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# Muscle Carnosine in Experimental Autoimmune Encephalomyelitis and Multiple Sclerosis

### Charly Keytsman<sup>1</sup>, Laura Blancquaert<sup>2</sup>, Inez Wens<sup>1</sup>, Maarten Missine<sup>2</sup>, Pieter Van Noten<sup>1</sup>, Frank Vandenabeele<sup>1</sup>, Wim Derave<sup>2</sup>, Bert O Eijnde<sup>1</sup>

1REVAL Rehabilitation Research Center, BIOMED Biomedical Research Institute, Faculty of Medicine and Life Sciences, Hasselt University, Agoralaan Building A, Diepenbeek, Belgium 2Department of Movement and Sports Sciences, Ghent University, Ghent, Belgium.

\*Corresponding author: Charly Keytsman, Agoralaan Building A, B-3590 Diepenbeek, Belgium, Email: charly.keytsman@uhasselt.be; Tel: +32477/61 11 22

#### ABSTRACT

#### Background.

Muscle carnosine is related to contractile function (Ca<sup>++</sup> handling) and buffering of exercise-induced acidosis. As these muscular functions are altered in Multiple Sclerosis (MS) it is relevant to understand muscle carnosine levels in MS.

#### Methods.

Tibialis anterior muscle carnosine was measured in an animal MS model (EAE, experimental autoimmune encephalomyelitis, n=40) and controls (CON, n=40) before and after exercise training (EAE<sub>EX</sub>, CON<sub>EX</sub>, 10d, 1h/d, 24m/min treadmill running) or sedentary conditions (EAE<sub>SED</sub>, CON<sub>SED</sub>). Human m. vastus lateralis carnosine of healthy controls (HC, n=22) and MS patients (n=24) were measured.

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