Eye Cells Inkjet-printed for First Time

University of Cambridge

Researchers from the University of Cambridge, Department of Engineering, Institute for Manufacturing (IfM) have used inkjet printing technology to successfully print cells taken from the eye for the very first time. The research was undertaken by Professor Keith Martin and Dr. Barbara Lorber at the John van Geest Centre for Brain Repair [1] in collaboration with Kai Hsiao [2] and Ian Hutchings [3] from the Inkjet Research Centre [4].

The breakthrough, detailed in the journal *Biofabrication*, could lead to the production of artificial tissue grafts made from the variety of cells in the human retina and may aid in the search to cure blindness. The results are preliminary and provide proof-of-principle that an inkjet printer can be used to print two types of cells from the retina of adult rats — ganglion cells and glial cells.

Kai said: “In order for a fluid to print well from an inkjet print head, its properties, such as viscosity and surface tension, need to conform to a fairly narrow range of values. Adding cells to the fluid complicates its properties significantly.”

See more details here [5]and the paper can be downloaded here [6].

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