

Clinical Testing for Chlamydia and Gonorrhea using the Plasmonic PCR Point-of-Care Platform.

Full-time Sr. Research Technician - \$55,000/yr

The laboratory of Dr. Mark Trifiro is looking to recruit personnel to carry out performance testing of clinical samples using the Kimera P-IV Plasmonic PCR device, as a rapid point-of-care diagnostics platform. PCR machines typically employ electric Peltier heating/cooling blocks which are large and require excessive amounts of energy to heat or cool. However, Plasmonic PCR thermocycling is achieved with optically powered by gold nanorods that serve as “nano-heaters” within the reaction mixture. These gold nanorods exhibit plasmonic properties, that when exposed to light of the right frequency they can generate enormous heat. Heating is extremely rapid and can reach rates of 20 °C/second, managing 35 cycles in <15 mins. Since the tube is completely free, not entombed into a block, cooling is accomplished by convection. The Kimera P-IV is a first-of-its-kind Plasmonic PCR diagnostic platform and will be used for performance testing, from Gonorrhea and Chlamydia clinical samples. The results of this testing will be used for a regulatory approval from Health Canada.

Roles and Responsibilities:

- Directly oversee the carrying out the clinical sample testing.
- Will also be responsible for receiving and storing of samples until ready for testing.
- Will ensure proper inventory of reagents and supplies.
- Will be responsible for sample analysis and preparation of preliminary report, including statistical analysis, to provide the Project Director to be able to prepare the quarterly and final reports.
- Will be trained to use R-based programs that will be used for data analysis
- Will be responsible for ensuring the safe storage of the data and the composite process data.

Qualifications:

- M.Sc. (preferred) in the field of life sciences
- 3 to 5+ years of research experience in a laboratory or clinical/CRO setting
- Knowledge of GLP and handling clinical specimens
- Knowledge of Preparing and running PCR reactions
- Knowledge of MS Office

Please forward your CV and presentation letter to: Mark Trifiro (mark.trifiro@mcgill.ca) and Miltiadis Paliouras (miltiadis.paliouras@mcgill.ca).