

Dear reviewers:

The Division of Emergency Medicine has produced high quality research for decades. However, this research traditionally focused on delivery of service, process comparisons and pharmaceutical efficacy. While we are free to innovate the “software” of our specialty as noted above, we have been dependent on others to innovate and create the “hardware” that we use – medical devices that help in diagnosis and therapeutics.

This new role – Medical Device Researcher – will enable the Division to develop a competent research arm focused on medical devices. Dr. Tarek Loubani is a capable candidate for this position. He has a strong interest in medical devices, and has piloted the creation of a high-quality low-cost stethoscope to develop the process for creating devices in the emergency department.

Dr. Loubani’s planned research on pulse oximetry and electrocardiography will similarly be groundbreaking and useful. The deliverables of this role in its inaugural period are:

1. To recruit a permanent research team of collaborators from the departments of Engineering, Biomedical engineering, Anesthesia and other specialties who are experts in using devices commonly found in the Emergency department
2. To develop a database for dissemination and distribution of medical devices to Western University and London Health Sciences Centre / SJHC
3. To create a low-cost stethoscope and deploy it to all emergency physicians, nurses and allied staff in London Health Sciences Centre
4. To create, validate and obtain licensing for a pulse oximeter that can be used in the LHSC/SJHC emergency department at a decreased cost with equivalent technical performance
5. To create, validate and obtain licensing for an electrocardiogram that can be used in the LHSC/SJHC emergency department at a decreased cost with equivalent technical performance
6. To disseminate research about medical device innovation and research to the community at large through publication in Open Access medical and engineering journals

As you will note, the work entailed in this role is important and potentially groundbreaking if it delivers the results we expect. This role has not received funding from any other source.

Please do not hesitate to contact me if you have any further questions.

Sincerely,



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