Chapter VI

Conclusion

P. mirifica

- The *P. mirifica* collected from 28 provinces located in the north, north-eastern, central and southern part of Thailand exhibited variation in estrogenic activity. It might affect by variation of plant genetics and environmental factors in the collected sites.
- The *P. mirifica* collected from 3 seasons showed significant different in anti-proliferative in Chaiprakarn cultivar. The different in harvesting season was convincing to be the main cause..
- *P. mirifica* was proven to be a potent herb for alternative HRT because its proliferative effect on estrogen receptor positive cell, MCF-7. *P. mirifica* might not suitable to developed into the anti-cancer drug because its very high IC_{50} value.
- It was found that wild *P. mirifica* collect from different locations in Thailand exhibited different activity. The variation was affect by various factors such as genetics, season and environment of collection sites.
- *P. mirifica* might exhibit risk only in women with the pre-existing estrogen receptor positive breast cancer and other estrogen-related cancer, due to the fact that *P. mirifica* extract could do competitively binding to ERα and resulted in stimulation of the growth of MCF-7 at low concentration

B. superba

- *B. superba* collected from most province exhibited no proliferative but strong anti-proliferative effect. It showed a potential for anti-cancer and thus could be developed into anticancer drugs.
- *B. superba* collected from one province exhibited slightly proliferative effect only at very low not medium and high dose. It is thus not a good source to be develop into the candidate product for *P. mirifica* for HRT purpose.

M. collettii

- The consumption of *M. collettii* may not be safe due to the fact that its extract showed strongly anti-proliferative effect only at high concentration. The IC_{50} of the crude extract was very low and thus enable to be developed into a potent anti cancer drug.

-The data exhibited in this study could benefit for selection of high proliferative and anti-proliferative effect cultivar *in P. mirifica, B. superba* and *M. coilettii* as well as the preparative of *P. mirifica, B. superba* and *M. collettii* derieved materials for commercial purposes.