

Postdoctoral Research Fellow and/or PhD student (Western)

Extra-telomeric functions of telomerase reverse transcriptase (TERT) isoforms

We are seeking a talented and highly motivated Postdoctoral Research Fellow and/or PhD student to examine the extra-telomeric functions of telomerase reverse transcriptase (TERT) isoforms in human pluripotent stem cells. We have discovered several alternative splice variants of the telomerase reverse transcriptase (TERT) (novel and known) to be highly expressed in human embryonic stem cells that appear to be involved in modulating the pluripotency and self-renewal signaling pathways. The aim of this specific project is to use mass spectrometry to discover novel protein binding partners of various TERT isoforms during self-renewal and differentiation. We are also interested in characterizing the subcellular proteome and secretome profiles in human pluripotent stem cells over-expressing various TERT isoforms.

Thus, the candidate(s) will utilize a number of state-of-the-art technologies (iPSC generation, ChiP-Seq, IP and Mass spectrometric analysis; and stem cell culture and manipulation). Applicants must have profound expertise in molecular biology/genetics and in particular IP and Mass spectrometric analysis in order to identify novel protein binding partners for specific TERT isoforms. The proteomics experiments will be carried out on an LTQ-Orbitrap Elite or on the new Q-Exactive. Experience in good laboratory practice is also required. Experience in pluripotent stem cell culture is not required. The position is available for one year, renewable based on performance. A competitive stipend will be paid commensurate with experience. Further information about the university can be found on our institute's website (<http://www.uwo.ca/>). Information about the UWO Biological Mass Spectrometry Laboratory (<http://www.bmsl.uwo.ca/>) and Cellular Reprogramming Laboratory ([http://publish.uwo.ca/~dbetts/Dean H. Betts/Welcome.html](http://publish.uwo.ca/~dbetts/Dean_H_Betts_Welcome.html)) can be found on our websites. Further enquires on the position(s) may be made to Dr. Gilles Lajoie (glajoie@uwo.ca) and/or Dr. Dean Betts (dbetts@uwo.ca).