



Selected innovations from MEDICA 2025 – press tour 16 November

High-end tablet PC with AI support for endoscopy

The abbreviation 'EN-150' may sound unremarkable, but this new MEDICA product has a lot to offer! It is a true 'powerhouse' – a newly developed 15.6-inch tablet PC designed specifically for use in endoscopic procedures. It combines state-of-the-art image processing with artificial intelligence, enabling precise and rapid analysis during the examination. The device delivers 4K image quality in real time – with a delay of less than 10 milliseconds. This allows surgeons and doctors to maintain a clear overview at all times, even during complex procedures. AI-supported functions such as automatic polyp detection and smoke suppression are particularly helpful. Thanks to its compact, portable design, the tablet PC is versatile and can be used in clinics, practices, outpatient services or emergency care. It supports various specialist areas such as gastroenterology, pulmonology, urology, gynaecology and ENT. The tablet PC can also be flexibly adapted and seamlessly integrated into existing systems. This makes it a valuable tool for modern, safe and patient-friendly endoscopy.

Estone Technology; Hall 15, Stand E41; Telephone: +31 (0) 40 7851 360

High-tech helmet against Alzheimer's & Co.

The 'MiamiMind' therapy system from Swiss start-up Bottneuro opens up new possibilities in individualised neuromodulation. Based on an MRI scan, a custom-made 3D helmet is created for patients, which positions up to 32 electrodes precisely on the surface of the skull. This allows electrical stimulation techniques such as tDCS (transcranial direct current stimulation) and tACS (transcranial alternating current stimulation) to be used in a targeted manner to modulate neural networks. At the same time, an integrated EEG allows continuous monitoring and documentation of the success of the therapy. The application is particularly aimed at people with Alzheimer's disease, stroke sequelae and depression. Another advantage is that treatment can take place in the familiar home



Messe Düsseldorf

Messe Düsseldorf GmbH
Postfach 10 10 06
40001 Düsseldorf
Messeplatz
40474 Düsseldorf
Deutschland

Telefon +49 211 4560 01
Telefax +49 211 4560 668
www.messe-duesseldorf.de
info@messe-duesseldorf.de


Geschäftsführung:
Wolfram N. Diener (Vorsitzender)
Marius Berlemann
Bernhard J. Stempfle
Vorsitzender des Aufsichtsrats:
Dr. Stephan Keller

Amtsgericht Düsseldorf HRB 63
USt-IdNr. DE 119 360 948
St.Nr. 105/5830/0663

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environment, but is still medically supervised. 'Miamind' is approved as a patient-specific custom-made product in accordance with the Medical Devices Act. The system thus combines clinical precision with practical everyday usability and creates an innovative approach to non-invasive neurotherapy. Bottneuro is represented in the special area of the MEDICA START-UP PARK (this time in Hall 12), which is once again the central meeting place for networking and business with the start-up scene and boasts a record participation of over 60 international companies. Link to the MEDICA START-UP PARK with an overview of all participants: <https://www.medica-tradefair.com/msup2>.

Bottneuro; Hall 12, MEDICA START-UP PARK

Body-worn 'power gadgets': wearables in healthcare

Wearables, i.e. small, portable devices, have become an integral part of everyday life and are also gaining ground in the healthcare sector. At the large Wearable Technologies joint stand, the WT SHOW in Hall 12, around 45 companies are showcasing exciting innovations that are already on the market or will be used in the healthcare sector in the near future. **Charmcare** (South Korea) is presenting its 'H2-BP', **the world's first and smallest portable blood pressure monitor**, at the WT stand. The device looks like a smartwatch, weighs 46g and is therefore very comfortable to wear for 24-hour blood pressure measurement for diagnostic purposes. D-Air Lab (Italy) has developed 'FutureAge', a wearable airbag belt that specifically protects the hips of older people in the event of a fall. The technology originates from motorcycle safety technology and addresses a massive problem: more than a quarter of people aged 65 and over fall every year (according to health reports from the RKI), and 95% of hip fractures are caused by falls. Please note! The airbag belt from D-Air-Lab will only be available at the stand from the start of the trade fair on 17 November.

Wearable Technologies AG; Hall 12, Stand C31; Tel. +49(0)8152-998860



How robotics supports spinal surgery and imaging

At MEDICA 2025, KUKA will demonstrate how the certified robotics component 'LBR Med' is used by international development teams for highly specialised applications in medicine. The finalists of the 'KUKA Innovation Award 2025' (award ceremony on 19 November at 11 a.m.) will be presented. These include two projects that set new standards in spinal surgery and medical imaging. The international **ULTRATOPIA** team from KU Leuven in Belgium and Balgrist University Hospital in Switzerland will present a **collaborative multi-robot system** that makes the **placement of pedicle screws** significantly more precise and safer. A robot arm equipped with ultrasound provides image data that precisely controls a second robot arm during drilling during spinal surgery. This reduces registration errors, takes physiological movements into account and improves surgical outcomes in the long term. The German development team **HERMIS**, a spin-off of the Max Planck Institute for Intelligent Systems, is showcasing **the world's first robot-assisted, portable MRI system**. The aim is to make high-quality imaging available even in smaller clinics and in regions with limited resources. The Human Endovascular Robotic Magnetic Imaging System uses robotic control to expand low-field MRI technology, enabling versatile diagnostics while reducing costs and maintaining high image quality. HERMIS thus opens up completely new possibilities for broader and more flexible medical care. KUKA is also showcasing a model of the KR QUANTEC HC at its stand. The robot for high payloads of up to 300 kg is used in systems where heavy medical equipment has to be moved, such as X-ray C-arms or linear accelerators for radiation therapy.

KUKA; Hall 10, Stand A22; Tel. +49(0)173-1762699

Innovative surfaces for safe bone implants

Researchers at the Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM in Bremen are developing new surfaces for bone implants that can reduce complications caused by infections. Background: The increased number of injuries and wounds in Ukraine



requires more measures to treat bone injuries with implants. Contamination of wounds can lead to infections and complications such as amputations. This affects not only soldiers, but also civilians. The new technology treats the surfaces of titanium implants using a process known as microarc oxidation (MAO). This can be carried out relatively easily with a beaker and a power supply. A porous oxide layer is formed on the implants, which can be loaded with antibiotics. The researchers are responding to the needs of the UNBROKEN National Rehabilitation Centre in Lviv. At MEDICA 2025 (at the Fraunhofer joint stand), Fraunhofer IFAM will be exhibiting a replica of a human skull with titanium implants to prevent infections.

Fraunhofer-Gesellschaft; Hall 10, Stand D22; Tel.: +49(0)89-1205-1321

Train and regenerate like the pros

In the large activity area of the MEDICA SPORTS HUB in Hall 4, trade visitors can test innovative sports and health equipment in practice, learn from experts or train and regenerate like professional athletes. CTN, for example, is showcasing its range of devices for light, cold and oxygen therapy for regeneration and rehabilitation. The devices are intended for everyday use in clinics and rehabilitation centres. Nice Recovery is particularly committed to cold therapy (without ice) with its cold and compression system: this more pleasant alternative makes it possible to avoid bathing in ice water.

MEDICA SPORTS HUB; Hall 4, Stand D58

All press information, press photos and logos for MEDICA 2025 are available online at: <https://www.medica-tradefair.com/press>.

Photos from the press tour are available at: https://www.medica-tradefair.com/press_photos (MEDICA 2025 - Media Events).



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Messe Düsseldorf GmbH
MEDICA 2025 press team
Martin Koch/ Luisa Harnau/ Apostolos Hatzigiannidis
Tel. +49(0)211-4560-444/ -539/ -544
Email: KochM[at]messe-duesseldorf.de

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