

LIST OF SYMBOLS AND ABBREVIATIONS

%	Percent
&	And
°C	Degree Celsius
3D	Three dimensional
µg	Microgram
µg µl ⁻¹	Microgram per microliter
µl	Microliter
µM	Micromole
5-HT	5-Hydroxytryptamine
Å	Angstrom
ACE	Angiotensin-converting enzyme
ACS	Acute coronary syndromes
ADP	Adenosine diphosphate
AF	Atrial fibrillation
AG5	Antigen 5
Ala	Alanine
Amp	Ampicillin
AMP	Adenosine monophosphate
APC	Activated protein C
APS	Ammonium persulfate
APTT	Activated partial thromboplastin time
Arg	Arginine
Asp	Aspartic acid
ATP	Adenosine triphosphate
bp	Base pair
BK	Bradykinin
BPTI	Bovine pancreatic trypsin inhibitor
BSA	Bovine serum albumin
Ca ²⁺	Calcium ²⁺
CaCl ₂	Calcium chloride
cAMP	Cyclic adenosine monophosphate
CD	Circular Dichroism
CDD	Conserved Domain Database
cDNA	Complementary dideoxyribonucleic acid

Cl	Chloride
CVDs	Cardiovascular diseases
Da	Dalton
DMEM	Dulbecco's Modified Eagle's Medium
DNA	Deoxyribonucleic acid
DVT	Deep-vein thrombosis
E	East
EK	Enterokinase
ESI-MS	Electrospray ionization mass spectrometry
Fig	Figure
FIIa	Thrombin
FIX, FIXa	Factor IX, activated factor IX
FSA	Fetal serum albumin
FV, FVa	Factor V, activated factor V
FVII, FVIIa	Factor VII, activated factor VII
FVIII, FVIIIa	Factor VIII, activated factor VIII
FX, FXa	Factor X, activated factor X
FXI, FXIa	Factor XI, activated factor XI
FXII, FXIIa	Factor XII, activated factor XII
FXIII, FXIIIa	Factor XIII, activated factor XIII
g L ⁻¹	Gram per liter
Gln	Glutamine
Glu	Glutamic acid
Gly	Glycine
GP	Glycoprotein
GPCR	G-protein-coupled receptor
h	Hour
His	Histidine
HIT	Heparin-induced thrombocytopenia
HMWK	High molecular weight kininogen
Ile	Isoleucine
IPTG	Isopropyl β-D-1-thiogalactopyranoside
ITS2	Internal transcribed spacer 2
K2R	Kinin B2 receptor
kb	Kilobase
kDa	Kilo Dalton
L	Liter

LB	Luria-Bertani
LBA	Luria-Bertani Agar
Leu	Leucine
Ltd	Limited
Lys	Lysine
M	Molar
mA	Milliampere
mAU	Milli Absorbance Unit
mg	Milligram
MI	Myocardial infarction
min	Minute
ml	Milliliter
ml ⁻¹	Per milliliter
mm	Millimeter
MS	Mass spectrometry
MYA	Million years ago
N	North
n	Number
NaCl	Sodium Chloride
NaH ₂ PO ₄	Sodium dihydrogen phosphate
NCBI	National Center for Biotechnology Information
ng	Nanogram
ng µl ⁻¹	Nanogram per microliter
Ni-NTA	Nickel-nitrilotriacetic acid
nm	Nanometer
nM, nmole	Nanomole
OD	Optical density
ORF	Open reading frame
PAR	Protease-activated receptor
PCR	Polymerase chain reaction
PCR-RFLP	PCR-Restriction Fragment Length Polymorphism
PE	Pulmonary embolism
PGE ₂	Prostaglandin E ₂
PGF	Placental growth factor
Phe	Phenylalanine
PI	Plasmin inhibitor

PK	Plasma kallikrein
pNA	<i>p</i> -nitroaniline
Pro	Proline
PT	Prothrombin time
rDNA	Ribosomal deoxyribonucleic acid
rHaemathrin	Recombinant haemathrin
RNA	Ribonucleic acid
RNAi	Ribonucleic acid interference
RP-HPLC	Reversed-phase high performance liquid chromatography
rpm	Rotation per minute
rTCI	Recombinant tick carboxypeptidase inhibitor
s	Second
S.D.	Standard deviation
S2222	benzoyl-Ile-Glu(Glu- γ -methoxy)-Gly-Arg- <i>p</i> -nitroanilide (<i>p</i> NA) hydrochloride (HCl)
S2238	<i>H</i> -D-Phe-pipecolyl (Pip)-Arg- <i>p</i> NA•2HCl
S2251	<i>H</i> -D-Val-Leu-Lys- <i>p</i> NA•2HCl
S2288	<i>H</i> -D-Ile-Pro-Arg- <i>p</i> NA•2HCl
S2302	<i>H</i> -D-Pro-Phe-Arg- <i>p</i> NA•2HCl
S2366	pyroGlu-Pro-Arg- <i>p</i> NA•HCl
S2444	pyroGlu-Gly-Arg- <i>p</i> NA•HCl
S2765	benzyloxycarbonyl-D-Arg-Gly-Arg- <i>p</i> NA•2HCl
SDS	Sodium Dodecyl Sulfate
SDS-PAGE	Sodium Dodecyl Sulfate-Polyacrylamide Gel Electrophoresis
SEM	Scanning electron microscopy
Ser	Serine
serpin	Serine protease inhibitor
SG	Salivary gland
SGE	Salivary gland extract
Spectrozyme FIXa	<i>H</i> -D-Leu-phenylalanyl-Gly-Arg- <i>p</i> NA•2-AcOH
TAI	Tick Adhesion Inhibitor
TAP	Tick Anticoagulant Peptide
TCI	Tick carboxypeptidase inhibitor
TEMED	N, N, N', N'-tetramethylethylenediamine
TF	Tissue factor
TFA	Trifluoro acetic acid
TFPIs	Tissue factor pathway inhibitors

TIL	Tumor-infiltrating lymphocytes
TP	Tissue factor
tPA	Tissue-type plasminogen activator
Trp	Tryptophan
TT	Thrombin time
TTBDs	Ticks and tick-borne diseases
TXA ₂	Thromboxane A ₂
U	Unit
uPA	Urokinase-type plasminogen activator
UV	Ultra violet
Val	Valine
VKAs	Vitamin K antagonists
VTE	Venous thromboembolism
vWF	von Willebrand factor
X-gal	5-bromo-4-chloro-3-indolyl-beta-D-galacto-pyranoside