**EFFECTIVENESS COMBINATION OF STRYCHNOS LIGUSTRINA BLUM WOOD EXTRACT AND DIHYDROARTEMISININ-PIPERAKUIN FOSFAT (DHP) AS ANTIMALARIAL IN MICE INFECTED WITH P. BERGHEI**

**Umi Cahyaningsih1), Siti Sadiah1,3\*), Wasrin Syafii2), Rita Kartika Sari2), Feby Paramidah1), Dandi Irwandi1), Niken Lestari1)**

1Faculty of Veterinary Medicine, IPB University (Bogor Agricultural University), IPB Darmaga Campus-Bogor 16880, Indonesia

2Department of Forest Product, Faculty of Forestry, IPB University (Bogor Agricultural University), IPB Darmaga Campus-Bogor 16880, Indonesia

3Tropical Biopharmaca Research Center, IPB University

\*Corresponding Author E-mail: sitisa@apps.ipb.ac.id

*Abstract:* Malaria is still a world health problem. Antimalarial combination treatment aims to increase the effectiveness of Bidara laut wood extracts as antimalarials based on synergistic and potentiation potential. This study aims to determine the potential of the combination of aquaeous extract and 25% ethanol extract of Bidara Laut wood (Strychnos ligustrina) respectively with dihydroartemisinin-piperakuin (DHP) as an antimalarial. Methods: This study used male mice infected with 1x 106 P. berghei intraperitonially. Treatment is given for four days starting from the fifth day of infection. Blood samples were taken on first day after treatment with S. ligustrina extract for ten days. Preparation of blood smear was stained with Giemsa to calculate the percentage of parasitemia, percentage of growing, and percentage of inhibition by counting the number of infected erythrocytes divided by 500 erythrocytes and multiplied by 100%. Data on the percentage of parasitemia, growth and inhibition were processed using the ANOVA test and the differences in each treatment group were known by the DMRT test. The results showed was no difference in aquaeous extract and ethanol extract combined with half dose of DHP with DHP control, but significantly different from infection control. Strychnos ligustrina extract is synergistic with DHP as an anti-malarial agent with an inhibition percentage close to 100% on the 10th day after treatment.

*Keywords: Bidara Laut wood (Strychnos ligustrina), parasitemia, anti-malarial, Dihidroartemisinin-piperaquin (DHP)*