## Press Release - Background Report

Start-ups will once again have a starring role at MEDICA 2024, with the finals of two competitions among the agenda highlights

These are the most innovative teams of founders and the "techpreneurs" of the year in the health sector

The finalists in the 16th Healthcare Innovation World Cup and the 13th MEDICA START-UP COMPETITION have advanced from around 550 candidates based in 62 countries from Armenia to China and America to Rwanda. From 3 p.m. on Monday 11 and Tuesday 12 November, they will be exhibiting their innovative solutions on the MEDICA INNOVATION FORUM stage as part of MEDICA 2024. The leading international trade fair for the healthcare and medical equipment industries will be held in Düsseldorf from 11 to 14 November 2024.

At the MEDICA INNOVATION FORUM alone (in Hall 13), more than 120 luminaries – including global players such as Microsoft, HP, HTC, 3M, Roche, Huawei and KUKA – will be showcasing and discussing groundbreaking innovations and best practices. Key topics will include generative AI and big data, robotics, XR and digital twins, mobile health and medical wearables, 3D printing, the Internet of Medical Things and solutions for the hospitals of the future. The MEDICA INNOVATION FORUM will also provide a meeting place and networking platform for women leaders in healthcare. With this year's record participation of 60 young businesses, the MEDICA START-UP PARK (also in Hall 13) will be offering visiting professionals the opportunity to familiarise themselves with a host of other exciting health start-ups and their innovations.

### When cars spot strokes...

"My car prevents strokes" is the title of the forum talk to be delivered by Prof. Thomas M. Deserno from the Reichertz Institute for Medical Informatics, which is run by Technische Universität Braunschweig and Hannover Medical School (MHH). From 12:25 p.m. on Monday 11 November, he will describe how vehicles can be used to identify health





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Öffentliche Verkehrsmittel: U78, U79: Messe Ost/Stockumer Kirchstr. Bus 722: Messe-Center/Verwaltung risks at an early stage and save lives. The Automotive Health activity area in the neighbouring Hall 12 will overlap thematically with this presentation. In this area, the Innovation Institute will provide an insight into its development work on vehicles it is exhibiting there – such as the VW ID.4, the VW Tiguan and a racing simulator – as well as discussing how sensors installed in vehicles will detect critical health conditions when driving in future, helping to avert serious accidents.

With the importance of telemedicine and the Internet of Medical Things, cybersecurity for healthcare is also growing in relevance. Implementing remote network monitoring, adopting defence-in-depth technologies and addressing the challenges of flexible "bring your own device" models is becoming essential. Further detail will be provided by Jose Manuel Capella Rodriguez, Senior Safety Advisor at certification specialist UL Solutions, and Stephen Gilbert, Professor Of Medical Device Regulatory Science at the Else Kröner Fresenius Center for Digital Health at Dresden University of Technology. Gilbert's medical school is researching how innovative medical devices can be brought into patient care at greater pace – which should also be of interest to plenty of start-ups.

#### 12 health techpreneurs put their winning products on display

This year's top 12 health techpreneurs will be presenting their solutions in the pitch final at the 16th Healthcare Innovation World Cup on Monday 11 November from 3 p.m. This will take place on stage at the MEDICA INNOVATION FORUM, where speakers will showcase the next generation of smart health devices, medical wearables, XR solutions, digital biomarkers, electroceuticals and smart bandages.

Samphire Neuroscience's Nettle solution is one example of a smart health device. It is intended to provide a non-invasive, at-home treatment option for menstrual pain and mood swings associated with pre-menstrual syndrome. Assessing the big picture, Dr Sonja Sulzmaier summarises: "The quality of the solutions submitted is extraordinarily high this year. The finalists represent the top 4% of the 340 entries." A managing partner at Navispace GmbH and chair for start-ups at German SME association BVMW, Sulzmaier is responsible for organising the forum and the start-up competitions it includes.





#### Al in healthcare – on the rise and highly adaptable

Tuesday 12 November will kick off at 11 a.m. with a forum session entitled GenAl, Al and Big Data – Shaping A new era in healthcare. The panel will include **Bart de Witte**, founder of the Hippo Al Foundation. Their concept of regenerative Al aims to eliminate global health inequalities and promote symmetry in the global digital health sector. The session will revolve around ambient intelligence, which is used to create responsive, Alpowered environments that dynamically adapt to patients' needs, allowing for personalised and efficient care.

Prof. Paul Lukowicz, Head of the Embedded Intelligence research unit at the German Research Center for Artificial Intelligence (DFKI) in Kaiserslautern, will be moderating the forum session exploring the question of how artificial intelligence is transforming healthcare. Joining him for the conversation will be Manuel Herzog (Roche), Hadas Bitran (Microsoft Health & Life Sciences) and Viktor Savevski (Chief Innovation Officer and Head of the AI Center at Humanitas). Savevski will be examining the transformative potential of generative AI in the hospital sector. Ethics expert Prof. Stefan Heinemann from FOM University will be addressing the integration of AI in medicine as a model for its appropriate introduction into society and culture. AI, then, will be firmly taking centre stage from 11 a.m. to 1 p.m. on Tuesday 12 November.

## Final pitches from Al to robotics to health apps

From 3 p.m. on Tuesday afternoon (12 November), the final of the second important start-up competition will be taking place. For the final pitches in the 2024 MEDICA START-UP COMPETITION, a judging panel made up of businesses, investors and renowned industry experts has selected 12 health start-ups that will present their product solutions in different categories and make their bid for the big prize.

Finalists Saventic Health (Poland), U-Care Medical Srl (Italy) and IQONIC.AI (Germany) are all in on artificial intelligence. Saventic uses AI to detect rare diseases, U-Care to improve clinical outcomes in intensive care units, and IQONIC.AI provides AI-supported dermatology solutions





for analysing skin conditions and issuing personalised treatment recommendations based on advanced imaging technology.

The robotics category will be represented in the final by Robota (Italy), Robeauté (France) and Goodbot (Germany). Specifically, Robeauté is supporting the medical profession by supplying neurosurgical microrobots. Robota offers an automated system for sterilising surgical instruments, while Goodbot provides an innovative pipetting robot.

Doctorderma (Germany), Vertify GmbH (Austria) and PharmaTrail AG (Switzerland) will be presenting their health apps. PharmaTrail develops digital solutions to streamline and optimise clinical trial management with a view to improving efficiency and data accuracy in pharmaceutical research.

AGED Diagnostics (United States), Fepod Oy Ltd (Finland) and Dxcover (United Kingdom) are focussed on laboratory diagnostics. For example, Dxcover will be presenting an innovative liquid biopsy technology for the early detection of cancer via a simple blood test.

#### Women leaders in healthcare - how to make it

The MEDICA INNOVATION FORUM will also be hosting a session on women leaders in healthcare from 12:15 p.m. on Tuesday 12 November. Women working in the industry will then be welcome to network with female executives. Dr Sulzmaier is particularly looking forward to this: "More women are visible in the healthcare sector – and at MEDICA – than in many other industries, and we want to keep moving forward in this regard." Svenja Lassen, Managing Director for Germany at Gateway Ventures and founder of the Female Investors Network, will be moderating a panel discussion on female leaders in the health sector from 1 p.m. The panellists will be Nina Wöss, co-founder of Female Founders, Hadas Bitran from Microsoft, Tarushi Ranatunga, responsible for knowledge management at Softmatter in Sri Lanka, and Dr Caroline Fichtner, Principal of the High-Tech Gründerfonds, a public-private venture capital firm supporting start-ups in Germany.





After the panel, several women who have achieved a great deal as founders and inventors will be sharing their solutions and experiences: Dr Anne Latz, co-founder of Hello Inside, Audrey A. Sherman from Solventum (formerly 3M Healthcare) who holds more than 150 patents, and Dr Marie Berthuel, co-founder of BeFC – Bioenzymatic Fuel Cells in France.

Afterwards, there will be the opportunity to join a guided tour covering start-ups and innovation topics. And the "grand finale"? The get-together as part of MEDICA START-UP NIGHT. Women interested in attending the women leaders in healthcare session can find all the relevant details at the direct link to the forum programme at <a href="https://www.medica-tradefair.com/mif2">https://www.medica-tradefair.com/mif2</a>.



# More than just skin and bone: what bio-printers can produce

Wednesday also has an exciting onstage programme to offer. At 11 a.m., 3D printing will be the subject of discussion, before attention turns to innovative prosthetics, orthotics and similar applications. Nowadays, printing various biological materials, up to and including organs, is either already possible or in development. Manuel Figueruela, CEO of Regemat3D, will survey this landscape. Regemat3D designs, develops and manufactures 3D bio-printing systems and bio-reactors. In collaboration with more than 200 research groups in over 35 countries, they produce human tissue such as skin, cartilage, cornea, bone or heart tissue for implantation purposes. Robert Moebius is a lab manager at Biosaxony's Medical Forge start-up programme, which works with industry partners such as HP. As O&P Global Leader, Ayelén Fernández from HP will be homing in on the field of orthopaedic technology and prosthetics.

From 1 p.m., the future of therapy will be the centre of attention at the forum. The series of talks will run the gamut from digital tools for home patient care to robot-assisted surgery, rehabilitation and assistive technologies.

The final day at the MEDICA INNOVATION FORUM will include an international flavour, with healthcare hubs from Finland, France, Germany, Taiwan and Japan presenting their organisations. This will also



offer a perfect segue into the MEDICA START-UP PARK in the immediate vicinity of the forum stage. In this space, start-ups from all over the world – including Germany, Italy, India, Japan, Taiwan, Switzerland and the United States – will be putting their innovations for healthcare on show.

All the relevant information about MEDICA 2024, as well as all the themed forums, special shows and exhibiting organisations it will include, can be found online at <a href="https://www.medica-tradefair.com">https://www.medica-tradefair.com</a>.

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