Ethno pharmacology and high-throughput screening assays to identify compounds with therapeutic potential

Knowledge regarding the therapeutic use of plants among different cultures represents a valuable resource for identification of novel pharmaco therapeutics. Medicinal plants and their extracts, as well as phytochemical compounds isolated from such plants, can affect many regulatory pathways of human cells, e.g., transport, signal transduction, epigenetic chromatin modifications, redox balance and such effects can influence risk of human diseases including chronic and infectious diseases. We have developed cellular and biochemical assays to assess the bioactivities of such plants, phytochemicals and phytochemical metabolites. Current results from such experimental assays will be discussed particularly in in the context of human metabolic disorders (type 2 diabetes, obesity, dyslipidemias) and pathological effects of mis-folded and aggregated polypeptides in amyloidogenic diseases.

Biography

A Vieira has completed his BSc and PhD studies in Alberta, Canada and Postdoctoral studies in California, USA. He is currently Associate Professor and Director of the Nutrition and Metabolism Research Laboratory, Biomedical Physiology (BPK) Department, Simon Fraser University, Burnaby, Canada. He has over 90 publications, including research papers in major international journals, with over 1500 citations. He has served as Reviewer and Editorial Board Member for journals related to biomedical research, molecular and cellular biology, as well as for educational and scientific books.

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