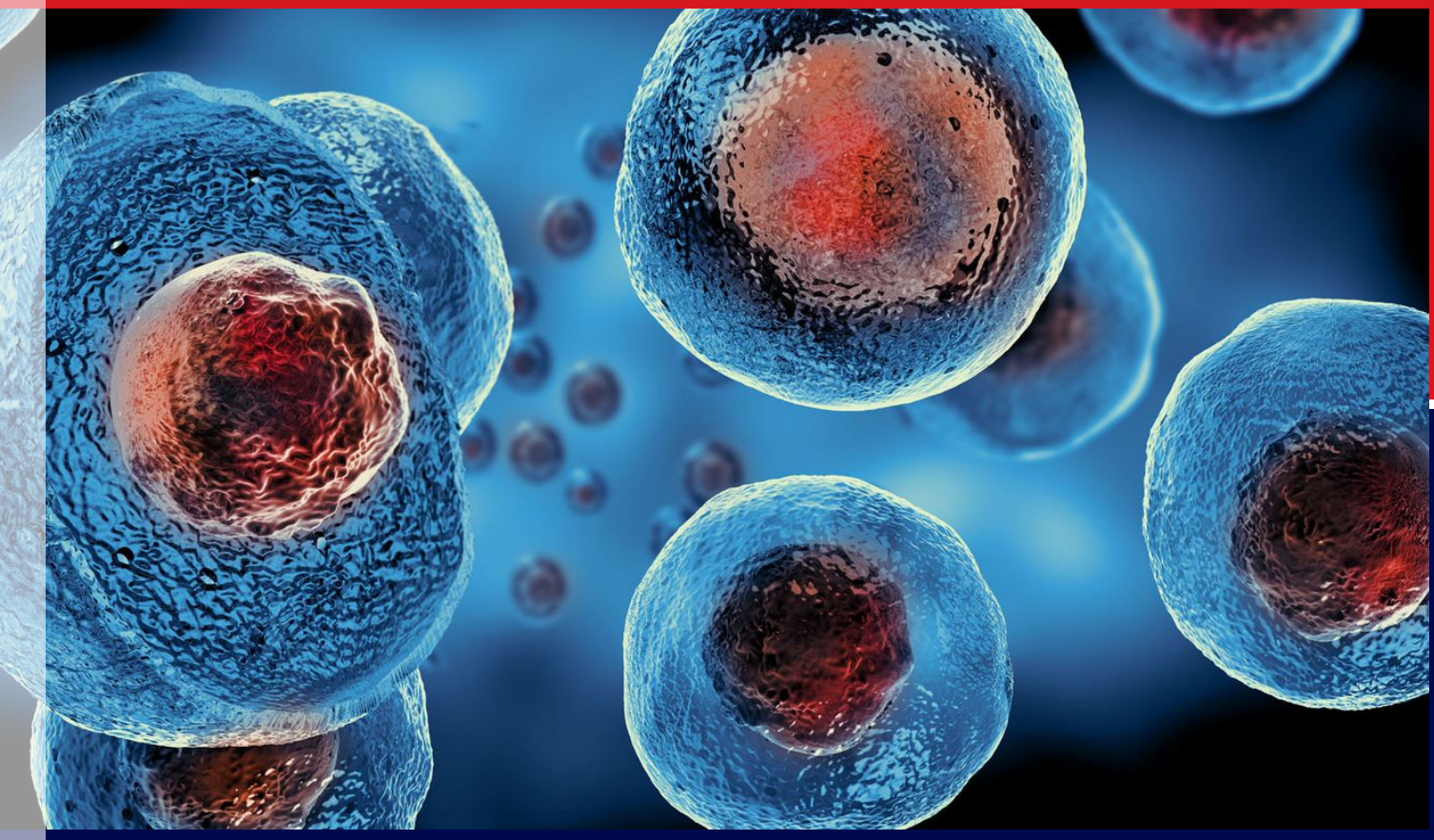
REGMEDXB
FROM CARE TO CURE

Highlights 2023



EXPLORE THE HIGHLIGHTS
click through a journey that unfolds the future
of regenerative medicine!

CEO's Foreword

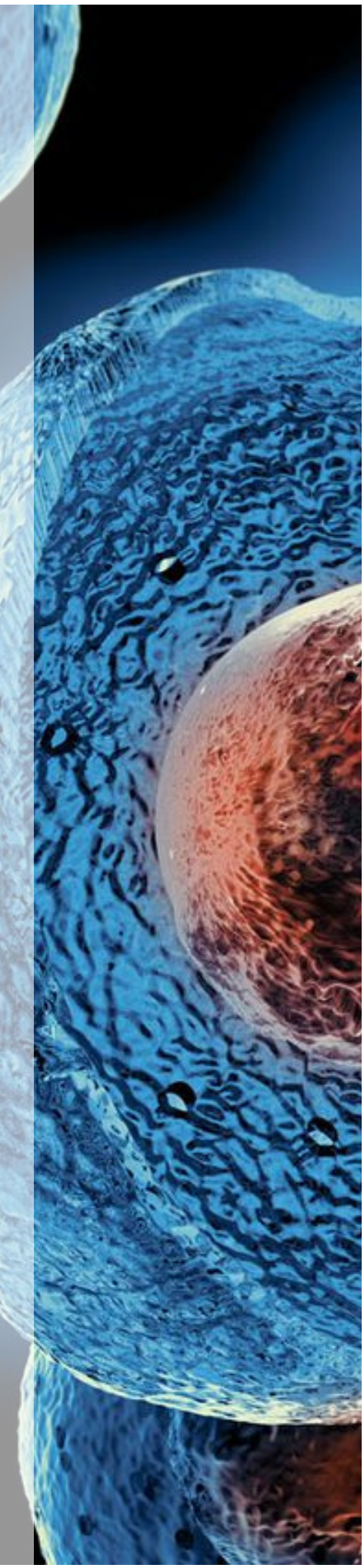
DEAR READER,

RegMed XB is a patient-driven public-private partnership committed to developing affordable solutions in regenerative medicine (RG) for chronic patients. Facing global health challenges, RegMed XB harnesses the potential of RG to address the increasing burden of chronic diseases, by fostering collaboration between many partners in the Netherlands and Flanders. During 2023, through Moonshot projects focused on diabetes, kidney diseases, osteoarthritis, and cardiovascular diseases, the Pilot Factory and our valorization program, RegMed XB and all our partners have advanced RG solutions.

With our dynamic ecosystem and strategic goals, we are proud of what has been achieved in 2023. On behalf of the RegMed XB team we would like to thank you for this valuable cooperation. We are looking forward to a great 2024! Thank you!

Bernard Mulder

CEO RegMed XB



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About RegMed XB

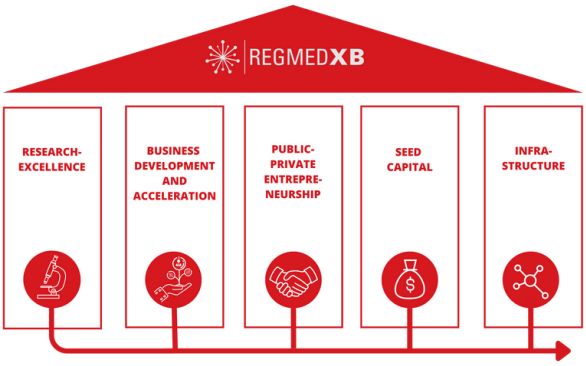
CHANGING THE LIVES OF MILLIONS OF PATIENTS WITH REGENERATIVE MEDICINE

It is our mission to bring affordable Regenerative Medicine (RM) solutions to patients with chronic disorders and to establish a competitive and sustainable RM industry.

The prevalence of chronic diseases worldwide is rapidly increasing. RM aims to restore degenerated, diseased, or damaged tissues and organs, which contributes to increasing vital functioning of patients and reducing cost of healthcare. RM holds the promise to cure many chronic conditions, restoring health rather than protracting decline, improving the lives of millions and at the same time preventing lifelong, expensive care processes: cure instead of care.

TOGETHER WE MAKE THE IMPOSSIBLE POSSIBLE

We do this by bringing together leading scientists at Dutch and Flemish universities, university medical centres, institutes and a range of companies in so-called “Moonshots”: long-term visions of breakthroughs for patients. There are currently 4 Moonshots (kidney, diabetes, osteoarthritis, and cardiovascular) and we are preparing for a new eye Moonshot. Health Foundations and their related patient organizations champion each moonshot, putting patient impact at the heart. At RegMed XB, we provide (translational) infrastructure through scientific, technological and business development. Our approach, that links all phases from research to the production of therapies, makes RegMed XB unique. In the figure below, you can see the 5 pillars of RegMed XB.

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Research Moonshots

The Kidney Moonshot aims to create functional bioengineered kidneys using mini kidneys or organoids, grown from various cells, including patient-derived cells to prevent rejection.

Publication: PhD F. Yousef Yengej has published an article about his research on tubuloids in collaboration with other contributors to the RegMed XB Kidney Moonshot. Read publication.

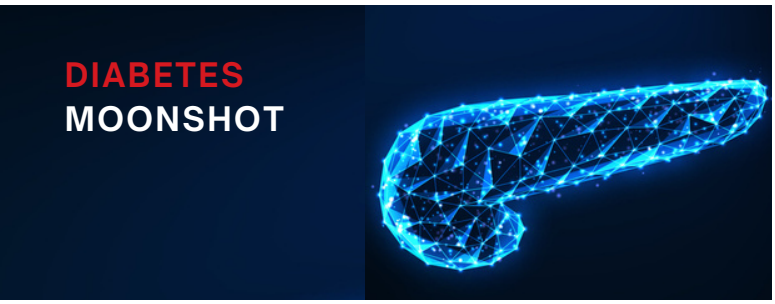
Article: An informative article on research into regenerative solutions for kidney patients.
Read article (in Dutch).

Consortium: NXTGEN HIGHTECH has been launched with joint investment and support from the National Growth Fund.
The Nierstichting, along with 10 other companies and 3 knowledge institutes, is collaborating on a promising project to develop artificial organs, advancing the fight against kidney diseases. The more such initiatives and partnerships, the greater the exchange, accelerating our progress toward healing.

In the Cardiovascular Moonshot of RegMed XB we aim to understand the biology of the heart thoroughly so that, using a perfusion system, we can keep the heart alive. In doing so, we strive to develop therapies, including gene therapy and other approaches.

News: Stabilizing heart transplant waiting lists: 'Heart-in-a-box' technique leads to a surge in successful heart transplants, spotlighting N. van der Kaaij's groundbreaking research within the Cardiovascular Moonshot of RegMed XB. Read article in Dutch.

Publication: Researchers have discovered, using the PhysioHeart platform from RegMed XB partner LifeTec Group, that a slaughter-house heart can be a viable alternative to an experimental animal heart. Read more.
Read publication.



In the Diabetes Moonshot our goal is to advance the cure for diabetes by replacing damaged cells with new ones.

Publication: About patient preferences for Islet Delivery Devices (IDDs) in type 1 diabetes, highlighting a strong willingness to adopt IDD and emphasizing the importance of specific device attributes and implantation strategies for future beta cell replacement. Read publication.

Interview: One of the main researchers, Françoise Carlotti, provides insight into the ground-breaking research she and her colleagues are conducting within the Diabetes Moonshot. Read article.

Publicity: Tijd voor Max (National Dutch television) sheds light on the vital diabetes research conducted by Prof. Dr. E. de Koning. Watch episode.

Future: We facilitated two roadmap sessions and formulated concrete steps for the next phase of the Moonshot, resulting in two research plans—one for the short term and one spanning the next 5 to 10 years.

In the Osteoarthritis Moonshot we're working on a regenerative osteochondral implant for defects like those in the knee. Our broader vision aims to use this knowledge to create living joints for complete or partial joint replacement, impacting more lives.

Publication: The development of tissue engineered cartilage organoids using porcine notochordal cell-derived matrix to self-assemble human chondrocytes harvested from osteoarthritic (OA) leftover surgery tissue. Read publication.

Future: We facilitated together with ReumaNederland one roadmap session. This resulted in valuable discussions due to the diverse backgrounds of the participants, including researchers, clinicians and experience experts, but also from the perspective of investors and health technology assessment specialists. The outcome was an initial framework for the roadmap and a business plan. A second roadmap session is scheduled for January 2024 to further develop the progress initiated in October.

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Promising Projects

In addition to our four Moonshot programs, we actively conceive and facilitate prime "Projects" within the RegMed XB ecosystem. These initiatives, dedicated to technology platforms critical in the regenerative medicine field, are designed to cover overarching themes which are highly relevant for all Moonshots and the RM field.

From 2022 to June 2023, we have been engaged in two projects funded by the Collaborating Health Funds (Samenwerkende Gezondheidsfondsen or SGF).

REGMED XB SGF IMMUNOLOGY

A major challenge in the field of Regenerative Medicine and Tissue engineering remains the immune response and rejection by the host, independent of the type of tissue generated. Therefore, this seed project investigated the immunogenicity of allogeneic Adult stem cell (ASC) derived- or Pluripotent Stem Cell (PSC)-derived organoids in a pre-clinical setting and identified potential strategies to evade or mitigate this immune response.

The project resulted in a successful collaboration in which standardized protocols for assessing and quantifying key molecules involved in immune responses against non-self tissues were established. The characterization and understanding of the potential interference with the immunogenicity of distinct organoids will be vital for the success of the clinical implementation of organoid-based organ repair or replacement. Therefore, it is critical and clinically highly relevant to continue the work initiated in this pilot project in the future.

REGMED XB SGF EXPANSION TECHNOLOGIES

The use of iPSCs and organoids as active cell sources to produce functional tissues is beyond discussion, but requires the generation of sufficient numbers of well characterized cells and functional organoids. This project further investigated the scaling of iPSC- and ASC-derived organoid production and tackled the rate-limiting steps of laborious lab scale culturing.
In this collaborative effort, researchers have successfully scaled up the cultivation of various organoids to the mesoscale. The project achieved in conjunction with Scinus Cell Expansion B.V.
In summary, this research establishes a solid groundwork for innovative strategies in upscaling the production of various organoids, making a significant contribution to the manufacturing of clinically relevant functional replacement parts, contributing to progress in the field of regenerative medicine.


One GOAL
Multiple PARTNERS

Projectmanagers Moonshots

"The true enchantment unfolds when academia and industry converge, weaving regenerative aspirations into the fabric of public health progress."

LENA WIJNEN
Projectmanager Kidney and Cardiovascular Moonshots

Lena passionately intertwines various elements within our Moonshots. Her primary goal is uniting a diverse array of partners from academia and industry, fostering not only collaboration but a harmonious collective progress.
Her commitment lies in contributing to the advancement of regenerative medicine for the ultimate goal of curing those suffering from chronic illnesses.
Moreover, she places a high priority on actively involving patient experts in the RegMed XB Moonshot initiatives, recognizing the immense value their perspectives bring to shaping our research and development processes in a holistic manner.

"The real magic happens when minds unite, ideas interlace, and disciplines harmonize."

RIENK SCHUIRINGA
Jr. projectmanager Diabetes and Osteoarthritis Moonshots

Rienk connects the dots in our Moonshots with the mission to bring groundbreaking treatments to chronically ill patients. Contributing towards the use of regenerative medicine to cure chronically ill patients and working together with a diverse group of people on the front of innovation and scientific breakthroughs is what motivates Rienk in his day-to-day work.

In 2023, his focus lay on setting up roadmap sessions in close collaboration with Health Foundations and researchers. The goal of these roadmap sessions is to determine the next steps to be taken within the Moonshots.

highlights 2023

Valorisation

Valorisation in Regenerative Medicine involves translating scientific knowledge into practical applications and societal value. This process includes developing therapies, transferring technologies, collaborating with industry, protecting intellectual property, conducting market analysis, and attracting financial investments.

RegMed XB is actively committed to valorisation, working to transform research findings into tangible solutions, thereby contributing to advancements in regenerative medicine and positively impacting both healthcare and society.

VOUCHER PROGRAM

RegMed XB collaborates with DCVA and the F!RST Fund (BGV) within the program to support promising academic research projects.

We provide valuable vouchers, each worth up to €25,000, to enhance the valorization potential of these projects. This financial support is designed to assist researchers in navigating the critical steps toward establishing a spin-off.

11 VOUCHERS ISSUED IN 2023

Over the past year, 11 promising projects were awarded vouchers.

Out of these 11, 2 were fully funded by RegMed XB, 7 by DCVA and the remaining 2 received a joint funding of 50% from DCVA (Dutch CardioVascular Alliance) and 50% from RegMed XB.

HOW TO APPLY?

If you're a researcher, don't hesitate to reach out to determine whether your project qualifies for one of our vouchers. Your groundbreaking research could be the next success story in regenerative medicine!

Contact us info@regmedxb.com

The importance of valorisation lies in maximizing the societal and economic impact of scientific research, fostering innovation, and addressing healthcare needs. By bridging the gap between research and application, valorization accelerates the development of new treatments, technologies, and commercial opportunities.

DCVA & REGMED XB SPRINGBOARD EVENT

This year, we organized 4 springboard events where startups from our community pitched to a panel of experts on specific topics. We are excited to announce that we will continue this initiative next year with 4 more springboard events.

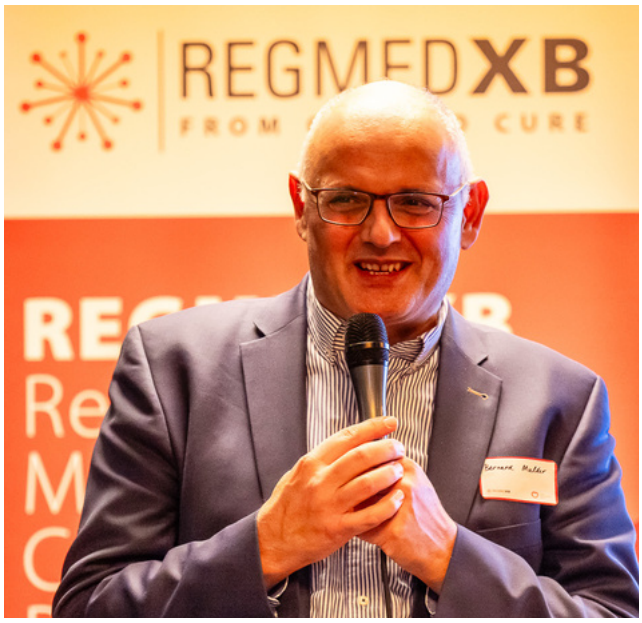
November 28th, 2023. This latest event provided a unique platform for individuals to connect with like-minded professionals and deepen their understanding through engaging keynotes delivered by industry experts.

Eliane Schutte (CEO Xeltis) shared her invaluable insights into the challenges faced by companies entering clinical development. Prof. Dr. Yigal Pinto provided a comprehensive reflection on his experiences in bridging the gap between academia and industry.

"Incredibly valuable for start-ups and researchers considering launching their own ventures, providing insightful advice on the clinical journey."

Read more

During this event, we also marked a farewell moment for Marianne van der Steen, co-founder of RegMed XB. Read an interview with her, where she reflects on the early years of RegMed XB.
Read interview (Dutch)



Impact Officers

"Too often, great science does not reach the patient. To truly create an impact, academia and industry need to come together. At RegMed XB, we are building an ecosystem to facilitate just that. "

DOMINIQUE DE JONG
Impact Officer

An important part of my role is educating researchers about the potential of valorization. Commercialization is about much more than making money - it is about scaling innovations and making them available for patients around the globe.

I am in contact with researchers who are in doubt whether their innovations would be commercially viable and whether businesses would be interested in scaling up their work. Together with the DCVA and First fund, we aim to find the crucial questions that need to be answered for an innovation to become an attractive target for investors.
Furthermore, we leverage the already existing ecosystem around RegMed XB to connect innovators and early stage companies to potential development partners to put the invention on the fastest track to success.

"I've always been motivated to create biomedical solutions for patients. This passion underpins my work at RegMed XB, where I help transform promising discoveries into solutions that benefit patients."

NAZMA ILAHIBAKS, PhD
Impact Officer

I aim to fast-track innovation from the lab to the patient by transforming promising regenerative medicine research into scalable ventures, with the goal of accelerating development and commercialization.
As a business developer, I will scout for promising research in the Regenerative Medicine field, aiming to introduce novel technologies to patients through venture building and promoting value within the RegMed XB Moonshots.

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Pilot Factory

The RegMed XB Pilot Factory is a large infrastructure for the production of regenerative products. It is our mission at the RegMed XB Pilot Factory to accelerate the development of new solutions for chronic diseases and to bring affordable RM therapies to patients with our state-of-the-art facilities. The RegMed XB Pilot Factory has been made possible, in part, through the contribution from the first round of the National Growth Fund (NGF).

THE ENTIRE MANUFACTURING CHAIN FOR REGENERATIVE MEDICINE, FROM THE PRE-CLINICAL PHASE TO THE MARKET

In the Pilot Factory, we bring together all the expertise and infrastructure needed to bring RM to the market. The facilities cover the entire chain of development and production of stem cells, Organ-on-Chip, micro- and macro-tissues and smart (bio) materials. Around each pilot line, companies and knowledge institutions work together on the development of (clinical) applications. The pilot lines are connected and complementary public private partnerships.

VIDEO: THE REGMED XB PILOT FACTORY

Take a closer look at our state-of-the-art facilities and discover how the RegMed XB Pilot Factory is accelerating the development of regenerative medicine solutions.

>> watch video

NGF NTERVIEW: THE REGMED XB PILOT FACTORY

Erik Eijrond (Director of Business Operations of RegMed XB) and Jan Rietsema (director of Smart BioMaterials Consortium) talk about the RegMed XB Pilot Factory.

>> read more (Dutch)

VISIT: MINISTER MICKY ADRIAANSENS AT NECSTGEN AND LUMC IN LEIDEN

The Minister's visit acknowledges RegMed XB's outstanding achievements and contributions to the Dutch economy and technological advancements in Medicine.

>> read more

OPENING REGEN BIOMEDICAL

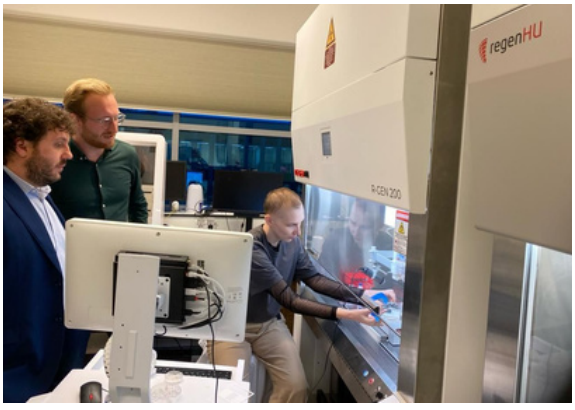
We proudly announce the opening of ReGEN Biomedical, the macro tissue pilot line of the RegMed XB Pilot Factory on Thursday, September 21, 2023.

>> read more

SBMC INVESTS IN NEW PILOT PRODUCTION FACILITY FOR BIOMATERIALS

Smart BioMaterials Consortium (SBMC) and High Tech Campus Eindhoven have reached an agreement on the establishment of a pilot production facility for smart biomaterials.

>> read more



COMING UP: OPENING ICAT UTRECHT

Over the past year, Innovation Center for Advanced Therapies (ICAT) has developed facilities and built a strong team, paving the way for its upcoming opening early next year.

RegMed XB international

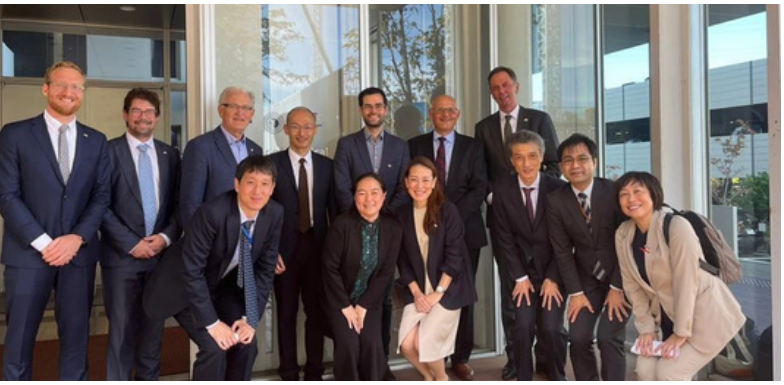
Crossing borders signifies international, multidisciplinary collaboration to achieve groundbreaking results within the field of Regenerative Medicine. This year we actively engaged in various international initiatives to advance this mission.

EU-JAPAN BIOTECH & PHARMA PARTNERING CONFERENCE
Representatives of RegMed XB and the RegMed XB Pilot Factory recently traveled to Japan to visit several prime regenerative medicine centers such as CIRA in Kyoto and Osaka University and participate in the EU-Japan Biotech & Pharma Partnering Conference 2023 in Osaka and Bio Japan in Yokohama.
Read full article

INAUGURAL ADVANCED THERAPIES SUMMIT IN LEUVEN
This summit brought together over 170 participants, providing a platform for knowledge exchange and collaboration.
Read full article

MEET & SEAT INNOVATION ATTACHÉ NETWERK
It was valuable and interesting to have various innovation attachés from Japan, Turkey, France, Germany/Switzerland at our table during the Meet & Seat session! Erik Eijrond and Dominique de Jong shared experiences from the RegMed XB Pilot Factory. Topics: opportunities for grants and support from the Netherlands Enterprise Agency (RVO), emphasizing internationalization for RegMed XB's success. Additionally, the conversation explored how RegMed XB could utilize the Innovation Attaché Network (Netherlands Innovation Network) to stay informed about developments in countries involved in regenerative medicine and to explore collaborations.

BioRNConference IN HEIDELBERG
Bernard Mulder, the General Director of RegMed XB, participated as a guest speaker at the BioRNConference in Heidelberg. His presentation covered the current state of affairs and recent developments within the RegMed XB Pilot Factory, contributing to the global dialogue on advancements in regenerative medicine.



Japan visit

Advanced therapies summit

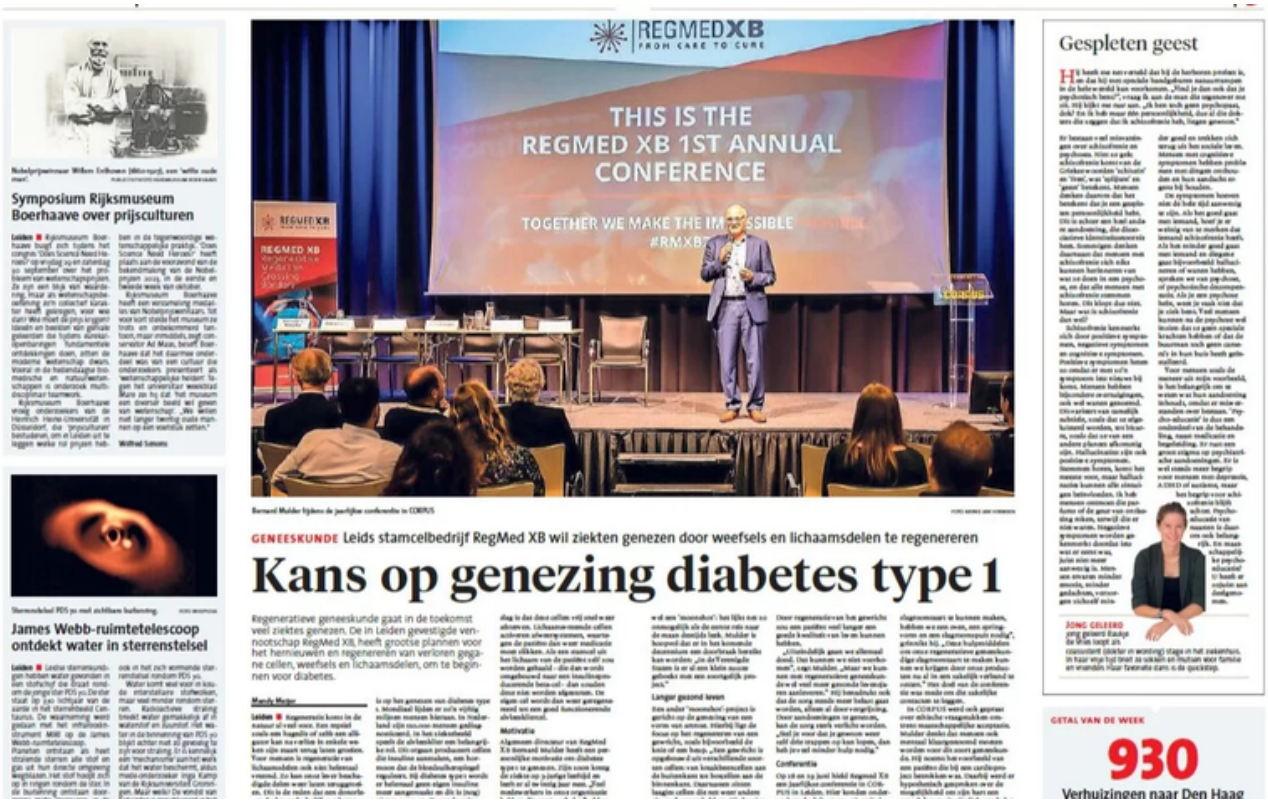
RegMed XB 1st Annual Conference

REGMED XB 1ST ANNUAL CONFERENCE 2023
JUNE, 28TH & 29TH 2023 IN CORPUS LEIDEN

The RegMed XB Annual Conference 2023 was the network opportunity for everyone involved in science, business, and innovations in the Regenerative Medicine field.

The underlying theme of the conference was: together we make the impossible possible. There were interesting keynotes on various topics, including valorisation, ethics, business development, regulatory, and much more.

Notably, for the first time, the event was open to everyone, allowing individuals to register and participate.



RegMed XB prominently featured in Leidsch Dagblad, a Dutch local newspaper, following the resounding success of its first annual conference on regenerative medicine. Read the article (in Dutch).

REGMED XB 2ND ANNUAL CONFERENCE 2024

Save the date for the 2nd RegMed XB Annual Conference. June 12th and 13th 2024. Further details will follow soon. Stay connected by following the event on LinkedIn. This way, you'll stay informed about all updates related to the conference.

Thanks to all partners

Academic partners

KU LEUVEN

Leids Universitair Medisch Centrum

Maastricht University

TU/e Eindhoven University of Technology

UMC Utrecht

Utrecht University

VIB

Health Foundations

Diabetes Fonds

don We just care for cure

Hartstichting

Nierstichting Je nieren zijn je leven.

Oogfonds

ReumaNederland

Pilot lines

ICAT Innovation Center for Advanced Therapies

Leids Universitair Medisch Centrum

NecstGen

ReGEN Biomedical

SBMC Smart BioMaterials Consortium

Industrial and valorisation partners

300MICRONS
Flexible 3D Cell Culture Solutions

Access2bone

AXION BIOSYSTEMS

CiMaas
A better cure for cancer

FUJIFILM VISUALSONICS

GENDX
A EUROBIO SCIENTIFIC COMPANY

HCM Medical

interflow

Kuros Biosciences

LifeTec Group

MIMETAS
the organ-on-a-chip company

Ncardia
Stem cell experts

NTrans TECHNOLOGIES

QUALITY ASSISTANCE
Contract Research Organisation

scannexus

SCINUS
CELL EXPANSION

SINGLE CELL DISCOVERIES

Starfish INNOVATIONS

STENTIT

SupraPolix

U-CyTech biosciences

veldlaser

XELTIS

BGV

Dutch CardioVascular Alliance

Governmental partners

NL Health~Holland

Flanders
State of the Art

provincie limburg

Provincie Noord-Brabant

PROVINCIE UTRECHT

provincie Zuid-Holland

Ministerie van Economische Zaken en Klimaat

Ministerie van Onderwijs, Cultuur en Wetenschap

Ministerie van Volksgezondheid, Welzijn en Sport

Nationaal Groeifonds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impossible
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