

## List of Abbreviations

ADP and ATP	Adenosine nucleotides
AGEs	Advanced glycosylation end products
AmpK	AMP-dependent kinase
Ang-1	Angiopoietin
ATM	Ataxia telangiectasia mutated
BH4	Tetrahydrobiopterin
BK	Bradykinin receptor
BM	Bone marrow
CaM	Calmodulin
CAPK	Ceramide activated protein kinase
CAPP	Ceramide activated protein phosphatase
cGMP	Cyclic 3'5' guanosine monophosphate
CSF	Colony stimulating factor
DAG	Diacylglycerol
DNA-PK	DNA-dependent protein kinase
DsPTPs	Dual specificity PTPs
Dyn	Dynamin
ECM	Extracellular matrix
EDCF	Endothelium dependent contracting factor
EDHF	Endothelium derived hyperpolarizing factor
EDRF	Endothelium dependent relaxing factor
Enos	Endothelium nitric oxide synthase
EPCs	Endothelial progenitor cells
ER	Endoplasmic reticulum
FAD	Flavin adenine dinucleotide
FD	Fenestral diaphragm
FKHR, FKHRL1 and AFX	Forkhead family
FMN	Flavin mononucleotide and
GLUT	Glucose transporter
GPCRs	Gprotein-coupled receptors
GSK-3	Glycogen synthesis kinase -3

H <sub>2</sub> O <sub>2</sub>	Hydrogen peroxide
hsp90	Heat shock protein 90
ICAM-1	Intracellular adhesion molecule-1
ID4	Intracellular Domains of G-Protein-Coupled Receptors
IGF	Insulin like growth factors
JAK	Janus kinase
MAPK	Mitogen-activated protein kinase and
MCP-1	Monocyte chemotactic protein-1
MMP-9	Matrix metalloproteinase-9
Mtor	Mammalian target of rapamycin
NADPH	Nicotinamide adenine dinucleotide phosphate
NF- $\kappa$ $\beta$	Nuclear factor $\kappa$ $\beta$
NO	Nitric oxide
NOSIP	Nitric oxide synthase-interacting protein
NOSIP	Nitric oxide synthase-interacting protein
NrPTPs	Classical non-receptor PTPs
O <sub>2</sub>	Superoxide anion
OH-	Hydroxyl radical
OONO <sup>-</sup>	Peroxynitrite
P <sub>2</sub>	Purinergic receptors
p70s6k	p70S6 kinase
PAI-1	Plasminogen activator inhibitor-1
PARP-1	Poly (adenosinediphosphate[ADP]-ribose) polymerase-1)
PDK1	3-phosphoinositide– dependent protein kinase 1
PH	Pleckstrin homology
PI (4) P	Phosphatidylinositol (4) phosphate
PI (4, 5) P <sub>2</sub>	Phosphatidylinositol (4, 5)-bisphosphate.
PI	Phosphoinositols
PI3K	Phosphoinositide-3-kinase
PKA	Protein kinase A
PKB	Protein kinase B
PKC	Protein kinase C

PRD	Positive regulatory domains
PtdIns	Phosphoinositides
PTPase	Protein tyrosine phosphatases
ROS	Reactive oxygen species
RPTPs	Classical receptor PTPs
SD	Stomatal diaphragms
Ser 473	Serine 473
sGC	Guanylate cyclase
SHIP	SH2-Containing inositol(poly) phosphate 5-
phosphatase	
TEC	Transendothelial channels
TF	Tissue factor
TGF	Transforming growth factor
t-PA	Tissue plasminogen activator
UPR	Unfolded protein response
VCAM-1	Vascular cell adhesion molecule-1
VE-Cadherin	Vascular endothelial cadherin
VED	Vascular endothelial dysfunction
VEGF	Vascular endothelial growth factor
VEGFKDR	Vascular endothelial growth factors receptor 2
VSMC	Vascular smooth muscle cells
VWF	Von willebrand factor
VWF	Von Willebrand factor
WHO	World health organization