

News Release

New Research Review Underlines Post-Exercise Recovery Benefits of L-Carnitine for Active and Aging Consumers

Basel (CH) 1 June 2018 – A new review paper published in scientific journal, *Nutrients*, has highlighted the role of L-Carnitine in recovery after high intensity exercise in young, active adults, with mechanisms involved in this process described in detail.¹ The review, conducted by Lonza Consumer Health & Nutrition, together with a leading university in Boston, also introduced research conducted on L-Carnitine in older demographics, where supplementation with L-Carnitine led to mitigation of the age-related loss of muscle mass and function among elderly subjects, suggesting new uses for the ingredient.

The new peer-reviewed paper examined human clinical trials where L-Carnitine supplementation was used in post-exercise recovery. Highlighting extensive evidence on L-Carnitine as an ergogenic aid for enhanced exercise capacity in young athletes, the review also summarizes how the ingredient can reduce muscle soreness and injury and oxidative stress, as well as increase blood flow, contributing to recovery.

In addition to analyzing the relevant studies to-date in younger subjects, this comprehensive review aims to outline the growing body of evidence on the effects of L-Carnitine supplementation in an emerging demographic of interest: the elderly. With a rapidly aging global population increasingly taking part in moderate exercise, and given the additional challenges met by older people suffering from the age-related decline in skeletal muscle mass, strength and overall activity, namely sarcopenia, L-Carnitine has been found to exert a beneficial effect by maintaining lean muscle mass and reducing muscle degradation and fatigue.

Dr Aouatef Bellamine, Senior Scientific Manager, Consumer Health & Nutrition, Lonza, adds: “This comprehensive review summarizes the science generated within the last few decades on the benefits of L-Carnitine during exercise and the recovery phase. While previous research has mainly focused on the effects of supplementation in

athletes, we also reviewed the current research in a wider demographic that includes older adults. In particular, with a growing number of elderly subjects engaged in moderate exercise, the role of L-Carnitine in helping to improve quality of life among this demographic will continue to gain importance.

“The results of this review could therefore be taken into consideration when planning the diets of younger, active consumers, while also helping to shape the future direction of research, to explore in greater depth the role L-Carnitine supplementation can play alongside exercise in mitigating age-related muscle degradation.”

Lonza’s Carnipure® is a high-quality grade of L-Carnitine, with over 30 clinical studies to support its versatility and broad usage. Carnipure® L-Carnitine can be formulated into a wide range of functional foods and nutritional supplements across multiple applications, such as weight management, energy metabolism and infant nutrition, as well as sports nutrition and healthy aging.

About Lonza

Lonza is one of the world’s leading and most-trusted suppliers to the pharmaceutical, biotech and specialty ingredients markets. As an integrated solutions provider, Lonza is boosting its value creation along and beyond the healthcare continuum with a strong focus on patient healthcare, consumer preventive healthcare and consumer’s healthy environment.

Lonza harnesses science and technology to create products that support safer and healthier living and that enhance the overall quality of life. With the recent Capsugel acquisition, Lonza now offers products and services from the custom development and manufacturing of active pharmaceutical ingredients to innovative dosage forms for the pharma and consumer health and nutrition industries.

¹ R. Fielding, et al., “L-Carnitine supplementation in recovery after exercise,” *Nutrients*, 10, 349 (2018).

Benefiting from its regulatory expertise, Lonza is able to transfer its know-how from pharma to hygiene and fast-moving consumer goods all the way to coatings and composites and the preservation and protection of agricultural goods and other natural resources.

Founded in 1897 in the Swiss Alps, Lonza today is a well-respected global company with more than 100 sites and offices and approximately 14,500 full-time employees worldwide. The company generated sales of CHF 5.1 billion in 2017 with a CORE EBITDA of CHF 1.3 billion. Further information can be found at www.lonza.com.

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