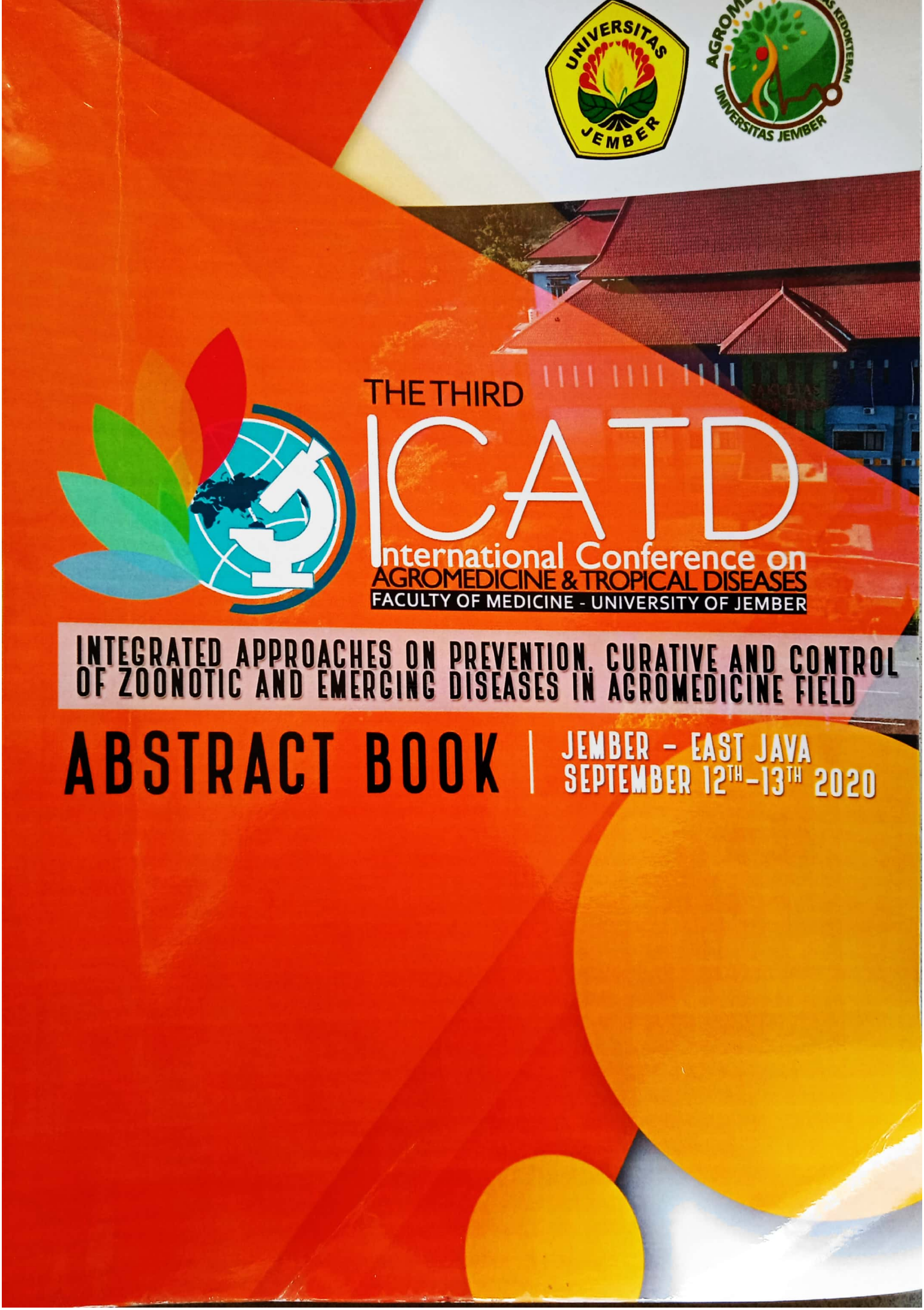

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ABSTRACT BOOK

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MIMBA LEAF THERAPY CAUSES HIGH LEVEL OF TGF-β EXPRESSION AND LOW EXPRESSION OF TNF-α IN THE SPLEEN OF MENCIT IN INFECTION OF *Plasmodium berghei*

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Abstract

Malaria infection is still one of the world's health problems caused by the brightness of the mortality rate (20.9%-50%). One reason is *Plasmodium falciparum* is resistant to conventional anti-malarial drugs. Neem leaves have an antimalarial effect by decreasing parasitemia, but there have been no reports of their effects in increasing the expression of beta TGF-β in the plasma and spleen tissue. This study to determine the effect of neem leaf extract on increasing TGF-β expression and decreasing TNF-α expression in mice infected with *Plasmodium berghei* infection. In this study there were four groups, namely Treatment 1 = (infected with *Plasmodium berghei* without treatment). Treatment 2 = (in *Plasmodium berghei* infection and treated with neem leaves at a dose of 0.25 mg/gr BB). Treatment 3 = (in *Plasmodium berghei* infection and treated with neem leaves at a dose of 0.5 mg/gr BB). Treatment 4 = (in *Plasmodium berghei* infection and treated with neem leaves at a dose of 1 mg/gr BB). TGF-β examination with Elisa and TNF-α examination with immunohistochemistry. In groups in p*lasmodium berghei* infection without therapy of neem leaves showed a decrease in TGF-β expression in plasma and spleen tissue. Whereas in the group treated with neem leaves as much as 1 mg/gr BB showed high expression of TGF-β and decreased expression of TNF-α. Neem leaf therapy can increase TGF-β expression and decrease TNF-α expression in spleen.

Keyword: *Plasmodium berghei,,* transforming growth factor- β, tumor necrosis factor-α