LIST OF FIGURES

CHAPTER 1

1.1 Schematic representation of the blood coagulation cascade
1.2 Schematic representation of a fibrinogen molecule and a fibrin monomer
1.3 King cobra habitat in the south-east Asian countries

CHAPTER 2

2.1 Protein banding pattern of king cobra venom under non-reduced condition with molecular weight markers
2.2 Indirect Hemolytic activity of O. hannah venom with increasing concentrations
2.3 Recalcification time of citrated human plasma with increasing concentrations of O. hannah venom initiated by CaCl₂
2.4 Hyaluronan Zymogram showing hyaluronidase activity band of king cobra venom under non-reduced condition
2.5 Fibrinogenolytic activity of O. hannah venom on purified human fibrinogen whose degradative products are run on a 10% SDS-PAGE under reduced condition
2.6 Fibrinolytic activity of O. hannah venom by plate method showing increasing activity zones along with increasing concentration with activity zone of urokinase (U) taken as positive control on agarose gel
2.7 Effect of O. hannah venom on collagen induced human platelet aggregation

CHAPTER 3

3.1 SDS-PAGE pattern of venoms of O. hannah, D. russellii, E. carinatus and N. naja venoms under non-reduced condition along with molecular weight markers
3.2A Effect of three venoms on plasma recalcification time of citrated human plasma

3.2B Effect of *E. carinatus* venom in increasing concentration on clotting time of citrated human plasma in the absence of CaCl$_2$

3.3 Dose dependent effect of four venoms on the (A) activated partial thromboplastin time ratio, (B) pro-thrombin time for three venoms (*D. russellii, N. naja* and *O. hannah*) and (C) thrombin clotting time for four venoms (*D. russellii, E. carinatus, N. naja* and *O. hannah*).

3.4 Fibrinogenolytic activity of four venoms on purified human fibrinogen and the degradative products separated on a 10% SDS-PAGE under reduced condition along with molecular weight markers.

3.5 Fibrinolytic activity of snake venoms on the washed whole blood clot (A) and plasma clot (B) estimated quantitatively by colorimetric method.

3.6 Effect of four venoms on washed plasma clot whose degradative products were analyzed on a 10% SDS-PAGE under reduced condition along with molecular weight markers.

3.7 Inhibitory activities of three venoms on platelet aggregation induced by ADP, Epinephrine and thrombin, recorded using a dual channel Chrono-log model 700-2 aggregometer.

**CHAPTER 4**

4.1 Fig. 4.1: Elution profile of anti-*O. hannah* sera in Protein-A sepharose CL-6B affinity column (A) and SDS-PAGE banding pattern of anti- *O. hannah* sera isolated anti-*O. hannah* IgG antibodies under non-reducing condition.

4.2 Cross-reactivity of four snake venoms with antivenoms: BSV (A), VB (B) and OH-IgG (C) in Ouchterlony immuno double diffusion assay.

4.3 Cross-reactivity of three snake venoms with antivenoms from BSV (A), VB (B), and OH-IgG (C) in ELISA.
4.4 SDS-PAGE banding pattern and Western blots showing reactivity of antivenoms BSV (B), VB (C) and OH-IgG (D) with four Snake venoms resolved on a 10% SDS-PAGE

4.5 Inhibition of enzyme activities of *O. hannah* venom: (A) Protease, (B) Hyaluronidase and (C) Phospholipase activities

4.6 Inhibition of pro-coagulant activity of *O. hannah* venom when incubated with increasing amounts (w/w) of BSV, VB and OH-IgG antivenoms

4.7 Inhibition of myotoxicity of *O. hannah* venom when pre-incubated with increasing amounts (w/w) of BSV, VB and OH-IgG antivenoms, estimated by the levels of Creatine phosphokinase (A) and Lactate dehydrogenase (B) activities

4.8 Inhibition of edema inducing activity: *O. hannah* venom pre-incubated with increasing amounts (w/w) of BSV, VB & OH-IgG antivenoms

**CHAPTER 5**

5.1 Elution profile of king cobra venom in Sephadex G-100 column chromatography

5.2 Elution profile of CM-Sepahdex C 25 column chromatography for peak V of king cobra venom obtained from Sephadex G-100 column chromatography

5.3 Protein band pattern of king cobra venom, isolated protease and casein zymography of the protease resolved on 10% SDS-PAGE under non-reduced condition along with molecular weight markers

5.4 Effect of protease on recalcification time of citrated human plasma

5.5 Dose dependent (A) and time dependent (B) Fibrinogenolytic activity of protease, the degradation products resolved on 10% SDS-PAGE under reduced condition.

5.6A Effect of increasing concentration of β-fibrinogenase on ADP induced platelet
aggregation

5.6B Effect of increasing concentration of β-fibrinogenase on epinephrine induced platelet aggregation

5.6C Effect of increasing concentration of β-fibrinogenase on thrombin induced platelet aggregation