

ACAMP Microfluidics
CHALLENGE #2
FUNCTIONAL
MODULES

ACAMP (Alberta Centre for Advanced MNT Products) is a not-for-profit organization that provides specialized business services to MNT clients including Marketing & Business Development, Product Development, and Packaging and Assembly.

ACAMP Capabilities

LTCC	Inertial Technology Integration
Microfluidics	Optoelectronics & Photonics
System-in-a-Package	Test & Characterization
	High Temp Module Integration

ACAMP Microfluidics CHALLENGE #2 Functional Modules

Alberta Centre for Advanced MNT Products (ACAMP) actively supports innovation and commercialization in micro and nano technologies in Alberta. ACAMP is developing its expertise in the designing and manufacturing of polymer microfluidic lab-on-a-chip devices for its customers who work in disposable diagnostic and therapeutic applications. We are developing the ability to build with a range of polymers including PMMA and COC and continuously expanding our technology toolbox to include new processes and new functional modules on chip.

We have already developed processes for channel formation using hot embossing, lamination to create closed channels, input and output port formation to manufacture the devices, along with a number of functional blocks such as capillary pumps, channels, bead traps and micro-mixers that can be used to implement lab-on-a-chip systems at the microfluidic level. Other areas we are working on include active pumps, valves and devices for the separation and filtration of the analytes from the unwanted material on chip.

In this competition we invite you to contribute to the development of functional modules that can be used as part of a lab on a chip system. Examples might be separation devices, valves, pumps, etc. These modules must be practical to implement using PMMA technology, possibly with some simple additions that you would have to specify.

ELIGIBILITY

We are soliciting proposals from SME's and research & development teams from Western Canada academic institutions and research institutes.

PROPOSAL

There are many microfluidic functions that could be implemented; we invite you to contribute to the development of functional modules that can be used as part of a lab on a chip system. Examples might be separation devices, valves, pumps, etc. These modules must be practical to implement using PMMA technology, possibly with some simple additions that you would have to specify. Your proposal should not exceed 2 pages. Please provide one page summary and use the second page for any drawings. The summary page should include the following.

1. Description of functional module or modules
2. Any background thoughts on process requirements or tricks to make the module a reality
3. Team members and brief backgrounds

PRIZE

ACAMP will review all the submissions and select the best ones for manufacturing in our PMMA technology. The winning proposals will receive a small batch of chips of the manufactured modules, free of cost, for your own validation and characterization.

TIMELINE

The deadline for submitting the proposals is January 25, 2013. The winning proposal will be announced on February 08, 2013.

CONTACT

The proposals should be submitted to info@acamp.ca with the subject line: ACAMP Microfluidics Challenge #2. For any enquiries about the competition, please contact: Nagu Yaddanapudi, Business Development Manager, ACAMP (email: naguy@acamp.ca)