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Chemokines in atherosclerotic lesion development and stability : from mice to man

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Curriculum Vitae

Saskia Christel Anoinette de Jager werd op 24 Januari 1979 geboren te Culemborg. In 1996 behaalde ze haar HAVO diploma aan het Koningin Wilhelmina College te Culemborg. In datzelfde jaar begon zij met de studie Hoger Laboratorium Opleiding aan de Hogeschool van Utrecht, waar zij in 1997 het propaedeutisch examen behaalde. Tijdens haar afstudeerfase liep zij stage bij de vakgroep Farmacologie en Pathofysiologie van het Utrecht Institute for Pharmaceutical Science onder leiding van Dr. A.H. van Houwelingen en Dr. A.D Kraneveld. In 2000 studeerde zij af op het onderzoek getiteld 'The role of Vascular Endothelial Growth Factor in the pulmonary delayed type hypersensitivity reaction in Mice'.

Van juni 2000 tot juni 2002 was zij bij dezelfde vakgroep in dienst als onderzoeksanalist. Onder begeleiding van Dr. F.A. Redegeld en Dr. A.D. Kraneveld heeft zij onderzoek verricht aan vrije immuunglobuline-lichte ketens in acute overgevoeligheidsreacties. Van juni 2002 tot april 2004 was zij werkzaam als onderzoeksanalist bij de sectie Biofarmacie het Leiden/Amsterdam Center for Drug Research aan de Universiteit Leiden. Onder leiding van Prof. Dr. Ir. E.A.L Biessen en Prof. Dr. T.J.C. van Berkel werd daarbij onderzoek verricht naar de rol van mestcellen in de pathologie van atherosclerose.

Van april 2004 tot november 2008 verrichte zij, wederom onder leiding van Prof. Dr. Ir. E.A.L Biessen en Prof. Dr. T.J.C. van Berkel van de sectie Biofarmacie, promotieonderzoek naar de rol van chemokines op de atherogenese en met name op de destabilisatie van atherosclerotische plaques, zoals beschreven in dit proefschrift. Van april 2004 tot heden volgde zij een opleiding tot medisch immunoloog bij het Leiden Institute for Immunology (LIFI).

In 2003 ontving zij een fellowship van de Dutch Atherosclerosis Society voor best beoordeelde wetenschappelijke abstract en in 2004 ontving zij de Young Investigator Award tijdens de Scandinavian Atherosclerosis Conference voor de beste onderzoeks-presentatie.

Per november 2008 is zij aangesteld als post-doctoraal onderzoeker bij de afdeling Biofarmacie van het Leiden/Amsterdam Center for Drug Research.

List of Publications

Full Papers

de Jager SC, Kavelaars A, Bot I, Westra MM, Bot M, van Berkel TJ, Heijnen C.J., Biessen EA. Partial Disruption of Leukocyte GRK2 Attenuates Atherosclerotic Lesion Formation and Modulates Plaque Phenotype. Manuscript in preparation.

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Appendix 1: List of Abbreviations

ACS	Acute Coronary Syndrome
ADAM-10	A Disintegrin And Metalloprotease-10
AHA	American Heart Association
AMI	Acute Myocardial Infarction
ApoE	Apolipoprotein E
APRAIS	Acute Phase Reaction and Ischemic Syndromes
BCA	Brachiocephalic Artery
BCIP	5-Bromo-4-chloro-3-indolyl phosphate, toluidine salt
bFGF	basic Fibroblast Growth Factor
BMI	Body Mass Index
BMMC	Bone Marrow derived Mast Cell
BMP	Bone Morphogenic Protein
BMPR	Bone Morphogenic Protein Receptor
BMT	Bone Marrow Transplantation
CABG	Coronary Artery Bypass Grafting
CAD	Coronary Artery Disease
CCL	CC chemokine Ligand
CCR	CC chemokine Receptor
(s)CD40L	(soluble) CD40 ligand
CFSE	CarboxyFluorescein diacetate Succinimidyl Ester
CRP	C-Reactive Protein
CTLA-4	Cytotoxic T-Lymphocyte Antigen 4
CVD	CardioVascular Disease
CX3CL	CX3C chemokine Ligand
CX3CR	CX3C chemokine Receptor
CXCL	CXC chemokine Ligand
CXCR	CXC chemokine Receptor
DC	Dendritic Cell
DMEM	Dulbecco's Modified Eagle's Medium
DMSO	Dimethylsulfoxide
DNA	Deoxyribo Nucleic Acid
DNFB	Dinitrofluorobenzene
DNP	Dinitrophenyl-albumin
EC	Endothelial Cell
EDTA	Ethylene Diamine Tetraacetic Acid
ELISA	Enzyme-Linked ImmunoSorbent Assay
eNOS	endothelial cell nitric oxide synthase
ERK	Extracellular signal-Regulated Kinase
ESR	Erythrocyte Sedimentation Rate
FACS	Fluorescence Activated Cell Sorting
FGF	Fibroblast Growth Factor
FKN	Fractalkine
fMLP	formyl-Met-Leu-Phe
Foxp3	Forkhead box p3

Appendix 1

GAPDH	GlycerAldehyde-3-Phosphate DeHydrogenase
GDF	Growth Differentiation Factor
GPCR	G-Protein Coupled Receptor
GRK	G-Protein Coupled Receptor Kinase
Gro	Growth related oncogene
(c)GvHD	(chronic) Graft versus Host Disease
HDL	High Density Lipoprotein
HIF-1	Hypoxia Inducible Factor-1
HLA	Human Leukocyte Antigen
HNP-3	Human Neutrophil Peptide-3
HPRT	Hypoxanthine PhosphoRibosyl Transferase
(s)ICAM-1	(soluble) IntraCellular Adhesion Molecule-1
IFN γ	Interferon γ
IgE	Immunoglobulin E
IgLC	Immunoglobulin Light Chain
IL	Interleukin
IP-10	IFN- γ -inducible Protein-10
IPH	Intra Plaque Hemorrhage
ITAC	IFN- γ -inducible T-cell Alpha Chemoattractant
LAD	Left Anterior Descending Coronary Artery
LDL	Low Density Lipoprotein
LDLr	Low Density Lipoprotein receptor
LN	Lymph Node
LPS	LipoPolySaccharide
MAPK	Mitogen-Activated Protein Kinase
MC	Mast Cell
MCP-1	Monocyte Chemotactic Protein-1
M-CSF	Macrophage Colony Stimulating Factor
MDA-LDL	Malondialdehyde-modified Low-Density Lipoprotein
MDC	Macrophage Derived Chemokine
MIC-1	Macrophage Inhibitory Cytokine-1
MIF	Macrophage Inhibitory Factor
MIG	Monokine Induced by IFN- γ
MIP-1	Macrophage inhibitory protein
MMP	Matrix Metalloproteinase
MPO	Myeloperoxidase
MS	Multiple Sclerosis
NBT	Nitro Blue Tetrazolium chloride
OPG	Osteoprotegerin
OSM	Oncostatin-M
oxLDL	Oxidized Low Density Lipoprotein
p53	protein 53
PAI-1	Plasminogen Activator Inhibitor-1
PARC	Pulmonary and Activation Regulated Chemokine

PBMCs	Peripheral Blood Mononuclear Cells
(Q)PCR	(Quantitative) Polymerase Chain Reaction
PDGF	Placental Derived Growth Factor
PF-4	Platelet Factor-4
PI	Propidium Iodide
PI3K	Phosphoinositide 3-kinase
PMC	Peritoneal Mast Cell
PTCA	Percutaneous Transluminal Coronary Angioplasty
RA	Rheumatoid Arthritis
RANTES	Regulated on Activation Normal T-cell Expressed and Secreted
(m)RNA	(messenger) Ribo Nucleic Acid
RT	Room Temperature
SAP	Stable Angina Pectoris
SCF	Stem Cell Factor
SDF-1	Stromal cell Derived factor-1
SMAD	Small Mothers Against Decapentaplegic
(v)SMCs	(vascular) Smooth Muscle Cells
SR-A	Scavenger Receptor A
SR-B1	Scavenger Receptor B1
(n)STEMI	(non)ST-segment Elevation Myocardial Infarction
TACE	Tumor necrosis factor-Alpha-Converting Enzyme
TARC	Thymus and Activation Regulated Chemokine
T _{CM}	Central Memory T Cell
T _{EM}	Effector Memory T Cell
T _{EMRA}	Effector Memory RA T Cell
TF	Tissue Factor
TGFβ	Transforming Growth Factor β
TGFβR	TGFβ Receptor
Th1	T helper 1
Th2	T helper 2
TIMP	Tissue Inhibitor of matrix Metalloproteinase
TLR	Toll Like Receptor
TNFα	Tumor Necrosis Factor α
Treg	regulatory T cell
TUNEL	Terminal deoxytransferase dUTP Nick-End Labeling
UAP	Unstable Angina Pectoris
(s)VCAM-1	(soluble) Vascular Cell Adhesion Molecule-1
VEGF	Vascular Endothelial Growth Factor
VEGF-R	Vascular Endothelial Growth Factor Receptor
VLA-4	Very Late Antigen-4
vLDL	very Low-Density Lipoprotein
WT	Wild Type

