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# *In vitro* 3D skin model using Gelatin methacrylate hydrogel

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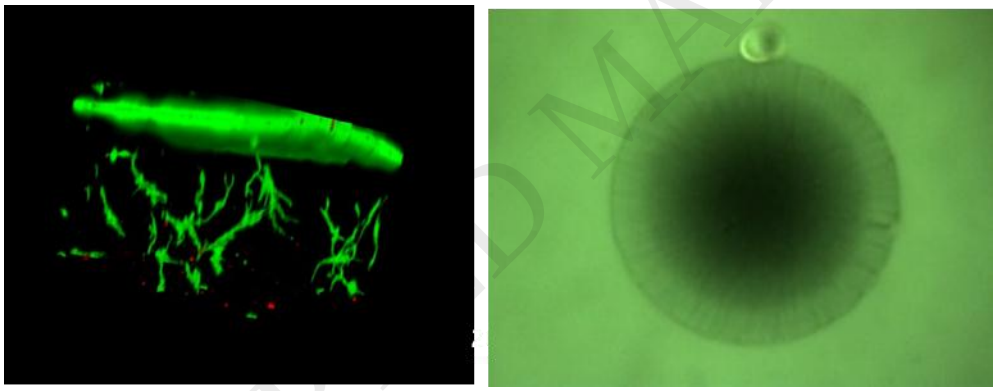
Graphical abstract



**Abstract**

Interests in *in vitro* skin models have been growing. Collagen, which is a main scaffold material for in vitro 3D skin models, has weak mechanical properties, often resulting in undesirable contraction. The physiological characteristics of the skin models often depend on the matrix in which cells are cultured. In this study, we developed a 3D skin model using gelatin methacrylate. The mechanical and transport properties were studied, and attachment and growth of fibroblasts and keratinocytes were examined. Fibroblasts preferred softer matrix,