

Methods and materials for reducing ischemia-reperfusion injury

Keywords Abscisic acid, ischemia/reperfusion injury, chronic inflammation, rheumatoid arthritis

BACKGROUND Ischemia is a restriction in blood supply to tissues, which causes a shortage of elements needed for the tissues to survive such as oxygen and glucose. Surprisingly, the restoration of the physiological blood flow (e.g., reperfusion) causes further tissue lesions in many cases. These local and systemic inflammatory responses caused by reperfusion following ischemia can be associated with several clinical manifestations, including lung failure, renal insufficiency, cardiac arrhythmias, acute heart failure etc. These clinical complications can significantly worsen the survival chances of patients.

Currently, there is not any solid preventive or treatment methods available to manage the detrimental aftermaths of ischemia-reperfusion injury. According to our findings abscisic acid (ABA) plant stress hormone efficiently minimize damage to tissues during ischemia and reperfusion via augmentation the capacity of redox enzymes.

Previous studies have shown that ABA is a potential new PPAR γ indirect agonist. We also have some direct and indirect evidence in support of this conception. Essentially, ABA represents a new and natural line of prevention and treatment methods to minimize tissue injury caused by ischemia and reperfusion.



We are seeking for: Licensee. Collaborations with corresponding research interest

IP status Patented in: Germany (38492-0002DE1), France (38492-0002FR1), United Kingdom (38492-0002GB1), Hungary (38492-0002HU1) - Patent number:3179995 and in the US (38492-0002US1) Patent number: 10,117,842 Patent pending in the US: 38492-0002002, Application number:16/133,271

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BRIEF DESCRIPTION

