

**ISREC**  
ANNUAL REPORT  
2025



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Prof. Pierre-Marie Glauser

## Scientific Training for Tomorrow's Advancement

Our 2025 annual report spotlights the training of the next generation of scientists and their youthfulness. These individuals are young at heart because of their enthusiasm, their curiosity and their courage to pursue training, get involved, and sometimes go far and beyond to advance cancer research.

This focus on a new generation of researchers aligns perfectly with the ISREC Foundation's missions, which are to support cutting-edge translational research by bridging the gap between basic research and clinical practice, and to contribute to the training of the next generation of scientists in the oncological field. The investment is long-term and demanding, yet deeply rewarding, as each career path that is fostered today helps set the stage for tomorrow's advancements.

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far and beyond to advance cancer research.»

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### Developing talent to foster vocations

Above all, supporting young people means investing in education. At a time when federal funding for education is under scrutiny, philanthropic institutions such as the ISREC Foundation have an important role to play. This report offers insights into the career paths of physicians pursuing research training through the national MD-PhD program, to which the ISREC Foundation contributes (page 10). These paths underscore a pivotal challenge for tomorrow's medicine: clinicians must acquire a solid scientific foundation that enables them to bridge the gap between questions arising at the patient's bedside and the lab, and later to transfer innovations from the lab to clinical practice.

You will also learn how a summer internship can inspire a career in research (page 39). Such experiences, sometimes gained very early on in one's professional journey, have a lasting impact: they open the door to the world of lab work, make research tangible, and spark a desire to learn, understand and contribute.

### Our donors are partners in research

This past year, we have been particularly touched by the endeavors of our donors. An extraordinary example is the undertaking of Charles Bourloud (page 14), who decided to combine a sporting challenge with an act of solidarity after

overcoming his illness, turning his ascension of Mount Kilimanjaro into a fundraising and awareness-raising effort. Personal commitments such as this one serve as a reminder that research is also driven by human stories, determination and the collective energy that extends far beyond our institution. They put a human face on our mission and inspire those who spend their lives pushing back against cancer.

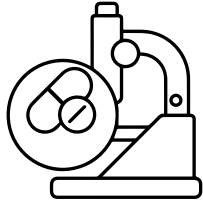
### **TANDEM 2025 and digital pathology**

Finally, our TANDEM program continues to be an essential resource for fostering collaborations between clinicians and scientists engaged in basic research. Its goal is clear: to accelerate projects that promise a significant translational impact on patient care. In 2025, we particularly encouraged applications focused on the development or use of digital pathology. This is a rapidly evolving field that offers new possibilities for tissue analysis and for the study of disease mechanisms. The ultimate goal is to improve the precision of clinical decisions, while encouraging cross-disciplinary collaborations.

None of these endeavors would be possible without your trust. On behalf of the Foundation Council and all involved, I would like to extend my heartfelt thanks to you for enabling the next generation of scientists to turn hope into progress.

Prof. Pierre-Marie Glauser, President





## Funding Translational Oncology Projects

The ISREC Foundation identifies, selects, and supports projects that promote knowledge transfer and collaborations between basic research and clinical application. To establish novel diagnostic and therapeutic approaches, a systems approach is required to understand cells, their interactions with their environment and the immune system, and to be able to counteract the mutations that drive cancer.

## Supporting Young Scientists and Clinicians in Switzerland

The ISREC Foundation funds MD-PhD fellowships as part of the new national MD-PhD Fellowships Program launched by the Swiss Academy of Medical Sciences (SAMS). This program aims to support physicians interested in basic and translational research, by enabling them to pursue a PhD in biomedical sciences alongside their medical training.

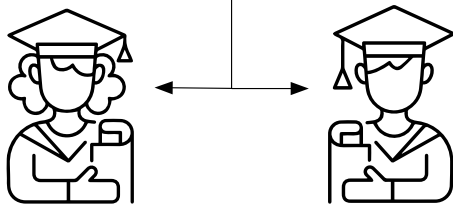
Established on June 18, 1964, the ISREC Foundation is a private non-profit foundation devoted to supporting experimental cancer research. Over the past 60 years, some 150 prominent Swiss figures from Switzerland and abroad, including five Nobel Prize winners, have served on the various boards. The Foundation has financed significant research projects and discoveries, notably in the areas of mutagenesis, genome instability and repair, immunology, immunotherapy, the cell cycle, cell biology, tumor virology, oncogenes, cell differentiation and bioinformatics. Over decades, research accomplished by many scientists and supported by the Foundation has contributed to a better understanding of the mechanisms underlying cancer, and to the identification of novel therapeutic targets and techniques.

The ISREC Foundation's efforts today are focused on funding projects that bridge the gap between basic medical research and clinical practice, serving to inform and instruct the development of new therapies for the future.

The aim of translational research is to convert scientific theories and laboratory discoveries into practical medical applications, and to enhance the quality of medical and pharmaceutical care for patients. However, if translational research is to flourish, considerable resources are required to secure equipment and talent that cannot be systematically financed within the confines of standard budgets. Moreover, trials involving human subjects must be conducted under strict clinical supervision.

To have access to such innovations and to be able to improve patient care, the Foundation must eliminate obstacles and promote endeavors at the intersection of many different disciplines.

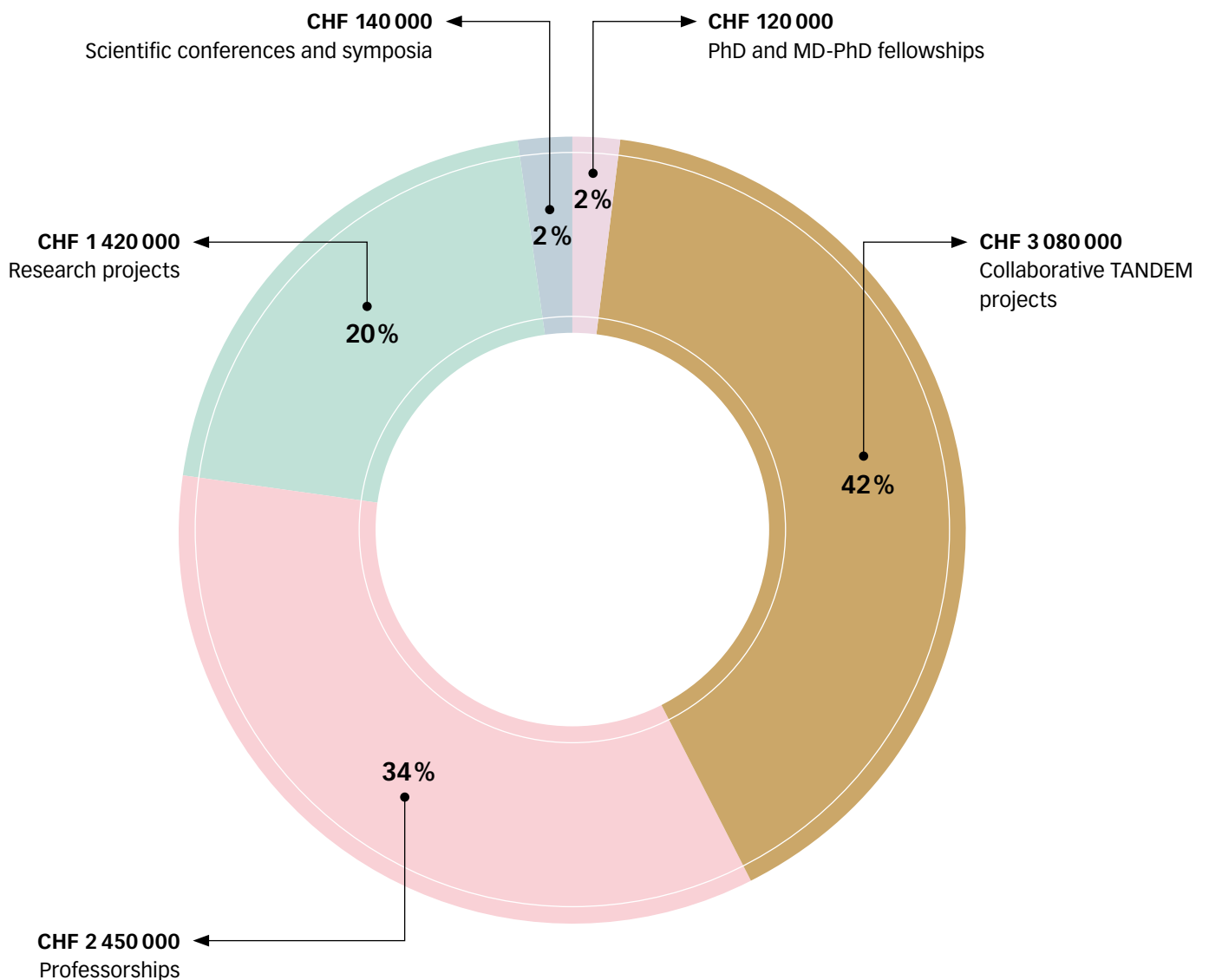
The ISREC Foundation is proud to be in a position to support initiatives that align with its two core missions.



## More Than 7 Million Swiss Francs for Outstanding Research

In 2025, the Scientific Board of the ISREC Foundation, in close collaboration with our Director Susan M. Gasser, evaluated nearly sixty cancer research projects. This reflects the vitality and diversity of innovation in this field in Switzerland. The rigorous selection process resulted in grants for 17 new projects. These include six collaborative TANDEM projects in the field of digital pathology, demonstrating our commitment to fostering nationwide synergies between laboratories and institutions.

In 2025, more than 7.2 million CHF were allocated to projects, including:



## Commitment at the National Level: The ISREC Foundation's Contributions from 2008 to 2025

The ISREC Foundation has always been active throughout the country, proving its commitment to fighting cancer beyond cantonal borders. The geographical diversity of the supported projects demonstrates our commitment to promoting innovation and fostering collaborations between scientists and clinicians. From 2008 to 2025, more than 100 million CHF were allocated to cutting-edge oncology research projects.

### Lausanne CHUV/UNIL

- 11 PhD students
- 34 cancer research projects
- 1 professorship
- 14 collaborative TANDEM projects

### Lausanne EPFL

- 6 PhD students
- 9 cancer research projects
- 3 professorships
- 5 collaborative TANDEM projects

Geneva

### Geneva UNIGE/HUG

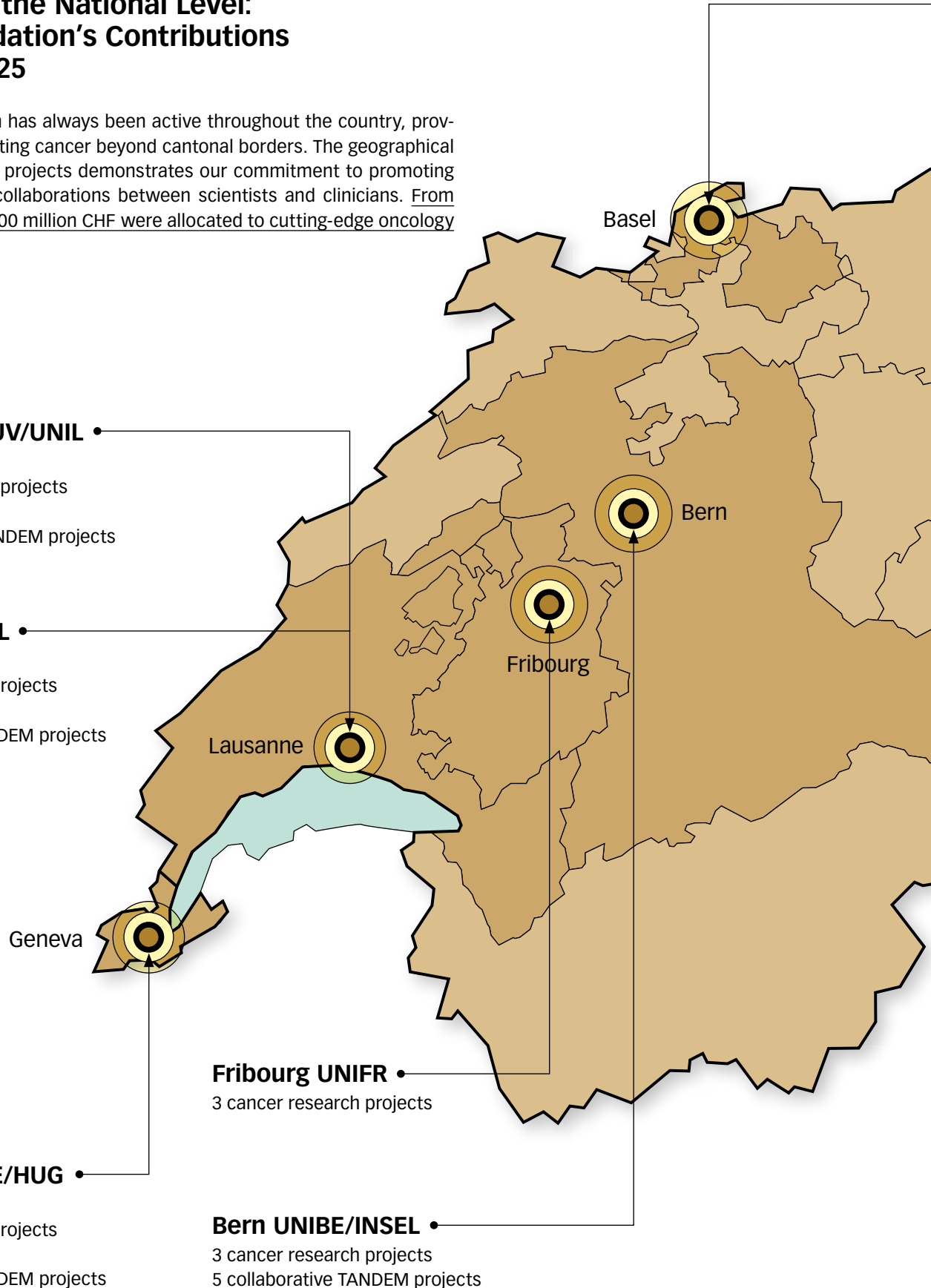
- 3 PhD students
- 3 cancer research projects
- 2 professorships
- 9 collaborative TANDEM projects

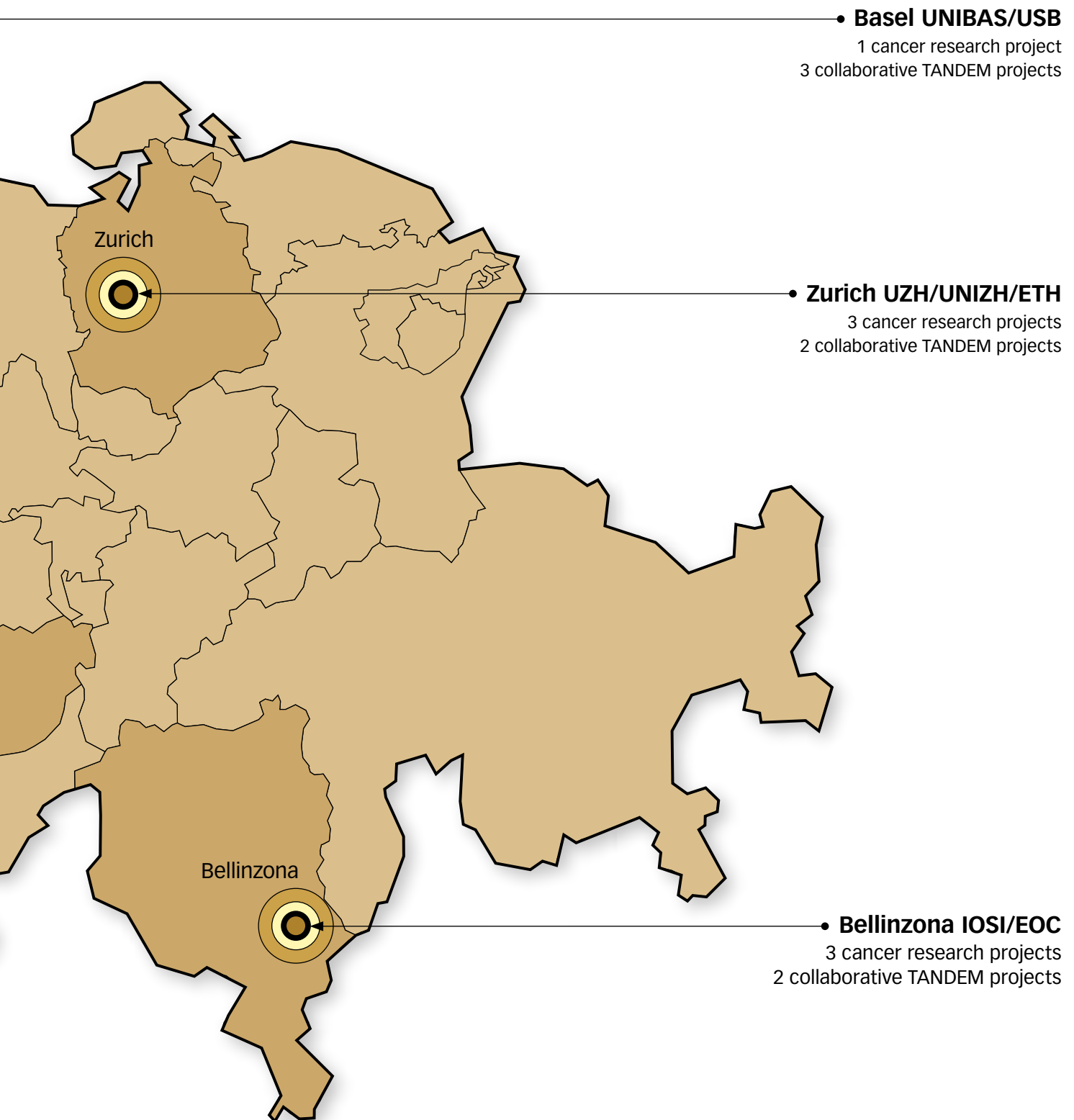
### Fribourg UNIFR

- 3 cancer research projects

### Bern UNIBE/INSEL

- 3 cancer research projects
- 5 collaborative TANDEM projects





## **National MD-PhD Program: Interview with Drs. Fanny Amrein and Lara Chavaz, Young Physicians Dedicated to Research**

In Switzerland, the future of medical progress increasingly depends on a new generation of physicians who are not only trained to treat patients, but also to question, investigate and innovate therapeutic regimes. These physician-researcher pathways are at the heart of translational research: they channel questions from the clinical setting to the laboratory and then help bring scientific insights back to patients.

Since 2024, the Swiss Academy of Medical Sciences (SAMS) has organized and coordinated the national MD-PhD fellowship program, which plays a central role in training this next generation of researchers. In 2025, the ISREC Foundation awarded two fellowships under this program to Dr. Fanny Amrein and Dr. Lara Chavaz, enabling them to devote structured time to research within a demanding academic environment.

We asked them what this fellowship means to them and how it can ultimately contribute to improving patient care.

For Dr. Fanny Amrein, curiosity and questioning has always been her driving force, already as a young girl. «I kept asking «why this», «why that?»,» she recalls. Studying medicine provided some answers, but not enough. The MD-PhD program offered her something more: the opportunity to explore questions through scientific research while maintaining a clinical perspective. «It allows me to build a bridge between research and medicine,» she explains. A bridge she sees as essential for improving patient care.

That connection lies at the heart of the program's value. Medicine, as Dr. Amrein points out, is fundamentally grounded in scientific evidence. Yet understanding and critically assessing that evidence requires firsthand experience in research. Through her work on immune cells in solid tumors, she is not only contributing to future therapeutic strategies, but also developing the analytical skills needed to interpret and apply scientific findings in clinical practice.

Dr. Lara Chavaz highlights another crucial dimension: access. «Many motivated young doctors simply cannot pursue a PhD without funding,» she says. With public funding under increasing pressure, private support has become indispensable. The contribution of the ISREC Foundation, channeled through the SAMS program, enables talented individuals to take this demanding but formative path that would otherwise remain out of reach.

Beyond financial support, such fellowships serve as a true career catalyst. «This first grant is often the hardest to obtain, but it opens all the doors that follow,» Dr. Chavaz explains. It validates the quality of a young researcher's project and provides the foundation for an academic career that combines research, teaching and clinical work.



Dr. Lara Chavaz



Dr. Fanny Amrein

«Research fosters intellectual rigor,  
curiosity and a critical mindset: qualities  
that directly benefit patients.»

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Both physicians emphasize how profoundly the program shapes their way of thinking. Research fosters intellectual rigor, curiosity and a critical mindset — qualities that directly benefit patients. As Dr. Fanny Amrein explains, the MD-PhD pathway «truly creates a link between the scientific and the clinical worlds,» which is essential for patient well-being and recovery. Being able to correctly interpret scientific studies — and to understand their limitations — is a skill that can only be developed through direct exposure to research. She also highlights the importance of learning how to communicate across disciplines and to better connect these two domains, ultimately enabling more targeted and adapted patient care.

For Dr. Lara Chavaz, this experience brings a fundamental shift in perspective. Research, she notes, «opens the mind» and provides the critical distance needed to question medical practice. Every treatment, dosage or guideline is rooted in scientific studies — yet without understanding how this knowledge is produced, it is difficult to assess its validity. «It is frustrating to apply things without understanding their foundations,» she reflects. The MD-PhD program not only equips her with this deeper understanding but also lays the groundwork for a future combining clinical work, research and teaching. It allows her to better grasp the limits of current systems and to think about how they might evolve for future generations.

The impact extends well beyond individual careers. Clinician-scientists act as essential links between the laboratory and the bedside, translating medical challenges into research questions and scientific discoveries into better treatments. They also become mentors and educators for future generations.

At a time when public resources are tightening, programs like the MD-PhD are more critical than ever. They ensure that tomorrow's physicians are not only highly trained but equipped with the insight and critical thinking needed to advance medicine for the benefit of all.







Charles Bourloud during his treatment. It was during this pivotal phase in his personal journey that took shape his desire to contribute to the advancement of cancer research in some way, turning his personal ordeal into a tangible endeavor.

## Scaling Lofty Peaks for the Benefit of Others

**Charles Bourloud, a young athlete from Lausanne, has turned his personal fight against a rare form of bone cancer into a mission to support medical research. His fundraising journey began nearly 6000 meters above sea level, on the snowy slopes of Mount Kilimanjaro, and continues today.**

«Are you ready for the greatest challenge of your life?» Although this was in no way an easy resolution to make, Charles Bourloud's answer to orthopedic surgeon Stéphane Cherix's question was an emphatic «yes».

In 2022, Charles, a thirty-something accomplished athlete, is working in finance, on the quantitative investment team at Pictet & Cie., Switzerland's largest private bank. He is leading a fast-paced, happy and promising life. The soccer season is almost over, and he is finally recovering from a knee injury. He is eager to play in some of the remaining games, but the pain has not yet subsided. Did he perhaps resume training too quickly? Checkups provide no answers and drug infiltrations offer no relief – the situation worsens. Charles is due to travel to London on business, so an MRI is performed in preparation for arthroscopic surgery. Then, on a Tuesday afternoon, he receives a fateful phone call. «I don't usually answer my phone during working hours. But when I saw it was my physician, I picked up, and he told me there was a serious problem.»

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«It was exactly what I was looking for:  
an opportunity to contribute in my own small  
way, and to connect my personal challenge  
to a larger cause.»

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Two days later, Dr. Cherix delivers the bad news: the MRI scan has revealed a suspicious lesion. A biopsy is performed immediately, confirming the presence of a bone tumor known as an osteosarcoma. This is followed by a CT scan, but Charles does not immediately realize his doctors are concerned about metastases. Luckily, the scan is negative. «This meant I was going to live and be able to fight» – thus his affirmative answer to his physician's famous question.

Four years have since gone by, and Charles Bourloud has turned his personal fight into a shared endeavor, having realized that his type of cancer is very rare, especially in adults. Consequently, very few human and financial resources are available for research aimed at improving treatment for this disease. «My medical care was exceptional, but some of the tools available to my doctors were as old as I am. I immediately asked myself how I could help them and support this field of research.»

Charles' treatment means he is confined to a life between the hospital and home. He undergoes multiple rounds of chemotherapy, which he tolerates surprisingly well. Yet, the tumor continues to spread. Surgery is inevitable; a decision

made by his oncologist, Dr. Antonia Digkλια. «She's my guardian angel, along with Stéphane Cherix,» says Charles, his blue eyes shining intensely. He knows what this vital decision means for his life as an athlete. On December 6, 2022, the tumor is removed and a tumor prosthesis implanted, though not without difficulty.

Throughout his treatment, Charles is able to count on the steady support of his loved ones, especially on his sister Emma, an occupational therapist, who, according to her brother was «absolutely incredible». «My mother asked me, «What can we do to help you?» I told her I needed positivity, lots of energy and good vibes. Not once did my family or my girlfriend waver in my presence. I lived in a kind of bubble in which everything was mostly fine. This really helped stack the odds in my favor. Knowing how much they suffered, I am incredibly grateful to my family and friends for their unwavering support.»

#### «How about climbing Mount Kilimanjaro?»

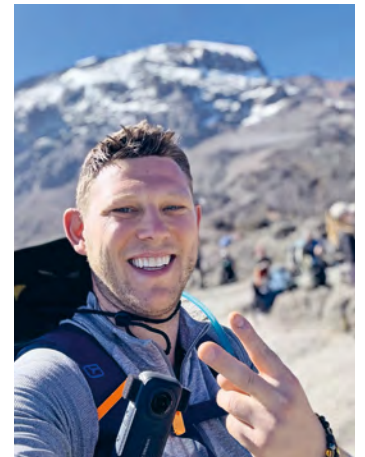
December 2024. Charles is slowly returning to a «mobile» life. He is doing quite well, though he hasn't yet started playing sports again. At a hockey match, Charles – a big fan of the Lausanne Hockey Club – runs into Charlotte, a friend of his who is involved in races to raise funds for the fight against breast cancer. «We're planning on climbing Mount Kilimanjaro with a bunch of friends in February. Why don't you come along!», she says jokingly. Africa's highest mountain, rising almost 6000 meters above sea level, is not necessarily inaccessible, thinks Charles. «This was the challenge I needed. I'm a competitive person. Tackling Mount Kilimanjaro was a hiking project, so there were no contraindications.» He starts training relentlessly to regain muscle mass and to avoid putting too much strain on his titanium knee. «I had a month to get back in shape and to prepare my body for high altitudes. I did a few physical therapy sessions in a hypoxic chamber at altitudes between 3800 and 4600 meters to prepare my body as best I could.» So much for the physical preparations. On the mental side, a quarterly checkup provides the goal he needs: «I learned that Antonia Digkλια, along with Dr. Melita Irving, had submitted a proposal to the ISREC Foundation's TANDEM program in the field of immunotherapies for sarcomas. It was exactly what I was looking for: an opportunity to contribute in my own small way, and to connect my personal challenge to a larger cause.»

With the support of his employer, who has guaranteed him his job and regularly checks in on him to see how he is doing, Charles launches his project on the *GoFundMe* platform and devises a concept whereby each meter he climbs corresponds to a donation amount. To promote his enterprise, he shoots a video for Instagram. «The night before I flew to Tanzania, I had raised nearly 8000 CHF in 24 hours. I was stunned.»

The ascent of Mount Kilimanjaro begins with a six-day acclimatization period in very basic tents. The nine-person team includes a radio-oncology assistant from the CHUV, as well as four other people from Lausanne, all of whom are supporting Charles' project. This is good for morale. But the expedition proves to be unexpectedly grueling on the physical level. «During the final ascent, I thought I would never make it. I had no strength left, and I was heaving. At the summit, just as the sun was rising, I cried my heart out.»



Atop Mount Kilimanjaro, Charles Bourloud and his companions share their elation and emotions, marking the culmination of their human and charitable endeavor in support of cancer research.

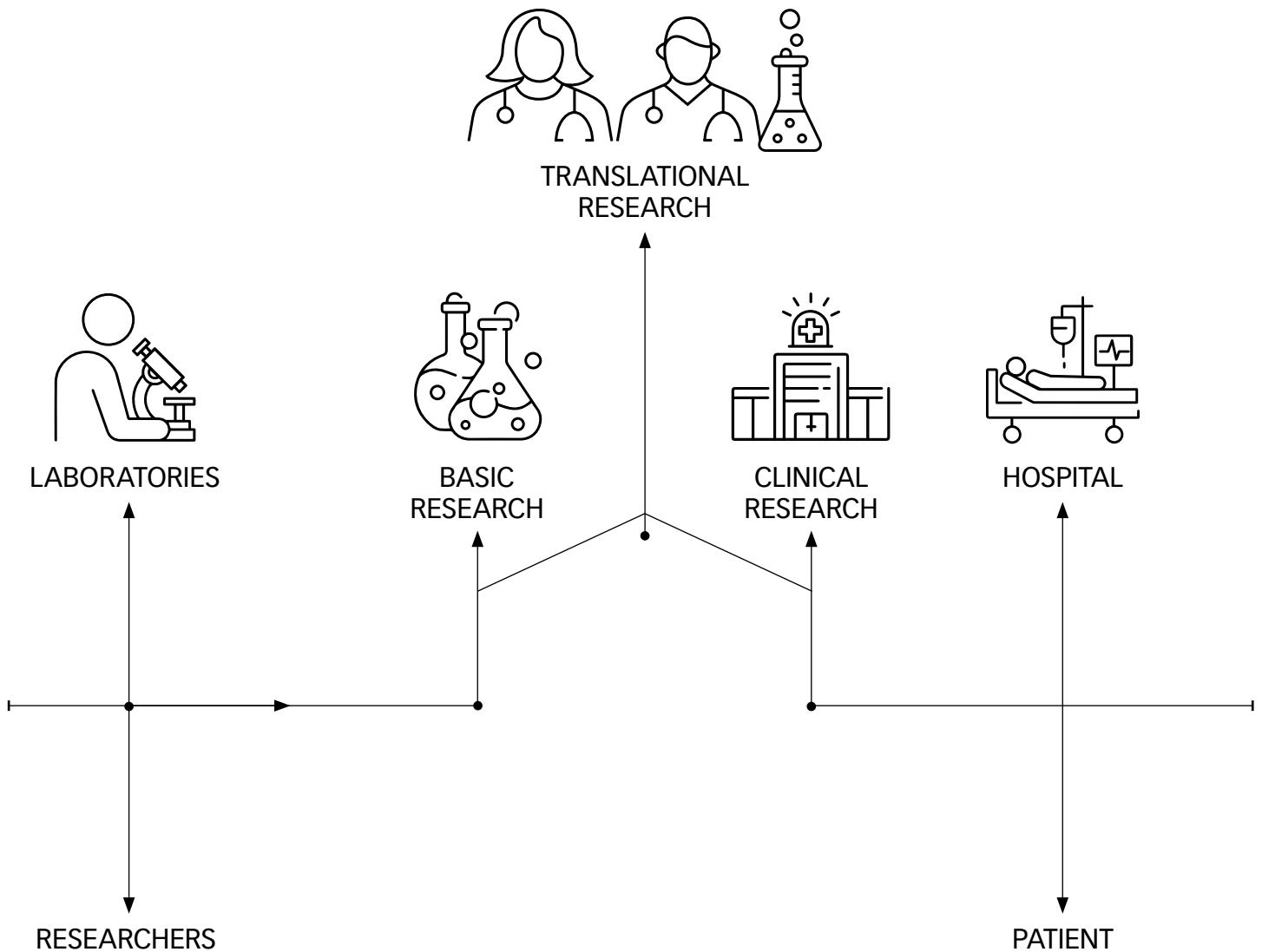


With great commitment and perseverance – «I have a bit of a problem with failure,» he admits with a wink – Charles continues producing videos and fundraising. To date, he has raised over 20 000 CHF, all of which he has donated to the ISREC Foundation. Additionally, some of his contacts have bypassed his platform and made donations directly. Raising funds and mobilizing his network as well as the networks of his acquaintances have proven more difficult than he anticipated. «It is very time-consuming and energy-intensive. And I am not yet through with surgery.» So far, his quarterly checkups have revealed no abnormalities, yet resuming his physical activities has put quite a strain on the prosthesis in his right knee. «The artificial cartilage is wearing down. Initially, it was 14 mm thick, but it has now been reduced by half, meaning that the prosthesis is rubbing against the preserved kneecap. The cartilage will need to be replaced...»

What will never change, however, is Charles' determination to carry on with his fundraising for cancer research – perhaps through a new major mountain climbing project, in which he will once again scale lofty peaks to help others.

## Translational Research

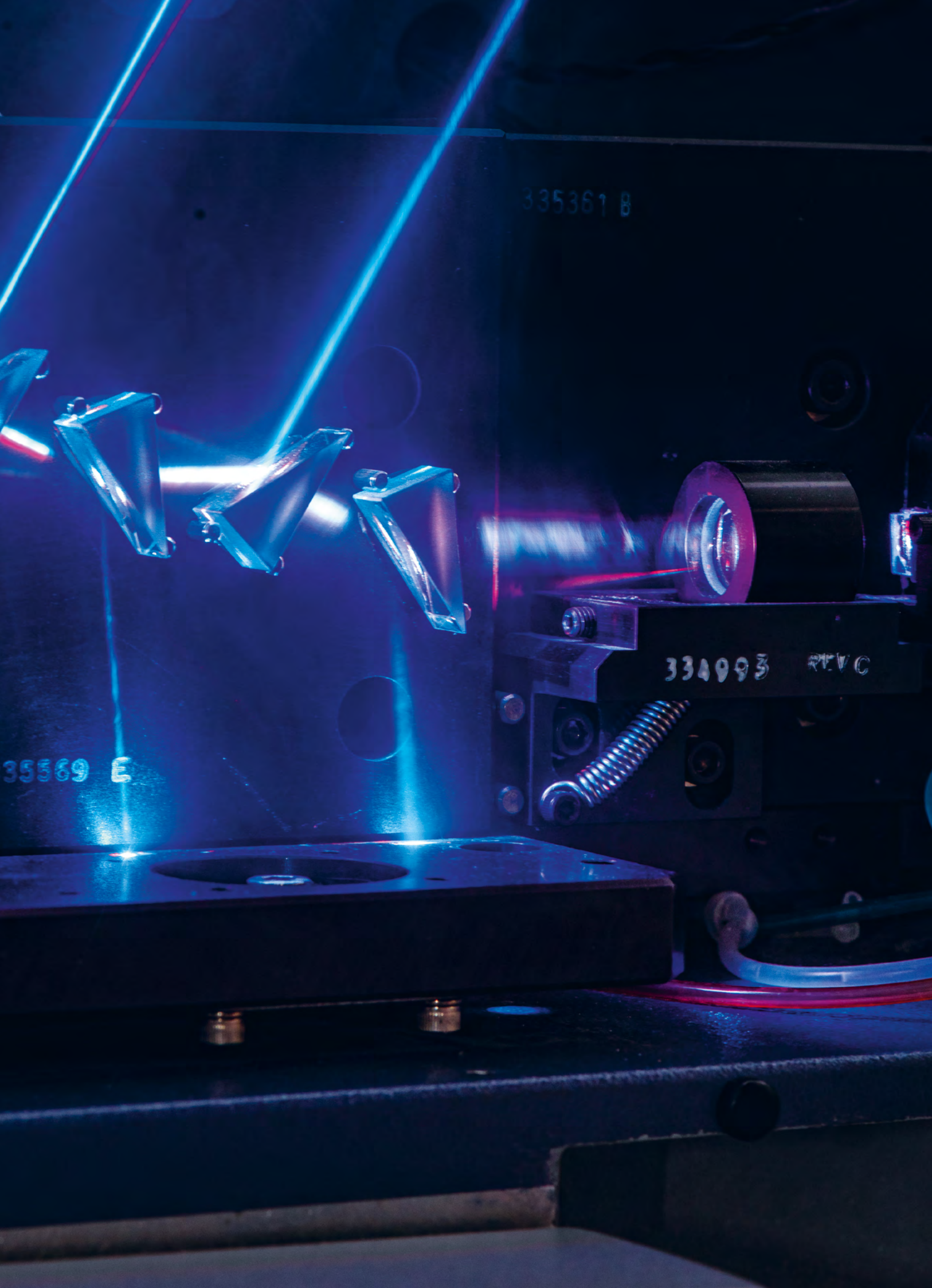
Translational cancer research has never been more exciting nor more relevant for improving the clinical care of cancer patients. Recent decades have yielded unprecedented advances in understanding the biological mechanisms that underlie cancer development and progression, as well as the response of metabolic, inflammatory, and immune systems of the patient. Translation of this knowledge to the clinic and harnessing the power of this understanding to guide a holistic approach to therapy, is the goal of today's translational oncology. In this the ISREC Foundation plays a leading role.



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Prof. Susan M. Gasser

## TANDEM Program

### **Launching digital pathology: the drive towards speed, accuracy, and efficiency in diagnostics**

After three years of successful calls for TANDEM grants, which enabled researchers in fundamental mechanisms and oncology clinicians to work together, in 2025 the ISREC Foundation launched a call for cooperative TANDEM projects in digital pathology. Digital pathology includes the acquisition, management, sharing and interpretation of pathology information — including the analysis of tissue biopsies and standard patient data — in a digital environment. By exploiting machine learning and correlating imaging data with 'omics and patient outcome, digital pathology can provide powerful predictive tools for the interpretation of clinical data.

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Digital pathology redefines diagnostic workflows with high-resolution imaging and benefits patients by enabling the rapid referral of cases across pathology networks, enhancing access to expert advice and opinion on diagnoses.

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Even the retrospective analysis of large, information-rich datasets based on biopsies and stained slides can generate a feedback loop that advances and improves personalized care, while guiding the design of future clinical trials. The validation of hypotheses arising from retrospective digital analyses leads to innovations in accepted diagnostic parameters and ensures an improved choice of therapy. This is achieved by the skillful use of artificial intelligence (AI). By redefining diagnostic workflows, digital pathology will facilitate efficient information access and sharing, and improve diagnostic turnaround times. This clearly is of value to the clinical oncologist. Growing caseloads and a limited number of pathologists underscore the need for more efficient and informative diagnoses and justify the adoption and standardization of new AI-empowered methods in pathology.

From 61 letters of intent, the ISREC Scientific Board invited 14 teams to submit full grants, and after careful review, an expanded science board reviewed the submissions. The 4 additional international experts contributed good judgement in the fields of pathology, digitalization, clinical trials and computation per se. In the end 6 projects were funded, and two AI-driven programs that pursue large, advanced projects in precision medicine based on digital pathology methods, were recommended to the ISREC Foundation Council for funding. Clearly there is more to be done in this expanding field, to improve the accuracy of predicting cancer prognosis and therapy outcome.

Prof. Susan M. Gasser, Director

## Lymph node analysis

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**Prof. Inti Zlobec (UNIBE), Dr. Bastian Dislich (UNIBE),  
Dr. Amjad Khan (UNIBE) and Prof. Martin D. Berger (INSEL)**

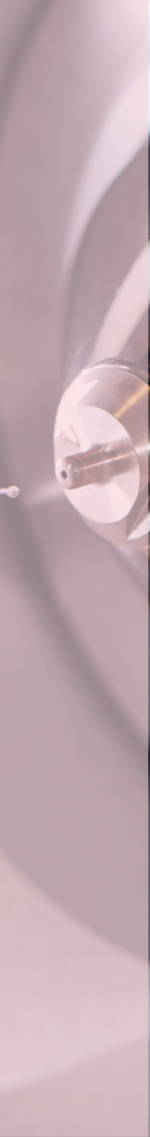
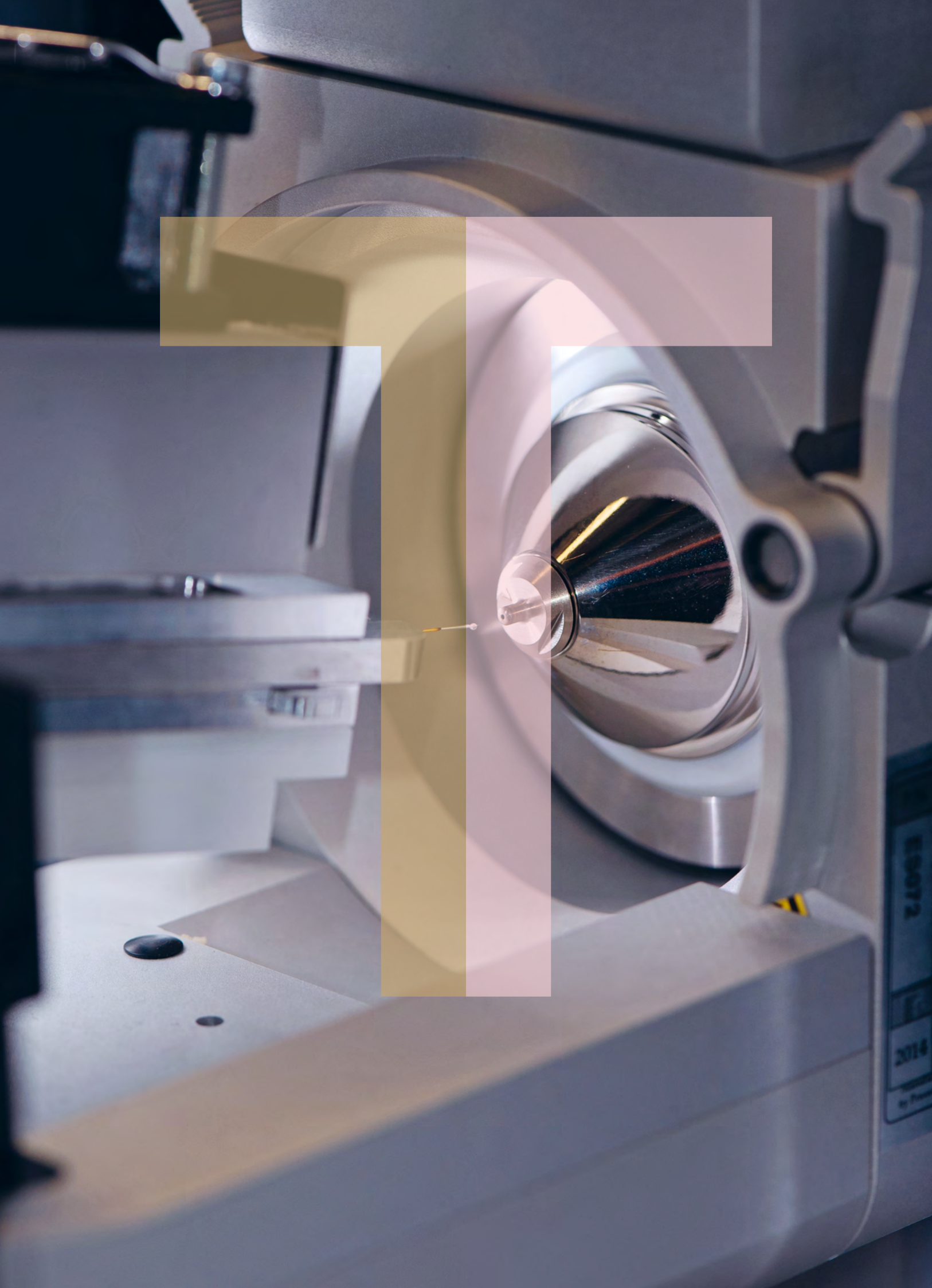


### **Expanding cancer diagnostics through an analysis of lymph nodes.**

Clinical Deployment and Validation of a Multi-Cancer Deep Learning Algorithm for Lymph Node Metastasis Detection Based on Foundation Models.

This study is based on a tight collaboration between computer science and clinical application. The detection of cancer cells in a patient's lymph nodes is key to the clinical management of cancer. Analyzing the status of lymph nodes requires a pathologist's skill, yet it is labor-intensive and time-consuming. To support pathologists in this task, a computer-assisted diagnostic tool that uses deep learning for the detection of colorectal lymph node metastases was developed. Now the scientists will extend the training of this algorithm to lymph nodes from 10 cancer types to expand its utility for daily use in hospital oncology.

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## Leukemia

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**Prof. Olaia Naveiras** (CHUV/UNIL), **Prof. Laurence de Leval** (CHUV/UNIL),  
**Prof. Bart Deplancke** (EPFL) and **Dr. Daniel Sage** (EPFL)



### **What bone marrow imaging can tell us about leukemia.**

Deepmarrow: Investigating Marrow Remodeling after Intensive Chemotherapy as a Predictor of Response in Acute Myeloid Leukemia.

In acute myeloid leukemia (AML), changes in the zone surrounding the tumor, called the stroma, can convert zones of rapid blood cell production into sites of pathological cell growth, and further lead to overt leukemia. The goal of this study is to develop digital machine learning tools based on blood cell pathology, in order to quantify components of the connective tissue in bone marrow. This tool may also help identify AML patients with a high risk of relapsing. Such a tool should help predict and prevent relapse in AML — a clearly unmet clinical need.

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## Improving lymphoma diagnosis

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**Prof. Davide Rossi** (IOR/USI), **Prof. Luca Mazzucchelli** (EOC)  
and **Prof. Alessandro Giusti** (SUPSI)



### **Diagnostics of a rare lymphoma through integrative AI.**

Transforming the Diagnostics of Nodal Marginal Zone Lymphomas by Integrating Digital Pathology, Molecular Biology, and Artificial Intelligence.

Nodal marginal zone lymphoma (NMZL) is a rare and difficult to identify B-cell malignancy that is often wrongly diagnosed. The applicants propose a digital pathology approach that they hope surpasses expert pathologists in correctly diagnosing NMZL. They will use deep learning to integrate imaging, clinical and molecular data, generating a classifier that will allow clinicians to upload all their slide scans and get a correct NMZL diagnosis. Based on 900 cases, samples and data obtained across Europe, they hope to provide a clinically applicable, yet technically sophisticated way to identify a rare lymphoma subtype.

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## Colorectal cancer

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**Prof. Andreas Moor** (ETHZ)  
and **Prof. Viktor Kölzer** (pathologiste, USB)



### **Spatial biology for risk stratification of colorectal cancer.**

Stratifying Colon Cancer Risk through Imaging and Transcription Profiles.

In order to identify prognostic biomarkers for stage II colorectal cancers (CRC), the investigators will use computational approaches to combine advanced molecular omics data with histological images from 1800 former CRC patients. The goal will be to identify prognostic markers in networks, and to validate these in new patient cohorts. This is an advanced digital pathology project.

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## Glioblastoma

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**Prof. Johanna Joyce** (UNIL)  
and **Dr. Giulia Cossu** (CHUV)



### **Does tissue fibrosis trigger brain cancer recurrence?**

Spatial Analysis and Functional Interrogation of Fibrotic Scarring Niches in Glioblastoma Recurrence.

Zones of fibrotic scarring are associated with tumor relapse in aggressive brain tumors. This study will use cutting-edge spatial multi-omics technologies and digital pathology analyses to explore the mechanisms that generate fibrosis in glioblastoma patients. Ultimately, the scientists hope to uncover novel therapeutic targets that disrupt the tumor-protective fibrotic niche and thereby prevent disease recurrence.

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## Characterizing lung cancer tumors

**Prof. Sabina Berezowska** (CHUV/UNIL), **Dr. Andrew Janowczyk** (pathologiste, HUG)  
and **Dr. Claudio De Vito** (pathologiste, HUG)



### Distinguishing primary tumors from metastases in the lung using AI.

Multiple Lung Tumor Nodules: Establishing Cost-Effective Molecular and Digital Pathology Methods to Separate Multiple Primary Lung Cancers from Intrapulmonary Metastases.

Analyzing stained tumor biopsies by microscopy is the pathologist's craft. Now, it can be enhanced and augmented by computer-based analysis and integration with other information.

Using a large data base of tissue sections from primary lung adenocarcinoma, the team will compare these with metastatic nodules in the lung derived from other primary tumors. The goal is to optimize a new digital pathology tool (DPLAS) that will stratify lung cancers and allow patient triaging. A strong feature of the project is that the technology is based on routinely available H&E slides, which enables broad usage of the tool.

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## Other Ongoing TANDEM Projects

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**Prof. David Gfeller** (UNIL) and **Prof. Jean Villard** (HUG) –  
**Optimizing bone marrow transplantation**

Optimized predictions of patient-donor immune compatibility for hematopoietic stem cell transplantation.

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**Prof. Santiago Carmona** (UNIGE) and **Dr. François Kuonen** (CHUV) –  
**Basal cell carcinoma**

Wounding as a driver of cancer progression in basal cell carcinoma.

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**Prof. Tatiana Petrova** (UNIL) and **Dr. Thibaud Koessler** (HUG) – **Cancer colorectal**  
Wounding as a driver of cancer progression in basal cell carcinoma.

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**Prof. Jean Yannis Perentes** (CHUV) and **Dr. Michal Bassani-Sternberg** (UNIL) –  
**Pleural carcinosis**

Evaluation of the neoantigen-specific T cell response in pleural carcinosis managed by pressurized intrathoracic hyperthermic aerosol cisplatin chemotherapy (PITHAC).

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**Prof. Ren-Wang Peng** (INSEL), **Prof. Adrian Ochsenbein** (INSEL)  
and **Dr. Sabine Schmid** (INSEL) – **Lung cancer**  
Immunotherapy in malignant pleural mesothelioma.

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**Prof. Andreas Holbro** (USB) and **Prof. Lukas Jeker** (UNIBAS) –  
**Acute myeloid leukemia**

Improving the efficiency of immunotherapy for acute myeloid leukemia.

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**Dr. Antonia Digklla** (CHUV) and **Dr. Melita Irving** (CHUV/UNIL) – **Sarcoma**  
Immunotherapy for sarcoma treatment.

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**Dr. Laurent Derré** (UNIL) and **Dr. Ilaria Lucca** (CHUV) – **Bladder cancer**  
Exploring the anti-tumor functions of immune cells in bladder cancer.

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**Prof. Mohamed Bentires-Alj** (UNIBAS) and **Prof. Walter Paul Weber** (USB) –  
**Breast cancer**

New biomarkers from lymph nodes for programming immunotherapy against triple-negative breast cancer.

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**Dr. Intidhar Labidi-Galy** (HUG) and **Dr. Sven Rottenberg** (UNIBE) –  
**Ovarian cancer**

Analyzing the role of the tumor microenvironment in platinum drug-resistant ovarian cancer.

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**Prof. Mark Rubin** (UNIBE) and **Dr. Silke Gillessen Sommer** (IOSI) –  
**Prostate cancer**

Identification of new targets to treat prostate cancers that are non-responsive to available treatments.

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**Prof. Charna Dibner** (UNIGE), **Prof. Alfredo Addeo** (HUG)  
and **Dr. Wolfram Karenovics** (HUG) – **Lung cancer**

Investigating the connection between the circadian system and lung tumor generation to personalize time schedules for chemo-immunotherapy.

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**Prof. Elisa Oricchio** (EPFL) and **Dr. Anne Cairoli** (CHUV) –  
**Lymphatic cancer organoids**

Using patient-derived tissue to predict effectiveness of different treatments, so as to find the best one for each patient.

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**Prof. Denis Migliorini** (UNIGE) and **Dr. Gioele La Manno** (EPFL) –  
**Brain tumors (Glioblastoma)**

Analyzing tertiary lymphoid structures as part of the brain tumor environment to develop immune therapies against glioblastoma.

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**Prof. Christian Simon** (CHUV) and **Prof. Christophe Moser** (EPFL) –  
**Head and neck cancer surgery**

Development of an endoscope to better define tumor margins during surgery.

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**Prof. Michele de Palma** (EPFL) and **Dr. Nahal Mansouri** (CHUV) –  
**Small cell lung cancer**

Expanding the knowledge on the potential of cancer vaccines.

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**Dr. Virginie Hamel** (UNIGE) and **Dr. Benita Wolf** (CHUV) –  
**Microscopy in translational immuno-oncology**

Employing new visualization technologies will further the understanding of CAR-T cell therapy.

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**Prof. Giovanni Ciriello** (UNIL) and **Dr. Igor Letovanec** (CHUV) –  
**Lung cancer (Adenocarcinoma)**

Understanding Disease Progression in Lung Cancer.

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**Prof. Marianna Kruithof-de Julio** (UNIBE) and **Dr. Bernhard Kiss** (Inselspital) –  
**Bladder cancer**

Development of AI systems to assist in the staging and treatment of bladder cancer patients.

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**Prof. Dr. Michael Scharl** (USZ) and **Prof. Dr. Isabelle Arnold Wallén** (UZH) –  
**Colorectal cancer**

Development of a new therapy for patients with resistant colorectal cancer.

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**Prof. Camilla Jandus** (UNIGE), **Dr. Francesco Ceppi**  
and **Prof. George Coukos** (CHUV) – **Pediatric leukemia**

TCR-Engineered CD4 T cell transfer for optimized cancer immunotherapy in adult and pediatric patients.

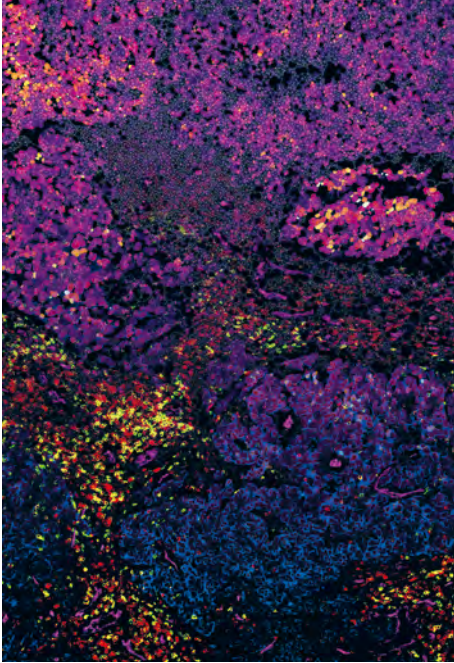
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The Scientific Board of the ISREC Foundation vouches for the development and scientific monitoring of these projects. Supervision and financial management are ensured by our administrative and financial management office.

For more information: [www.isrec.ch/en](http://www.isrec.ch/en)







## Young Scientists

The ISREC Foundation is actively involved in training the next generation of clinical researchers who will play a key role in the innovation and development of oncological treatments.

### MD-PhD fellowships in 2025

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**Lara Chavaz – Lab of Prof. Marc Ansari, UNIGE**

This MD-PhD fellowship was awarded in the context of the national MD-PhD program of the Swiss Academy of Medical Sciences. The project aims to investigate the genetic factors linked to auditory complications following certain childhood cancer treatments, with the goal of improving medical care and reducing long-term side effects. (page 10)

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**Benoît Duc – Lab of Prof. Johanna Joyce, Oncology Department, UNIL/LUDWIG/CHUV**

This PhD project aims to model and investigate the tumor microenvironment of non-small cell lung cancer brain metastases.

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**Christoph Iselin – Lab of Prof. Emmanuella Guenova, UNIL**

An MD-PhD fellowship to study the role of natural killer cells in cutaneous T cell lymphoma: pathophysiological mechanisms and clinical implications.

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**Fanny Amrein – Lab of Prof. Olivier Michielin, UNIGE (starting in 2026)**

This MD-PhD fellowship was awarded in the context of the national MD-PhD program of the Swiss Academy of Medical Sciences. The aim is to decipher the role of TIM 1-expressing B lymphocytes in antitumor immunity. (page 10)

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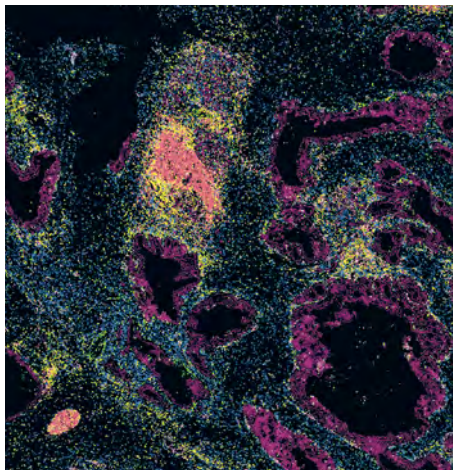
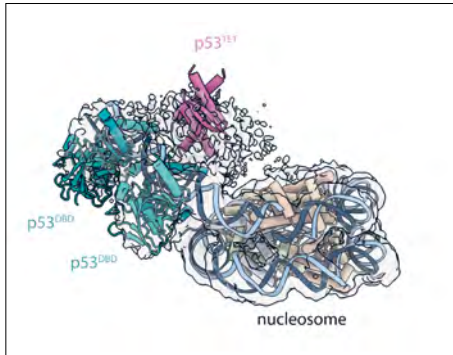
### Further fellowship in 2025

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**Benedetta Fiordi – Lab of Prof. Camilla Jandus, UNIGE**

A PhD fellowship for the study of the neuroimmune mechanisms involved in acute myeloid leukemia and the identification of novel therapeutic approaches.

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## Professorial Chairs

Professorships enable young professors affiliated with a Swiss academic institution to launch their research careers.

### The chairs financed by the ISREC Foundation in 2025

#### **Prof. Denis Migliorini (UNIGE/AGORA) – ISREC Brain tumor immunology chair**

This ISREC immunology chair is dedicated to the immunology of brain tumors. The research in this program explores new therapeutic approaches for brain tumors and in particular for glioblastoma, a highly aggressive form of the disease.

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#### **Prof. Mikaël Pittet (UNIGE/AGORA) – ISREC Immuno-oncology chair**

This ISREC immuno-oncology chair is dedicated to the study of cancer immunity in context. The research in this program aims to discover how the immune system controls cancer and other diseases, and how it can be exploited for therapeutical purposes.

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#### **Prof. Nicolas Thomä (EPFL) – Paternot chair for interdisciplinary cancer research**

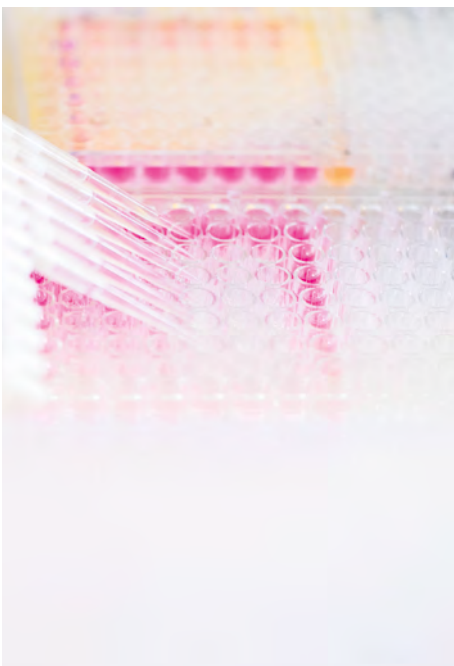
The aim of the Paternot chair for interdisciplinary cancer research is to study the protein-protein interactions that play a role in cell fate decisions, with the goal of developing chemical interventions for those that are disease-causing.

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## Translational Research

Translational research projects encourage collaborations between basic and clinical research. Their goal is to study cells and their interactions with the environment, and to provide impulses for novel therapies and clinical approaches designed to act on the causes of cellular malfunction.



### Projects supported in 2025

#### **Prof. Holger Auner (CHUV) – Multisystem cancer biology**

A research project in the field of multisystem cancer biology aimed at targeting the interplay between intra- and extracellular proteostasis.

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#### **FLASH Therapy (CHUV)**

The FLASH project is exclusively funded through a donation made by the Biltema Foundation. In collaboration with the CHUV, this program aims to study clinical translation, development and clinical modelling of FLASH radiotherapy treatments. This unique model will eventually enable the treatment of all types of deep-seated tumors.

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#### **Dr. Francesco Ceppi (CHUV) and Prof. Caroline Arber (UNIL) – Immunotherapy for the treatment of myeloid leukemia**

The FIAMMA project (Chimeric Antigen Receptor T Cell Therapy for Children and Adults with Relapsed Acute Myeloid Leukemia) is supported by a donation from the Jacqueline de Cérenville and the Jan Baron Mladota Foundations.

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#### **Dr. Francesco Ceppi (CHUV) and Prof. Li Tang (EPFL) – Pediatric immunotherapy (Lymphoma)**

CARELEMAN study for a novel cell therapy for children and young adults with leukemia.

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#### **Prof. David Gfeller (UNIL) – Mechanisms of recognition of cancer cells by the immune system**

Research project aimed at identifying the rules by which T cells recognize cancer-specific epitopes.

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#### **Prof. Emmanuella Guenova (CHUV) – Mycosis fungoides**

Research project based on a systems medicine approach to tackle problems related to early diagnosis and prognostic stratification of mycosis fungoides.

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**Dr. Krisztian Homicsko (CHUV), Prof. Raphael Gottardo (UNIL)**

**and Dr. Pierre Moulin (CHUV) – Spatial transcriptomics in melanoma**

Research project on the deconstruction of the spatial architecture of early-stage melanoma response to neoadjuvant PD-1 immunotherapy.

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**Hélène Koch (UNIL/CHUV) –**

**Translational radiopharmaceutical sciences laboratory**

Research project aiming to improve the efficacy of PSMA-targeted radioligand therapy via radiosensitization strategies and combination treatments.

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**Dr. Filipe Martins (EPFL) –**

**New treatment for phantom breast syndrome**

Research project aiming to develop a mirror therapy for phantom breast syndrome.

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**Prof. Carsten Riether (UNIBE) and Dr. Marc Wehrli (INSEL) – Blood cancer**

**Enhancing CAR-T cell therapy for refractory multiple myeloma.**

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**Prof. Davide Rossi (USI/IOR) – The lymphoma microenvironment**

Research project aiming to understand how clonal hematopoiesis feeds lymphoma.

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For more information: [www.isrec.ch/en](http://www.isrec.ch/en)

## Scientific Conferences, Symposia and Workshops

In 2025, nearly 130 events, **symposia** and **scientific lectures** were held in the Paternot Auditorium and the AGORA Cancer Research Center's lecture rooms. The majority were directly related to research and oncology.

The ISREC Foundation will continue to prioritize the field of oncology in the AGORA Center's program of activities. This reflects its two main missions, which are to promote experimental, translational, and clinical cancer research and to support the next generation of scientists and physicians in this field.



## An 8-Week Lab Immersion Program to Explore the World of Research

For many students, the first years of university are spent learning what is already known: the fundamental concepts, established mechanisms and textbook principles that form the basis of scientific training. The opportunity to step beyond that and take part in research at the edge of the unknown can be transformative. This is precisely what the Summer Undergraduate Research (SUR) Programme at the University of Lausanne (UNIL) and the Summer Research Program (SRP) at EPFL make possible.

These two sister programs offer outstanding undergraduate students from around the world an immersive introduction to life as a researcher. During eight weeks, participants are welcomed to Lausanne and are integrated into individual laboratories, where they work closely with research scientists on real projects. They gain hands-on experience, learn how to approach unanswered questions, hone their scientific instincts and critical thinking abilities. Just as importantly, they discover the excitement, discipline and collaborative spirit that shape research as a profession.



Since its launch in 2006, the UNIL SUR Programme has welcomed over 240 undergraduates to Lausanne, or around 15 highly motivated third- or fourth-year students each summer. For 8 weeks, the participants, representing widely varying backgrounds, are integrated into individual laboratories for hands-on research experience. Not only life sciences students but also medical students appreciate this first, often transformative exposure to research and its possibilities. Such early immersion shapes the participants' scientific thinking, and creates lasting ties to Lausanne, for many return later for internships, Master's or PhD studies. Its sister

program, the SRP at EPFL, has similarly grown into a highly competitive international initiative, selecting top undergraduate students from around the world, and immersing them in interdisciplinary research projects in fields such as neuroscience, global health, bioengineering and cancer research. Together these programs spark curiosity, build confidence and lay the foundations for future careers in science.

What makes SUR/SRP programs especially powerful is not only the laboratory work, but the community they create. Throughout the summer, SUR and SRP participants come together for shared academic activities, weekly workshops, faculty talks, lab visits and a joint closing symposium, where they present their research findings. Social activities add another essential dimension: the experience of thinking, learning and living alongside peers with different backgrounds, ways of thinking and perspectives.

The ISREC Foundation has played a meaningful role in sustaining this scientific pipeline. Between 2008 and 2025, it supported 63 students through UNIL's SUR, 91 through EPFL's SRP, for a total of 154 young researchers and an overall contribution of CHF 490 481, earmarked for projects in translational cancer research. This sustained commitment reflects the Foundation's dedication to cultivating the next generation of research scientists.

Programs like SUR and SRP give talented and motivated students an early and lasting insight into the professional environment of research. Most importantly it shows them that their ideas and questions are valued, and that they have what it takes to become the front-line scientists of tomorrow.

Congratulations to these promising students!

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## The SUR-SRP Team

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**Sayani Bose**  
University of Pavia, Italy  
c/o Prof. Cathrin Brisken – EPFL



**Margaretha Febrina**  
i3L Indonesia International  
Institute for Life Sciences, Jakarta,  
Indonesia  
c/o Prof. Nicolas Thomä – EPFL



**Camilla Brückmann de Mattos**  
Federal University of Rio Grande  
do Sul, Porto Alegre, Brazil  
c/o Prof. Pierre Gönczy – EPFL



**Fatima Sabahat**  
Lahore College for Women  
University  
c/o Prof. Ping-Chih Ho – UNIL



**Nina Pantaleo**  
University Rouen Normandie,  
France  
c/o Prof. Melita Irving – UNIL



**Samuel-Joseph Tremblay**  
Montreal University, Canada  
c/o Prof. Caroline Arber – UNIL

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## Highlights in 2025

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### FEBRUARY

To mark its 60<sup>th</sup> anniversary, the ISREC Foundation held a **public conference** on breast cancer at the AGORA Center in Lausanne on February 5, 2025. The symposium, titled «Donations to the Fight Against Cancer Have a Direct Impact – Breast Cancer as an Example», featured Prof. Curzio Rüegg, Prof. Susan M. Gasser and Prof. Pierre-Marie Glauser as speakers. The event provided an overview of the pivotal role of philanthropic support in translating laboratory breakthroughs into clinical practice. A particular focus was placed on Prof. Rüegg's research on a blood test for breast cancer screening.

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### JUNE

In the 11<sup>th</sup> iteration of this sports event dedicated to cancer research, the **Trophée AGO** once again brought together a community of volunteers and participants driven by a wonderful collective spirit. Since its inception, this event has paid tribute to **Agostino**, who passed away from cancer, and has transformed his memory into tangible solidarity that benefits various associations, including the ISREC Foundation.

The Trophée AGO is far more than just a sports event. It fosters unity among people of all ages and provides a sense of purpose to the dedication of all involved. This collective effort helps advance research by supporting projects aimed at improving diagnostics, treatments and patient care.

Thanks to this dedication, the ISREC Foundation has received over CHF 86 000 to date. This support is invaluable and we wish to express our deepest gratitude to the Trophée AGO association, to its volunteers and to all who participate in and donate to this event, bringing it to life with their loyalty and their passion.



In June, the ISREC Foundation announced the beneficiaries of the **TANDEM 2025** call for projects, which this year focused on digital pathology applied to cancer research. A total of **six interdisciplinary teams** were selected based on the scientific quality of their proposals and the potential of their projects to be translated into clinical practice. In 2025, the Foundation Council approved the allocation of **3 million CHF** to these projects in the context of the TANDEM program (page 20).

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### JULY

**Prof. Gerhard Attard**, a specialist in advanced prostate cancer and the development of clinical trials for novel therapies, joined the ISREC Foundation's Scientific Board in July 2025. He strengthens the board's expertise in evaluating the translational potential of innovations and the incorporation of predictive markers, in line with the Foundation's goal to bridge the gap between research and clinical needs.



## AUGUST

In August 2025, the **Old-Timer Hill Climb in Corcelles-le-Jorat** once again brought together owners, riders and lovers of vintage motorcycles, thanks to the dedication of the **Club Team Girard**, which has organized this tournament since 1998. True to the spirit of the race, this gathering celebrates historic two-wheelers and enthusiasts in a competitive yet convivial atmosphere. The ISREC Foundation is honored to be among the beneficiaries of this wonderful event. To date, CHF 49 500 have been donated to cancer research.



## OCTOBER

On October 29, 2025, the ISREC Foundation held its **annual conference** at the AGORA Center in Lausanne, bringing together our community to discuss translational research. The first part of the evening was devoted to honoring the beneficiaries of the 2025 TANDEM program, in which projects are led jointly by clinicians and scientists. Through this program, the Foundation reaffirms its commitment to aligning research with clinical needs and fostering collaborations that can accelerate the impact on patients.



To complement the scientific program, the evening also featured a lighter segment: a presentation by **Madame Marie-Thérèse Porchet**, who offered a spot-on and playfully irreverent analysis of science. The contrast between intellectual rigor and humor contributed significantly to the evening's atmosphere.

Many thanks to the speakers as well as to all our donors and partners. Your trust is essential to our ability to support these projects and the next generation of scientists. Together, let us continue to turn ideas into results that benefit patients.



## NOVEMBER

This year, the **Clinique AMiiA** chose to renew its commitment to cancer research by organizing a public conference on menopause that benefited the ISREC Foundation. Through this event, the clinic sought to provide education, promote prevention and foster solidarity, while making a tangible contribution to research.

We are profoundly grateful to **Marie de Riedmatten** and **Dr. Debora Schivo**, co-founders and co-directors of the Clinique AmiiA and authors of this invaluable initiative. Their support is a testament to their loyal and generous commitment to helping those affected by cancer and to advancing research in this field.

## Operations and Governance

The ISREC Foundation is a private, nonprofit foundation that is recognized as being of public benefit. It operates within a structured and transparent governance framework, with a clear division of roles.

The Foundation Council is responsible for the Foundation's overall management. It defines the organization's strategic direction, allocates resources and grants project funding based on the Scientific Board's recommendations. It also approves the annual budget and accounts. Furthermore, it appoints the members of the Foundation Council, the Scientific Board and the Management, and nominates the financial auditors.

The Scientific Board is composed of internationally renowned experts from different areas of cancer research. Its members are not permitted to serve on the Foundation Council, with the exception of the president of the Scientific Board, by virtue of his position. The Scientific Board, in collaboration with the Management, evaluates applications and selects the projects to be funded, then submits its recommendations to the Foundation Council.

The Management oversees the implementation of decisions and coordinates calls for proposals and the supervision of funded projects. With the support of the Scientific Board, it prepares recommendations for submission to the Foundation Council. It is also responsible for developing and proposing fundraising strategies and carrying out tasks assigned by the Foundation Council. The financial statements are audited by an audit firm in accordance with legal requirements. This firm, appointed by the Foundation Council, serves a one-year term.



### Foundation Council

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**President**

**Prof. Pierre-Marie Glauser**

Lawyer and professor of tax law at UNIL (University of Lausanne)

Associate at Oberson Abels SA

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**Vice president**

**Claudine Amstein**

Independent administrator

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## Members

*(from left to right and top to bottom)*

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### **Yves Henri Bonzon**

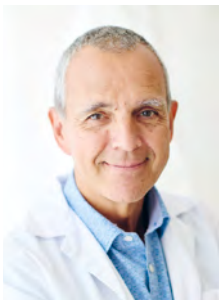
Head Investment Management  
CIO and member of the executive board, Julius Bär

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### **Claire Charmet**

General director, CHUV (Centre Hospitalier Universitaire Vaudois)

---



### **Prof. Pierre-Yves Dietrich**

Oncologist, Hirslanden Clinique des Grangettes

---

### **Prof. Renaud Du Pasquier**

Dean of the Faculty of Biology and Medicine, UNIL (Lausanne University)

---



### **Prof. Antoine Geissbühler**

Dean of the Faculty of Medicine, UNIGE (Geneva University)

---

### **Prof. Dr. Michael N. Hall**

Representative of the Scientific Board  
Professor at the Biozentrum, University of Basel

---

### **Robert Mardini**

General director, HUG (Geneva University Hospital)

---



### **Dr. Thomas W. Paulsen**

Chief financial officer, head of the finance and risk division,  
BCV (Banque Cantonale Vaudoise, Lausanne)

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### **Prof. Didier Trono**

Full professor, GHI (Global Health Institute),  
EPFL (École Polytechnique Fédérale de Lausanne)

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## Scientific Board

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### President

**Prof. Dr. Michael N. Hall**

Professor at the Biozentrum, University of Basel

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## Members

*(from left to right and top to bottom)*

### Prof. Dr. med. Andrea Alimonti

Director of the Molecular Oncology Department,  
Institute of Oncology Research, Bellinzona

---

### Prof. Gerhard Attard

Full professor and chair of medical oncology  
at the University College London (UCL) in London, England

---



### Prof. Peter Johnson

Professor of medical oncology, Faculty of Medicine,  
University of Southampton, England

---

### Prof. Dr. Anne Müller

Full professor of experimental medicine,  
Institute for Molecular Cancer Research, University of Zurich

---



### Prof. Dr. Federica Sallusto

Full professor in medical immunology at the ETH Zurich and the Università della Svizzera italiana (USI), Lugano (joint professorship), member of the Research Council of the Swiss National Science Foundation (SNSF)

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## Management

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**Prof. Susan M. Gasser**, Director

**Aylin Niederberger**, Administrative and Financial Director

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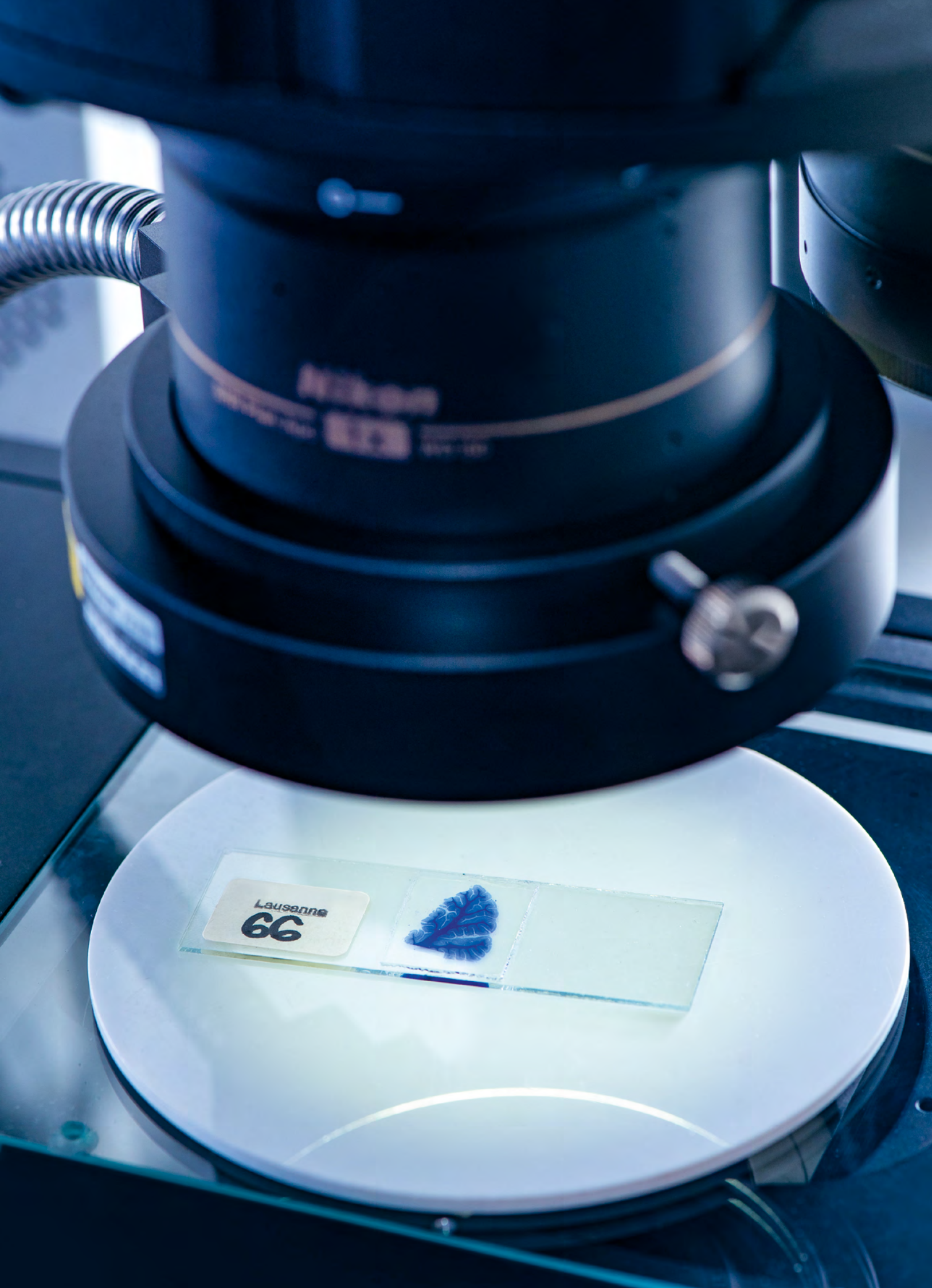
## Financial Auditors

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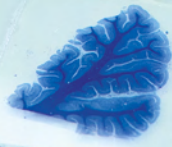
### PricewaterhouseCoopers SA

A fiduciary company recognized by the Swiss Institute of Certified Accountants and Tax Consultants, in Geneva

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Lausanne  
66



## **Book of Donors**

Since 1964, numerous donors have supported our cause through their donations or legacies, thus helping to advance cancer research.

**We would like to express  
our sincere gratitude to all of them.**

Among these donors, more than six hundred and seventy appear in our Book of Donors



## Contributions of more than 1 million Swiss francs

Two anonymous gifts / One anonymous legacy, Lausanne / Lady Elisabeth Amphill, in Lausanne / Fondation d'aide sociale et culturelle de la Loterie romande, Lausanne / Legacy Mrs. Anne B., Lausanne / Mrs. Annette B., Vevey / Mrs. Anne-Laurence B., Prévèrenge / Legacy Mrs. Wilhelmine B., Lausanne / Biltema Foundation, Amsterdam / José Carreras pour la lutte contre la leucémie Foundation, Meyrin / Ceres Foundation, Carouge / Mr. Dimitri D., Pully / Mrs. Hilda D., Colombier / Mrs. Yolande de M., Epalinges / Mrs. Johannette G., Lausanne / Göhner Foundation, Zug / Mrs. Jeanne H., Neuchâtel / Mr. Jean-Pierre H., St-Imier / Mrs. Henriette H.-C., Lausanne / Legacy Mr. Hans H., Vuflens-le-Château / Helmut Horten Foundation, Lugano / Legacy Mrs. Hélène I., F - Ville d'Avray / Istanjac Foundation, Triesen / Lardeco Foundation, Vaduz / Lartek Limited, Bermuda / Le Laurier Rose Foundation, Lausanne / Leenaards Foundation, Lausanne / Swiss Cancer League, Bern / Loterie Romande, Lausanne / Legacy Mr. Emile M., Bursins / Legacy Mrs. Marie M., Marin / Nouvelle Cassius Foundation, Vaduz / Mrs. Judith P., Lausanne / Mr. Yves J. P., Verbier / Pestalozzi Foundation, Road Town / Porthos Foundation, Triesen / Mrs. Martine Monique R., Geneva / Legacy Mr. Roland R., Lutry / Mr. Eric S., Neuchâtel / Legacy Mrs. Pierrette S., Nyon / Sevastopoulou Fund, Lausanne / Mr. Marc V., Lausanne / Canton Vaud

## Contributions between CHF 100 000 and 1 million Swiss francs

Thirty-four anonymous gifts / Legacy Mrs. Yvette A., Port-Valais/Bouveret / Aiuto Foundation, Nyon / Canton Aargau / Mrs. Adelheid Gertrud B., Hilterfingen / Mrs. Anne B., Prévèrenge / Mrs. Charlotte B., Romanel / Mrs. Dina Henriette B., Vevey / Mrs. Elise B., Chailly-s/Montreux / Legacy Mrs. Jacqueline B., Paris / Legacy Mrs. Jacqueline B., Rolle / Barend und Geertjen Scheffer Foundation, Lausanne / Canton Bern / Mrs. Anne-Marie C., La Tour-de-Peilz / Mrs. Florence Helen C., La Tour-de-Peilz / Mrs. Jeannette C., Vevey / Mrs. Marie C. and Mr. Bernard P., Saint-Légier-La-Chiésaz / Mrs. Suzanne C., Prilly / Legacy Mrs. Françoise C. de D., Meinier / Copley May Foundation, Geneva / Câbleries et Tréfileries de Cossonay / Ciba-Geigy SA, Basel / Mrs. Ariane D., Geneva / Mrs. Ida d'A., Lausanne / Mrs. Catherine D., Montreux / Mrs. Clara D., Montreux / Mr. Damien D., Lausanne / Mr. Henri D., Monaco / Mr. Irmgard D., Locarno / Mr. Marcel D., Lausanne / Mrs. Simone D., Lausanne / Legacy Mrs. Doris Ursula D., St-Sulpice / Legacy Mrs. Marylise D., Echichens / Legacy Mrs. Perdrix D., Montreux / De Ricou Foundation, Pully / Mrs. Elisabeth E., Geneva / Empiris Foundation, Zürich / Echec au cancer de la Broye, Payerne / Mrs. Bertha F., Yverdon / Mrs. Lilia F., Lausanne / Legacy Mrs. Alma Maria F., Petit-Lancy / Legacy Mrs. Aurelia F., Clarens / Legacy Mrs. Emma Germaine F., Orbe / Legacy Mrs. Madeleine F., Morges / Alfred Fischer Foundation, Lausanne / François Guédon Fiduciaire & Gérance SA, Lausanne / Canton Fribourg and Ligue fribourgeoise contre le cancer / Mrs. Andrée Lucienne G., Pully / Mrs. Esmeralda G., Lausanne / Mr. Louis G., Prilly / Legacy Mrs. Aline G., Kirchberg / Legacy Mrs. Antoinette G., Colombier / Legacy Mrs. Claudine G. L., Lausanne / Legacy Mrs. Danielle G., Lutry / Gygi-Beguvin Fund, Lausanne / Canton Geneva / Mrs. Elvine H., Montreux / M. Georg Philip H., Leipzig / Mrs. Liise H. / Mr. René H., Lausanne / Hastan Foundation, Geneva / Heskem Foundation, Vaduz / Hoffman-La Roche & Co, Basel / Mrs. Alice J., Pully / Mrs. Marguerite J.-K., Lausanne / Jacqueline de Cérenville Foundation, Lausanne / Jan Baron Mladota Foundation, Lausanne / Canton Jura / Mrs. Consuela K., Lausanne / Mrs. Laura L., Spanien / Mrs. Marthe L., Lausanne / Mr. Pierre Louis L., Lausanne / Mrs. Yvette L., Vevey / Ligue vaudoise contre le cancer, Lausanne / Municipalité de Lausanne / Mrs. Carmen M., Clarens / Mr. Karl Heinz M., Krienz / Mrs. Lilianne M., Lausanne / Mrs. Marie-Louise M., Corsier / Mrs. Marthe M., Lausanne / Mrs. Odette M., Lausanne / Mr. Roland M., Cugy / Legacy Mrs. Armentina M., Yverdon / Legacy Mr. Emile M., Bursins / Legacy Mrs. Marie M., Vevey / Legacy Mrs. Louisa M., Lausanne / Legacy Mrs. Monique M., Lausanne / Legacy Mrs. Raymonde M., Lausanne / Medic Foundation, Geneva / Migros Genossenschafts-Bund, Zürich / Mrs. Denise Alice N., Neuchâtel / Nirmo Foundation, Triesen / Nestlé SA, Vevey / Canton Neuchâtel / Oiseau Bleu Foundation, Vaduz / Orfeo Foundation, Vaduz / Mrs. Elisabeth P., Neyruz / Mr. Franz P., Coppet / Mrs. Marie-Louise P., Lausanne / Mrs. Marthe P., Lutry / Mr. Pierre P., Estavayer-le-Lac / Legacy Mr. Luis P. M., Rolle / Jacqueline Petit Foundation, Lausanne / Fondation de bienfaisance de la Banque Pictet & Cie, Carouge / Mrs. Louise Q., Renens / Mr. Georges R., Paris / Mrs. Nina R., Pully / Legacy Mrs. Lucette R., Blonay / Legacy Mrs. Suzanne R., Lausanne / The Rose Charitable Trust, United Kingdom / Mr. Edouard-Marcel S., Lausanne / Mrs. Georgette S., Geneva / Mrs. Paulette S., Denens / Mrs. Rosalie S., Montreux / Mr. and Mrs. S.-B., Sierre / Legacy Mrs. Elsa S., Hünibach / Legacy Mrs. Erzsébet S., Lausanne / Legacy Mr. Jean-Paul S., Corcelles / Legacy Mrs. Martha S., Yverdon / Legacy Mrs. Maryse S., Carouge / Legacy Mrs. Valerie S., Servion / Swiss Medical Network, Echandens / Canton St-Gallen / Miss Suzanne-Marie T., Payerne / Elisabetha and Jacques Tabord Foundation, Lausanne / Michel Tossizza Foundation, Lausanne / Tetra Laval International, Pully / Mrs. Evelyn V., Lausanne / Mrs. Gabriella Maria W., Geneva / Mrs. Henriette W., Lausanne / Mrs. Mona W., Geneva / Mrs. Nina W. Lonay / Prof. Dr h.c. René W. (Castolin SA), St-Sulpice / Canton Valais / Mrs. Gertrud Z., Münchenstein / Mr. Walther Willy Z., Montreux / Canton Zürich

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Fifty-five anonymous gifts / Mr. Emile A., Auvignier / Dr. Etienne A., Lausanne / Mr. Georges A., Colombier-sur-Morges / Mrs Jacqueline A., Lausanne / Mrs. Marie A.-D., Lausanne / In memory of Mr. Etienne A., Penthaz / Annah 2 Foundation, Panama City / Adiacom SA, Buchillon / Albion House Ltd, Lausanne / Alcoa International SA, Lausanne / André & Cie SA, Lausanne / Canton Appenzell Ausserrhodens / Mr. Aimé B., Boudry / Mr. Albert B., Lausanne / Miss Alice and Miss Hélène B., Lausanne / Mr. Benoît B., Lutry / Mrs. Charlotte B., Prilly / Mrs. Clara B., Veytaux / Mrs. Dorothee B., La Chaux-de-Fonds / Mrs. Elisabeth B., Lausanne / Mrs. Emma B., Bern / Mrs. Fidela B., Clarens / Mrs. Jeanne B., Romanel / Mr. Louis B., Pully / Mrs. Lucie B., La Tour-de-Peilz / Mr. Maurice B., Lutry / Mrs. Mireille B., Pully / Mrs. Mirza B., Morges / Mrs. Nicky B., Bulle / Mrs. Nicole B., Lausanne / Mrs. Odile B., Lens / Mrs. Reina B., Prilly / Mrs. Rosa B., Cossonay / Mrs. Roseline and Mr. Sébastien B., Genolier / In memory of Mr. Ulysse B., Lully / Mrs. Yvonne Edmée B., Auvignier / Legacy Mrs. Bluette B., Prilly / Legacy Mrs. Jeanne Suzanne B., Lutry / Legacy Mrs. Marianne B., Yverdon / Legacy Mrs. Rosette B., Lausanne / Bhema Vaduz Foundation, Neuchâtel / Action cancer des boulangers / La Bâloise Assurances, Basel / Banque cantonale vaudoise, Lausanne / Banque Vaudoise de Crédit, Lausanne / Baumgartner Papiers SA, Lausanne / Bobst & Fils SA, Lausanne / Boillat SA, Reconquillier / Brauchli SA, Lausanne / Company Paul Bucher, Basel / Mrs. Anne-Marie C., Lausanne / Mr. Ernest C., Villeneuve / Mrs. Eveline C., Ecublens / Mr. François C., Meggen / Mr. Frédy C., Prilly / Mr. Jean C., Bern / Miss Juliette C., Lausanne / Mrs. Marie-Christine C. and Mr. Edouard B., Pully / Mrs. Nelly C.-B., Prilly / Mr. Stefan C., St-Légier / Legacy Mrs. Jacqueline C., Clarens / Colibri Foundation, Lausanne / Association des Câbleries Suisses, Zürich / Caisse d'Epargne du District de Cossonay / «Comeback» des motards, Lausanne / Copycolor SA, Renens / Couvent de Sainte Ursule, Sion / Mr. Albert D., Vevey / Mrs. Alice D., Lausanne / Mr. Armand D., Penthaz / Mr. Constant D., Lausanne / Mr. Emile D., Châtel-St-Denis / Mr. and Mrs. Ernest D., Echichens-sur-Morges / Mrs. Estelle D., Jouxten / Mr. Gian Andrea D., Epalinges / Mrs. Lily D., Lausanne / Mrs. Livia D., Montreux / Legacy Mrs. Marianne D., Nyon / In memory of Mr. Xavier D., United Kingdom / Miss Simone de M. d'A., Lausanne / Mrs. Aïda de P. M., Lonay / In memory of Miss Floriane du B., Les Ponts-de- Martel / Legacy Mr. Gustav D., Bern / Legacy Mrs. Pierrette D., Lavaux-Oron / Schweizerische Stiftung für den Doron-Preis, Zug / Delta Securities, Guernsey / Decalia Asset Management SA, Geneva / Régie De Rham, Lausanne / Edouard Dubied & Cie, Neuchâtel / DuBois Invest LLC, Sierre / Mrs. Marie E., Vevey / Legacy Mrs. Bertha E., Lens / Legacy Mrs. Paulette E., Le Lignon / Ebauches SA, Neuchâtel / Ecole Hotelière de Lausanne / Ernst & Young, Lausanne / Etablissement cantonal d'assurances, Pully / Municipalité d'Epalinges / Mrs. Francisca F., Lausanne / Mrs Jacqueline F.-G., Lausanne / Mrs. Janine F., Yverdon / Mr. Jules F., Payerne / Mr. Pierre F., Romont / Mr. Ruedi F., Gümligen / Fontes Foundation, Bern / FPH (Foundation pour le Progrès de l'homme) , Lausanne / Fabrique d'Assortiments Réunis, Le Locle / Fabrique de Câbles de Brugg / Legacy Mrs. Attilia G., Torgon / Mrs and Mr. Caroline and Patrice G., St-Sulpice / Mr. Daniel G. / Mrs. Genifer G., La Tour-de-Peilz / Miss Germaine Marie G., La Tour-de-Peilz / Mrs. Hilda G., Morges / Mr. Johannes G., Lausanne / In memory of Mr. Mario G., Bern / Mr. Roger G., Lonay / Mr. Sven G / Mrs. Violette G., Lausanne / Legacy Mrs. Claudine G., Morges / Grande Kermesse de la jeunesse pour la lutte contre le cancer, Geneva / La Genevoise Assurances, Geneva / Galenica AG, Bern / Golay-Buchel & Co, Lausanne / Kanton Glaris / Mrs. Claire-Marguerite H., Geneva / Mr. Ernst H., Biel / Mr. Feras H., Dubaï / Mr. Gérard H., Lausanne / Legacy Mr. Gérard H., Les Diablerets / Mr. Gustav H.-M., Schaffhausen / Mr. Hans H., Vufflens-le-Château / Mrs. J. H., Geneva / Miss Marguerite H., Lausanne / Mrs. et

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## Acknowledgments

As this year comes to a close, we would like to express our sincere gratitude to all our generous donors. Without your support, none of our projects could have been accomplished.

Many thanks to Prof. **Susan M. Gasser**, our director, and **Aylin Niederberger**, our administrative and financial director. Our heartfelt appreciation also goes to our administrative team, consisting of **Nathalie Blanc**, **Leslie Carron**, **Isabelle Schiess** and **Amanda Skarda**, and to our ambassadors, **Corinna Adler**, **Federica Mariani**, **Didier Grobet** and **Andreas Choffat**, for their loyal commitment.

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Publication **Aylin Niederberger**  
Design **Alain Florey@spirale.li**

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#### Cover

This figure shows a map of myeloid immune cells within a preclinical tumor model, using data generated via single-cell transcriptomics. In the graph (specifically a force-directed graph), each point represents an individual cell and the color a cell state. The arrangement of the graph illustrates how these cells transition between different functional states. Trajectory analyses are crucial in cancer research, as they give us insight into how immune cells respond to tumors and how tumors may hijack these pathways to better evade the body's defenses or support their own growth. Ultimately, the goal is to discover novel therapeutic targets that could help program these cells into anti-tumor functional states and trajectories.

**Fondation ISREC**  
Rue du Bugnon 25A  
1005 Lausanne

+41 21 653 07 16  
info@isrec.ch / www.isrec.ch  
CCP 10-3224-9