

Hepatic Effects of Sitagliptin and Metformin in a Model of Non-Alcoholic Steatohepatitis in Rats Exposed to Chronic Restraint Stress

**Thesis for Partial Fulfillment of M.D. degree in Pharmacology and
therapeutics**

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List of abbreviations

<i>ACC</i>	<i>Acetyl Co-A Carboxylase</i>
<i>ALT</i>	<i>Alanine Transaminase</i>
<i>AMPK</i>	<i>AMP Activated Protein Kinase</i>
<i>ANOVA</i>	<i>Analysis Of Variance</i>
<i>AP-1</i>	<i>Activating Protein-1</i>
<i>APO-B</i>	<i>Apo Lipoprotein B</i>
<i>AST</i>	<i>Aspartate Aminotransferase</i>
<i>BAX</i>	<i>Pro-Apoptotic Bcl2 Protein</i>
<i>BBB</i>	<i>Blood Brain Barrier</i>
<i>BDNF</i>	<i>Brain Derived Neurotrophic Factor</i>
<i>BW</i>	<i>Body Weight</i>
<i>CHREBP</i>	<i>Carbohydrate Response Element Binding Protein</i>
<i>CPT-1</i>	<i>Carnitine Palmitoyl Transferase 1</i>
<i>CRH</i>	<i>Corticotropin Releasing Hormone</i>
<i>CRNSS</i>	<i>Clinical Research Network Scoring System</i>
<i>CRP</i>	<i>C Reactive Protein</i>
<i>CRS</i>	<i>Chronic Restraint Stress</i>
<i>DM</i>	<i>Diabetes Mellitus</i>
<i>DPP-4</i>	<i>Dipeptidyl Peptidase-4</i>

List of abbreviations

<i>EAT</i>	<i>Epididymal Adipose Tissue</i>
<i>ECM</i>	<i>Extracellular Matrix</i>
<i>ELISA</i>	<i>Enzyme Linked Immunosorbent Assay</i>
<i>ERKS</i>	<i>Extracellular Signal Regulated Kinases</i>
<i>FBG</i>	<i>Fasting Blood Glucose</i>
<i>FBI</i>	<i>Fasting Blood Insulin</i>
<i>FFA</i>	<i>Free Fatty Acid</i>
<i>FSED</i>	<i>Fat-Sugar Enriched Diet</i>
<i>FSL</i>	<i>Flinders Sensitive Line</i>
<i>FST</i>	<i>Forced Swimming Test</i>
<i>GIP</i>	<i>Glucose Dependent Insulinotropic Peptide</i>
<i>GLP-1</i>	<i>Glucagon Like Peptide 1</i>
<i>GR</i>	<i>Glucocorticoid Receptor</i>
<i>GSK3-β</i>	<i>Glycogen Synthase Kinase 3 B</i>
<i>H&E</i>	<i>Hematoxylin And Eosin</i>
<i>HbA1C</i>	<i>Glycosylated Hemoglobin</i>
<i>HDL</i>	<i>High Density Lipoproteins</i>
<i>HFD</i>	<i>High Fat Diet</i>
<i>HOMA</i>	<i>Homeostatic Model Assessment</i>
<i>HPA</i>	<i>Hypothalamo-Pituitary-Adrenal</i>

List of abbreviations

HSC	<i>Hepatic Stellate Cell</i>
i.p.	<i>Intraperitoneal</i>
IKK β	<i>Inhibitor Of Nuclear Factor Kappa B</i>
IL-1β	<i>Interleukin-1beta</i>
IL-6	<i>Interleukin-6</i>
IL-8	<i>Interleukin-8</i>
IR	<i>Insulin Resistance</i>
IRS-1	<i>Insulin Receptor Substrate-1</i>
IRS-2	<i>Insulin Receptor Substrate-2</i>
JAK	<i>Janus Activated Kinases</i>
JNK	<i>C-Jun Amino-Terminal Kinase</i>
LDL	<i>Low Density Lipoproteins</i>
LDL	<i>Low Density Lipoprotein</i>
LHFD	<i>Liquid High Fat Diet</i>
MAPK	<i>Mitogen Activated Protein Kinase</i>
MCP	<i>Methionone Choline Deficient Diet</i>
MCP-1	<i>Monocyte Chemotactic Protein 1</i>
MDA	<i>Malondialdehyde</i>
MDD	<i>Major Depressive Disorders</i>
mDNA	<i>Mitochondrial DNA</i>

List of abbreviations

<i>Met</i>	<i>Metformin</i>
<i>MKK</i>	<i>Mitogen Activated Protein Kinase Kinases</i>
<i>NAFLD</i>	<i>Non Alcoholic Fatty Liver Disease</i>
<i>NAS</i>	<i>NAFLD Activity Score</i>
<i>NASH</i>	<i>Non Alcoholic Steatohepatitis</i>
<i>NF-κB</i>	<i>Nuclear Factor Kappa B</i>
<i>OD</i>	<i>Optical Density</i>
<i>OFT</i>	<i>Open Field Test</i>
<i>OS</i>	<i>Oxidative Stress</i>
<i>P38-MAPK</i>	<i>P38 Mitogen Activated Protein Kinase</i>
<i>PDH</i>	<i>Pyruvate Dehydrogenase</i>
<i>PKC</i>	<i>Protein Kinase C</i>
<i>PKR</i>	<i>RNA Dependent Protein Kinase</i>
<i>PPAR-γ</i>	<i>Peroxisomal Proliferator Activated Receptor Γ</i>
<i>PUFA</i>	<i>Polyunsaturated Fatty Acids</i>
<i>ROS</i>	<i>Reactive Oxygen Species</i>
<i>SAPKs</i>	<i>Stress Activated Protein Kinases</i>
<i>SEM</i>	<i>Standard Error Of Mean</i>
<i>SFA</i>	<i>Saturated Fatty Acids</i>
<i>SIRT-1</i>	<i>Sirtuin1</i>

List of abbreviations

<i>SIT</i>	<i>Social Interaction Test</i>
<i>Sita</i>	<i>Sitagliptin</i>
<i>SOD</i>	<i>Superoxide Dismutase</i>
<i>SREBP</i>	<i>Sterol Regulatory Element Binding Protein</i>
<i>SREBP1-c</i>	<i>Sterol Regulatory Element Binding Protein1-C</i>
<i>TAG, TG</i>	<i>Triglycerides</i>
<i>TC</i>	<i>Total Cholesterol</i>
<i>TGF-β</i>	<i>Transforming Growth Factor Beta</i>
<i>TNF-α</i>	<i>Tumor Necrosis Factor- Alpha</i>
<i>TZDs</i>	<i>Thiazolidinediones</i>
<i>UCMS</i>	<i>Unpredictable Chronic Mild Stress</i>
<i>VLDL</i>	<i>Very Low Density Lipoprotein</i>
<i>WHO</i>	<i>World Health Organization</i>
<i>ZDF</i>	<i>Zucker Diabetic Fatty Rat</i>

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