Anti-aging Via HAAO Blockers

Published date: Feb. 4, 2019

Technology description

Invention
The invention relates to methods of preventing or treating age-related diseases comprising targeting the kynurenine pathway by blocking, reducing expression, or reducing activity of 3-hydroxyanthranilic acid dioxygenase (HAAO), and or increasing the bioavailability of 3-hydroxyanthranilic acid (3HAA).
Background
Human diseases are characterized by upregulation of different combinations of stress and/or dysregulation of stress response pathways. For example, Alzheimer's disease is characterized by elevated oxidative stress, increased inflammation, and an increase burden of misfolded and aggregated proteins, while cancer is characterized by increased burden of DNA damage, impaired DNA repair, elevated oxidative stress, and localized hypoxia. The kynurenine pathway (KP), the primary route for tryptophan catabolism, is a metabolic pathway that interacts with inflammation. Dysregulation of the KP increases with age and is linked to diseases of aging such as neurodegeneration, kidney disease, cardiovascular disease and chronic inflammation. Multiple interventions that target KP enzymes or metabolites have potential to slow decline with age and improve outcomes of various age-associated illnesses.

Application area

Alzheimer's treatment
Age-related diseases
Anti-inflammation

Advantages

Reduces inflammation
Reduces oxidative stress
Earlier intervention for chronic, age-related diseases

Institution

University of Arizona

Inventors

George Sutphin
Assistant Professor
Molecular and Cellular Biology

联系我们

叶先生

电 话：021-65679356
手 机：13414935137
邮 箱：yeyingsheng@zf-ym.com