THE EFFECTS OF EXTRACTS FROM FREE-LIVING AMOEBAE ON PATHOGENIC *STREPTOCOCCUS AGALACTIAE*

[redacted]

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PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK PENYELIDIKAN I DAN II

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk:
THE EFFECTS OF EXTRACT FROM FREE-LIVING AMOEBAE ON A PATHOGENIC *Streptococcus agalactiae*.
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LIST OF ABBREVIATIONS

%	percentage
°C	Degree Celcius
ANOVA	Analysis of Variance
g	gram
ml	mililiter
mg	milligram
mg/ml	miligram per mililiter
µg/ml	microgram per milliliter
µm	micro meter
L	liter
µL	micro liter
cm	centimeter

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ABSTRACT

Cytotoxic effect of amoeba extracts was studied on a pathogenic bacteria; *Streptococcus agalactiae.* The amoebae extracts used in this study were labeled as P1, (the amoeba was isolated from marine environment) and AK, (a clinical isolate). Antibacterial activities of the amoeba extracts were tested against *Streptococcus agalactiae,* following Isenberg *et al* (1991)'s technique. The concentrations of extracts used in this study were 4.5 mg/ml, 9.0 mg/ml and 18 mg/ml. The growth of *Streptococcus agalactiae* during treatment with the extracts was observed after 24 hours. All the extracts used in this study showed anti-bacterial activities indicating that the extracts do have potential to be used as anti-bacteria agents. Extracts from P1was found to be more potent to inhibit the amoeba growth than the AK extract.

ABSTRAK

Kesan sitotoksik ekstrak dua spesis amoeba telah dikaji ke atas patogenik bakteria, *Streptococcus agalactiae*. Ekstrak amoeba yang digunakan dalam kajian ini dilabel sebagai P1 (amoeba diambil daripada marin) dan AK (isolate klinikal). Ekstrak diperolehi daripada spesis patogenik amoeba yang dikenalpasti sebagai ekstrak P1 dan AK. Aktiviti antibacterial ekstrak amoeba diuji ke atas *Streptococcus agalactiae* mengikut kaedah Isenberg *et al* (1991). Kepekatan ekstrak yang digunakan dalam kajian ini adalah 4.5 mg/ml, 9.0 mg/ml, dan 18.0 mg/ml. Pertumbuhan bakteria diperhatikan selepas 24 jam. pendedahan kepada ekstrak. Keputusan ujikaji ini menunjukkan semua ekstrak amoeba berpotensi untuk digunakan sebagai agen anti-bakteria. Ekstrak P1 didapati lebih berkeupayaan merencat pertumbuhan bacteria *Streptococcus agalactiae* berbanding ekstrak AK.