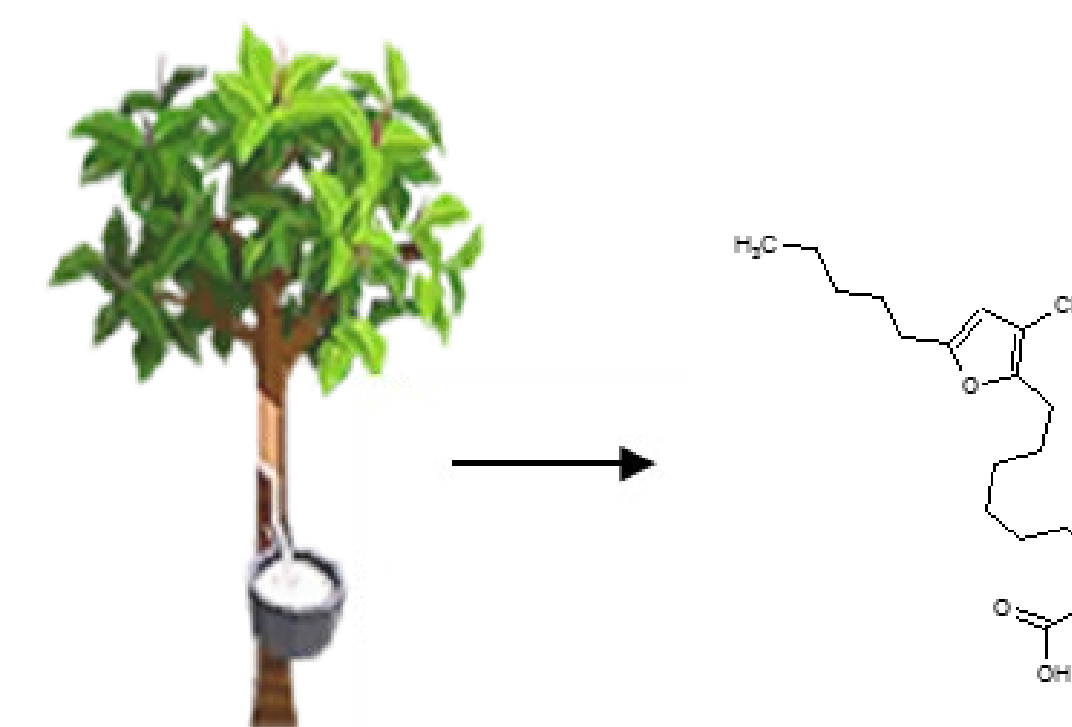


FURAN FATTY ACIDS, A NEW KEY PLAYER IN THE DIET FOR HEALTHY AGING?

DMeM

Dynamique du Muscle et Métabolisme

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CONTEXT

Aging leads to the development of chronic pathologies, including sarcopenia. Limiting physical activity associated with sarcopenia can create a vicious circle of reduced activity levels, amplifying this pathology and, more broadly, people's well-being.

In vitro studies have shown that furan fatty acids (FuFAs), found in fish, dairy products and fruit and vegetables, have antioxidant and anti-inflammatory effects. Initial pre-clinical studies on muscle cells and on healthy or obese mice indicate that FuFAs improve insulin sensitivity and increase muscle mass, partly mimicking the effect of physical activity



OBJECTIVES

To explore in elderly mice the effects of FuFAs to prevent age-related muscle disorders and improve mobility and well-being

- 18-month-old male and female C57BL/6J mice receiving diets (control or FuFAs) for a period of 6 to 8 months
- Assessment of physical capacity, behavior and physiological status (lean and fat mass, food consumption, well-being, motor test, grip strength test, endurance test, behavioral test), respiratory exchange coefficient.
- Exploration of tissue signaling pathways involved in antioxidant protection and inflammation, protein synthesis and lipid and carbohydrate metabolism

Prerequisites: Skills in physiology, biochemistry and molecular biology. Interest in working with animal models.