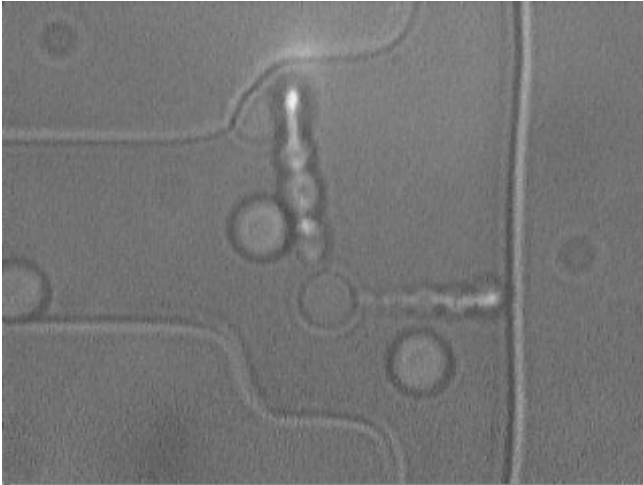


## Microfluidic Devices – Fluid Handling

Researchers at Mines have developed colloidal manipulation techniques using external fields for the purpose of fluid and particle control on the microscale. Colloidal particles, a generic term describing micron and submicron-sized pieces of solid matter suspended in a fluid medium, can respond to the application of both focused light and electric and magnetic fields. These novel devices are of a size comparable to a human red blood cell and are smaller by at least an order of magnitude than existing devices created by any other technique. This approach to fluids handling can operate on exceedingly small fluid samples and could be applied to processes in the human body.



**Inventors:** Dr. David Marr, John Oakey