Capturing the Fluorescence Lifetime

OVERVIEW:

Among the extensive stratum of flow cytometry efforts for sorting, counting, and analysis of cells, there exists no commercial strategies for time-dependent multiparametric data acquisition. Dr. Jessica P. Houston and Mr. Mark Naivar developed techniques to measure a new and reliable fluorescence decay kinetics, "fluorescence lifetime," to expand the capabilities of a conventional Flow Cytometer.

Cells exhibit distinct changes in the fluorescence lifetime with respect to changes in intracellular environment, which aids clinicians/scientists in determining the fluorescence lifetime without modifying the flow cytometry paradigm.

POTENTIAL APPLICATIONS:

Flow cytometry is used worldwide to analyze biological samples.

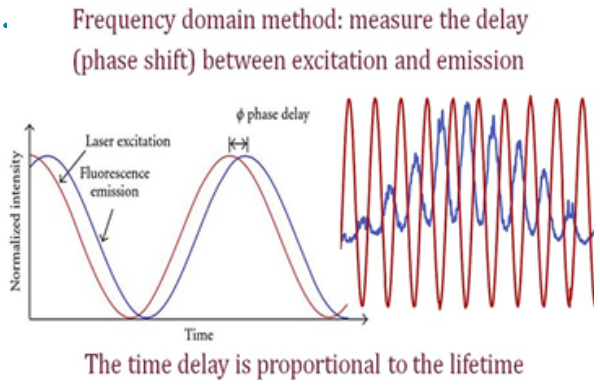
- Hospitals and clinics
- National laboratories involved in research and development of biomedical engineering tools
- Biomedical research centers, including National Institutes of Health, National Cancer Institute Center, and others

VALID INVENTION:

Measured small delays on large pulses, delays from real samples, and evidence that the delays measured are related to the fluorescence lifetime.

MARKET SIZE:

The market for flow cytometry products is expected to reach $4.3 billion globally by 2015, with instruments alone covering $2.2 billion.



INVENTOR(S) EXPERTISE

Dr. Jessica P. Houston
Assistant Professor, Chemical Engineering
New Mexico State University

Mark Naivar
Co-Founder, DarklingX LLC

For more information please contact:
Terry Lombard at 575.646.2791 or
tlombard@nmsu.edu

Arrowhead Center®

NM STATE UNIVERSITY