cognitive disorder, mood disorder, stress, and anxiety disorder, fatty liver disease (for example, NAFLD or NASH), and for improving liver function and weight management. In particular, the invention provides a composition for use in the treatment of muscle-related pathological conditions. The invention also provides a method of treating a muscle-related pathological condition in a subject comprising administering to the subject an effective amount of a composition of the invention. The invention provides a composition of the invention for use in enhancing muscle performance. The invention also provides a method of enhancing muscle performance by administering to a subject an effective amount of a composition of the invention.

The invention further provides a compound of Formula (I) or a salt thereof having D_{50} size in the range 0.5 to 50 μm and a D_{90} size in the range 5 to 100 μm. Preferably, the compound or salt has a D_{90} size in the range 8.2 to 16.0 μm, a D_{50} size in the range 2.8 to 5.5 μm and a D_{10} size in the range 0.5 to 1.0 μm. It has been found that the compounds of the invention with those particle sizes have good dispersion and dissolution properties, and enhanced bioavailability.

Summary of the Figures

Figures 1 (A, B, C, D and E) shows the results of experiments in which rats were fed with formulations comprising Urolithin A and either saline or a variety of other components such as medium-chain triglycerides and the level of the Urolithin A in the blood was assessed.

Figure 2 shows the results of experiments in which rats and humans were fed with a formulation comprising Urolithin A and medium-chain triglycerides and the level of the Urolithin A in the blood was assessed.

Figure 3 shows the results of experiments in which rats were fed with formulations comprising Urolithin A at a variety of different particle sizes and the level of the Urolithin A in the blood was assessed.

Detailed description

As described above, the invention provides a composition comprising a medium-chain triglyceride and a urolithin.

The medium-chain triglyceride typically makes up at least 1% w/w of the composition of the invention, for example at least 5% w/w, for example at least 10% w/w, for example at