



## **International BIOMEDIX Workshop on Bioprinting Innovation and Biomedical Engineering Held at the Technical University of Cluj-Napoca within the ERASMUS KA220 BIOMEDIX Project – 12-13 March 2026**

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The Technical University of Cluj-Napoca (UTCN) organized, on March 12–13, 2026, the international workshop “BIOMEDIX – International Workshop on Biomedical Engineering and Scientific Research,” held within the framework of the ERASMUS KA220 BIOMEDIX project – Biomedical Innovations through Digital Transformation of Additive Technologies and Knowledge Exchange.

The aim of the workshop was to stimulate interdisciplinary collaboration in the field of biomedical engineering, as well as in 3D printing and Bioprinting technologies and to identify research and innovation directions with potential applications in the development of future medical products manufactured using these technologies.

The event brought together more than 130 participants, including students and academic staff from the Technical University of Cluj-Napoca, alongside specialists from the academic, medical, and industrial sectors interested in this type of application. The BIOMEDIX consortium includes universities and partner organizations from Romania, Latvia, Poland, Spain, Serbia, Croatia, Germany, and Belgium, as well as two industrial companies: Materialise (Belgium) and ViscoTec (Germany), which are involved in the development of medical applications based on advanced 3D printing and Bioprinting technologies.

Within the BIOMEDIX workshop, the company Materialise has provided software solutions used for the design and development of medical products manufactured through 3D printing technologies. Students involved in the project will be able to benefit from educational licenses for the Mimics program, a software dedicated to medical image processing that enables the visualization, segmentation and three-dimensional reconstruction of data obtained from computed tomography (CT) or magnetic resonance imaging (MRI) scans, facilitating the development of customized medical implants.

In addition, during the workshop, ViscoTec provided the Technical University of Cluj-Napoca with a 3D Bioprinting device, which will support the development of biomedical applications based on this technology. The two companies will also provide logistical support and expertise to students and academic staff involved in the BIOMEDIX project, contributing to the future development of medical applications based on 3D printing and bioprinting technologies.





The workshop program included interactive sessions dedicated to the presentation of projects and research directions in the field of medical applications of 3D printing and Bioprinting technologies. Students had the opportunity to present concepts for future bachelor's thesis projects and interdisciplinary research initiatives, proposed for development in collaboration with the BIOMEDIX consortium partners. As a result of these discussions, several research directions were outlined, focusing on the development of innovative medical applications in the field of 3D printing and Bioprinting.

The event also included practical demonstration workshops, during which participants observed the manufacturing processes of medical products using 3D printing technologies, as well as practical demonstrations dedicated to 3D Bioprinting, a technology that offers significant potential for the development of applications in regenerative medicine and tissue engineering.

At the end of the workshop, participants were informed about the opportunities offered by the BIOMEDIX project consortium for students, academic staff, and industrial partners. In the coming period, the project will organize specialized training activities in the field of designing and manufacturing medical products using 3D printing and Bioprinting technologies, in collaboration with Materialise (Belgium) and ViscoTec (Germany). The project will also include hackathon events and an international summer school in biomedical engineering, which will be organized at the Riga Technical University (Latvia) between July 20–30, 2026. The event will bring together students and academic staff from the partner universities within the BIOMEDIX consortium.

Through these initiatives, the BIOMEDIX project aims to strengthen interdisciplinary collaboration between departments and faculties of the Technical University of Cluj-Napoca, in partnership with universities and medical institutions from Romania and abroad, as well as with companies involved in the development of medical applications based on 3D printing and Bioprinting technologies.

In this context, the Technical University of Cluj-Napoca will organize, on October 9, 2026, a multiplier event in the field of biomedical engineering, addressed to both the academic community and companies interested in these technologies. The event will aim to stimulate collaboration between academia and industry by identifying opportunities for the development of joint research and innovation projects in biomedical engineering.

Further details about the BIOMEDIX project and upcoming events can be found at: <https://bini.rtu.lv/biomedix>













