

**FERMENTED SUPERNATANT OF LACTIC ACID BACTERIA FOR USE
AS A MEDICAMENT FOR IMPROVING SYMPTOMS OF SARCOPENIA,
OBESITY AND SARCOPENIC OBESITY**

ABSTRACT OF THE DISCLOSURE

The present invention provides a fermented supernatant of lactic acid bacteria for use as a medicament for improving symptoms of sarcopenia, obesity and/or sarcopenic obesity. The fermented supernatant of the lactic acid bacteria is a cell-free fermented product of the lactic acid bacteria, which can increase transcription activity of FNDC5 promoter, thereby promoting the hypertrophy of skeletal muscles and/or the browning of white adipocytes. Therefore, the fermented supernatant of lactic acid bacteria can be used to prepare an oral composition of increasing the gene expression of FNDC5, muscle mass and/or decreasing fat mass.

FIG. 2B