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**A Vieira***Simon Fraser University, Canada***Nutritional and epigenetic aspects of metabolic syndrome, and the search for metabolic pharmacotherapeutics**

Metabolic syndrome represents a combination of disorders that often include atherogenic dyslipidemias, problems with glucose regulation, obesity and chronic inflammation. Epigenetic regulation refers to chemical, covalent modifications of chromatin that can occur in response to environmental factors including diet (vitamins, nutrients and other food components), physical activity and exposure to toxins. This study will cover the nutritional epigenetics of chronic metabolic disorders, e.g., epigenetic changes associated with obesity, inflammation, insulin resistance, as well as dyslipidemias. The influence of vitamins and other nutrients, as well as that of phytochemicals from plant foods, upon metabolic regulation and energy metabolism will be emphasized. Molecular and cellular assays to identify potentially therapeutic compounds related to these metabolic disorders will also be described, with an emphasis on combination therapies that may contribute to epigenetic reprogramming.

Biography

A Vieira is currently Associate Professor and Director of the Nutrition and Metabolic Research Laboratory, 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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