



PLATELET-DERIVED- MICROPARTICLES IN PATIENTS WITH ISCHEMIC HEART DISEASE

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سبحانك لا علم لنا
إلا ما علمتنا إنك أنت
العليم العظيم

صدق الله العظيم

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Dedication

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List of Abbreviations

Abb.

2-D	Two-dimensional
3-D	Three-dimensional
5-HT	Serotonin
ACC	American College of Cardiology Foundation
ACEIs	Angiotensin Converting Enzyme Inhibitors
ACHE	Acetyl Choline Esterase Activity Assay
ACS	Acute coronary syndrome(s)
ADP	Adenosine 5'-diphosphate
AF	Atrial Fibrillation
AFM	Atomic Force Microscopy
AHA	American Heart Association
Akt	Ak was for a temporary classification name for a mouse that developed spontaneous thymic lymphomas: t
APCs	Antigen Presenting Cells
ARBs	Angiotensin Receptor Blockers
AUC	Area Under the Curve
CA	Coronary Angiography
CABG	Coronary Artery Bypass Grafting
CAD	Coronary Artery Disease
CAT	Calibrated Automated Thrombogram
CCL12	Chemokine L12
CD	Cluster of Differentiation
CD40L	CD 40 ligand
CI	Confidence Interval
CK	Creatinine Kinase
CK-MB	Creatinine Kinase- MB Isoenzyme/ Fraction
CMD	Coronary Microvascular Dysfunction
c-mpl	Colony- Myeloproliferative Leukemia virus

List of Abbreviations Cont...

Abb.

cMRI	contrast Cardiac Magnetic Resonance Imaging
COPD	Chronic Obstructive Pulmonary Disease
Cryo-EM	Cryo-Electron Microscopy
CSA	Chronic Stable Angina
CTAD	Citrate Theophylline Adenosine Dipyridamole
cTnI	Cardiac Troponin I
cTnT	Cardiac Troponin T
C-X-C- motif	Chemokine Receptor 4
DAMP	Damage-Associated Molecular Pattern
DAPT	Dual Antiplatelet Therapy/ Treatment
DC	Dendritic Cell
DLS	Dynamic Light Scattering
ECG	Electro-Cardio-Gram
Echo	Echocardiography
ELISA	Enzyme-Linked Immunosorbent assay
ELS	Electrophoretic Light Scattering
EM	Electron Microscopy
EMPs	Endothelial Microparticles
eNOS	Endothelial Nitric Oxide Synthase
ESC	European Society of Cardiology
EVs	Extracellular Vesicles
Ex-RNAs	Extracellular RNAs
FACS	Fluorescence-Activated Cell Sorting
FCM	Flowcytometric analysis (Flow cytometry)
FGF	Fibroblast Growth Factor
FSC	Forward Scatter-based Flow cytometry
GP IIb/IIIa (CD41)	Glycoprotein IIb/IIIa (namely CD41)
GP	Glycoprotein
GT	Glanzmann Thrombasthenia

List of Abbreviations Cont...

Abb.

HDL	High Density Lipoproteins
HIT	Heparin-Induced Thrombocytopenia
HIV	Human Immunodeficiency Virus
HSCT	Hematopoietic Stem Cell Transplantation
Hsp90	Heat Shock Protein 90
ICAM	Intercellular Adhesion Molecule
IHD	Ischemic Heart Disease
IL-1β	Interleukin- one beta
IL-6	Interleukin 6
ILs	Interleukins, like IL-1 β , IL-6 and IL-8
ITP	Idiopathic Thrombocytopenic Purpura
IV Heparin	Intravenous Heparin
LDL	Low Density Lipoproteins
LMW Heparin ..	Low Molecular Weight Heparin
LPS	Lipopolysaccharides
LTA	Light Transmission Aggregometry
LV	Left Ventricular
LXR	Liver-X receptor
MCP-1	Monocyte Chemoattractant Protein-1
MFI	Mean Fluorescence Intensity
MI	Myocardial Infarction
MIF	Macrophage Migration-Inhibitory Factor
mi-RNA	Mitochondrial RNA
MK	Megakaryocytic
MK-MPs	Megakaryocyte- Microparticles
MMPs	Monocytic Microparticles
MPAKs	Mitogen-Activated Phosphokinases
MPs	Microparticles
mRNA	Messenger Ribonucleic Acid

List of Abbreviations Cont...

Abb.

LDLR	Low-density lipoprotein receptor
MRP	Myeloid Related Protein
Multislice CT...	Multislice Computerized Tomography
MVD	extensive Multi-Vessel Disease
NA	Not Applicable
NF- κB	Nuclear Factor Kappa-Beta
Nm	Nanometer
NO	Number
NPSS	Non-Physiological Shear Stress
NSTEMI	Non-ST-segment Elevated MI
NTA	Nano Particle Tracking Assay
OAT	Oral Anticoagulant Therapy
P2Y12	ADP-Receptor
PAD	Peripheral Arterial Disease
PAF	Platelet Activating Factor
PAMP	Pattern Associated Molecular Pattern
PAMPs	Platelet- Activated Micro- particles
PARs	Protease-Activated Receptors
PAS	Platelet Additive Solution
PCI	Percutaneous Coronary Intervention
PCR	Polymerase Chain Reaction
PCSK9	Proprotein convertase subtilisin-like/kexin type 9
PDCs	Plasmacytoid Dendritic Cell
PDGF	Platelet-Derived Growth Factor
PET	Positron Emission Tomography
PFA 100	Platelet Function Analyzer 100
PFT	Platelet Function Testing
PI3K	Phosphoinositide 3 kinase

List of Abbreviations Cont...

Abb.

PKB	Protein Kinase B
PLACS	Pulse Laser Activated Cell Sorter
PMNs	Polymorphonuclear
PMPs	Platelet-derived Microparticles
PPL	Pro-Coagulant Phospholipid
PS	Phosphatidyl Serine
PT	Pertussis Toxin
PV	Predictive value
RA	Rheumatoid Arthritis
RANTES	Regulated on Activation normally T-cell Express and Secreted
RGD	Arginine-Glycine-Aspartic Acid
ROC	Receiver Operating Characteristic Curve
RPFA	Rapid Platelet Function Assay
RPS	Resistive Pulse Sensing
RSWMA	Resting Segmental Wall Motion Abnormality
SA	Spastic Angina
SDF1-α	Cell-Derived Factor-1 α
SEM	Scanning Electron Microscopy
SK	Streptokinase
SLE	Systemic Lupus Erythromatosis
SMCs	Smooth Muscle Cells
Src and Syk	Non-Receptor Tyrosine Kinases and proto- oncogenes
STED	stimulated Emission Depletion Microscopy
STEMI	ST-segment Elevated MI
TARC	Thymus- And Activation-Regulated Chemokine
TAXA2	Thromboxane A2

List of Abbreviations Cont...

Abb.

Tc⁹⁹	Technetium scanning
TEM	Transmission Electron Microscopy
TF	Tissue Factor
TFH cells	T follicular helper cells
TIAs	Transient Ischemic Attacks
TIMI score	Thrombolysis In Myocardial Infarction Score
TLRs	Toll-like receptors
TnC	Troponin C
TNF-α	Tumor Necrosis Factor-alpha
TPA	Tissue Plasminogen Activator
Tpo	Thrombopoietin
UA	Unstable Angina
UFH	Unfractionated Heparin
VEGF	Vascular Endothelial Growth Factor
vWF	von Willebrand Factor
WB	Western Blotting
WBCs	White Blood Cells
WHO	World Health Organization
WISE	Women's Ischemic Syndrome Evaluation

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