

Yissum announces novel tech for 3D printing of drug capsules

06 November 2018 | News

Besides the ability to achieve complex structures and release profiles of drugs, this novel platform has the ability to personalize prescription medicines, allowing for doctors to tailor accurately the exposure and dosage levels for individual patients.



Yissum, the Technology Transfer Company of The Hebrew University has announced a novel technology for the 3D printing of drug capsules. The technology is based on custom-printed 3D hydrogels with delayed release characteristics. The technology will be presented at the 2nd annual conference, 3d Printing and Beyond at the Hebrew University in Jerusalem.

Professor Shlomo Magdassi, head of the Hebrew University's 3D and Functional Printing Center, as well as a member of the Center for Nanoscience and Nanotechnology and Institute of Chemistry, in collaboration with Dr. Ofra Benny, researcher at Hebrew University's Institute for Drug Research, developed the cutting edge drug fabrication technology which enables a complex design of drug delivery systems, currently unavailable in conventional pharmaceutical manufacturing techniques. This approach enables printing customized and personalized medications out of hydrogel objects which can expand, change shape, and activate on a delayed schedule.

Besides the ability to achieve complex structures and release profiles of drugs, this novel platform has the ability to personalize prescription medicines, allowing for doctors to tailor accurately the exposure and dosage levels for individual patients.

"Professor Magdassi and Dr. Benny's research is an excellent example of the kind of interdisciplinary transformational inventions that originate from the Hebrew University. This technology is bringing us closer to a future in which the medical field can offer personalized, patient-centered care," said Dr. Yaron Daniely, CEO and President of Yissum.

3D printed hydrogels are just one of many innovations that will be presented at the 2nd annual conference, 3D Printing and Beyond, which brings to Jerusalem a wide range of global industry leaders and researchers to explore advances in pharmaceuticals, electronics, and defense related technologies, along with 3D printed food, automotive parts and more.

3D Printing and Beyond is organized by Prof. Shlomo Magdassi and Dr. Michael Layani of the 3D and Functional Printing Center at the Center for Nanoscience and Nanotechnology, The Hebrew University of Jerusalem. The conference is sponsored by the Jerusalem Development Authority, Yissum, the Technology Transfer Company of The Hebrew University and The Hebrew University of Jerusalem.