

## **Content**

Acknowledgement	i-iv
List of tables and figures	v-viii
Abbreviations	ix-x
General introduction	1
Aims and Objectives	22
Material & Methods	23
Chapter 1	Invitro validation of melatonin mediated protection of OA treated HepG2 cells. 36
Chapter 2	Altered chronobiology of clock genes and antioxidant genes in OA treated HepG2 cells and partial restoration by melatonin. 51
Chapter 3	Melatonin improves morphometry, lipid profile, Histoarchitecture and functional status of liver in HFHF and/or JL treated C57Bl/6J mice. 62
Chapter 4	Melatonin improves chronobiology of clock and antioxidant genes in HFHF and/or JL induced NAFLD. 85
Summary	102
Bibliography	108