

《首个3D生物血管打印机成都问世》

3D打印技术已广泛运用于各个工业领域，四川科学家宣布他们已经生产成了首个3D生物血管打印机。

3-D printing is gaining traction in more and more industries, from the production of chocolates to the construction of houses. And scientists from Sichuan province in southwest China have announced they have completed an even more challenging mission.

Artificial organs may finally get a blood supply. This 3-D printer, the first of its kind, has been invented by a bio-tech company in the Sichuan provincial capital Chengdu. The breakthrough, scientists say, is to realize the regeneration of blood vessels. Its bio-ink box transports nutrients and stem cells for the tubes.

"It contains stem cells, with an environment we create for them. So the cells could split up into the ones we need. We print multiple layers of cells; each layer has different cells that we can control," said Kang Yujian, chief scientist of Sichuan Revotek Co. Ltd.

To keep the cells active, their environment and temperature are regulated during the printing process.

"Its significant because we solved the issue of supplying nutrients and other active materials. The method also applies to the printing of kidneys and livers," said Dai Kerong, fellow of Chinese Academy of Engineering.

The potential is great, scientists believe, as it is a step closer to the transplant of artificial organs.

"The blood vessel pulses with a heartbeat, it will not be blocked, it repairs itself after rupture, " Dai said.

The requirement and demand for this technology is all too real. In China, 300,000 patients are in desperate need of organ transplants, of which only three percent get a donation.