

# **5<sup>th</sup> Annual Joint Bioinformatics Workshop**

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2229 Seamans Center  
University of Iowa

by

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## ***How To Detect Protein Biomarkers From Just a Few Cells***

### ***ABSTRACT***

Kori Radke, Saju Nettikadan, Juntao Xu, Sri Vengasandra, Chris Clough, Mark McClure, Curtis Mosher and Eric Henderson.

A recent advance in instrumentation and methodology for creating ultramicroscale biochips will be described. This process is called Fluidics Enhanced Molecular Transfer Operation (FEMTO) and is carried out with ultra-precise desktop printing instrument called the NanoArrayer. FEMTO allows the precise placement of femtoliter to attoliter volumes of biological and non-biological materials on a variety of surfaces. Applications of this process will be described with particular emphasis on its use to create an ultraminiaturized assay capable of detecting PSA from the lysate of 4 to 12 cells.