

## List of Abbreviations and Symbols

Advanced Glycation End-products	: AGE
Akt Substrate	: AS160
Analysis of Variance	: ANOVA
Blood Urea Nitrogen	: BUN
Body Weight	: b wt.
Bovine Serum Albumin	: BSA
Centimetre	: cm
Chennai Urban Population Study	: CUPS
Chennai Urban Rural Epidemiology Study	: CURES
Chromatin Immunoprecipitation	: ChIP
Chronic Kidney Disease	: CKD
Connective Tissue Growth Factor	: CTGF
C-Reactive Protein	: CRP
Decilitre	: dl
Degree Celsius	: °C
Diabetes Mellitus	: DM
Diabetic	: D
Diabetic Control	: DC
Diabetic Nephropathy	: DN
Dibutylphthalate Polystyrene Xylene	: DPX
Dipeptidyl Peptidase-4	: DPP-4
End-Stage Kidney Disease	: ESKD
Enzyme-Linked Immunosorbent Assay	: ELISA
Estimated Glomerular Filtration Rate	: eGFR
Fasting Blood Glucose	: FBG
Fasting Plasma Glucose	: FPG
Fasting Plasma Insulin	: FPI
Fasting Serum Insulin	: FSI
Genome-Wide Association Study	: GWAS
Glomerular Filtration Rate	: GFR

Glomerular Mesangial Expansion Index	: GMEI
Glucose Transporter-4	: GLUT-4
Glutathione Peroxidase	: GSH-Px
Glycogen Synthase Kinase 3	: GSK3
Glycosylated Haemoglobin	: HbA1c
Gram	: g
Hematoxylin and Eosin	: HE
High-Density Lipoprotein	: HDL
High-Fat Diet	: HFD
Homeostatic Model Assessment- $\beta$ -Cell Function	: HOMA-B%
Homeostasis Model Assessment for Insulin Resistance	: HOMA-IR
Hour	: h
Impaired Glucose Tolerance	: IGT
Indian Council of Medical Research	: ICMR
Insulin Receptor Substrates	: IRS
Insulin Tolerance Test	: ITT
Interleukin-6	: IL-6
Intraperitoneal	: i.p.
Intravenous	: i.v.
Janus Kinase/Signal Transducer And Activator Of Transcription	: JAK/STAT
Kilogram	: kg
Litre	: L
Low-Density Lipoprotein	: LDL
Malondialdehyde	: MDA
Microgram	: $\mu$ g
Microlitre	: $\mu$ l
Micrometre	: $\mu$ m
Microtubule Associated Protein2	: MAP2
Milliampere	: mA
Milligram	: mg
Millilitre	: ml
Minute	: min

Mitogen-Activated Kinases	: MAPK
Molar	: M
Nicotinamide	: NCT
Normal Control	: NC
Nuclear Factor Y	: NF-Y
Oral Glucose Tolerance Test	: OGTT
Percentage	: %
Phosphatidylinositol 4,5-Biphosphate	: PIP2
Phosphatidylinositol-3-Kinase	: PI3K
Phosphatidylinositol (3,4,5)-Triphosphate	: PIP3
PI3K-Dependent Kinase	: PDK
Polyvinylidene Difluoride	: PVDF
Protein Kinase B	: Akt
Protein Kinase C	: PKC
Reactive Oxygen Species	: ROS
Real-Time Polymerase Chain Reaction	: RT-PCR
Renin-Angiotensin-Aldosterone System	: RAAS
Seconds	: s
Serum Amyloid A	: SAA
Serum Creatinine	: SCR
Small Interfering RNAs	: siRNAs
Sodium Dodecyl Sulphate-PolyAcrylamide Gel Electrophoresis	: SDS-PAGE
Specificity Protein 1	: Sp1
Standard Error of the Mean	: S.E.M.
Steady-State Plasma Glucose	: SSPG
Streptozotocin	: STZ
Superoxide Dismutase	: SOD
Tetramethylpyrazine	: TMP
Tetramethylpyrazine- 100 mg/kg	: T-1
Tetramethylpyrazine- 150 mg/kg	: T-2
Tetramethylpyrazine- 200 mg/kg	: T-3
Total Cholesterol	: TC

Triglyceride	: TG
Tris Buffer Saline	: TBS
Tubulointerstitial Damage Index	: TDI
Type-1 Diabetes	: T1D
Type-2 Diabetes	: T2D
Uncoupling Protein	: UCP
Vascular Endothelial Growth Factor	: VEGF
Very Low-Density Lipoprotein	: VLDL
Voltage	: V
Weight/Volume	: w/v
Wortmannin	: W
3, 3'-Diaminobenzidine	: DAB