

# Flowpad Lab

## Testing major microfluidic concepts

Flowpad Lab is a research platform scientists can use to test the basic principles and applications of microfluidics, a new science at the crossroads of chemistry, biology, technology, mechanics, and electronics that emerged in the 2000s. The idea behind microfluidics is to do what can be done in large volumes of fluids in very small volumes.

For lab tests, for example, being able to process mere microliters of fluid in sub-millimeter channels would provide a variety of benefits like reducing the amounts of substances

used, bringing system sizes down, and boosting reproducibility.

When working at small scales like the micron, physical relationships change. Capillarity becomes vital and surfaces take on new significance given the particularly tiny channel size. Systems must also be simple, self-contained, and easy to use. Steps like blending, recovery, and separation must be automated.

CEA Tech possesses unique know-how integrating all of these steps on a single chip.

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