

EXECUTIVE SUMMARY

Nowadays, peptide/protein drug is one of the promising for new drug development. There are a lot of drugs in this group are approved by US-FDA during the past few years. The sources of peptide drug are from plant, animal and microorganism. Thailand is rich of natural resource especially medicinal plants which have been reported by many of scientists. At the moments, Thailand and other country around the world are facing with problem of the increasing of aging person due to the more advance of medical knowledge. There are not just at the end we died. There are suffering related to several diseases which came along the aging process such as cancer, osteoporosis, diabetes, hypertension and inflammatory activity. Consequently, it's necessary to improve our drug to gain better prevention and treatment of these diseases. My research topic is to find new drugs which derived protein or peptide from plant. The research procedures are included extraction with buffer, precipitation with ammonium sulphate, purification using ion-exchange and gel-filtration chromatography. The purified protein/ peptides then were subjected to test the biological activities which consisted of osteoporosis, hypertension and inflammatory as described in proposal. The biologically active protein/peptides will be identified using the liquid chromatography/mass spectrometry-mass spectrometry followed by protein database searching. Finally, we plan to publish the research data to the well-known publication in pharmaceutical/medical filed.