



# ティクシエ三田研究室

## [Integrated Platforms for Bio and Chemical Applications]

生産技術研究所 マイクロナノ学際研究センター

Centre for Interdisciplinary Research on Micro-Nano Methods (CIRMM)

Integrated MEMS/NEMS technologies for industrial & bio applications

<http://toshi.iis.u-tokyo.ac.jp/toshilab/?Agnes%20Tixier-Mita>

How to improve the detection of disease or to investigate new approaches for further understanding of cells interactions or cells diseases?

Precise and sensitive tools are needed. In particular platforms with integrated electronics allow further investigation in the biomedical field for: diseases detection, new drugs development, or fundamental understanding of biological phenomena. Here, new tools are proposed: platforms with integrated array of sensors to allow biological cells and biomolecules manipulation and sensing.

- ◆ Electronics integration by TFT technology gives a 2D surface, for cells culture, with a dense array of independently controllable electronic components.
- ◆ Miniaturization and micro-structurization, thanks to micro-fabrication: improvement of portability and sensitivity.
- ◆ A large array of microsensors: a large 2D surface for biomaterial manipulation and sensing.

