

The importance of rejuvenating our muscles

Aging in humans is accompanied by diverse changes and adaptations in the body and lifestyle. One of the most characteristic and frequent problems impacting the quality of life during old age is limited movement. This condition, in many cases, makes it impossible to sustain a normal lifestyle.

During the aging process, skeletal muscle mass and function is lost. This event is known as muscular atrophy.

Cutting-edge research on the underlying mechanisms of muscular atrophy is being performed by Dr. Claudio Cabello-Verrugio, investigator from the Faculty of Biological Sciences at the Universidad Andrés Bello. Specifically, Dr. Cabello-Verrugio's work is focused on discovering the role of the renin-angiotensin system, a regulator of skeletal muscle, in the aging process.

"Besides the difficulties caused by limited movement for individuals, muscular atrophy can cause serious problems as it can affect basic bodily functions, such as breathing, eating, and standing," adds Dr. Cabello-Verrugio.

Notably, Dr. Cabello-Verrugio explains that his group's research is not only relevant to aging-induced muscular atrophy, but can also be applied in patients suffering muscular atrophy as a consequence of chronic illness, such as kidney and heart diseases, cancer, and even AIDS.

"Many times, therapies against these chronic pathologies are ineffective due to the deteriorated state of the patient, which is exacerbated by muscular atrophy. Our group found a non-classical renin-angiotensin system axis that has anti-atrophic properties and, hence, prevents the loss of muscle mass."

Dr. Cabello-Verrugio further explains that, "The next step is to identify components that can be used as therapeutic targets in certain diseases. Without a doubt, these advances are of great importance considering that Chile is currently experiencing population aging."