THE EFFECTIVITY OF ONION (*Allium cepa* L.) ETHANOL EXTRACT 
ON KIDNEY HISTOPATHOLOGICAL APPEARANCE OF 
HYPERGLICEMIC WHITE RAT (*Rattus norvegicus*)

Rieska Nur Agustianingsih

ABSTRACT

The aimed at this research was to determine the effectivity of onion (*Allium cepa* L.) ethanol extract to histopathological appearance at hyperglycemic kidney white rat (*Rattus norvegicus*). The 20 experimental white rats were divided into 4 groups. The negative control group K(-) were given with CMC-Na 0.5% during the therapy period, the positive control group K(+) were given with alloxan 120 mg / kg bw, the treatment group 1 (P1) were given with alloxan and per oral therapy with ethanol extract of onion 200 mg / kg bw, the treatment group 2 (P2) were given with alloxan and per oral therapy with ethanol extract of onion 400 mg / kg bw, and the treatment group 3 (P3) were given with alloxan and per oral therapy with ethanol extract of onion 800 mg / kg bw. The therapy was given for 14 days, then the animals were sacrificed with ether. The kidney tissue were obtained at the end of the treatment and processed using paraffin embedding methods. Observations based on their depiction of renal histopathology hydropic degeneration and tubular necrosis, tubular cast and glomerular cell proliferation. The result of the data analysis test used Kruskal-Wallis test and then Z test. Its showed that the ethanol extract of onion 400 mg / kg bw can reduce the degree of kidney damage in hyperglycemic white rat significantly.

*Keywords*: *Allium cepa* L., kidney, histopathology, hyperglycemic