

**BITTER MELON (*Momordica charantia L.*) EXTRACT POTENCY  
TOWARD LEYDIG CELLS AMOUNT AND TESTOTERONE LEVEL OF  
THE MALE HOUSE MICE (*Mus Musculus*)**

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**ABSTRACT**

The active compound in bitter melon, i.e., flavonoid, is allegedly inhibiting the formation of testosterone by *Leydig* cell. The aim of the research was investigating the *Leydig* cell and testosterone level due to the addition of bitter melon extract (*Momordica charantia L.*). This research was conducted on December 2016 at the Animal Testing Lab of Faculty of Veterinary Medicine Universitas Airlangga, while the production of histopathology preparations was at the pathology laboratory of Universitas Airlangga Surabaya, and the execution of testosterone level test was at Balai Besar Laboratorium Kesehatan Surabaya. The utilized research design was Completely Randomized Design, exploiting 20 male house mice which are divided into four experimental groups of 5 male house mice each. Each group had given the treatments of bitter melon extract of 23mg/kgBB, 35mg/kgBB, 45,5mg/kgBB, while the control group had given the drug solvent of CMC Na 1%, which is conducted by utilizing feeding needles. In the 41<sup>st</sup> day, the male house mice were being euthanized by cervical dislocation. The *Leydig* cells could be observed by utilizing 400x microscope zoom, while the testosterone was examined utilizing *Enzym Linken Immunosorbent Assay* (ELISA). The research result demonstrated that the bitter melon extract (*Momordica charantia L.*) addition could decrease the *Leydig* cells and the testosterone level.

Keywords: bitter melon extract, Leydig cells, testosterone.