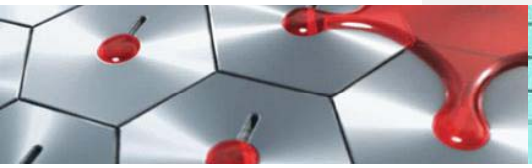
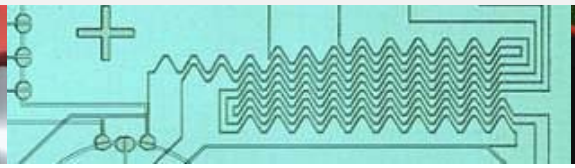
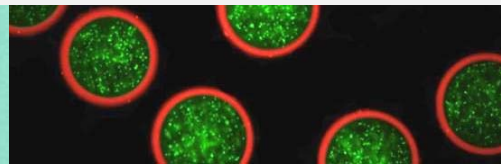
# Center for Advanced Design & Manufacturing of Integrated Microfluidics (CADMIM)

## *Mission Statement:*

The Center for Advanced Design and Manufacturing of Integrated Microfluidics will develop design tools and manufacturing technologies for integrated microfluidics targeting cost-effective, quick, and easy diagnosis of the environment, agriculture, and human health.

## *Center Vision:*

Our vision is to advance research and education on the science, engineering and applications of integrated microfluidic design and scalable production through dedicated, continuing industrial partnerships. This center has been devised to concentrate and deploy resources and people to launch a transformation in ubiquitous diagnostics by creating the tools, methods, and technologies that will enable low-cost, simple, rapid assessment anywhere and everywhere – the environment, agriculture, food and water supplies, and ultimately for human health and safety.

The strategy for this grand challenge centers on mass-produced diagnostic devices equipped with microfluidic components, chip-sized devices with high sensitivities (nM - pM) and short reaction times (< 1min) -- capable of chemical analyses in miniaturized volumes (µl - pl). Research efforts will focus on 3 main thrust areas: (1) manufacturable processes and materials, (2) fluid sample processing and detection, and (3) integration and control systems. Through these thrusts, CADMIM aims to develop low-power, automated, self-contained, mass-produced microdevices capable of multi-step biochemical processes. These same research foci lay the foundation for broader commercialization of microfluidics in application areas ranging from water purification, to food processing, to household products, to consumer electronics.

The expected outcomes of this center include:

- Effective, long-term partnerships with industry.
- Bringing together a multi-disciplinary team of researchers and institutions.
- Training the next generation of researchers and educators.
- Disseminating our acquired knowledge.
- Bringing ubiquitous diagnostic technologies to fruition for the benefit of society.

**www.inrf.uci.edu/cadmim**

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