PREFACE

In a country like India, which has a population of over 100 million people, child bearing should be an effortless endeavor. This, however, doesn’t hold well in reality. Quite unrelated to the national population figure is the prevalence of infertility. Male factor infertility accounts for approximately 50% of causes for infertile couples, who make up 15% of all couples. Researchers have shown great interest in correctly estimating a man’s fertility potential. The term “male infertility” does not constitute a defined clinical syndrome, but rather, a collection of different conditions exhibiting a variety of aetiologies and a varying diagnosis. The World Health Organization (WHO) has defined infertility as a period of two years without conception despite having uninterrupted sex, but many couples actually seek a medical opinion after one year of infertility.

The first part of the thesis explains an overview of what is already known about genetical, biochemical and immunological factors and its association with male infertility.

The second part of the thesis provides an extensive account of the research work carried out to elucidate the genetical, biochemical and immunological abnormalities in infertile males of Mysore. The findings and implications of this study are compiled into four chapters and followed by a general summary of the work as follows:

**Chapter I:** Presents the overall semen analysis and sperm function test in infertile individuals in Mysore, comprising introduction material and methods, results, discussion.
Chapter II: Presents the overall biochemical analysis of semen and hormone analysis in the male infertile individuals with infertility in Mysore, comprising introduction material and methods, results, discussion.

Chapter III: Presents the immunological analysis namely antisperm antibodies in the male infertile individuals in Mysore, comprising introduction material and methods, results, discussion.

Chapter IV: Presents the overall cytogenetical analysis of male infertile individuals in Mysore, comprising introduction material and methods, results, discussion.

The summary of this research study brings out the findings and contribution to the already existing knowledge. Also the outcome and impact of the study are discussed in brief.