Claims

1. Composition comprising the branched-chain amino acids (BCCAs) L-Leucine, L-Valine and L-Isoleucine in combination with the peptide L-Alanyl-L-alanine, wherein the weight ratio L-Leucine: L-Valine: L-Isoleucine: L-Alanyl-L-alanine is between 2:1:1:1 to 2:1:1:3.6.

2. The composition according to claim 1, wherein the weight ratio L-Leucine: L-Valine: L-Isoleucine: L-Alanyl-L-alanine is 2:1:1:2.5.

3. The composition according to claim 1, wherein the weight ratio L-Leucine: L-Valine: L-Isoleucine: L-Alanyl-L-alanine is 2:1:1:2.

4. The composition according to any one of claims 1 to 3, which is a dietary supplement.

5. The composition according to any one of claims 1 to 3, which is a pharmaceutical composition.

6. The composition according to any one of claims 1 to 5, for oral administration.

7. The composition according to any one of claims 1 to 5, containing the following amounts of BCAAs and dipeptide per unit dose: between 0.6 and 1 g, preferably 0.8 g of L-Leucine, between 0.3 and 0.5 g, preferably 0.4 g of L-Isoleucine, between 0.3 and 0.5 g, preferably 0.4 g of L-Valine and from 0.5 g to 1.5 g, preferably 0.8 g of L-Alanyl-L-alanine.

8. Composition according to any one of claims 1 to 7, for use as a medicament.

9. Use of the composition according to any one of claims 1 to 7, in the manufacture of a medicament for the prevention, ameliorating and/or treatment of muscle wasting associated to:

   i. pathological conditions, preferably selected from the group consisting of neuromuscular degenerative disorders, such as muscular dystrophy or muscular atrophy; chronic obstructive pulmonary disorder; cancer-associated cachexia; diabetes; renal failure; cardiac failure; Cushing syndrome; sepsis; burn injuries; uremia; cirrhosis; and AIDS;
   ii. age-related condition, preferably sarcopenia; or
   iii. malnutrition, immobility or fasting.

10. Use of the composition according to any one of claims 1 to 7, to improve muscular performance and/or recovery, and/or to reduce muscular fatigue before, after or during physical exercise.