## ABSTRACT

The snail slime and polyvinyl alcohol (PVA) is a polymer material that is in great demand and developed to be applied in the biomedical field including nanofiber wound dressing, because it has non-tixic, anti-bacterial, biocompatible and can biodegrade naturally. This study aims to make nanofiber membranes with conductive polymer materials namely PVA and snail mucus using the electrospinning method to determine the effect of adding snail mucus to PVA solutions to morphology and morphogival effects on the tensile strength of snail slime nanofiber membrane/PVA.

The method of making membrane nanofiber is usung electrospinning begins with dissolving PVA (10% by weight) as a matrix. Then add snail slime as filler added to PVA solutions with variations in the concentrations of snail mucus namely (1%, 3%, 5% and 7%) (w/w). The snail slime and polyvinyl alcohol (PVA) viscositty test using viscometer and electrical conductivity test (DHL) using a conductivity meter. Furthermore, the electrospinning process of snail/PVA mucus solutions was carried out using a voltage of 15Kv, the distance between the needle tip and collector (TCD) was 10cm and the diameter of the syringe needle was 0.8 mm. Characterization of the physical properties of nanofiber membrans was carried out usung scanning electron microscope (SEM) and optics. Mechanical properties (tensile test) were tasted usung a universal testing machine (UTM) tensile testing machine.

The result showed that the addition of snail mucus affected the structure of the nanofiber and the attractiveness of the snail PVA/slime membrane. As the concentrations of snail slime from the morphological analysis and tensile properties shows that fiber diameter and tensile properties obtained have different values with the smallest diameter 190 Nm having the greatest tensile properties of 6.495 Mpa found in the concentration of 3% snail mucus while the largest diameter274 Nm has the lowest tensile propertise of 3.036 Mpa are at a concentration of 5%.



Keywords: PVA, Snail slime, Electrospinning, Nanofiber, SEM, Tensile test.