The research that I have been working on is single cell analysis. Single cell study is crucial for understanding fundamental brain function. An extraction system is utilized to split the cells into two contents. Some cells are collected into tubes for future mass spectrometry analysis. The cells remaining on the slide will get cell type identified by immunocytochemistry.

This is a schematics of the Liquid Microjunction Extraction (LMJ) system. Cells are prepared on a slide. Cell coordinates are registered by MicroMS. (1) The extraction liquid is pumping through a capillary by a syringe pump. (2,3) The movements of the probe are controlled by a PC. The stage moves in the x-y direction, and the probe moves in the z direction. (4) The cells are extracted by the probe. (5) The cell content is aspirated in the tubes the vacuum chamber.

Liquid Microjunction Extraction System for Single Cells Collection

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