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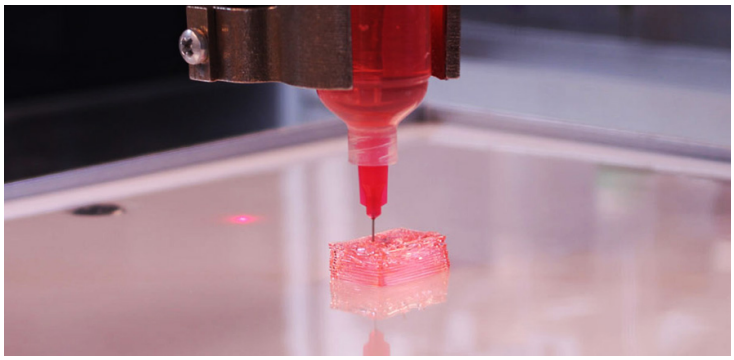
Osaka University, Shimadzu, SIGMAXYZ collaborate for 3D bioprinting in Japan

13 April 2022 | News

To solve social issues such as regenerative medicine and drug discovery by utilising human cells



Japan-based National University Corporation Osaka University, Shimadzu Corporation, and SIGMAXYZ Inc. have signed an agreement on collaboration for social implementation of 3D bioprinting technology.

Prior to this, Osaka University and Shimadzu Corporation also signed a joint research agreement on the development of automated production equipment for tailor-made cultured meat using 3D bioprinting.

The three parties aim to contribute to solving environmental and food problems, improving people's health, drug discovery, and the evolution of medicine.

Osaka University will continue its efforts to develop tissue engineering technologies, including 3D bioprinting. The 3D bioprinting technology developed by Matsusaki is a unique technique to construct muscles and motor units*in vitro* by bundling muscle, fat, and blood vessel fibers, but it is difficult to reproduce more complex tissue and organ structures.

Shimadzu looking to utilize 3D bioprinting technology in the fields of regenerative medicine and drug discovery, for example, by developing production technology for cultured meat using 3D bioprinting technology to create human organ models, thereby replacing animal experiments. This will enable research on rare diseases and application to personalized medicine.

Further, SIGMAXYZ will serve as the program management office for the social implementation of 3D bioprinting technology.