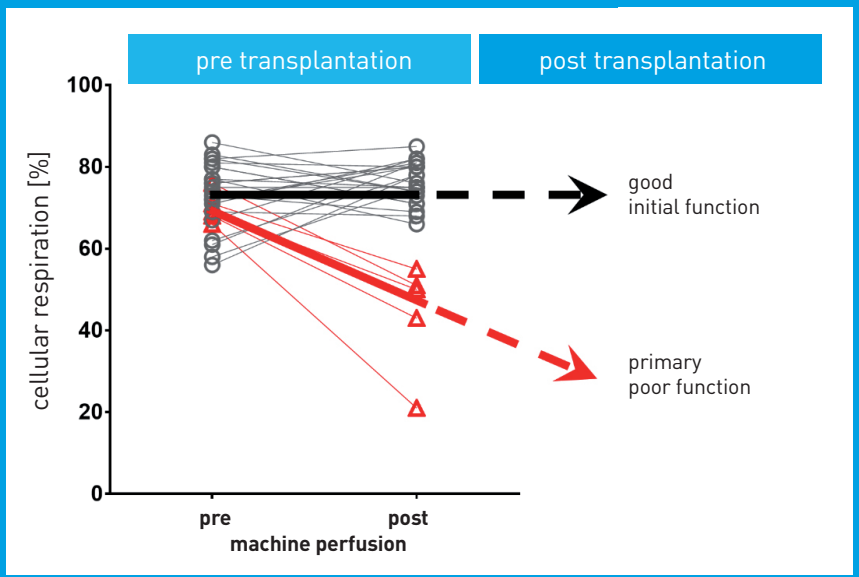


Liver biopsies are incubated with specific dyes and analyzed with a confocal microscope. The damaged cells are stained red (PI), while the viable cells are displayed in green (Syto16). Wheat germ agglutinin (WGA, blue) is used to depict the cell integrity. The images are merged to obtain a consolidated picture.

We observed that changes in cell respiration during machine perfusion are correlated with impaired organ function after transplantation. Thus, liver biopsies are analyzed with a high-resolution respirometer, a device developed by Oroboros in Innsbruck.

The Innsbruck-based company offers unique experience within this field, and the application of this technology allows to predict organ functionality after transplantation.

Cellular respiration and function



Liver biopsies from an organ with poor initial organ function post transplantation (red) show a decrease in cell respiration and integrity during NMP. This is in contrast to the readout of a sample from a liver with good initial organ function (black). Ergo the method allows to predict poor organ function after transplantation.

source: ESOT

organLife

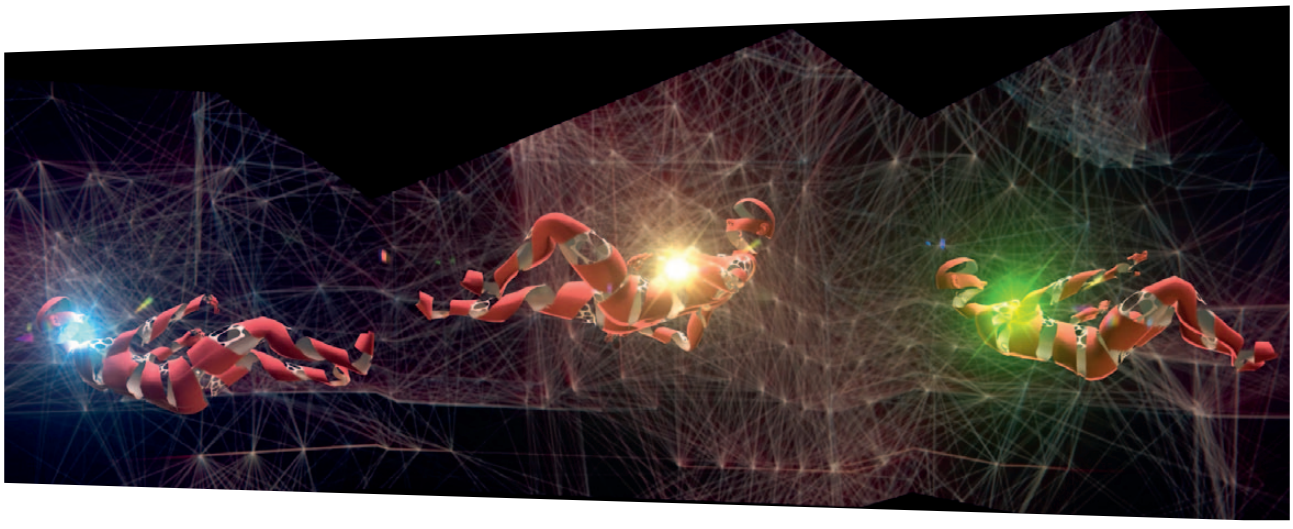
Organ Regeneration Center of Excellence, Innsbruck

OrganLife – Organ Regeneration Center of Excellence, Innsbruck aims to treat damaged and diseased organs with the help of the revolutionary technique of extra-corporeal machine perfusion. We believe that this will increase the overall organ survival rate and hence improve the patients' well-being, quality of life and overall fitness.

organLife primarily performs applied research and aims to rapidly implement its developments in patient care. The research is performed via interdisciplinary projects, by a large team displaying diverse scientific backgrounds. Our team is currently interconnected with and supported by several industry partners.

organLife Innsbruck intends to fill an international pioneering role in the field of organ regeneration and therapy. The environment and infrastructure of the Medical University in Innsbruck allows us to plan the establishment of extracorporeal care and therapy for heart, lungs, livers and kidneys.

By 2030, we further pursue to implement long-term storage of organs. This would allow for the idea of an organ bank to become reality. Organs from an organ bank could then become routinely available in case of organ damage or loss of function.



source: ESOT

Extracorporeal organ treatment

MAY REVOLUTIONIZE TUMOR THERAPY AND ORGAN-SPECIFIC AGING

The ability to perform blood perfusion and prolonged preservation of organs outside the human body reveals completely novel perspectives and opportunities. It revolutionizes both – the organ-specific tumor treatment as well as the organ-specific anti-aging processes.
Conceptually, if an organ has been affected by a tumor, it could be surgically removed, then treated extracorporeally whilst being machine-perfused, and subsequently re-implanted into the patient. This helps to test and apply entirely novel therapies while avoiding the side effects often caused by aggressive cancer therapies.

Organ-specific drug testing

Machine perfusion also offers an innovative option to be used in the field of drug testing.
Testing of newly developed pharmacologic therapies on efficacy and side effects could initially involve mammalian organs before entering clinical trials. This holds the potential to establish an entirely new drug-testing pathway for the pharmaceutical industry.

organLife

Our vision of getting an organ ‘fit’

Maintaining blood circulation and organ function extracorporeally through machine perfusion offers the unique option to treat a diseased organ. We want to regenerate and improve both diseased patients’ organs as well as donor organs with the help of this revolutionary technology. Basically, organs could be treated on the machine for several hours or even days.

Depending on the extent and type of organ damage and disease, the following options are considerations for treating an organ:

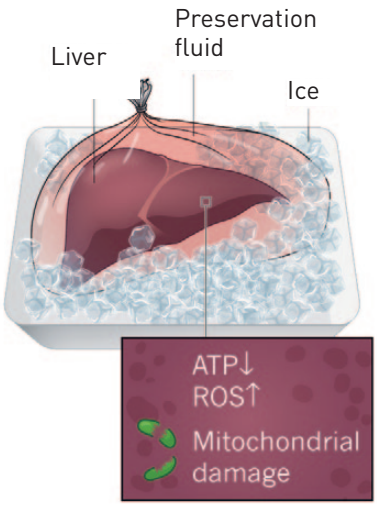
→ Improvement of metabolic capacity and hence organ function
Metabolism-stimulating and nutrient-rich substances may be supplemented to the perfusion solution during mechanical circulation.

→ Treatment of damaged vessels within the organ
Regenerating substances are supplemented.
They primarily adhere to the inner lining of damaged vessels and repair them.

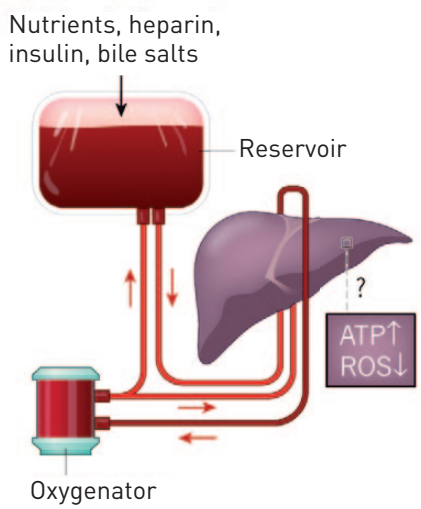
→ Treatment of genetic diseases with gene therapy
The revolutionary technique of ‘molecular gene scissors’ - CRISPR/Cas 9 – may enable the therapy of organ-specific genetic diseases during machine perfusion.

→ Cell replacement using stem cell therapy
The addition of stem cells to the circulation during machine perfusion enables recovery of the diseased organ.

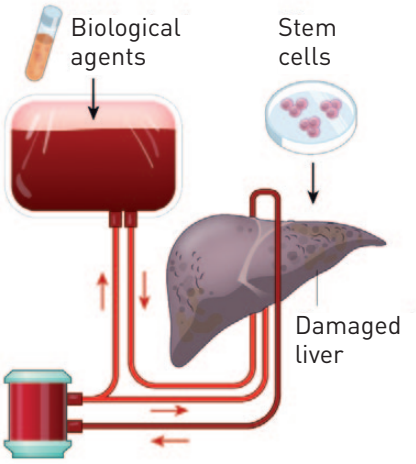
a Current approach



b NMP



c Future directions?



Machine-perfusion-supported liver regeneration

Schneeberger S. Nature. 2018;557:40

Implementation:
Working groups and milestones

The implementation of our goals is carried out by an interdisciplinary, integrative and young team consisting of highly trained, talented and motivated doctors and scientists with diverse backgrounds. The team is complemented by senior scientists and department chairs.

MILESTONE 1

Standardizing preservation and monitoring of liver, kidney, lung and heart by normothermic machine perfusion

We aim to establish standards for machine perfusion of livers, kidneys, and later hearts and lungs for clinical application and assessment of damage in this first project phase. Furthermore, we aim to extend the ex-vivo preservation time to seven days. This step will eventually be combined with the establishment of vitrification and rewarming of organs.

MILESTONE 2

Deciphering mechanisms of cell and tissue regeneration

Our center strongly focuses on cell and tissue regeneration to repair pre-existing organ damage and damage caused by cold storage and rewarming (ischemia/reperfusion injury). Substrates and conditions for tissue regeneration will first be tested in clinically relevant models like cell culture or organoids (= organ-like microstructures).

MILESTONE 3

Targeted tissue-specific regeneration of organs during normothermic machine perfusion

Building on milestone 2, we aim to establish a procedure for reconditioning and regenerating of specific areas of cell types within an organ. To enable the clinical implementation of targeted and tissue-specific organ regeneration, the functional unit and integrity of an organ must be restored. This should be enabled by specific cell-differentiation and therapy methods during normothermic machine perfusion.

Our vision
for Innsbruck, Tyrol

WHY ORGANLIFE FINDS
THE BEST CONDITIONS IN INNSBRUCK

As a flagship project for the Medical University of Innsbruck & Tirol Kliniken we placed emphasis on organ replacement therapy, machine perfusion and ischemia/reperfusion research. The expertise gained over decades in these fields and the existing infrastructures are combined at the Organ Regeneration Center of Excellence, Innsbruck to achieve a real breakthrough in organ treatment. The integrative work in the fields of organ transplantation, haemato-oncology (stem cell transplantation), nephrology, pediatrics, anesthesia, gastroenterology and hepatology, visceral- and thoracic surgery, cardiac surgery, as well as stem cell therapy and regenerative medicine will be the key to success of our project.
Third-party funding of individual projects, publications in international, high-ranked and peer-review journals, excellent international networking and cooperation with renowned experts all bear witness of the high level of expertise in the respective areas. The highly motivated, dedicated and trained team contribute to the success of our center.

The Organ Regeneration Center of Excellence, Innsbruck is located in the new, state-of-the-art research facilities of the Medical University Innsbruck & Tirol Kliniken built to create an optimal environment for applied research of the highest quality. The adjacent 'good manufacturing practice' (GMP) area ensures that the highest standards in terms of infrastructure, hygiene, equipment, documentation and quality control are met.

Tyrol as the most desirable place of in the Alps to recover and regain health and vitality.
This 'milestone project' can ensure that an outstanding competence center will be located in Tyrol, which further strengthens and emphasizes the research capacity of this state.
'Top-level' medicine, research and technology, together with a touristic infrastructure that meets the highest expectations, and a breathtaking landscape offer the best conditions to further enrich the Living Space 4.0 Tyrol.

The interdisciplinary Organ Regeneration Center of Excellence, Innsbruck unites local expertise in the fields of transplantation medicine as well as stem cell therapy and regenerative medicine.

The Team

Highly qualified, interdisciplinary and motivated

A young interdisciplinary, integrative team of highly-trained, talented and extremely motivated doctors and scientists has been created to achieve our goals. It is mentored and supported by senior scientists and department chairs.

Theresa Hautz-Neunteufel
Priv. Doz. Dr. med. PhD

Transplant immunologist with a strategic vision

After graduating from high school with a major in engineering and architecture, Theresa successfully completed her medical studies at the Medical University Innsbruck. She had always been fascinated by transplantation medicine, even early in her studies. Theresa holds a doctoral degree (PhD) in molecular biology.

Springboard hand transplantation
Theresa is an expert in the field of vascularized composite allotransplantation as well as hand transplantation. After completing her work as a scientific fellow at the renowned Starzl Transplantation Institute of the University of Pittsburgh Medical Center, USA, she initiated and directed the experimental working group of vascularized composite allotransplantation at the D. Swarovski Research Laboratory in Innsbruck. Theresa's scientific efforts are focused on normothermic machine perfusion and organ regeneration/treatment since 2018. She coordinates all scientific projects at organLife and manages the lab.

Pooling resources
Theresa is greatly looking forward to pushing the progress in organ regeneration and treatment at the organ Life center. She is particularly excited about the translational aspect of this project: "At the organLife center, development and research go hand in hand with the clinical application of our results – for the patients' benefit."

Annemarie Weißenbacher
Priv. Doz. Dr. med. Dr. phil

Transplant surgeon from the very beginning

Annemarie was already fascinated by the Transplant pioneer Prof. Raimund Margreiter at the early age of six and hence wanted to become a transplant surgeon. After graduation from the Fashion Design School in Hallein/Salzburg, she completed her medical studies at the Medical University of Innsbruck in 2007.

From Innsbruck to Oxford and back
During her residency, Annemarie investigated predictors of an optimal initial and long-term outcome after kidney transplantation. She then attended a clinical research fellowship at the Oxford Transplant Center of the University Oxford, where she completed a doctoral degree in Surgical Sciences. Annemarie returned to the Department of Visceral, Transplant and Thoracic Surgery in Innsbruck in 2018. This is where she took charge of the kidney transplant program.

Surgeons and engineers –
a story of machines and human beings
Together with a team of surgeons and engineers in Oxford, Annemarie delivered key contributions for the development of the second generation of perfusion machines for livers, and a prototype for normothermic machine perfusion in kidneys. Annemarie will support the organLife project with her outstanding expertise in kidney and liver machine perfusion. She is highly motivated to establish a clinical kidney preservation and machine perfusion program.

Rupert Oberhuber
Assoz. Prof. Priv. Doz. Dr. med. PhD

Transplant surgeon with a strong scientific aspiration

Rupert developed a strong interest in Transplant Surgery during his medical studies at the Medical University Innsbruck. He intently investigated ischemia/reperfusion injury in solid organ transplantation at the D. Swarovski Research Laboratory in Innsbruck, and completed a research fellowship at the renowned Harvard Medical School in Boston.

The combination of patient care and research
Rupert is an Associated Professor at the Medical University Innsbruck. His clinical work focuses on liver transplantation, especially in pediatric patients. Rupert is excited about scientific projects emerging from real world clinical problems and challenges. Thus, he and his team developed a microscopic investigation tool to rapidly and reliably assess organ quality prior to transplantation.

Innovation for the patients' benefit
At the organLife – Organ Regeneration Center of Excellence, Innsbruck real world clinical problems and challenges will be addressed using multidisciplinary effort. "Working in a high-performance team such as the one assembled here represents an exceptional privilege and a great opportunity" for Rupert.

Benno Cardini
Dr. med. PhD

Dedicated surgeon with a multidisciplinary approach

After graduation from high school with a humanistic background, Benno successfully completed his medical studies at the Medical University of Innsbruck, with a doctoral thesis on ischemia and reperfusion injury in a murine transplant model. His scientific knowledge was further enhanced during his time as a Postdoc at the Department of Biochemistry. This was followed by a surgical residency at the Department of Visceral, Transplant and Thoracic Surgery, University Hospital Innsbruck. Benno´s clinical ambitions are focused on transplant surgery. In 2018, he successfully completed the European Board Certification as a Specialist in Transplant Surgery.

Harmonizing science and clinical work
Integrating innovative techniques into clinical reality represents a challenge with respect to logistics and personnel. Benno was the project leader when normothermic machine perfusion was successfully implemented in the clinical liver transplant program at the Department of Visceral, Transplant and Thoracic Surgery at University Hospital Innsbruck. This program today, represents one of the world's largest and most successful programs. He has coordinated an integrative team and nurtured the dedication of every single person involved. We strongly feel that this is a key for success.

Let's shape the future!
The organLife – Organ Regeneration Center of Excellence, Innsbruck offers the unique potential to shape the future with a highly motivated team. Bundling the excellence of the various disciplines involved for the patients´ wellbeing is a challenge Benno gladly accepts.

Thomas Resch
Dr. med. PhD

Transplant surgeon and basic scientist

Basic science and surgery in transplantation go hand in hand. Thomas was fascinated by this fact early in his medical studies and thus decided to specialize in this field.

Commitment in European Transplant Community
After graduation from his medical studies in 2009, Thomas earned a PhD degree for conducting basic science in transplant immunology at the D. Swarovski Research Laboratory in Innsbruck. He now works as a general surgeon, being highly qualified in the transplantation of the liver, kidney and pancreas. Thomas is engaged in numerous international scientific collaborations and remains highly dedicated to the European Society of Organ Transplantation (ESOT), where he actually holds a position as a board member of the Young Professionals in Transplantation.

Improving patient care
Thomas is greatly looking forward to combining basic science and translational, patient oriented research at the organLife – Organ Regeneration Center of Excellence, Innsbruck, and aims to advance transplantation at an international level.

Julia Dumfarth
Priv. Doz. Dr. med. PhD

Head of the heart transplant program

Julia is a cardiac surgeon who had already begun investigating the mechanisms of myocardial regeneration during ischemic cardiomyopathy as a medical student. She then commenced her residency in cardiac surgery at the Medical University of Vienna, which she continued and completed in Innsbruck.

Focus: Science
During residency, Julia focused on diseases of the aorta and heart transplantation. Furthermore, she worked as a research fellow at the Yale New Haven Aortic Institute of the Yale School of Medicine, USA during her PhD studies. After approval as medical specialist in heart surgery, she became the head of the heart transplant program in Innsbruck in 2018.

For the benefit of a healthy heart
Julia initiated the development of ex-situ heart perfusion at the organLife – Organ Regeneration Center of Excellence, Innsbruck. She is focusing on rescue strategies in extended criteria donor hearts in order to optimize conditioning of the grafts. As head of the heart transplant program, Julia is in the process of establishing a clinical ex-situ heart perfusion project.

Timon Erik Adolph
Dr. med. PhD

Physician with a focus on inflammation biology

Timon is an MD who started investigating inflammation and regeneration in the gut and the liver as a medical student. After graduation from medical studies at the Medical University Innsbruck he continued with his work as a PhD student at the University of Cambridge, GB, where he earned a doctoral degree. He now works at the Department of Internal Medicine I (Gastroenterology & Hepatology) in Innsbruck and investigates the mechanisms of metabolic inflammation as a leading scientist.

Leading a research group
Timon is an expert in the immunology of inflammatory bowel diseases. After completing his PhD, he started his residency in internal residency with a specialty in gastroenterology in 2014. With the financial support of the Tiroler Wissenschaftsfonds, the FWF and international Societies of the respective research field, he recently established his own research group.

Translational research at its best
Based on his background in inflammation and tissue regeneration, Timon will contribute to the organLife project with his expertise to translate basic science findings into clinical applications. He conducts translational research at an international level and is excited to join our interdisciplinary team.

Hannes Neuwirt
Assoz. Prof. Dr. med. PhD

Nephrologist specializing in kidney transplantation

Following his graduation from medical studies, Hannes earned a PhD degree in molecular cell biology. He has been working at the Medical University Innsbruck since 2005 and currently serves as the deputy director at the Department of Nephrology at the University Hospital in Innsbruck.

Delaying senescence, enabling regeneration
Hannes has a profound experience in nephrology and internal medicine. His research focuses on intracellular signaling, cell proliferation, differentiation, and programmed cell death. Furthermore, Hannes investigated biomarkers that affect and predict graft and patient survival after kidney transplantation in the long-term. In combination with international collaborating partners, his scientific focus is the alteration of senescence with the help of senolytica. Moreover, Hannes is interested in the development of cell-based therapy methods to enhance organ regeneration.

Research at the highest level
The organLife project offers the unique possibility to establish a therapy with a positive effect on graft and patient survival in an interdisciplinary setting, at the highest academic level. His expertise and engagement will help to significantly advance our research and improve the outcome after organ transplantation.

Georg-Friedrich Vogel
Dr. med. PhD

Pediatric gastroenterologist dedicated to molecular cell biology

Georg had always wanted to become a medical doctor. He was attracted to basic science and research as a medical student at the Medical University in Innsbruck.

Learning about the basics
Following his graduation from medical school, Georg earned a PhD degree in molecular cell biology in Innsbruck, with a doctoral thesis on the pathophysiology of severe, innate diarrheal diseases in children. He then commenced his residency at the Department of Pediatrics in Innsbruck. He greatly focuses on pediatric gastroenterology, where he investigates innate liver diseases. Georg's successful career as a researcher includes numerous publications, scientific honors and research grants. Furthermore, he is a key team member in the pediatric liver transplantation team.

Innovation next door
Georg is convinced that the organLife, Organ Regeneration Center of Excellence, Innsbruck will reveal novel prospects and innovations to ensure and increase the demand of solid organ grafts for pediatric patients. Specifically, he is looking forward to contributing to such modern/advanced technology and approach.

Gabriel Putzer
Dr. med. EDAIC

Anesthesiologist with a research spirit

Gabriel studied medicine in Innsbruck and Oslo. He works as a consultant at the Department of Anesthesiology and Intensive care medicine at University Hospital of Innsbruck, and is a member of the cardiac surgery and transplant team.

Multiple award-winner
The medical doctor has successfully conducted numerous scientific projects, acquired third-party funds, and won six awards by the Austrian Society of Anesthesiology, Reanimation and Intensive care medicine (ÖGARI). Gabriel investigates cerebral oxygen supply and metabolism during cardiopulmonary resuscitation and aims to optimize the outcome. He has established a large animal model in Innsbruck in order to carry out this research.

Specialist for large animal models
Gabriel will support the organLife – Organ regeneration Center of Excellence, Innsbruck with his expertise in conducting research in large animal models. Moreover, he will investigate the effect of normothermic machine perfusion on the endothelium of organs including the glycocalyx.

Katharina Günther
Dr. rer. nat.

Motivated stem cell researcher working in biomedical science

After graduating in human biology in Marburg, Germany, Katharina completed a scientific fellowship in Santa Barbara, California, USA, where she focused on molecular medicine. Thereafter, she successfully completed a doctoral degree in Bonn and Würzburg, Germany.

Focus on tissue engineering and cell transplantation
Katharina investigated innovative molecular Methods at the Institute of molecular biology & CMBI, University Innsbruck and at the Institute of molecular regenerative medicine, SCI-TReCS, Paracelsus Medical University Salzburg over a period of two years. She develops novel cell models and focuses on innovative and interdisciplinary projects, such as tissue engineering and cell transplantation. Katharina further coordinates the network "Life & Health Science Cluster Tirol", is founding member of the Austrian Society of stem cell research, and actively engages in conversation between scientists and the general public.

Science state-of-the-art
According to Katharina, an intensive cooperation of the various disciplines is of utmost importance to successfully conduct state-of-the-art science. She is greatly looking forward to support the organLife project with her outstanding expertise in stem cell biology.

Sebastian Bachmann
Dr. med.

Specialist in laboratory diagnostics

Harboring a great fascination for medical research, Sebastian was already employed at the Institute for human genetics in Graz as a medical student, and completed a fellowship in Oslo, Norway. He graduated from medical studies at the Medical University Graz before entering residency at the University Hospital of Innsbruck.

Creating synergy
For Sebastian, the organLife project represents the unique possibility to be involved in applied research as well as its clinical application. With his exhaustive experience, outstanding competence and access to the infrastructure of the ZIMCL, he will be available to perform advanced laboratory investigations within the organLife project. Methods and techniques used in clinical chemistry, haemotology, molecular analyses and haemostaseology will be readily available at the ZIMCL.

Keeping track!
Providing valid results rapidly is of key relevance in our approach. With this in mind, Sebastian will contribute significantly to the organLife project. The search for the most valuable and predictive biomarkers to evaluate donor organs prior to transplantation is a great challenge. However, it is a pleasure to accept this challenge!

Andreas Pircher
Priv. Doz. Dr. med. PhD

Oncologist fascinated by tumor biology

Andreas studied medicine and completed a doctoral degree (PhD) in molecular oncology at the Medical University Innsbruck. He realized very early in his career that being a researcher and a medical doctor at the same time offers the ability to translate his findings into superior patient care.

Targeting the vascular system
Andreas was awarded an Erwin-Schrödinger fellowship. He investigated novel mechanisms in the development of resistance against antiangiogenic therapies as a PostDoc at the renowned Laboratory of Prof. Carmeliet, Center of Cancer Biology (CCB/VIB), Leuven, Belgium. Andreas specifically focused on the metabolism of tumor endothelial cells. Currently, he is investigating the heterogeneity and interaction of tumor endothelial cells with the tumor microenvironment in lung cancer, in order to find novel anti-angiogenic antigens and innovative adjunctions.

Connecting basic science and clinical work
Andreas' role at the organLife center is to investigate how changes in metabolism and the vascular system may positively impact organ function. In addition, he will support the consortium in matters related to oncologic problems and assist in development of novel therapeutic options for oncological conditions.

Seniors / Lead

ao. Univ.-Prof. Dr. Stefan Schneeberger, Exec. MBA (HSG), FEBS
Head Transplant Surgery and Hepatobiliary Surgery
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Director Department of Visceral, Transplant and Thoracic Surgery

Univ.-Prof. Dr. Herbert Tilg
Director Department of Internal Medicine I

Univ.-Prof. Dr. Gert Mayer
Director Department of Internal Medicine IV

Univ. Prof. Dr. Dominik Wolf
Director Department of Internal Medicine V

Univ.-Prof. Mag. Dr. Thomas Müller
Director Paediatrics I

Univ.-Prof. Dr. Michael Grimm
Director Heart Surgery

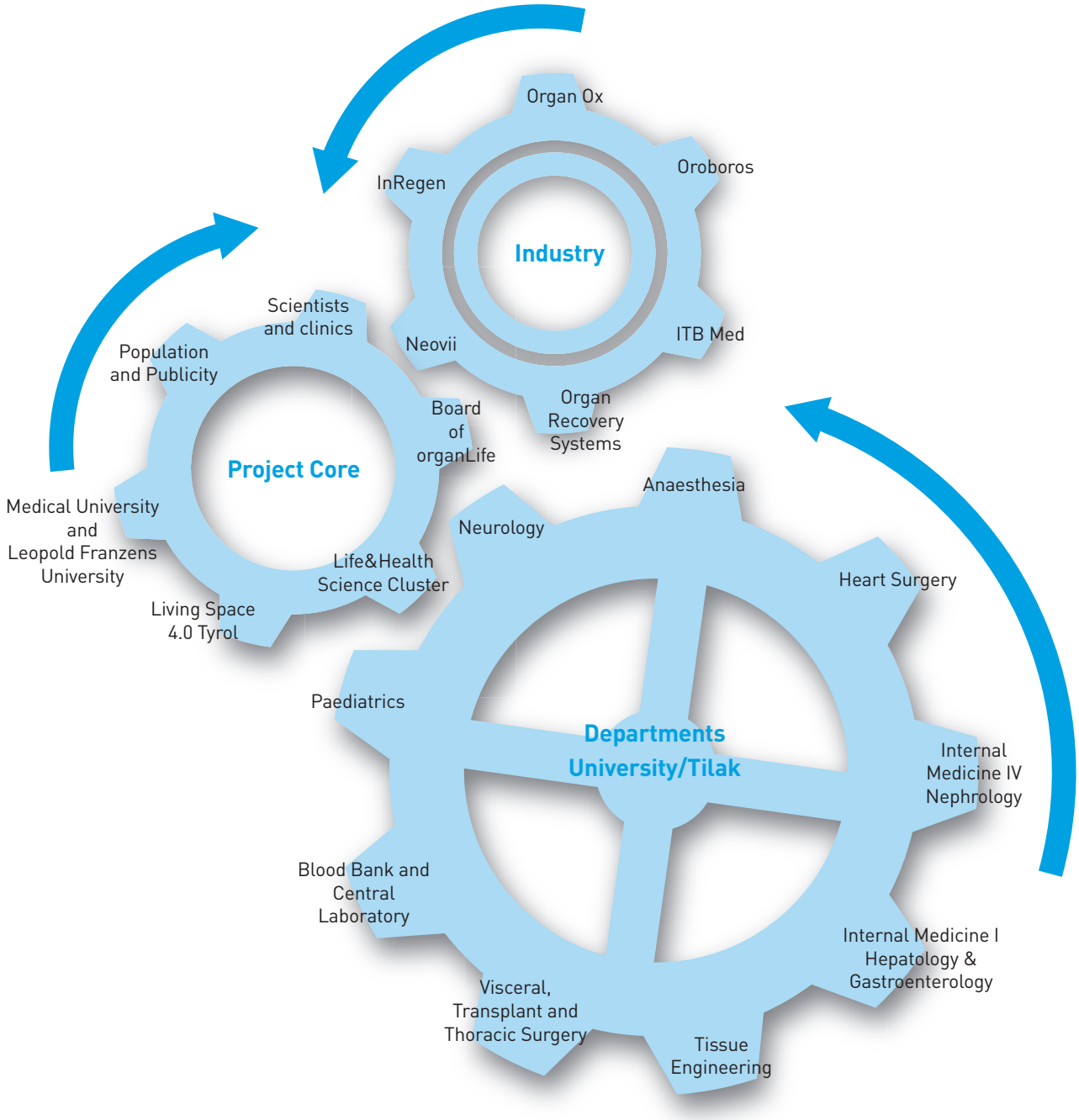
Univ.-Prof. Dr. Frank Edenhofer
Deputy Head Institute Genomics, Stem Cell Biology and Regenerative Medicine

Prim. Univ.-Doz. Dr. Harald Schennach
Head Central Institute for Blood Transfusion and Department of Immunology (ZIB)

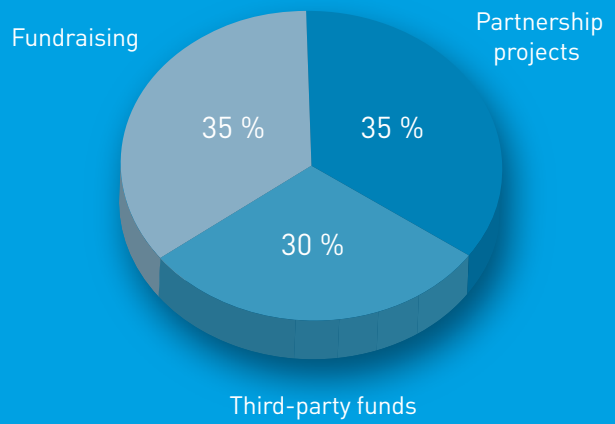
Univ.-Prof. Dr. Andrea Griesmacher
Head Central Institute for Medical and Chemical Laboratory Diagnostics (ZIMCL)
including interdisciplinary haematologic competence center (IHK)

Partner, sponsor and stakeholder

Actively involved departments of the Medical University Innsbruck & Tirol Kliniken, institutes of the Leopold-Franzens University, medical technology companies- and industry as well as stakeholders:



Budget
and financing



The organLife – Organ Regeneration Center of Excellence, Innsbruck is financed by competitively obtained third-party funds (30%). Half of the remaining 70% are obtained by fundraising (35%) and partnership projects with the industry (35%). The total budget for a 10-year span of organLife – Organ Regeneration Center of Excellence, Innsbruck is estimated at 25 million Euro.

Be part of organLife!

SHARE OUR VISION AND LET'S BREAK NEW GROUND.

organLife – Organ Regeneration Center of Excellence, Innsbruck is an ambitious project with a huge scope. The results of our work should not only be reported to experts, but also presented to the public. You will instantly experience the beginning of a new chapter in medicine.

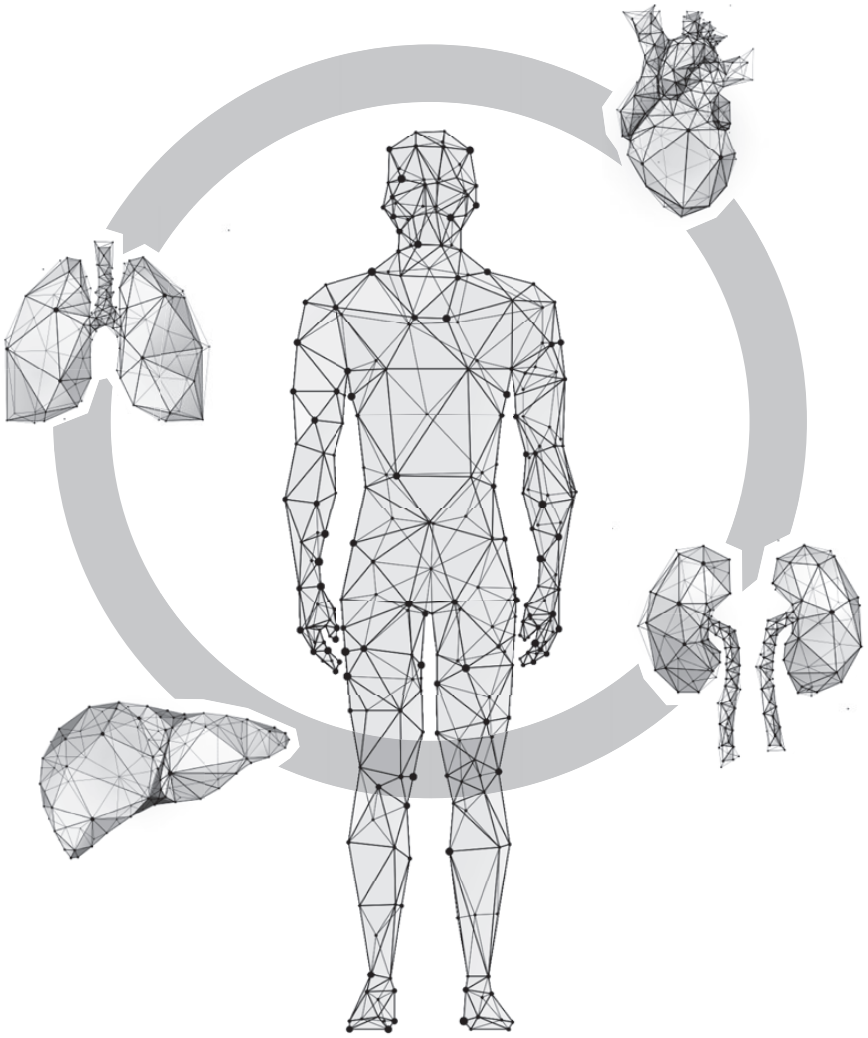
Benefit from the image transfer the project can offer your company! Demonstrate your confidence in the future, your courage to abandon old doctrines. Let's venture this journey together. It can be a blessing for many people. As a sponsor, your company will be associated with a medicinal revolution, which will change the lives of many people. Your support paves the way to positively influence the health of women, men and children. To give them quality of life. To give them life.

Be part of a medicinal revolution as a supporter and sponsor!
We have ambitious plans and are looking for partners who are 'thinking big' and wish to enable innovation. The organLife project offers a unique opportunity to position your company toward that direction. We are excited to enter a new chapter in medicine and advance patient care - together with you as a partner.

source: ESOT

“IN YOUR PROFESSIONAL CAREER,
YOU NEED TO BE ATTENTIVE TO
CHANGE AND CHANCE;
AND WHEN YOU SEE IT COMING,
YOU SHOULD NOT HESITATE,
BUT ACT.”

Raimund Margreiter,
Prof. Emeritus, Transplant Pioneer Innsbruck



Dr. Gabriel Salzner Privatstiftung

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organLife

a new life for organs

ORGAN REGENERATION CENTER OF EXCELLENCE, INNSBRUCK

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