

Joint event on

**2<sup>ND</sup> ANNUAL CONGRESS ON DIABETES AND ITS COMPLICATIONS &  
8<sup>TH</sup> ANNUAL CONGRESS ON PROBIOTICS, FUNCTIONAL FOODS & NUTRACEUTICALS****March 25-26, 2019 Hong Kong****Fermented bitter melon juice as complimentary promising agent for diabetes type-2 treatment****Laksmi Hartajanie<sup>1,2</sup>, S Fatimah Muis<sup>1</sup> and K Heri Nugroho H S<sup>1</sup>**<sup>1</sup>Diponegoro University, Indonesia<sup>2</sup>Soegijapranata Catholic University, Indonesia

*Momordica charantia* (Bitter melon) contains substance with antidiabetic properties such as charantin that has anti-oxidative properties. Oxidative stress plays a major role in the pathogenesis and progression of metabolic syndrome such as diabetes. In the present study, a total of 30 male Sprague-Dawley rats were used. Diabetes type-2 was induced by a single dose (60 mg/kg) of Streptozotocin (STZ), intravenous injection. Following three days of STZ induction, the animals were randomly divided into five groups (n=6); diabetic group treated with Acarbose 40 mg/100 g feed (DM-Ac), diabetic group treated with MC (DM-MC), diabetic group treated with Probiotic 1 MC (DM-PMC1), diabetic group treated with probiotic 2 MC (DM-PMC2) and diabetic untreated group (DM-Ctrl). Oral administration of the MC fruit extract (10 ml/kg body weight) was continued for 28 days. All groups treated with MC (non-fermented and fermented) showed a significant decreased ( $P<0.05$ ) in fasting blood glucose and post prandial blood glucose compared to the DM-Ctrl group. SOD level was significantly increased in MC groups. These results suggest that fermented bitter melon juice is a promising complimentary agent for diabetes type-2 treatment.

**Biography**

Laksmi Hartajanie has completed her PhD from Diponegoro University, Faculty of Medicine. She is a Senior Lecturer of Soegijapranata Catholic University, Faculty of Food Technology.

laksmi@unika.ac.id

**Notes:**