

PREFACE

The research work of the thesis entitled "Evaluation of some pathophysiological and pharmacological effects in rats exposed to electromagnetic radiation" is based on the long term exposure to EMR on neurological disorders including stress related anxiety, depressive-like symptoms, and cognitive deficits in rats. Further, long term exposure of EMR-2450 MHz altered the hemodynamics of highly perfused organs such as liver, stomach and heart in rats. Repeated exposure of EMR-2450 MHz altered pharmacokinetics of fluoxetine and hepatic function in rats. The whole work has been compiled into **six chapters**: **Chapter 1** introduces the topic and its importance. **Chapter 2.1** reports the effect of repeated exposure of electromagnetic radiation (900, 1800 and 2450 MHz) on stress related anxiety-like symptoms in rats. **Chapter 2.2** reports the effect of EMR (900, 1800 and 2450 MHz) on depressive-like symptom in rats. **Chapter 2.3** reports the effect of EMR (900, 1800 and 2450 MHz) on cognitive deficits in rats. **Chapter 3** is assessment of EMR-2450 MHz on pharmacokinetics of fluoxetine and hepatic function in rats. **Chapter 4** reports the effect of EMR-2450 MHz on gastric integrity and pharmacology in rats. **Chapter 5** reports the effect of EMR (900, 1800 and 2450 MHz) on heart in rats. **Chapters 6** summarize the entire study with important outcomes.