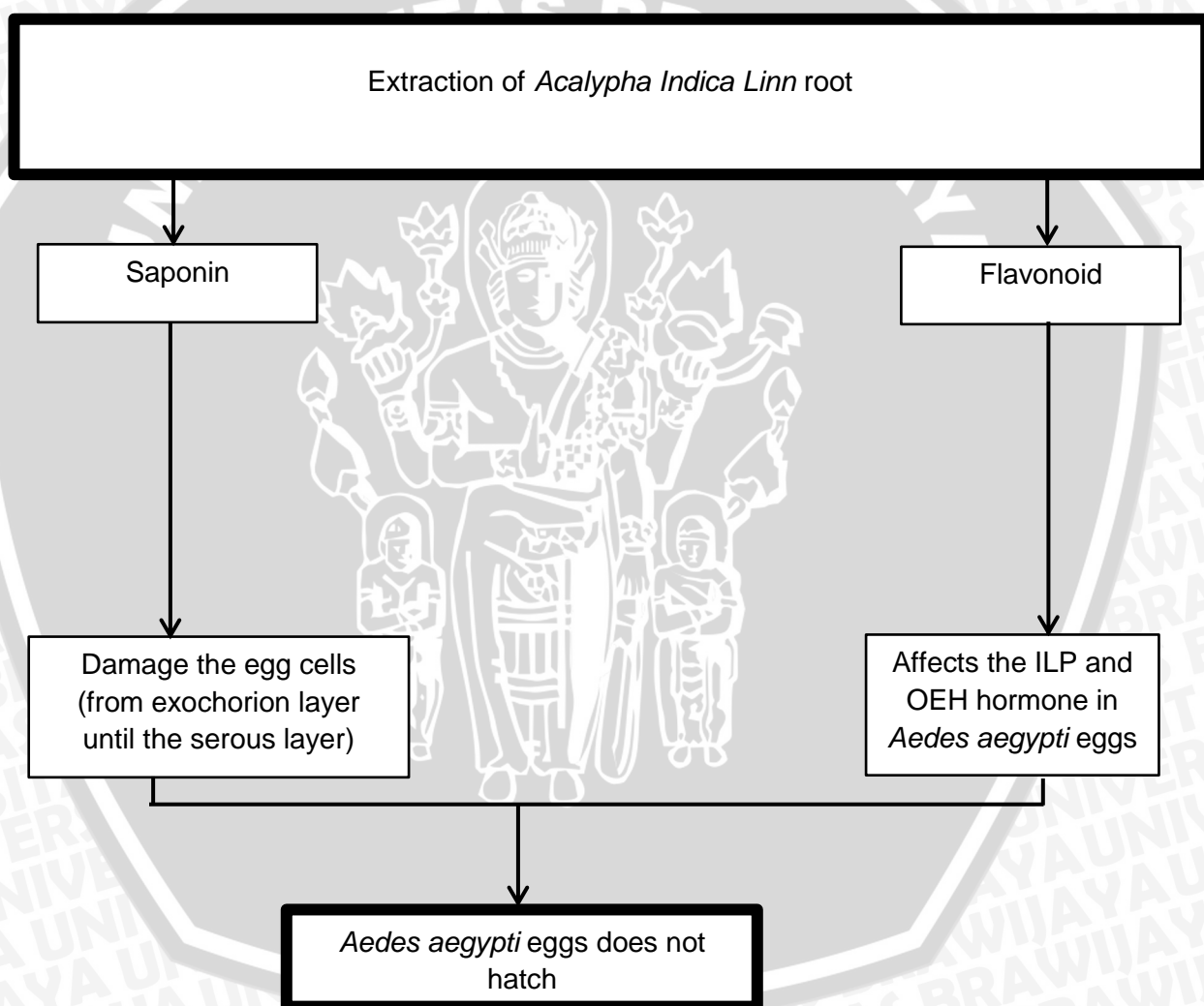


CHAPTER 3

CONCEPTUAL FRAMEWORK AND HYPOTHESIS

3.1 Conceptual framework of research



Note :  Tested component

3.2 Conceptual Framework Explanation

Based on this conceptual framework, I started by extraction from the root of *Acalypha Indica Linn*. From the root extracts of *Acalypha indica linn* there were kaempferol glycosides, mauritianin, clitorin, nicotiflorin and biorobin, acalyphine, saponins, tannins, flavonoids, beta-sitosterol, aurantiamide, succinimide, flindersin, triacetoneamine, quebrachitol, and hydrocyanic acid. Chemicals that has the potential to kill the eggs of *Aedes aegypti* are saponins, and flavonoids.

Flavonoids have a strong effect on *Aedes aegypti* eggs, where it affects the insulin-like peptide(ILP) hormone and ovary ecdysteroid-ogenic hormone(OEH) and inhibits the development of egg into larvae . This is due to the diffusion of this active ingredients into the *Aedes aegypti* egg which damages the structure of the tubercles. This causes inhibition of the egg development into larvae and causes the death of *Aedes aegypti* eggs. Saponin has spectrum activities. This is because it can affect the permeability of cell until the cell lyses. Finally, the eggs development into larvae stage is inhibited.

3.3 Hypothesis

- 1) Extract from the Indian *Acalypha(Acalypha indica linn)* roots has bioovicidal effect against *Aedes aegypti* eggs.