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Railroading cells, microfluidic magnetic cell separation using ferromagnetic stripes DAVID INGLIS, Princeton Institute for the Science and Technology of Materials, Princeton University, ROBERT AUSTIN, Princeton University Dept. of Physics, JAMES STURM, Princeton Institute for the Science and Technology of Materials, Princeton University — Magnetic cell separation has been demonstrated using recessed ferromagnetic stripes. Here we demonstrate precise control of the cell's positions using branched magnetic stripes in a microfluidic device. The technique allows magnetically separated cells to be delivered in precise locations to downstream cellular analysis components.

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