## **ABSTRACT**

## POTENTIAL OF JENGKOL LEAVES (Pithecellobium jiringa) METHANOL EXTRACT TO INHIBIT BIOFILM Candida albicans

**Background**: Candida albicans is a dimorphic fungus in oral cavity as normal flora and can be pathogenic. Candida albicans have ability to grow into biofilm, which have a thick layer of outer skin structure called the extracellular matrix. Jengkol (Pithecellobium jiringa) contain alkaloids, flavonoids, terpenoids, and lectins which have ability as antifungal agent. Purpose: The purpose of this research is to analyze optimum dose of jengkol leaves extract using dose 100 mg/ml, 200 mg/ml, and 400 mg/ml as antibiofilm against Candida albicans biofilm. Method: Stock of Candida albicans cultured on YPD media in a 96 well microtiter plate flat bottom. There are one control group (without treatment) and the 3 treatment groups. The first treatment group jengkol leaves extract dose is 100 mg ml, the second dose is 200 mg ml, and the third dose is 400 mg/ml. Semi quantitative determination Candida albicans biofilm is done by using Crystal Violet staining method, then calculated the absorbance of the cell using a spectrophotometer with a wavelength of 570 nm. **Results**: The mean value of optical density control group is 1.23, a dose of 100 mg/ml is 0.2, a dose of 200 mg/ml is 0.2, and a dose of 400 mg ml is 0.21. There are significant differences between the control group and all treatment groups (P < 0.05), but did not show significant differences between treatment groups (p>0.05). Conclusion: The jengkol leaves extract dose of 100 mg/ml is the optimum dose as antibiofilm against Candida albicans biofilm.

Keywords : jengkol leaves extract, antibiofilm, Candida albicans