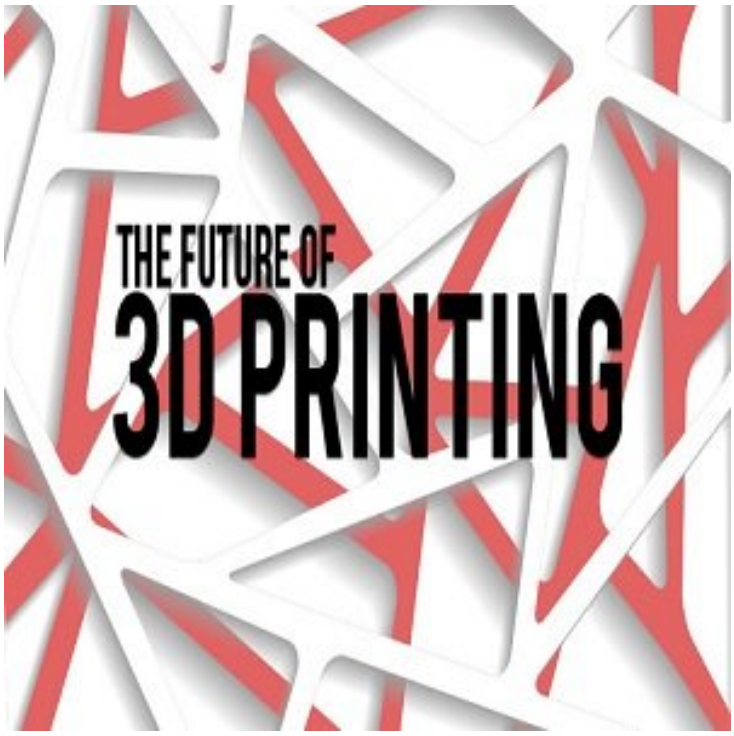
BioSpectrum
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ASIA EDITION

Innovations in 3D printing

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Innovations in 3D printing



Singapore: Here's a look at some of the lastest innovations in 3D printing:

Stratasys: US-based company is developing a range of material properties from rigid to flexible and opaque to transparent for medical implants

3D Systems: US-based firm developing personalized surgery and medical devices for treatment and research including dental and anatomical models, custom surgical guides, implantable devices, hearing aids, prosthetics, and braces for scoliosis

Envisiontec: The company develops three-dimensional scaffolds that are seeded with tissue cells and develops customized organs for patients

Materialise: It combines its 3D medical image-based engineering and 3D printing solutions to develop medical device design and preoperative planning solutions for orthopaedic and cranio-maxillofacial (CMF) surgery

Organovo: The US-based company is into designing functional human tissues through bioprinting technology and develops 3D tissues for medical research and therapeutic applications. Organovo is acknowledged for developing world's first commercial 3D bioprinting technology platform and for creating the first fully cellular 3D bioprinted liver tissue in 2013.

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Aspect Biosystems: The Canada-based company has developed 3D bioprinting platform and human cell culture technology capable of creating living human tissues on demand. The technology is to enhance predictive accuracy of pre-clinical drug discovery process through physiologically-relevant 3D human tissue models

Regenovo Biotechnology: The China-based company has developed 3D printing technology for biomedical applications and regenerative medicine, tissue engineering, drug discovery and personalized medical applications for new diagnostic, prevention and treatment techniques.

TeVido Biodevices: The US-based D bio-printing company is developing custom grafts for breast cancer reconstruction using woman's own living cells

Cyfuse Biomedical: The Japan-based firm has developed Regenova, a robotic system that facilitates the fabrication of 3D cellular structures to enable pre-designed 3D data for bioprinting

Bio3D Technologies: Singapore-based start-up firm enables bioprinting of whole living cells in any shape and arrangement in petridishes or multi-well plates and print a combination of cells, antibodies, proteins, bacteria for diagnostics and drug testing.