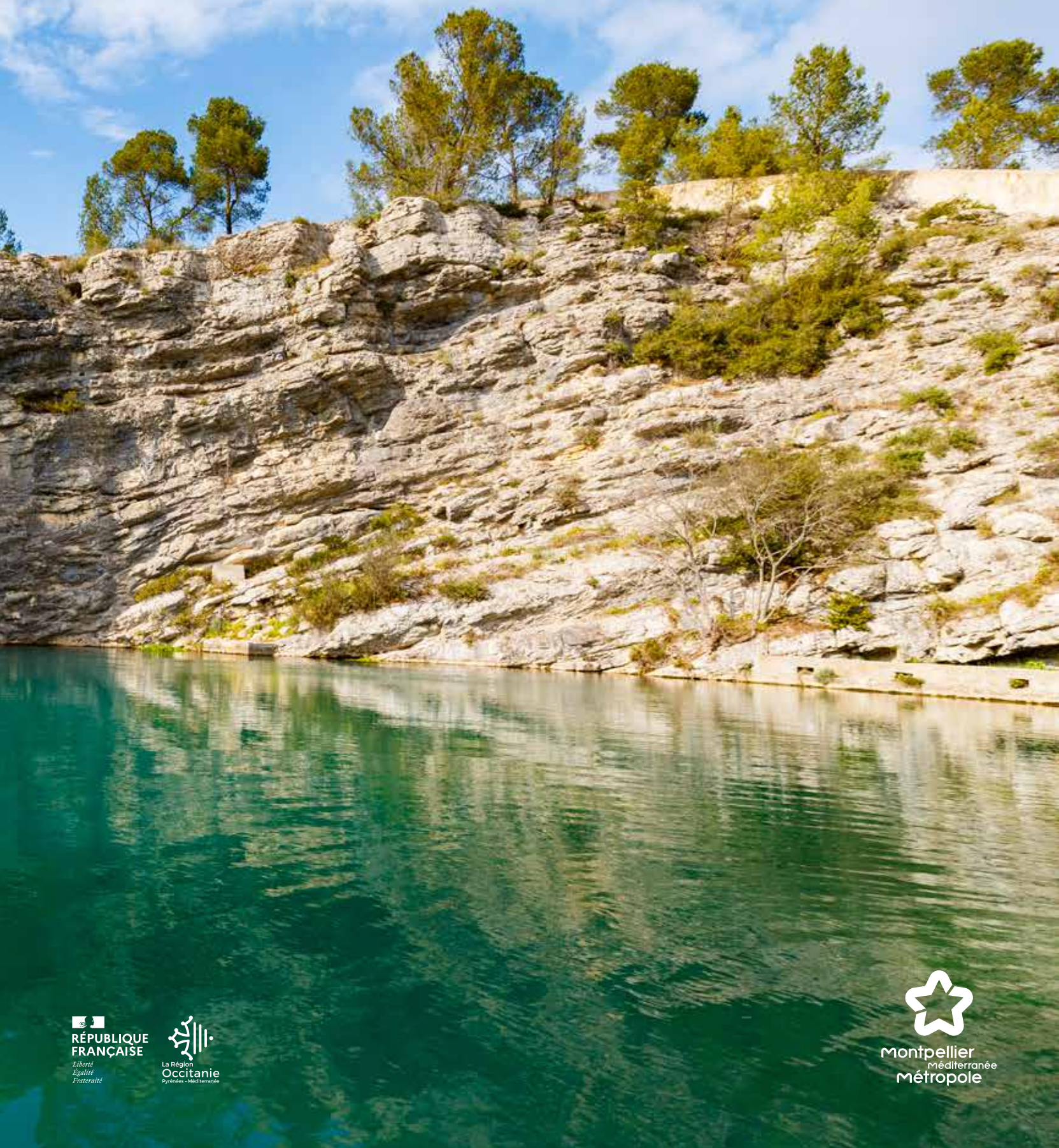


MEDVALLÉE  
MONTPELLIER  
MAGAZINE  
2025



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# Miroki, the companion robot

**THIS PROJECT, DEVELOPED BY ICM AND ENCHANTED TOOLS, IS DESIGNED TO ACCOMPANY YOUNG PATIENTS THROUGHOUT THEIR RADIOTHERAPY TREATMENT BY PROVIDING THEM WITH ESSENTIAL EMOTIONAL SUPPORT. THE GOAL IS TO IMPROVE THE QUALITY OF THEIR TREATMENT.**

Laying his large, blue eyes on the child he is accompanying to the radiotherapy room, he answers their questions in a soft, reassuring voice. The Montpellier Cancer Institute (ICM) and Enchanted Tools, in partnership with the SIRIC Montpellier Cancer integrated cancer research site, are developing and optimizing a **companion robot** designed to provide **support for children battling cancer**.

The robot, named **Miroki**, is intended to create a soothing environment that makes the treatment process more positive and less stressful for children, their loved ones, and caregivers. This experiment is the first of its kind worldwide, unveiled at the 2<sup>nd</sup> MedVallée Conference on October 15, 2024, at Montpellier's Corum Conference Center.



David Azria and Julien Weimant present the Miroki robot. © D.R.

# for children undergoing cancer treatment

“Loneliness, fear, and anxiety are inevitable during treatment sessions,” says Dr. Julien Welmant, a pediatric radiation oncologist at ICM, who started this project based on observations made daily by radiation oncologists working with sick children.

With support and coordination from ICM’s pediatric radiotherapy department team, **Miroki provides a familiar and comforting presence** for young patients during consultations and radiotherapy sessions, when it is not possible for other people to be present.

This project represents a major innovation. “Our partnership with ICM represents a real step forward towards a **new era of humane support in the medical environment**,” confirms Jérôme Monceaux, CEO of Enchanted Tools, who says he is deeply honored by the trust placed in his company “to breathe a touch of magic into these children’s daily lives.”

As part of a larger program led by the SIRIC Montpellier Cancer research consortium, this scientifically evaluated project seeks to establish a new standard of care within the next five years for children undergoing radiotherapy.

Scientific evaluation covers changes in human behavior, thanks to the expertise of the Epsilon Laboratory at University of Montpellier Paul-Valéry, as well as the effects of radiation on the Miroki robot, with support from the Institute of Electronics and Systems at University of Montpellier and the Hubert-Curien Laboratory at Jean-Monnet University in Saint-Étienne. “Several layers of research will be essential before the robot can be used in everyday practice.

**This research will be made possible thanks to the SIRIC Montpellier Cancer consortium,”** explains Professor David Azria, Director of SIRIC Montpellier Cancer.

ICM, Enchanted Tools, SIRIC Montpellier Cancer, and their partners are using Miroki to shape the future of cancer treatment. This “innovative project is fully aligned with MedVallée’s dynamics,” points out Professor Marc Ychou, Managing Director of ICM. He adds: “We firmly believe in the development of technology as a tool that benefits people. Miroki is destined to become the standard-bearer for this approach!”

With Miroki, technology becomes an essential companion when caring for children undergoing treatment. An example of AI serving humanity.

“**Miroki fills a gap in our care for these children, all the way from consultation to radiotherapy sessions.**”

**Prof. David Azria**  
Director of SIRIC Montpellier Cancer, and Coordinator of the Oncology-Radiotherapy Department at ICM – Val d’Aurelle

## A local experiment with international implications



**Julien Welmant,**  
Pediatric oncologist and radiation therapist at ICM – Val d’Aurelle, initiator of this project.

### WHERE DID YOU GET THE IDEA TO START THIS EXPERIMENT?

400,000 children are diagnosed with cancer every year worldwide, and a third of them are treated with radiation therapy. Yet people are not permitted to accompany them into the treatment room due to the dangerous nature of the radiation. My idea was to **make it so no child would be alone during these sessions**. I got the idea for a robot while I was traveling in Japan. It was raining very hard and I took shelter under a store awning. A little robot came along and brought me a towel so I could dry myself off.

### WHAT DO MIROKI AND, THROUGH THE ROBOT, AI BRING TO THE HEALTHCARE EXPERIENCE?

Miroki is the gateway to a new way of practicing medicine, bringing an even higher level of compassion to our care. Miroki has an expressive and reassuring face. **His algorithms are developed in collaboration with psychologists who recognize children’s fears and anxieties.** The algorithms are therefore specifically designed to ensure that Miroki can reassure each child as effectively as possible.

### HOW MANY CHILDREN HAVE EXPERIENCED THE ROBOT?

Miroki has already accompanied approximately ten children And we have noticed that the children very often want company throughout their entire treatment, starting with the initial consultation. **The robot is able to absorb and eliminate negative emotions,** which reduces everyone’s emotional burden during treatment.

### HOW HAS THE INITIAL FEEDBACK BEEN?

It has been excellent overall. This experiment, which helps us refine Miroki’s algorithms to make interactions more effective, is an **incredible human and technological adventure**, especially since we are proceeding in a rigorous scientific manner. We already have proposals from around the world to replicate the experiment elsewhere. Even though our experiment is local, it clearly has an international dimension.



Stéphanie Nougaret, radiologist and researcher at the Montpellier Cancer Institute (ICM) campus. © D.R.

# “In Montpellier, we achieve excellence in research”

**DR. STÉPHANIE NOUGARET RECEIVED STARTING GRANT FUNDING, PRESTIGIOUS RECOGNITION OF THE SCIENTIFIC EXCELLENCE OF HER RESEARCH PROJECT. AFTER A BRILLIANT CAREER IN THE UNITED STATES, SHE DECIDED TO RETURN TO MONTPELLIER IN 2016. SHE TELLS US WHY.**

**DURING THE 2<sup>ND</sup> MEDVALLÉE CONFERENCE, YOU SAID THAT WHAT YOU MISSED MOST IN THE UNITED STATES WAS THE TRANSLATIONAL RELATIONSHIP BETWEEN PATIENTS, CAREGIVERS, AND RESEARCHERS. THEY LACKED THE ECOSYSTEM THAT YOU ENJOY IN MONTPELLIER. WHAT ARE SOME OF THE STRENGTHS OF THE MONTPELLIER ECOSYSTEM?**

What makes Montpellier's ecosystem unique is the synergy created by the coexistence, on the same site, of the Montpellier Cancer Institute (ICM) and the Montpellier Cancer Research Institute (IRCM). This proximity fosters highly integrated research, reinforced by our accreditation as a SIRIC integrated cancer research site from INCa – the only one in southern France.

This structure will soon be enhanced by the Center for Transfer and Innovation in Oncology (CTIO, see page 16), which will create a powerful ecosystem focused on major topics such as artificial intelligence, uniting both academic teams and startups.

One aspect that strikes me about Montpellier is that everything remains on a human scale. Communication between patients, caregivers, researchers, AI experts, and entrepreneurs is direct and authentic. **This translational dynamic that I found here is both concrete and vibrant, enabling me to move forward with my projects.**



YOU WERE A CLINICAL DIRECTOR AT MEMORIAL SLOAN KETTERING CANCER CENTER IN NEW YORK, THE LEADING CANCER FACILITY IN THE UNITED STATES. ONE DOES NOT GIVE UP SUCH A CAREER WITHOUT A VERY GOOD REASON. WHAT MOTIVATED YOU TO RETURN TO MONTPELLIER?

The United States was an essential step in my journey, but not necessarily the end goal. I learned a great deal during my time there: first in magnetic resonance imaging, then in artificial intelligence, which I discovered in 2014 at Memorial Sloan Kettering. That is what inspired me to dig deeper into this field by getting a Master’s degree at MIT, in addition to my medical degrees.

Those years provided me with the opportunity to structure and refine the project that I am now pursuing at ICM. When I came back to Montpellier, I was fortunate to be able to assemble a team with the expertise I was looking for, in a stimulating environment that was consistent with my goals.

I didn’t turn my back on the United States. My project matured there, and I continue to collaborate with Harvard and other American institutions. But I decided to pursue it here in Montpellier. At the ICM site in particular, we are dedicated to excellence in research and possess real expertise in both the treatment and approach to cancer.

YOU RECEIVED STARTING GRANT FUNDING FROM THE EUROPEAN RESEARCH COUNCIL. THAT IS ONE OF THE MOST COVETED GRANTS, A FIRST FOR A DOCTOR FROM MONTPELLIER, AND RECOGNITION OF THE OUTSTANDING NATURE OF YOUR RESEARCH PROJECT. CAN YOU TELL US ABOUT YOUR PROJECT AND THE ISSUES IT ADDRESSES?

My field is medical imaging, more specifically MRI. As radiologists, our interpretation of images can sometimes be incomplete. Some information simply escapes the human eye. My project specifically aims to overcome this limitation by exploring the image content beyond what is visible.

The project involves a “virtual biopsy” focusing on ovarian cancer, a highly lethal form of cancer that is often diagnosed too late. The idea is to extract information from the MRI that we would typically expect from a biopsy. This is not to replace pathologists, but to gain non-invasive access to key indicators pertaining to the severity of the disease, specific to each patient.

**This project paves the way towards more personalized radiology** capable of assessing tumor aggressiveness with unprecedented precision. And this approach can be applied beyond ovarian cancer to other cancers, such as pancreatic or colon cancer.



The awards ceremony for the first edition of the PINKCC Challenge at Épidaure on June 13, 2025. © D.R.

HER VIEW OF MEDVALLÉE

*“MedVallée plays an essential role in boosting the visibility of Montpellier’s One Health ecosystem. **This dynamic creates fertile ground for the emergence of hybrid projects**, such as mine, at the crossroads of medicine, imaging, and artificial intelligence. It fosters synergies between disciplines and stakeholders – academia, clinicians, industry – while supporting technology-intensive projects that require both cutting-edge medical skills and high-level digital expertise. This is exactly what we find here in Montpellier, within the MedVallée framework.”*

ARE OTHER TEAMS WORKING ON THIS TOPIC ELSEWHERE IN THE WORLD?

Yes, several teams around the world are conducting research similar to ours. That is why, at ICM’s initiative, we created an international consortium involving eight European countries.

This consortium seeks to combine our complementary expertise to develop a **digital twin** capable of better representing tumor heterogeneity. The goal is to bring together our methodological approaches to enhance our understanding of complex cancers.

We plan to submit this project to the **European Innovation Center** in the fall in order to obtain the funding necessary to move forward.

IS THE PRESENCE OF EXCELLENCE ECOSYSTEMS IN DIGITAL TECHNOLOGY AND AI IN MONTPELLIER A DETERMINING FACTOR IN YOUR PROJECT’S PROGRESS?

Absolutely. On one hand, **SIRIC Montpellier Cancer** – whose accreditation was renewed for the third consecutive time in 2023 – provides a structured and supportive framework. I am the coordinator for one of the strategic directions, **PRIORITY**, which consists of developing imaging biomarkers to predict the response to radiotherapy in patients with pancreatic cancer.

Moreover, Montpellier benefits from a **particularly rich AI ecosystem**, with cutting-edge expertise provided by leading academic and industrial players. This dynamism is supported by **French Tech**, which is very active locally and brings together innovative companies and startups in the field.

We have fully integrated into this stimulating environment and now play an active role in it. AI is a powerful tool for advancing our research projects.

WATCH STÉPHANIE NOUGARET’S PRESENTATION ON THE CHALLENGES OF AI IN HEALTHCARE



# A unifying force

**FROM MAKING SCIENTIFIC ADVANCES TO LEVERAGING THEIR ECONOMIC POTENTIAL: THESE ARE THE DYNAMICS DRIVEN BY MEDVALLÉE, WHICH PROMOTES SYNERGIES WITHIN ITS ECOSYSTEM THROUGH CROSS-FERTILIZATION.**



# Immu4Cure and CRIBS open exciting prospects for new therapies

**THE IMMU4CURE UNIVERSITY HOSPITAL INSTITUTE (IHU) IS THE ONLY ONE OF ITS KIND IN FRANCE DEDICATED TO DEVELOPING TREATMENTS FOR AUTOIMMUNE AND INFLAMMATORY DISEASES. IT IS A TOOL FOR EXCELLENCE, AS IS THE NEW CENTER FOR RESEARCH AND INNOVATION IN BIOLOGY AND HEALTH (CRIBS). LET’S TAKE A CLOSER LOOK.**

## IMMU4CURE, A UNIQUE IHU IN EUROPE

Led by the Montpellier University Hospital Center (CHU), Inserm, and University of Montpellier, the Immu4Cure IHU university hospital institute intends to become Europe’s **leading center for research and development in immunotherapy applied to autoimmune diseases**. Selected as part of the France 2030 Plan, it was officially launched on September 17, 2024, in Montpellier Métropole’s main council chamber.

**This University Hospital Institute (IHU)** addresses a major public health issue, as the incidence of autoimmune diseases has been steadily increasing over the past ten years. There are over 80 such diseases in total, but there is still no cure for most of them at this time.

Under the leadership of Christian Jorgensen, head of the Institute for Regenerative Medicine and Biotherapy (IRMB) and the Clinical and Therapeutic Osteoarticular Immunology Department at Montpellier CHU, Immu4Cure draws on the excellence and expertise of 15 teams and more than 300 researchers, focusing in particular on rheumatoid arthritis, scleroderma, and lupus. It is no coincidence that this center was created in Montpellier. Rather, it is the result of scientific work on autoimmune diseases carried out there.

Located “at the heart of MedVallée,” as noted by Anne Ferrer, Montpellier CHU’s General Director, during the official launch ceremony, Immu4Cure is launching research programs to develop new cell therapies and has opened a new personalized care pathway at the heart of the CHU.

Furthermore, Immu4Cure benefits from various technological platforms managed by BioCampus Montpellier, a unit backed by CNRS, INSERM, University of Montpellier, and I-Site. “By bringing together different platforms, BioCampus stimulates collaboration and enables the emergence of new expertise,” explains Jacques Mercier, Vice President of Research at University of Montpellier.

Offering tremendous promise for therapeutic progress, Immu4Cure is indeed “unparalleled in Europe,” highlights Christian Jorgensen, who praises the “strong support provided by Montpellier Métropole and the Occitanie Region,” which have been deeply involved in the project.



CRIBS is dedicated to promoting research.



Montpellier CHU’s Unique Biology Site.

## CRIBS, WHERE HYBRIDIZATION DRIVES INNOVATION

A space dedicated to research and innovation in hospital biology, open to the business world. That is what the Center for Research and Innovation in Biology and Health (CRIBS) is all about. Located on the 5th floor of the Prof. Arlette Serre Unique Biology Site, inaugurated on June 13, 2025, CRIBS is a major project in the Montpellier University Hospital’s strategy.

And for good reason: it enables “*companies to be hosted in a dedicated 1,200 m<sup>2</sup> space to develop innovative partnerships that serve patients and the medicine of tomorrow, drawing on MedVallée dynamics,*” explains the Montpellier University Hospital.

**CRIBS provides companies with an opportunity to develop innovative projects by drawing on the expertise of Montpellier University Hospital’s biology departments**, clinical and medical-technical centers, ISO-certified biological resource center, France 2030-certified eDOL health data warehouse, and 15 innovative research platforms, among other resources.

**A unique initiative in France, CRIBS was developed in collaboration with researchers, manufacturers, and local authorities, including Montpellier Métropole, which awarded a 900,000€ grant to Montpellier CHU** for 2024-2026 as part of MedVallée’s major structural investments.

Win-win synergy. Shortly after getting started, CRIBS is already doing its job. Several companies and startups have moved in or are planning to move in, including Labai, Occical Therapeutics, Stago, and Diag2Tec. “*This is it. Since early April, we have had the pleasure of working in brand new premises at the CRIBS Biology Hub,*” rejoices Angélique Bruyer, CEO of Diag2Tec.

# MYOccitanie anchors the AFM-Telethon in Montpellier

**MYOCCITANIE MONTPELLIER BECOMES THE FOURTH STRATEGIC CLUSTER SUPPORTED BY AFM-TELETHON IN FRANCE. OFFICIALLY LAUNCHED IN JANUARY 2025, THIS NEW CLUSTER DRAWS ON THE EXPERTISE OF THE PHYMEDEXP LABORATORY, HEADED BY ALAIN LACAMPAGNE, WHO HAS TAKEN ON THE ROLE OF COORDINATOR.**

AFM-Telethon sets up in Montpellier! The association, which helps advance medical research for the treatment of rare genetic diseases that often have serious effects on the muscles, has decided to establish its fourth strategic center in France.

The new cluster, named MYOccitanie and certified in January 2025, is based at the joint CNRS/ Inserm/University of Montpellier Physiology and Experimental Medicine of the Heart and Muscles (PhyMedExp) laboratory, where it will benefit from first-rate expertise.

Led by Alain Lacampagne, CNRS Silver Medal winner in 2023, PhyMedExp focuses on rare and chronic diseases, developing a holistic approach based on the observation that patients with these rare diseases experience interactions between tissues and organs that make understanding the pathology more complex. This is what makes the approach unique.

*“In our Physiology and Experimental Medicine unit, we take a holistic approach to diseases and therefore to patients. This means that for any given patient, we look at all their problems relating to cardiac, peripheral muscle, respiratory, digestive, and central nervous system dysfunction,”* explains Alain Lacampagne, coordinator for MYOccitanie. *“Having the support of AFM-Telethon is a mark of recognition,”* he adds.

MYOccitanie focuses on all aspects of diseases through research ranging from genes to clinical symptoms in patients. This strategic cluster is dedicated to studying the physiology and pathophysiology of smooth, skeletal, and cardiac muscles. It is simultaneously driving 27 collaborative projects, uniting six research teams and 70 researchers, experts, and clinicians who have come together to better understand and treat these diseases.

Thanks to this integrated approach, MYOccitanie is accelerating the transformation of scientific discoveries into concrete solutions for patients and their families with a privileged partner, the Montpellier CHU University Hospital.

MYOccitanie is also fully aligned with MedVallée. *“MedVallée’s dynamics are a factor that facilitates the transformation and promotion of our research,”*

confirms Alain Lacampagne, for whom *“the creation of startups is also a key component for translating the strategic cluster’s scientific advances into concrete solutions.”* A good example is the startup Occical Therapeutics, which he co-founded with Sarah Colombani (for whom he was thesis advisor), Stephan Matecki, Jean-Yves Le Guennec, and Nicolas Kepel.

On June 10 and 11, Laurence Tiennot-Herment, president of AFM-Telethon, came to Montpellier to meet with MYOccitanie stakeholders, Montpellier CHU management, and University of Montpellier leadership teams, with a clear determination to strengthen AFM-Telethon’s interactions with stakeholders in the Montpellier ecosystem.

AFM IS ALWAYS  
INTERESTED IN DONATIONS  
TO ADVANCE ITS RESEARCH



AFM Telethon, a major player in research to fight rare diseases.



# Dedication in action

MEMBERS OF THE MEDVALLÉE ECOSYSTEM ORGANIZE EXPERT EVENTS AND LAUNCH INNOVATIVE PROJECTS.

## BPS MEDVALLÉE ENTREPRENEURS CLUB: THE MAJOR CHALLENGE OF DECARBONIZATION

*“The energy transition is perceived as a constraint in public debate. However, the challenge is not to accept, but rather to choose. This is because the energy transition is fundamental to strategic autonomy.”* François Gemenne, lead author of the IPCC’s Sixth Assessment Report (Working Group II), was the guest of honor at the sixth Banque Populaire du Midi (BPS) – MedVallée Entrepreneurs Club meeting, held on June 26 at the Ynov school.

With this invitation, the Entrepreneurs Club highlighted a shared goal: decarbonization of current practices, a major global health challenge that must be addressed. The Montpellier area has a real advantage in this regard. *“MedVallée is a truly structuring project that places innovation at the heart of economic development in the Montpellier Métropole area,”* explains Karine Puget, CEO of GENEPEP, president of BPS, and member of the MedVallée Strategic Orientation Committee.



The 6<sup>th</sup> Banque Populaire du Sud - MedVallée Entrepreneurs Club on June 26 at the Ynov school.

## INNOVATION AT THE HEART OF MEDVALLÉE AFTERWORK EVENTS

The Agri Sud-Ouest Innovation, Aqua-Valley, Derbi (now Derbi-Cemater), and Eurobiomed competitiveness clusters have been partners of MedVallée from the very beginning.

Every year, they co-host four afterwork events focusing on shared issues. Held on May 13, 2025, at the Cité de l’Économie et des Métiers de Demain

in Montpellier, the tenth of these events addressed the challenge of financing innovation. ***“The four competitiveness clusters are very much involved. We look for transversal themes that can be of interest to all our members,”*** observes Léna Marrillet, project manager at the Derbi-Cemater competitiveness cluster.

In addition, two companies shared their unique experiences and captivated the audience: Sébastien Lacaze, CEO of Look Up Geoscience and president of French Tech Méditerranée, and Karine Puget, CEO of Genepep and president of Banque Populaire du Sud.



Sarah Colombani and Philippe Combette at the Santexpo 2025 trade fair.

## MONTPELLIER, A HUB FOR ONE HEALTH INNOVATION!

*“Montpellier is a hub for health and biotechnology innovation. Projects come to life here, supported by an ecosystem of excellence.”* That is how Sarah Colombani, co-founder of OcciCal Therapeutics, explained it at the Santexpo trade show in Paris in May, during a round table discussion on innovation in Montpellier. Specializing in the development of the first preventive treatment for mechanical ventilation-induced diaphragmatic dysfunction, her company was able to attend this key event for healthcare professionals thanks to a partnership between Montpellier Métropole, Montpellier CHU University Hospital, University of Montpellier, and the Occitanie Region. It’s all quite symbolic.

*“MedVallée’s strength lies in its **close, strategic collaboration with the various local stakeholders, which creates synergies that drive innovation**,”* explains Sarah Colombani. OcciCal Therapeutics is a perfect example: based at the CRIBS research center at Montpellier CHU (see page 7), the company is assisted by Initium, PUI, Montpellier BIC, AD’OCC, the Occitanie Region, MedVallée, and Montpellier Métropole. This approach has proven successful: in 2024, Occital Therapeutics won the i-PhD Grand Prize and the i-Lab Prize from Bpifrance. This is the second time in the history of the awards that the same startup won both prizes in the same year!



View of the Lez River in Castelnau-le-Lez.

# A territory at the forefront of water solutions

**THE MONTPELLIER AREA IS AT THE FOREFRONT OF GLOBAL WATER ISSUES, LEVERAGING HYDROPOLIS, WHICH IS HOME TO THE UNESCO INTERNATIONAL CENTER ICIREWARD – UNIVERSITY OF MONTPELLIER, AS WELL AS THE AQUA-VALLEY COMPETITIVENESS CLUSTER AND A WEALTH OF PROMISING INNOVATIVE COMPANIES.**

For two days, they brainstormed in teams to develop an innovative project on the theme of Water and Transitions. On February 20-21, 2025, no fewer than 450 students from around 20 countries took part in the 7<sup>th</sup> edition of the **Water4Future Hackathon** held at Montpellier City Hall. Their ideas flowed like natural springs.

Organized by UNESCO's International ICIREWARD Center – University of Montpellier in conjunction with MedVallée, the City of Montpellier, and Montpellier Métropole, **this international innovation competition is designed to bring forth solutions related to global water issues.**

Even though the team from the Canadian University of Sherbrooke won this year, teams from Montpellier still managed to do very well: second place for Cours Diderot and third place for EPF Engineering School. This further demonstrates the interdisciplinary expertise that has been brought together within the MedVallée initiative to address the global challenges of sustainable management and access to water resources.

This unique expertise has a long history in Montpellier. It is embodied by a comprehensive scientific ecosystem comprising leading players, including the Hydropolis campus, which brings together the ICIREWARD center at the University of Montpellier, the OREME Observatory of Universe Sciences, and the HydroSciences Montpellier (HSM) research laboratory. This ecosystem is a key factor for attracting businesses, developing employment, and promoting industrial activities. Since January 2024, it has been enhanced by the Hydropolis campus in La Valette, focusing on interdisciplinary and participatory research into integrated and adaptive water management.

The two sites comprise more than 5,000 m<sup>2</sup> of buildings and over 480 scientists, plus 180 doctoral students. Unique in France, Hydropolis is also home to the headquarters of Aqua-Valley, the water competitiveness cluster that unites 250 members throughout the region it covers, including 47 based in the Montpellier metropolitan area, 1,200 researchers, and 500 doctoral students. *"These scientists are responsible for more than two-thirds of scientific publications on water in France,"* says Olivier Sarlat, president of Aqua-Valley.



What’s more, University of Montpellier **ranks first in France in the field of water sciences in the Shanghai international rankings**. Also, many companies contributing to the vitality of this ecosystem are real gems.

The Montpellier employment area is home to Veolia, AquaTech Innovation, Ecofilae, IAGE, Minerve Technology, NXO Engineering, and Ceneau. In addition to these companies are Abiofore, Akelion, Aquadoc, Artelia, Biofaq Laboratoires, Bio-UV Group, BRL, Cereg Ingénierie, Chemdoc Water Technologies, Ecosec, Egis Eau, Envilys, Firmus France, GL Biocontrol, Greenphage, Imeca Process, Innov’ent, Irrifrance, Mayanne Eau & Sociétés, Nereus, and more.

Alongside its leadership in water science, the metropolitan area strives to address the challenge of preserving this precious resource while taking into account agricultural activity and its functions. This involves meeting a dual challenge that combines local development and resilience without increasing pressure on water resources.

In fact, Montpellier Métropole relies on the expertise of local stakeholders to help bring about innovation. This is reflected in the project European Life ReWA (Recycled Water for Life). Headed by the Montpellier Water Authority, European Membrane Institute at University of Montpellier, DV2E, and Montpellier Méditerranée Métropole, ReWA is intended to meet a growing need for water through reuse. The objective is to recover water from the outlet of wastewater treatment plants and filter it to produce water of a quality suitable for cleaning



Hydropolis campus in Montpellier.



Water4Future Hackathon 2025 at Montpellier City Hall.

roads, fighting fires, hydrocleaning wastewater and stormwater pipes, watering green spaces, and irrigating agricultural land. All this is done in compliance with European and French quality standards. The goal is to achieve 100,000 m³ per year at a rate of 25 m³ per hour. As part of ReWA, Chemdoc Water Technologies presented its Mobile Production Unit at the CYCL’EAU trade show, held on March 19-20, 2025, at the Montpellier Exhibition Center.

This trade show highlighted the globally recognized excellence of the Montpellier ecosystem’s expertise, which also benefits other areas. *“Here, we have **360° expertise ranging from quantitative and qualitative studies to water treatment to risk management**, which we make available to local authorities,”* underlines Olivier Sarlat, President of Aqua-Valley, adding: *“The beating heart of France’s water industry is centered in Montpellier.”*

That is why its competitiveness cluster is involved to such a high degree. As a partner of the Euro-Africa Biennale, it is also deeply involved in MedVallée (see page 9). *“By contributing to the MedVallée dynamic, our aim is to make the Montpellier Métropole a testing ground for local companies in collaboration with others in the One Health sector. This is because **water is a major transversal issue**,”* concludes Yvan Kedaj, CEO of Aqua-Valley.

# “The Montpellier ecosystem helps stimulate our growth.”



Geneviève Marais  
CEO of Aqua Innovation

Geneviève Marais is the CEO of AquaTech Innovation, a company that received the “Unconventional Water” Innovation Award from the Union of Water and Environment Industries and Companies in January 2025 for AquaPool, a patented solution that joins their AquaCollect, AquaClear, AquaReUse, and AquaData solutions. Having earned Greentech certification in 2021 and Young Innovative Company certification in 2022, AquaTech Innovation has also been recognized as a “Company Committed to Nature” by the French Office for Biodiversity since 2023.

## WHAT MAKES MONTPELLIER’S WATER ECOSYSTEM UNIQUE?

The ecosystem is comprehensive, uniting top-level researchers, an active and successful competitiveness cluster, Aqua-Valley, **a constellation of innovative companies, institutions, and local authorities that are all working together**. Comprising players who all work in synergy, this ecosystem is stimulating. That helps to foster collaboration and spark new projects.

## WHAT DOES IT MEAN FOR YOU ON AN INTERNATIONAL LEVEL?

Aqua-Valley gives us exposure to international players, both investors and customers who may be interested in our companies. Montpellier Métropole’s international activities also help us **showcase our expertise**.

## HER VIEW OF MEDVALLÉE

*“MedVallée’s dynamic ecosystem not only enables us to strengthen our regional roots, but also to benefit from a network that helps stimulate our growth.”*

# “MedVallée is an innovation accelerator facing challenges related to water.”



**Éric Servat**  
Director of the UNESCO -  
ICIREWARD International  
Center for Water

## ACCESS TO WATER IS A GLOBAL ISSUE. HOW ARE ICIREWARD AND HYDROPOLIS ADDRESSING THE CHALLENGE?

ICIREWARD is a federation of research laboratories whose mission is to generate knowledge about water in a context characterized by three major disruptions: climate change, global population growth, and the urbanization of our societies. These will all have an impact on water resources. The Montpellier ecosystem is also working on several key issues, including better resource management, improving the efficiency of every drop of water used, increasing our ability to detect and eliminate pollution and, above all, better prevent it, and contributing to the implementation of appropriate public policies.

## THE MEDITERRANEAN REGION IS ONE OF THE HOT SPOTS AFFECTED BY CLIMATE CHANGE. HOW ARE ICIREWARD AND HYDROPOLIS RESPONDING?

**The growing scarcity of water resources around the Mediterranean is a major challenge**, with the risk of drought posing the most serious threat. ICIREWARD teams are working on developing more efficient irrigation solutions using sensors. Others are working on ways to use membranes to purify water and desalinate seawater. Work is also being carried out to reduce leaks in underground networks. These are just a few examples, **as we are fully committed to developing a range of innovative, water-efficient solutions.**

## DOES MEDVALLÉE HAVE A MULTIPLIER EFFECT IN TERMS OF INNOVATION?

Yes, without a doubt. MedVallée is a concrete example in terms of science and innovation potential. Its dynamics highlight the strengths of the Montpellier ecosystem and **demonstrate Montpellier's interest in the expertise of its local players and the global challenges** they address.

## YOU RECENTLY PUBLISHED A BOOK. WHAT CAN YOU TELL US ABOUT IT?

The book's title is "The Great Water Challenge," in which I address this issue of central importance to the general public. My goal is to emphasize reason, hope, and action. I want to convey a clear message about the challenges that water resources pose to our societies, but without resorting to catastrophist rhetoric or the fantasies of fearmongers. My message is positive and constructive. Many research laboratories, companies, and local authorities are working hard on this issue to find solutions. I refuse to give up!

\* Le Grand Défi de l'Eau (The Great Water Challenge), published by Harper Collins  
Price: 18.90 €

# “Monitoring mosquito-borne viruses”

**Franz Durandet**  
CEO of IAGE

## ON THE FRONT LINES FOR COVID-19, IAGE IS NOW TURNING ITS ATTENTION TO MOSQUITO-BORNE DISEASES. TELL US MORE.

We launched a project called MISARBO, which was selected and funded by the Occitanie Region in 2024. The objective is to develop a method for monitoring viruses transmitted by mosquitoes, such as chikungunya, dengue, West Nile, and Usutu. The project's purpose is to assist mosquito control operators in better targeting infested areas for treatment and to help prevent potential epidemics before they start.

## ISN'T THAT A GLOBAL ISSUE?

Internationally, projects to identify the risks associated with these pests are closely monitored, notably because of climate change, which is facilitating the geographical expansion of tropical mosquitoes, vectors of new diseases.



Inside IAGE laboratories. © D.R.

## ANY OTHER AREAS OF DIVERSIFICATION?

We are also developing systems for diagnosing air quality in terms of biological factors (such as the presence of fungi) in response to a growing concern: combating the development of allergies, asthma, certain respiratory diseases, and more. Our solution is now operational. We are in the process of finalizing our work with doctors and pulmonologists to characterize the significance of the risks associated with the pathogens identified by our solution.

## HAVE YOU FOUND THAT MEDVALLÉE'S DYNAMICS ARE BEGINNING TO ATTRACT THE ATTENTION OF INTERNATIONAL PLAYERS?

Yes, notably due to the influence of Montpellier, whose territory is clearly identified as a hub for innovation in One Health. The ecosystem attracts talent, and its appeal benefits our companies. As a result, we find it easier to find the skills we need. For example, a few months ago, a group from Canada came to the Cycl'eau trade show in Montpellier to meet with us. I would add that **the synergy among MedVallée players also boosts the area's outreach.**

## HIS VIEW OF MEDVALLÉE

*“MedVallée showcases our know-how and expertise. Its dynamic approach enables us to effectively promote the projects we launch, such as MISARBO.”*



# MedVallée Conference showcasing the ecosystem's dynamism



The 2<sup>nd</sup> MedVallée Conference at the Corum Conference Center in Montpellier on October 15, 2024.

## THE MEDVALLÉE CONFERENCE HIGHLIGHTS THE SUCCESSES OF MONTPELLIER'S ONE HEALTH ECOSYSTEM.

**On October 15, 2024, the second edition at the Corum in Montpellier was just as impressive as the first! With more than 400 attendees, the event hosted the official unveiling of the Miroki robot (see page 2) and shined the spotlight on One Health during an in-depth debate on Boost Invest MedVallée, a program specifically designed to identify and support high-potential startups seeking funding.**

It was also an opportunity for CGIAR, the agricultural research centers based in Montpellier, and Montpellier Métropole to launch the International Innovation Hub, an innovation accelerator designed to strengthen the sustainability of food systems internationally, particularly in partnership with countries in the southern hemisphere.

Time was spent focusing on innovation for water challenges, with representatives from the UNESCO ICIREWARD Center, Aqua-Valley, Veolia, and the OECD. *"This sparked some ideas, and since then, with CIRAD and Agropolis International, we have begun to integrate all of the projects we are developing around water and health, in order to pool our expertise and international networks and also work on pesticides present in water,"* emphasizes Franck Molina, research director at the CNRS-ALCEN Sys2Diag joint laboratory, winner of the CNRS Innovation Medal, and MedVallée ambassador.

The MedVallée conference definitely represents a high point in the initiative's outreach. *"The conference is an essential meeting place for stakeholders in the area,"* concludes Célia Belline, CEO of Cilcare and MedVallée ambassador.

## WITH CYKERO, 160 JOBS ON THE HORIZON AND REDUCED CO<sub>2</sub> EMISSIONS

Berlin-based Cykero Holding GmbH, which has subsidiaries in France and Germany, officially announced in December 2024 that it would locate its future Technocenter 4.0 in the Montpellier Métropole area. The project, estimated at around €20 million, will ultimately create 160 jobs in the Eurêka district of Castelnau-le-Lez, next to Montpellier. Three sites were in competition to host Cykero's electronic device reconditioning unit and the company chose Montpellier Métropole. And for good reason: Cykero intends to create a state-of-the-art Technocenter that combines innovation, sustainability, and technological sovereignty. This investment will help it maintain its technological and commercial lead, while also contributing significantly to reducing the exploitation of natural resources and greenhouse gas emissions, while creating sustainable jobs tailored to local needs.

The Berlin-based Cykero group has undergone consistent growth since it was founded in 2020. In addition to Montpellier Métropole, this project was supported by the Occitanie Region and its economic development agency AD'OCC, in close collaboration with Bpifrance. Cykero's move to Montpellier is an example of successful synergy.

# Local players inventing the future

SPOTLIGHT ON INNOVATIVE INITIATIVES THAT PROMOTE GLOBAL HEALTH AND SHOWCASE THE EXPERTISE OF LOCAL STAKEHOLDERS.



At the CINES facility in Montpellier.

## CINES, MORE ENERGY-EFFICIENT SUPERCOMPUTERS

A pillar of the digital research ecosystem in France, the **National Informatics Center for Higher Education (CINES)** places Montpellier at the heart of scientific and technological advances thanks to the **intensive computing and digital archiving of massive data** made possible by its supercomputers: Adastra is ranked among the top 20 supercomputers in the TOP 500 and 9th in the Green 500, as it is equipped with a cooling system that reinjects 97% of the heat produced into the North Montpellier heating network. Adastra2 offers enhanced performance, particularly in terms of artificial intelligence, and even greater energy efficiency. On April 30, 2025, University of Montpellier also inaugurated its Computing and Cloud cluster, funded largely by Montpellier Métropole.

## THE PINKCC CHALLENGE CONFIRMS MONTPELLIER AS A HUB FOR AI EXCELLENCE IN ONCOLOGY

250 international participants and ten weeks of competition. At its first edition in 2025, the PINKCC Challenge brought together **students, radiologists, data science and artificial intelligence experts, along with companies and laboratories**. This international data science and artificial intelligence competition was, for its first edition, dedicated to ovarian cancer with peritoneal carcinomatosis. The event was organized in Montpellier by SIRIC Montpellier Cancer, in partnership with the PINKCC Lab led by Prof. Stéphanie Nougaret, radiologist at ICM (see pages 4 and 5), and ISDM – University of Montpellier/ LIRMM. From April to June, the participating teams developed artificial intelligence algorithms that could automatically segment carcinomatous nodules on CT scans to optimize planning for complex surgery. The grand finale was held on June 13 before a panel of international scientific experts. First prize was awarded to the team from the École Nationale des Ponts et Chaussées, followed by the ICAR team from LIRMM, and the team from IMT Mines Alès. *“The PINKCC Challenge positions **Montpellier as a key player both in cancer research and in artificial intelligence applied to healthcare**. It embodies the power of collective intelligence as a means of driving tomorrow’s medical progress,”* pointed out Stéphanie Nougaret, who was responsible for initiating the competition, backed by the MedVallée initiative.



PINKCC Challenge participants during the final session.

## MONTPELLIER CHU, A PIONEER FOR GENERATIVE AI IN HOSPITALS

The Montpellier CHU University Hospital is once again leading the way, but this time in the **use of generative AI in medical practice**. A true pioneer in France, the hospital created the Research and Integration Center for Digital Tools in Healthcare (ERIOS) in 2022, within the framework of the France 2030 plan. ERIOS is a cornerstone of its strategy, which involves working with Dedalus and University of Montpellier to jointly create use cases for electronic health records. It now integrates generative AI into a wide range of assistance systems for healthcare professionals.

*“The key advantage of ERIOS is that **it involves all users, both healthcare professionals and patients, when it comes to designing new digital tools** such as medical reasoning, care management, healthcare pathways, and more,”* explains David Morquin, Director of AI Strategy and Data Governance at Montpellier CHU, Director of the ERIOS Center,

hospital practitioner, and associate professor at the Montpellier Faculty of Medicine.

A scientific and ethics committee validates each experiment involving AI for real-world applications. For training models on pseudonymized data (which no longer contains traditional personal identification features), the University Hospital uses a powerful computing cluster set up on its premises as part of a partnership with Dell.

As co-founder of IA Montpellier Méditerranée, which unites public stakeholders, universities, and businesses to develop AI projects integrated into the territory, Montpellier CHU is also part of a broader initiative: Alliance Santé IA (“AI Health Alliance”), which is designed to share and replicate AI applications within other institutions that produce health data. The project was submitted at the end of 2024 in response to a call for projects from France’s Digital Health Agency for the “Health Data, Care Pathways, Innovation” program (DPI).



## MSO BY MEDVALLÉE, ORAL HEALTH FOR ALL

Launched in 2022, the Montpellier Oral Health (MSO) initiative by MedVallée mobilizes a broad partnership to address a public health issue that affects 3.5 billion people worldwide, according to the WHO. Oral health concerns not only people's teeth and mouth, but also essential functions such as eating, breathing, speaking, and smiling, all of which can affect well-being, self-confidence, and social connections.

The initiative is jointly supported by University of Montpellier, Montpellier CHU University Hospital, the Hérault Health Insurance Fund, Regional Health Agency, and Occitanie Region, in partnership with the City and Metropolis of Montpellier and several institutional players and associations.

In March 2025, several preventive measures were introduced in neighborhoods throughout Montpellier, including supervised and systematic tooth brushing in schools. These initiatives helped gain international recognition. In May 2025, University of Montpellier was designated by the WHO as co-leader of the Global Coalition for Oral Health. In June 2025, Montpellier University Hospital obtained €1.3 million in European funding over three years, shared with partners in France, Spain (Valencia), and Portugal (Lisbon), to expand the initiative to other regions.

**MSO by MedVallée therefore directly benefits the metropolitan area's residents,** *"especially the most vulnerable,"* notes Nicolas Giraudeau, MCU-PH (lecturer and hospital practitioner) at Montpellier CHU University Hospital, president of the Montpellier University Foundation, and coordinator of Montpellier Oral Health by MedVallée.



## PREVENTING CARDIOMETABOLIC DISEASES: DINAMICS PROJECT LAUNCHED FOR MONTPELLIER EMPLOYEES

Cardiometabolic diseases, such as type 2 diabetes, chronic kidney disease, and polycystic ovary syndrome, are the second leading cause of death in France and the leading cause of death among women. In July 2024, the City and Metropolis of Montpellier, in partnership with Innov Biotech, PREDIA, and Montpellier CHU University Hospital, launched the DINAMICS project.

Under this pilot program, volunteer public employees will be screened for insulin resistance to better prevent these diseases.

The screening phase began in November, following an awareness campaign conducted in the fall. By June, more than 700 employees had signed up, according to Isis Delourme, then project manager at PREDIA, a company whose digital application guides participants through the process.

Urine sample kits were distributed at various locations throughout Montpellier: reception areas at City Hall and Montpellier Métropole buildings, and ten community centers. The IDIR® urine tests, used to detect insulin resistance, were developed by Sys2diag, a joint research laboratory in Montpellier that includes CNRS, the ALCEN group, and SkillCell.

## IN MONTPELLIER, SPORTS AND HEALTH ARE AT THE CORE OF NEW SYNERGIES

Efforts to combat sedentary lifestyles and promote physical activity are priority issues for public health. Both are addressed in the Local Health Contract signed in October 2022 between the Regional Health Agency (ARS) and local health stakeholders. This contract establishes four objectives: developing primary care services, strengthening mental health initiatives, taking action to promote environmental health, and supporting prevention and health education.

Several tools have been launched around the metropolitan area: Ma.P (Ma Prévention), a health awareness bus that travels throughout all neighborhoods to promote health (including healthy sports); and the Maison Sport Santé (Healthy Sports Center), which opened on May 22, 2025. With support from MedVallée and ARS, and managed by the Ma Vie association (accredited by the French Ministry of Sports), the center offers adapted programs in a variety of locations and, starting in September, fitness assessments at the Angelotti Olympic swimming pool that are open to everyone.

The launch of the Maison Sport Santé sports center was accompanied by a conference entitled "Let's move for our health!" which brought together more than 120 participants at City Hall. MedVallée's complementary approach provides residents with original health solutions developed by innovative local companies such as BeatHealth.



The Great "Live & Move" Challenge.

## OMEES OBSERVATORY, A TOOL FOR BETTER UNDERSTANDING HEALTH AND ENVIRONMENTAL ISSUES

Created in 2023, the Montpellier Observatory of Ecology and Health Evolution (OMEES) groups together several research teams from institutions such as CIRAD, INRAE, INSERM, CNRS, IRD, University of Montpellier, Paul-Valéry University of Montpellier, and Montpellier CHU University Hospital, as well as a number of local stakeholders.

Its mission is to provide data and insight to guide public policy on environmental health matters. Current projects include a study of the risks associated with vector-borne diseases transmitted by mosquitoes, in partnership with the communities of Murviel-lès-Montpellier, Villeneuve-lès-Maguelone, and Prades-le-Lez, as well as the development of nature-based solutions to better manage diseases and pollution carried by water. As part of this initiative, Living Labs are being established to involve residents and users, and two pilot sites are already in operation: one on the Mosson River and the other on the Lez River.

*"With OMEES, we are creating a space where scientists and decision-makers can work together to develop public policy on the basis of environmental and health constraints,"* concludes Aurélie Binot, Deputy Director of MSH SUD and Science-Society Coordinator at CIRAD.



At the Microphyt facility in Baillargues, close to Montpellier. © D.R.

# MedVallée, a hotbed of successes in One Health

MEDVALLÉE DYNAMICS SUPPORT AND ACCELERATE THE SUCCESS OF COMPANIES AND STARTUPS IN THE ECOSYSTEM THROUGH STRUCTURAL INVESTMENTS AND DEDICATED PROGRAMS. HERE ARE SOME EXAMPLES.

## CTIO, INNOVATION SERVING PATIENTS

The architectural design for the new CTIO (Center for Transfer and Innovation in Oncology) was officially unveiled on May 9 by the Montpellier Cancer Institute, initiator of the project. The center's purpose will be to **accelerate innovation transfer towards patients, while providing a structure for translational research focused on precision medicine and computational research combining biology, imaging, and AI**. To achieve its objectives, the CTIO will combine the expertise of healthcare professionals, researchers, and biotechnology companies, spanning topics from therapeutic antibodies to alpha therapy. Three startups are already hosted by IRCM and CTIO: Novagray, Mabqi, and Alphaken. Two more will join them very soon. "MedVallée's support helps catalyze and **strengthen our appeal to manufacturers and innovative companies**. Without MedVallée, we would be struggling to demonstrate the strengths of our territory," explains David Azria, director of SIRIC Montpellier Cancer, the only SIRIC integrated cancer research institute in southern France, coordinator of the Oncology-Radiotherapy department at ICM – Val d'Aurelle, and member of the CTIO Steering Committee.



Unveiling of the architectural project for the CTIO. © D.R.

## A DECISIVE TURNING POINT FOR CILCARE IN 2025

2025 is a milestone year for Cilcare. Described by Célia Belline, Cilcare CEO and MedVallée ambassador, as "*the baby of the Montpellier Métropole innovation ecosystem*," the biotechnology company specializing in auditory sciences has received assistance from Montpellier BIC, Crealia, Occitanie Region, AD'OCC, Eurobiomed, and Melies Business Angels, among others.

The first major event was the launch of the Saphir clinical trial earlier in the year. Conducted on 300 patients, notably in collaboration with Montpellier CHU University Hospital, the trial studies the auditory function of people with Alzheimer's or Parkinson's disease in great detail. Saphir will be followed by two other clinical trials in late 2025, designed to validate the treatments developed by Cilcare: the first relates to CIL001, its prime candidate targeting cochlear synaptopathy in patients with type 2 diabetes. The second will build on Saphir. **Cilcare raised €40 million in December 2024 to finance these trials**. The new funding is accompanied by strategic agreements, such as an exclusive licensing option signed with Shionogi Ltd. and support from France 2030 funds managed by Bpifrance. "*This marks a decisive step in Cilcare's growth*," says Célia Belline.



## SENSORION, AN EXPERT IN GENE THERAPY FOR HEARING DISORDERS

Sensorion's aim is to improve the quality of life for patients suffering from hearing disorders. The biotech company was founded in 2009 based on the work of Dr. Christian Chabbert at an INSERM research unit within the Montpellier Institute of Neuroscience. Initially assisted by the Montpellier Business Innovation Centre (BIC), Sensorion is dedicated to developing innovative therapies to restore, treat, and prevent hearing loss. Starting from research focused on small molecules, Sensorion expanded its portfolio of gene therapies in 2019 with the arrival of its new CEO, Nawal Ouzren, who signed a strategic partnership with the Pasteur Institute. Sensorion has completed a series of fundraising rounds since late 2023, raising close to €100 million. These operations have enabled the company, one of the brightest stars in the MedVallée ecosystem, to continue expanding its portfolio of drug candidates. Having created an internal research and development technology platform, the biotech company collaborates with numerous partners, including the Pasteur Institute, IRBA, Necker Hospital/APHP, and others, to accelerate the development of its molecules. Sensorion is driving its programs forward, including SENS-501, the first gene therapy in its portfolio targeting otoferlin deficiency, and SENS-401, whose Phase 2a trial in preserving residual hearing after cochlear implantation was conducted in partnership with Cochlear Limited, the world leader in cochlear implants. Listed on the Euronext Growth market in Paris, Sensorion is responding to a global challenge. According to the World Health Organization (WHO), one billion young people are at risk of preventable hearing loss. It also estimates that, globally, nearly 2.5 billion people will be living with some degree of hearing loss by 2050.

## MEDVALLÉE'S PROMISING YOUNG COMPANIES ATTRACT EXPERT INVESTORS

Over the past 20 months, **MedVallée's promising young companies have attracted significant funding.** In addition to Medincell and Sensorion, other companies making headlines include SeqOne (€20 million), Sim&Cure (€3.10 million), Arthritis4Cure (€3 million), Celest Science (€2 million), and MB Therapeutics (€2 million). Also securing funding are Terratis (€1.5 million), PimpUp (€1.7 million), and La Picorée (€460,000). In addition, AI-Stroke, backed by Bpifrance, secured €1.5 million in funding as part of the Deep Tech France 2030 Plan, while INITS received €1 million in funding from the ERDF fund. These successful fundraising campaigns demonstrate the vitality of Montpellier's innovative ecosystem, which is also the result of long-standing support from Montpellier Métropole, notably through Montpellier BIC, ranked among the world's top five public incubators (UBI Global 2019), as well as the new Boost Invest MedVallée program (see page 18).

## MEDINCELL, A NEW WAY OF ADMINISTERING DRUGS

Medincell continues its strong growth. The company was founded in 2002 on the basis of an innovation developed at the Montpellier Faculty of Pharmacy under the direction of Professor Michel Vert, a world-renowned scientist. Assisted in its early stages by Montpellier BIC, this Euronext-listed company has revolutionized treatment delivery with its BEPO® technology. The system releases the active ingredient at a constant therapeutic level over several days, weeks, or months via a simple subcutaneous or local injection of a few millimeters, which is completely bioresorbable. **According to the WHO, one out of two patients does not follow their treatment correctly. This innovation thus addresses a major challenge in terms of patient compliance,** which is crucial for many medical conditions, such as schizophrenia. In fact, the first treatment using BEPO® technology, UZEDY®, is now being marketed in the United States by Teva for this very indication. In February, Medincell announced that it had raised **€42.90 million in funding**, primarily destined to *"intensify partnership opportunities by extending the scope of BEPO® technology to new molecules and indications."* Based on a participative venture model where its **140 employees** are also shareholders, Medincell fully embodies the spirit of MedVallée. *"Medical science cannot be separated from food and the environment,"* says Christophe Douat, CEO of Medincell, who adds: *"By connecting these three dimensions, MedVallée is developing a unique and much-needed approach, the momentum of which will also enrich our prospects and potential."*

## MICROPHYT, THE WORLD'S FIRST INDUSTRIAL BIOREFINERY

The Montpellier area is home to the **world's first large-scale industrial microalgae biorefinery!** Inaugurated in Baillargues on July 11, 2025, by Microphyt and its European partners, this groundbreaking production facility is the result of the SCALE project, funded by the European Union through the Horizon 2020 program and the Bio-Based Industries Joint Undertaking. The event was attended by more than 90 key figures from the institutional, scientific, and industrial worlds.

The Microphyt facility marks the beginning of a new era for the sustainable production of natural ingredients derived from microalgae. With its 5,000 m² of infrastructure and exclusive photobioreactor technology, it produces more than 100 tons of active ingredients per year for the health, nutrition, cosmetics, and animal feed sectors. *"Our operations are fully aligned with the One Health challenge addressed by the MedVallée initiative,"* highlights Vincent Usache, CEO of Microphyt. FSSC 22000 food safety certified, the company's activities are characterized by eco-responsible practices, such as solar self-consumption and circular resource management. Microphyt's biorefinery is positioned as a model for tomorrow's bioindustrial production, placing France and Europe at the forefront of an ambitious circular bioeconomy.

Among the first concrete results of the SCALE project are 11 innovative ingredients already on the market, for example PhaeOptim™, which improves exercise capacity and strengthens cardiovascular and bone health; and ZenGut™ for improved digestion, balanced microbiota, and mental well-being. *"With our biorefinery, we are delivering on an ambitious vision: an industrial model based on sustainability, innovation, and the power of microalgae. SCALE is much more than a technology project. It is a tangible response to the major challenges of our time in terms of health and well-being, ecological transition, and industrial sovereignty. We are proud to be a part of this dynamic emanating from France and to actively contribute to the European bioeconomy,"* concludes Vincent Usache.



Medincell premises in Jacou, near Montpellier.

# Boost Invest MedVallée

BY SUPPORTING PROJECTS WITH THEIR FUNDRAISING EFFORTS, THE BOOST INVEST MEDVALLÉE PROGRAM, WHICH COMPRISES A PANEL OF EXPERTS, PERSONALIZED SUPPORT, AND NETWORKING OPPORTUNITIES, HELPS TO REVEAL THE REGION’S INNOVATIVE TALENT.

2024 LAUREATE



**Pascal Peny,**  
Co-director of Greenphage  
(precision antibacterial solutions)

*“As a laureate of Boost Invest MedVallée’s first edition, we found that the program marked the beginning of our discussions with IRDI Capital Investissement and Sofilaro, which subsequently became two of our new investors. **Boost Invest MedVallée** therefore served as recognition for us, validating our solution and our situation. It also helped increase our exposure. All of this **enabled us to present a more complete business case and finalize our fundraising faster,**” said Pascal Peny, co-director of Greenphage.*

After raising a total of €1.10 million in two separate rounds, the company, founded in 2017, completed this new €1.90 million fundraising round in June 2025 from IRDI Capital Investissement and Sofilaro, as well as Sud Mer Invest (BPS investment fund) and Holding Développement Durable. With this operation, Greenphage will accelerate the marketing of its water treatment solution, which notably seeks to fight against Escherichia coli. Target clients include local authorities, industrial companies, hospitals, and those interested in reusing treated water.

## TESTIMONIALS FROM THE FIRST SIX LAUREATES IN 2025



**Patrice Garnier**  
CEO of Cyberna  
(solution for early detection of cancerous tissue)

*“Being a Boost Invest MedVallée laureate is a mark of credibility and **increases investor confidence.** It is an essential factor in our fundraising phase. We hope that this powerful recognition of our project by a panel of high-level specialists will help us move forward.”*



**Robert Mamoun**  
Co-founder of Ciloa  
(solutions for innovative therapies based on natural messengers)

*“MedVallée’s support through Boost Invest has been extremely valuable, providing professional **insight and expert advice** that will enable us to raise funds and drive our innovation to success.”*



**Anthony Denux**  
CEO and founder of Reeflect  
(alert system for people with hearing impairments)

*“Being part of the MedVallée ecosystem is an **opportunity to join a network of committed local experts and stakeholders.**”*



**Laila Quere**  
Co-founder and CEO of Aken Medical  
(new generation of radiotherapy combining nanomedicine and radiation for targeted and effective cancer treatment)

*“MedVallée is a unified ecosystem and a true community that offers our biotech company a stimulating environment, key connections, and exposure.”*



**Nicolas Serandour**  
CEO of Neurinnov  
(new generation of implantable medical devices)

*“MedVallée embodies a **shared vision where research, technology, and societal impact are at the heart of our innovation process.** That is what brings a more collective dimension to our project to deploy neurostimulation technology for people without access to therapeutic options, such as restoring hand function in quadriplegic patients.”*



**Virgile Arene**  
CEO of Load Stations (complete solution for electric vehicle charging stations)

*“Boost Invest MedVallée is a strategic program that helps innovative companies in the area grow. We have high hopes for the program, especially with regards to gaining exposure among public and private stakeholders in the area, connecting with major contractors around the territory, and receiving support for our upcoming fundraising efforts.”*



# Key upcoming events

## COMPLETE PROGRAM FOR FUTURAPOLIS SANTÉ

The Futurapolis Santé health event returns to Montpellier. Organized by *Le Point* magazine, in partnership with the City and Metropolis of Montpellier, Occitanie Region, and the MedVallée global hub for excellence, the 9th edition will be held on October 10 and 11 at the Opéra Comédie in downtown Montpellier, for two days of **discussions, debates, and discoveries on One Health as well as major medical and scientific revolutions.**

Just like every year, Futurapolis Santé will highlight a major current topic. This time, the focus will be on “Genetics, the Swiss Army knife of medicine,” “DNA traces and paleogenetics: tracing humanity’s history to better understand human evolution,” “Predictive medicine: anticipating risks,” and “Gene therapy: repairing or modifying genes to treat certain diseases,” among others. However, this year’s event will also cover other areas of research, such as the impact of neuro-technologies on people’s way of life. As usual, there will be talks by people who innovate and advance medicine on a daily basis.

The public will also be invited to take part in a Fitness Trail. The Ma Vie association, which runs the Ma.P bus (page 14), has been chosen by the City and Metropolis of Montpellier to offer Montpellier residents this personalized program, based on an assessment of their physical condition and sports activities. During Futurapolis Santé, this unique program will consist of a fun and educational parcours featuring physical exercises, interactive activities, nutritional advice from professionals, and more. Its purpose is to activate preventive health practices in a friendly atmosphere in and around the Opéra Comédie building. This Fitness Trail complements the overall Sports and Health initiatives that Montpellier has been implementing since 2022. Visitors will also be able to discover the Innovation Gallery, a demonstration and experimentation space with free entry.



At the 2024 edition of Futurapolis Santé.

***“Montpellier was a natural choice for Futurapolis, as it is an area known for medicine and innovation, giving a voice to those who are pushing back boundaries, namely researchers, healthcare professionals, and entrepreneurs.”***

**Étienne Gernelle**  
Director of the magazine *Le Point*



At the first Euro-Africa Biennial in Montpellier.

## EURO-AFRICA BIENNIAL, OCTOBER 6 - 12 IN MONTPELLIER

The second edition of the Euro-Africa Biennial will be held from October 6 to 12 in Montpellier. Designed to promote sustainable intercontinental dialog by bringing together thinkers, artists, entrepreneurs, scientists, and civil society figures, this event will host a **conference for professionals on October 6 and 7 on the theme “A New Era of Cooperation Between Europe and Africa: Innovative Responses to the environmental challenges of One Health, agroecology and desertification, water, and climate change .”** The plenary session will be devoted to “Environmental Challenges: A Shared Vision for Climate Resilience.” The session will be followed by six theme-based round table discussions, one of which will address the creation of ecosystems that promote innovation to ensure food system transitions. Moderated by Patrick Caron, President of Agropolis International,

Vice-Chair of CGIAR, and MedVallée Ambassador, the round table will use examples to show how to create jobs through local innovation, particularly in agriculture, agri-food, and the environment, and will explain the connections with international institutions (IFAD, FAO, and others) in order to establish the International Innovation Hub, whose purpose is to create an ecosystem for innovation in Montpellier based on the themes of agriculture, food, the environment, and health.

**CHECK OUT  
OUR CALENDAR  
ONLINE**



FOOD  
HEALTH  
ENVIRONMENT



**MEDVALLÉE**  
MONTPELLIER

Inventing the future **here**



Source of the Lez River.