# Th 17 and T reg cells in type 2 diabetic nephropathy

Thesis
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### LIST OF ABBREVIATIONS

Abbreviation	Full term
(2hPP)	2 hour post prandial
(3-DG)	3 Deoxyglucosone
(A II)	Angiotensin 2
(Ab)	antibody
(ACE)	Angiotensin converting enzyme
(ACORD)	Anemia correction in diabetes
(ACR)	Albumin creatinine ratio
(ADA)	American diabetes assosiation
(ADP)	Adenosine di-phosphate
(AER)	Albumin execretion rate
(Ag)	Antigen
(AGEs)	Advanced glycated end products
(Ala)	Alanine
(ALT)	Alanine transaminase
(AMP)	Adenosine mono-phosphate
(APC)	Antigen presenting cells
(Apo E)	Apolipoprotein E

#### **List of Abbreviations**

(AR)	Aldose reductase
(ARB)	Angiotensin 2 receptor blocker
(AST)	Aspartste transaminase
(ATP)	Adenosine tri-phosphate
(B1)	Bradykinin receptor 1
(B2)	Bradykinin receptor 2
(Ca <sup>+2</sup> )	Calcium
(c-AMP)	Cyclic adenosine monophosphate
(CBC)	Complete blood count
(CBF-B)	Core binding factor beta
(CCR-3)	Chemokine receptor 3
(CCR-4)	Chemokine receptor 4
(CCR-5)	Chemokine receptor 5
(CCR-6)	Chemokine receptor 6
(CCR-7)	Chemokine receptor 7
(CD)	Cluster of differentiation
(CKD)	Chronic kidney disease
(cTECs)	Cortical thymic epithelial cells
(CTGF)	Connective tissue growth factor
(CTL)	Cytotoxic T lymphocyte

#### **List of Abbreviations**

(CTLA-4)	Cytotoxic T lymphocyte antigen 4
(CVA)	Cerebrovascular accident
(CXCL-2)	Chemokine 2
(CXCL-8)	Chemokine 8
(DC)	Denderetic cells
(DKD)	Diabetic kidney disease
(DM)	Diabetes Mellitus
(DN)	Diabetic Nephropathy
(DNA)	Deoxyribonucleic acid
(DTH)	Delayed type hypersensitivity
(EDTA)	Ethylene diamine tetra acetic acid
(eGFR)	Estimated glomerular filtration rate
(ESRD)	End stage renal disease
(FBS)	Fasting blood sugar
(FITC)	Fluorescein isothiocyanate stain
(FOX P <sub>3</sub> )	Forked-winged helix transcription factor
(FPG)	Fasting plasma glucose
(GBM)	Glomerular basement membrane
(GDM)	Gestational diabetes mellitus

(GFR)	Glomerular filtration rate
(GHbs)	Glycated hemoglobin
(GLUT-1)	Glucose transporter 1
(GM-CSF)	Granulocyte macrophage colony stimulating factor
(Hb)	Hemoglobin
(HbA1c)	Glycated Hemoglobin
(HDL)	High density lipoprotein
(HMC)	Human mesangial cells
(HNF)	Hepatocyte nuclear factor
(i T reg)	Inducible T regulatory cells
(ICOS)	Inducible T cell co stimulation
(IFN- γ)	Interferon gamma
(Ig A)	Immunoglobulin A
(Ig E)	Immunoglobulin E
(Ig G)	Immunoglobulin G
(Ig)	immunoglobulin
(IGF-1)	Insulin like growth factor 1
(IGFs)	Insulin like growth factors
(IHD)	Ischemic heart disease

(IL)	Interleukin
(IL-12Rβ1)	interleukin -12 receptor beta 1
(IL-22R)	interleukin -22 receptor
(IL-23R)	interleukin-23 receptor
(IL-2R)	Interleukin 2 receptor
(IPF-1)	Insulin promoter factor 1
(IRF4)	interferon regulatory factor 4
( <b>K</b> <sup>+</sup> )	Potassium
(LDL)	low density lipoprotein
(LFA-1)	Leukocyte function antigen 1
(LPL)	Lipoprotein lipase
(m RNA)	Messanger ribonucleic acid
(MCH)	Mean corpuscular hemoglobin
(MCHC)	Mean corpuscular hemoglobin concentration
(MCV)	Mean corpuscular volume
(MHC)	major histocompitability complex
(MODY)	Maturity onset diabetes of young
(mTECs)	Medullary thymic epithelial cells
(MTHFR)	Methylene tetrahydrofolate reductase
(Na <sup>+</sup> )	Sodium

(NADPH)	Nicotinamide Adenine Dinucleotide Phosphate Hydrogen
(NIDDM)	Non insulin dependant diabetes mellitus
(NK)	Natural killer cells
(NKT)	Natural killer T-cells
(nT regs)	Natural T regulatory cells
(OGTT)	Oral glucose tolerance test
(OPG)	Osteoprotegerin
(P38MAPK)	P38 mitogen activated protein kinase
(PBS)	Phosphate buffered saline
(PC)	Phycoerythrin cyanine stain
(PD-1)	Programmed death 1
(PDGF)	Platelet derived growth factor
(PE)	Phycoerythrin stain
(PFN)	Perforin
(PKC)	Protein kinase C
(PLT)	Platelets
(P-MHC)	Peptide major histocompitability complex
(PPAR→)	peroxisome proliferators-activated receptors →
(RAGE)	Receptor for advanced glycation end product