

## Chapter 5

### Conclusion

#### Part A: Antifungal protein from *Hevea* latex

1. An antifungal protein, confirmed to be hevein, was successfully purified from the B-serum fraction of rubber latex by different method from previous study which is rapid and easy. The method involved acetone precipitation and DEAE- ion exchange chromatography.

2. Hevein was a thermostable protein and also has broad range pH stability.

3. Hevein was able to inhibit the growth of *C. tropicalis* (most sensitive strain), *C. albicans* and *C. krusei*.

4. The antifungal activity of hevein was enhanced by *Hevea* protease inhibitor isolated from the C-serum fraction of rubber latex.

5. The antifungal activity of hevein was completely inhibited by chitotriose at concentration of 10 mM.

6. The aggregation of yeast cells was induced by hevein in the presence of  $\text{Ca}^{2+}$  dependent.

#### Part B: Small rubber particles and their enhancing effect on the antifungal drug

1. SRP and SRPP were found to induce aggregation of yeast cells and enhance efficacy of AMB (four-fold).

2. The aggregation of yeast cells was not a prerequisite required for the SRPP in improving efficacy of AMB.

3. The tryptic SRPP-derived peptides were also found to enhance efficacy of AMB but unable to induce yeast cell aggregation.

4. Those tryptic-SRPP derived peptides with higher hydrophobicity were more effective (four-fold) in enhancing the efficacy of AMB.