NEDO Promotes Development of Three-Dimensional Biofabrication for Functional Tissues and Organs Comprising Cells derived from iPS Cells - Aiming to manufacture bones, blood vessels, hearts, and etc. with Bio 3D-printer and cell sheet stacking technology -

NEDO launches new project and develops technology of manufacturing functional tissues and organs such as bones, blood vessels, hearts, and etc. comprising the cells derived from the induced pluripotent stem (iPS) cells, employing 3D-biofabrication technologies represented by Bio 3D-printer and cell sheet stacking technology.

To this end, the technological development in regenerative medicine has been focused on how to efficiently prepare cells for use in regenerative medicine, such as methods to culture and induce differentiation in iPS cells into the specialized cells having physiological function. Upon this project, the technology development will be shifting to the next stage, how to construct functional tissues and organs comprising various cells, with 3D-biofabrication technologies represented by Bio 3D-printer and cell sheet stacking technology, marking an important step towards their practical application as regenerative medicine products. This project starts with five themes, and is conducted by twenty-nine companies.

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