

Universität
Basel

Departement of
Biomedical Engineering

MIRACLE II: Overview Pictures

Press release of the Department of Biomedical Engineering, University of Basel, 27 July 2020.

Please find high resolution images under: <https://www.unibas.ch/de/Aktuell/Mediendatenbank.html>.
The resolution of the material varies due to different production situations.



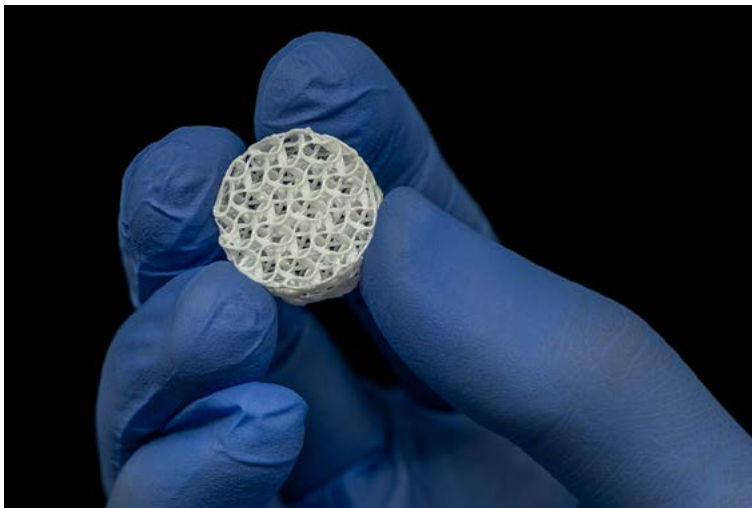
01: One of the results of the first funding phase: a high-precision robot endoscope tip with integrated laser bone saw.
Picture: Werner Siemens-Stiftung, F. Brüderli



02: Another result of the first funding phase: precise planning of surgical procedures in virtual reality together with specialists in other countries or continents.
Picture: Werner Siemens-Stiftung, F. Brüderli



03/04: A masterpiece of anatomical 3D printing. This technology has developed at breakneck speed in the last few years. Now it is time to make it suitable for surgery in operating rooms.
Pictures: University of Basel, R. Wendler

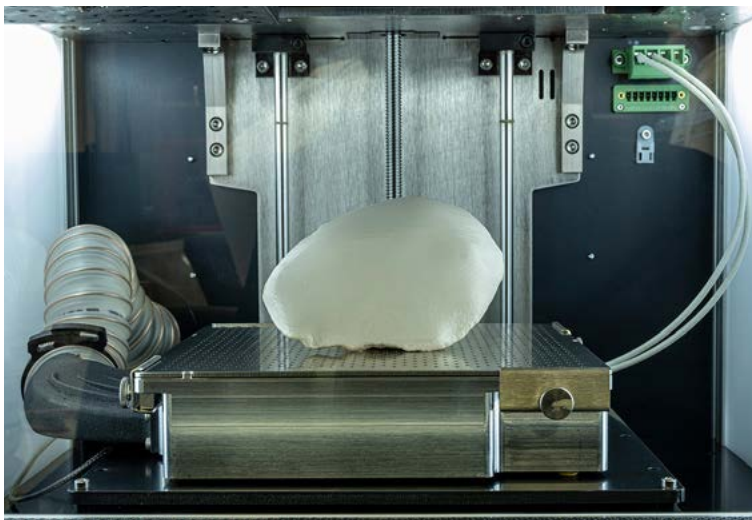


05/06: Implants made of organic materials – such as these structures which stimulate and control bone growth – are already being printed by oral and maxillofacial surgeon Florian Thieringer at the 3D print lab, Medical-Additive-Manufacturing research group of the University of Basel
Pictures: University of Basel, R. Wendler





07/08: 3D print of a knee joint. Researchers of the first project phase use this to calibrate their minimally invasive robots. Pictures: University of Basel, R. Wendler



09/10: 3D printer in the 3D print lab, Medical-Additive-Manufacturing research group of the University of Basel. How can you make 3D printing technology so small that it can be used directly inside the body? Pictures: University of Basel, R. Wendler





11: 3D prints such as this one are often used at the University Hospital Basel to plan and simulate procedures.
Picture: University of Basel, C. Flierl



12/13: Use of a high-tech implant by Florian Thieringer at the University Hospital Basel. MIRACLE II aims to fundamentally change this procedure.
Pictures: University of Basel, F. Thieringer

