

## THE 4TH MULAWARMAN INTERNATIONAL CONFERENCE ON TROPICAL PUBLIC HEALTH (MICTOPH) 2025



## **ABSTRACT**

Title of Abstract : Matriks Metalloproteinase 2 (MMP-2) level at the time of ovulation by

Curcuma Domestica Val Treated to Rattus nowegicus strain Wistar

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Background: Curcuma domestica val has many proven properties for traditional medicine against various diseases such as: cholesterol, gastrointestinal disorders and reproductive system. The mechanism curcuma domestica val in reproductive system has not been known.

Objective: the current study was aimed to investigate Matriks Metalloproteinase -2 level at time of ovulation after curcuma domestica val. perorally

Research Methods/ Implementation Methods: This Study use immature rat model. Immature rats, age 28 days old, by a sigle dose of 10 IU Pregnant mare serum gonadotropin (PMSG), and 48 hours later were injected with 10 IU of human chorionic gonadotropin (hCG). The immature rat were assign into 4 groups namely: the untreated rats (as control), the group treatment with CMC (solvent), the group treatment with curcuma domestica val. 50 mg/kgbw,100 mg/kgbw and 200 mg/kgbw. Treatment were given to rats orally at age 30 days as assign of groups. At the age of 31 days blood sample uses for Matrix Metalloproteinase-2 assay

Results: Present findings found that there was significantly differences of MMP-2 level after curcuma domestica val 50, 100 and 200 mg/kgbw treatment

Conclusion/Lesson Learned: this study provides a scientific information for the curcuma domestica val degress MMP-2 blood level at time ovulation

Keyword: ovulation; curcuma domestica; matrixmetalloproteinase-2