PROGNOSTIC SIGNIFICANCE OF CD200 EXPRESSION IN PLASMA CELL MYELOMA

Thesis

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Dedication

This work is dedicated to . . .

My beloved father and mother, **to whom I owe everything I ever did in my life.**

My lovely brother **for his care and support**

Finally *my grand mother* for being the light of my life

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LIST OF ABBREVIATIONS

Abbrev.	Full term
Abs	Antibodies
AD	Alzheimer's disease
ADEM	Acute disseminated encephalomyelitis
AKt	Protein Kinase B
AL	Amyloid light chain
AML	Acute myeloid leukemia
Ang-1	Angiopoietin1
ASCT	Autologous stem cell transplantation
B2M	Beta-2 microglobulin
Bcl-2	B-cell lymphoma 2
BCL-XL	B-cell lymphoma-extra large
bFGF	Basic fibroblast growth factor
BJP	Bence Jones' protein
BM	Bone marrow
BMECs	Bone marrow endothelial cells
BMPCS	Bone marrow plasma cells
BMSCs	Bone marrow stromal cells
Bp	Base pair
C	Constant
CA	Chromosomal abnormalities
CBC	Complete blood count
CBF	Core binding factor
CD	Cluster of differentiation
CD200R	CD200 receptor

LIST OF ABBREVIATIONS (cont..)

Abbrev.	Full term
CD40L	Cluster of differentiation 40 ligand
CDK	Cyclin dependent kinase
CG	Conventional cytogenetics
CIA	Collagen- induced arthritis
CLL	Chronic lymphocytic leukemia
C-myc	Cellular myelocytomatosis
CNS	Central nervous system
CR	Complete response
CRAB	Hyper**C**alcemia, **R**enal insufficiency, **A**nemia and **B**one lesions
CSCs	Cancer stem cells
CT	Computerized tomography
CXCR4	C-X-C chemokine receptor type 4
D.S	Durie-Salmon staging system
DCs	Dendritic cells
Del	Deletion
DKK	Dikkopf-related-protein
DLBCL	Diffuse large B-cell lymphoma
DNA	Deoxy-ribo-nucleic acid
DOK	Doking protein
EAE	Experimental autoimmune encephalomyelitis
EAU	Experimental autoimmune uveoretinitis
EBMT	European Group for Blood and Marrow Transplant

LIST OF ABBREVIATIONS (cont..)

Abbrev.	Full term
ECM	Extracellular matrix
ECs	Endothelial cells
EDTA	Ethylene diamine tetra-acetic acid
EFS	Event free survival
ERK	Extracellular signal-regulated kinase
ESR	Erythrocyte Sedimentation rate
FasL	Fas ligand
Fc	Fragment crystallizable region
FCIPT	Flow cytometric immunophenotyping
FCM	Flow cytometry
FISH	Fluorescent in- situ hybridization
FITC	Fluorescin isothiocyanate
FLC	Free light chain
GAP	GTPase-activating protein
Hb	Hemoglobin
HDT	High dose chemotherapy
HF	Hair follicles
HGF	Hepatocyte growth factor
HIV	Human immunodeficiency virus
HLA	Human leucocyte antigen
HS	Highly significant
IAPS	Inhibitor of apoptosis proteins
ICAM1	Intercellular adhesion molecule1

LIST OF ABBREVIATIONS (cont..)

Abbrev.	Full term
IDB	International data base
IFN	Interferon
IFX	Immunofixation
Ig	Immunoglobulin
IGF1	Insulin-like growth factor 1
IgH	Immunoglobulin heavy chain
IgL	Immunoglobulin light chain
IgSF	Immunoglobulin superfamily
IL	Interleukin
IMWG	International myeloma working group
Inv	Inversion
ISS	International Staging System
ITAM	Intracellular tyrosine-activating motif
ITIM	Immunotyrosine inhibitory molecule
JAK2	Janus kinase2
JNK	c-Jun NH (2)-terminal kinase
K_2	Dipotassium salt
KCs	Keratinocytes
LCs	Langerhans cells
LDH	Lactate dehydrogenase
LFA-1	Lymphocyte function-associated antigen 1
LPL	Lymphoplasmacytic lymphoma
M	Monoclonal
mAb	Monoclonal antibody

LIST OF ABBREVIATIONS (cont..)

Abbrev.	Full term
MAPK	Mitogen activated protein kinase
MCL1	Myeloid cell leukemia sequence1
MFI	Mean fluorescent intensity
MGUS	Monoclonal gammopathy of undetermined significance
MHC	Major Histocompatibility Complex
MIP-1α	Macrophage inflammatory protein -1α
miRNA	Micro- ribose nucleic acid
MLBCL	Mediastinal large B-cell lymphoma
MM	Multiple myeloma
MMPs	Matrix metalloproteinases
MoAb	Monoclonal antibody
MPR	Melphalan, prednisone and lenalidomide
MPT	Melphalan, prednisone and thalidomide
MPV	Melphalan, prednisone and bortezomib
MRD	Minimal residual disease
MRI	Magnetic resonance imaging
mRNA	Messenger ribonucleic acid
MVD	Microvessel density
N	Amino
N0.	Number
ND	Not determined
NFκB	Nuclear factor κB
NK	Natural killer cells

LIST OF ABBREVIATIONS (cont..)

Abbrev.	Full term
NLPHL	Nodular lymphocyte predominant Hodgkin lymphoma
NPXY	Asparagine- Proline- any amino acid- Tyrosine
NS	Non-significant
OPG	Osteoprotegerin
ORS	Outer root sheath
OS	Overall survival
P value	Probability level
P	Percentiles
p	Short arm of chromosome
PB	Peripheral blood
PB	Peripheral blood
PBS	Phosphate buffer saline
PBSCT	Peripheral blood stem cell transplantation
PCD	Plasma cell dyscrasia
PCL	Plasma cell leukemia
PCLI	Plasma cell -labeling index
PCM	Plasma cell myeloma
PCN	Plasma cell neoplasm
PCs	Plasma cells
PD	Parkinson's disease
PD	Progressive disease
PDGF	Platelet derived growth factor
PE	Phycoerythrin

LIST OF ABBREVIATIONS (cont..)

Abbrev.	Full term
PI3K	Phosphatidylinositol 3-kinase
PKC	Protein kinase C
PLT	Platelet
POEMS	**P**olyneuropathy, **O**rganomegaly, **E**ndocrinopathy/ **E**dema, **M**-protein and **S**kin abnormalities
PR	Partial response
PTB	Phosphotyrosine binding
q	Long arm of chromosome
R	Receptor
r	Spearman Rank Correlation test
RA	Rheumatoid arthritis
RAF	Rapidly accelerated fibrosarcoma
RANK	Receptor activator of nuclear factor
RANKL	Receptor activator of NFκB ligand
RAS	Rat sarcoma
Rev/Dex	Lenalidomide-dexamethazone
RNA	Ribo-nucleic acid
ROC	Receiver operating characteristic
RUNX2	Runt-related transcription factor 2
S	Significant
SCF	Stem cell factor
SCR	Stringent complete response
SD	Stable disease
SD	Standard deviation