Evidence-Based Complementary and Alternative Medicine

Hindawi

Special Issue on

Medicinal Plants and Natural Active Compounds for Diabetes and/or Obesity Treatment

CALL FOR PAPERS

Overweight and obesity are major risk factors for a number of chronic diseases, especially type 2 diabetes (T2D), leading to increase in healthcare costs and decrease in life expectancy. The incidence of obesity and T2D is in continuing rise. According to the World Health Organization (WHO), 35% of adults aged 20 and over were overweight in 2008, and 11% were obese. Moreover, T2D prevalence has increased from less than 10% in 1980 to more than 30% nowadays. Free fatty acids (FFA) represent a crucial link between obesity, inflammation, and insulin resistance and, as such, reduction in elevated plasma FFA should be an important therapeutic target in obesity and T2D.

There are several types of glucose-lowering drugs including insulin sensitizers, insulin secretagogues, and α-glucosidase inhibitors. Most glucose-lowering drugs, however, have side effects, such as severe hypoglycemia, idiosyncratic liver cell injury, lactic acidosis, permanent neurological deficit, digestive discomfort, headache, and dizziness. Hence, it is crucial to search for new drugs that would potentially have no or less side effects. Medicinal plant drug discovery provides important leads against various pharmacological targets. A large number of plants used in the traditional medicine have now become a part of the modern world healthcare system. Natural novel drugs are now more achievable due to modern techniques for separation, structure elucidation, screening, and bio- and chemoinformatics.

We invite investigators to contribute overview and original research articles dealing with the physiological as well as molecular and biochemical efficacy of medicinal plants and natural active compounds in treating T2D and obesity *in vitro* and *in vivo*. We are interested in articles that explore aspects of medicinal plants and their active compounds in obesity treatment, in insulin sensitizing, and particularly in the research of new targets for insulin sensitizers.

Potential topics include, but are not limited to:

- Isolation and characterization of novel medicinal plants active compounds possessing antidiabetic and antiobesity potential benefits
- Recent advances in drug discovery from medicinal plants with antidiabetic and antiobesity potentials
- Identification and validation of novel targets of medicinal plants and active compounds insulin sensitizer, as well as studies of related fat metabolism
- Identification of the cellular target of the effective antidiabetic plant extract(s), for example, proteins involved in the insulin action pathway
- Medicinal plants with proven anti-inflammatory, antidiabetic, and weight loss benefits in human and animal models

Authors can submit their manuscripts via the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/ecam/mpac/.

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