Mass General Brigham
Mass Eye and Ear

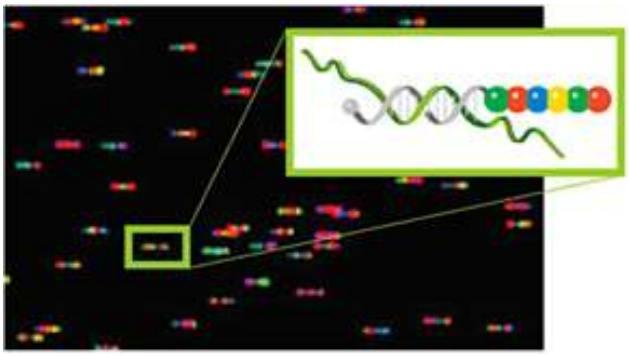
Schepens Eye Research Institute

The Technology Seminar Series Presents:

"*Multiplexed Detection and Measurement of Nucleic Acids using NanoString*"

Paulo J. Bispo, MS, PhD
Assistant Professor of Ophthalmology, Harvard Medical School
Assistant Scientist, Infectious Diseases Institute, Mass Eye and Ear

Clement David, PhD
Manager, Field Applications Scientists-East NanoString Technologies



Thursday, November 18th, 2021
12:00 – 1:00 pm
Zoom Meeting/Meltzer Auditorium

https://masseyeandear.zoom.us/j/583662273?pwd=TWJTUEV6ZTFUTzUzaWx5dXFmR2puQT09

Meeting ID: 583 662 273
Passcode: 248969

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Summary of Drs. Bispo and David's talk:

The NanoString nCounter technology is based on direct detection of target nucleic acid molecules using color-coded molecular barcodes, providing a digital count of the number of target molecules in a given sample. The color codes carry six positions and each position can be one of four colors, thus allowing for a large diversity of codes that can be mixed together in a single reaction tube for direct hybridization to target and yet still be individually resolved and identified during data collection. Probe DNA or RNA hybrids are detected using the NanoString nCounter Profiler systems. The nCounter SPRINT Profiler, recently acquired by the Infectious Diseases Institute at MEE (Bispo and Gilmore Labs) and available to multiple users from MEE and SERI, is a benchtop instrument that can analyze up to 800 RNA or DNA in challenging sample types such as unpurified cell lysates or Formulin-fixed Paraffin-embedded (FFPE) extracts. This technology is currently being explored at MEE to develop rapid and comprehensive pathogen detection panels to improve diagnosis of ocular infections, and can be also leveraged to resolve other diagnostic and transcriptional challenges that are common in our research areas.

About Dr. Bispo:

Paulo is a medical microbiologist dedicated to developing better ways to manage infections. His research focuses on the use of state-of-the-art molecular genetic and genomic approaches to develop new, rapid, sensitive, and comprehensive diagnostic tests, and to study the genomic epidemiology of antibiotic-resistant infections, with the goal of informing the development of novel therapies to treat hard-to-treat ocular infections.

About Dr. David:

Clement obtained his PhD in Neuroscience studying CNS infections caused by the protozoan parasite, Toxoplasma gondii. As a Sr. Field Application Scientist for NanoString Technologies, Clement supports the East Coast customers in all their project planning, system trainings, and data analysis for both the nCounter and GeoMx systems.