
Paper ID: 1570943406

Paper Title: Development of position-controllable cell culture substrate for adherent cells

Authors: Yuya Shimomura and Shoichiro Kanno (Tokyo Institute of Technology, Japan);
Kenta Shimba (The University of Tokyo, Japan); Yoshitaka Miyamoto (National Center for
Child Health and Development, Japan); Tohru Yagi (Tokyo Institute of Technology, Japan)

Email: shimomura.y.ad@m.titech.ac.jp

Abstract

Cell patterning technology exists to understand single cell morphology and cell-cell interactions. Cell patterning technology is a technique to capture and control the position of cells, and is being actively studied. On the other hand, most of the research is focused on floating cells and cell-like particles, and there is little research on cell patterning technology for adherent cells. In this study, we propose a technique that can freely control the position of adherent cells. The position of adherent cells is controlled by an external magnetic field. This technology enables the construction of cell-cell network of any shape and can contribute to the construction of neuronal networks.
