

Chemistry, Pharmacology and Medicinal Property of *Rhodiola rosea* From the Selection of Traditional Applications to the Novel Phytotherapy for the Prevention and Treatment of Serious Diseases.

By Dr. Rafie Hamidpour, Director of Drug discovery at Pars Bioscience

Abstract

Rhodiola rosea is a remarkable herb that has been a part of traditional medicine system in order to stimulate the nervous system, to protect the body against oxidative stress, free radical damage, inflammation, and virus infection. *Rhodiola rosea* is included among a class of plant derivatives called adaptogen, an agent that help the body adapt to various stressors. Adaptogens have been claimed to treat a wide variety of medical conditions, from fatigue to cancer.

The studies on *Rhodiola rosea* have shown that the plant has anti-stress, anti-anxiety, anti-fatigue, and anti-depressant properties with no significant side effects. *Rhodiola rosea* has been considered in drug development because of its pharmacological activities throughout the world, especially in parts of Europe, Asia, and Russia. *Rhodiola Rosea* has shown more efficiency and safety than pharmaceutical drugs for anxiety and depression, which typically can have side effects, such as digestive upset, mood and sleep disorders.

This research paper, suggests that *Rhodiola rosea*, in addition to cure common disorders such as depression, binge eating, anorexia, generalized anxiety disorders, and physical and mental fatigue, might contribute to prevent, reduce and treat serious diseases such as Alzheimer's disease, Parkinson's disease, cardiovascular disease, diabetes, and cancer. The aim of our future research is to extract *Rhodiola rosea* in to the filtration equipment then by purification and extended quality control produce tablets for the animal trials.