

## The Present and Future of Flow Cytometry

Flow cytometry is among the most powerful and versatile analytical platforms used in contemporary laboratories for studying all aspects of the cell and other particles. The advent of personalized medicine will lead to a progressive migration and decentralization of screening and diagnostics testing as newly validated biomarker panels emerge. Flow cytometry will play an important role in this new context provided that its use becomes simpler and more cost-effective. We present a new approach to sheathless cytometry based on a novel optical fiber flow cell offering portability, high-end performance, ease-of-use and cost effectiveness. The flow cell is made of a square-section aperture transversely bored in a multimode fiber by precision micromachining. The analyte sample directly flows through this aperture without the use of a capillary insert or sheath fluid while the multimode fiber acts as the wave guiding structure for the collection light. Carefully designing the geometrical and optical parameters of the excitation and side-collection fibers such as diameter, numerical aperture and relative distance allows signal-to-noise performance similar to conventional cytometers.

**Seminar:** Thursday, July 24, 2014, 12 noon-1pm, Room M3330-Medical Science Building 1

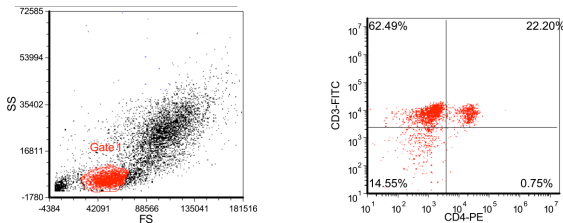
**Demo:** 1pm-3pm Room, 7416 CCGC

## FREE Pizza Provided During Seminar

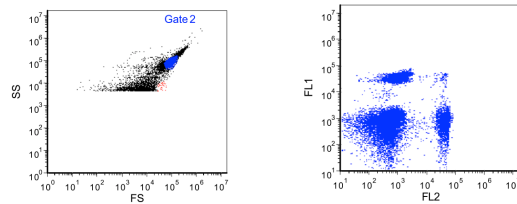
**Sponsored by the Flow Cytometry Core:** David Adams: [davadams@umich.edu](mailto:davadams@umich.edu) (734) 764-8107

\*If interested in running samples on the HPC-100, please contact: Matt Potter, [mpotter@handyem.com](mailto:mpotter@handyem.com)  
781-436-8055

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