PREFACE

Fertility is dependent on a complex set of events, involving both male and female components. In the beginning of the nineteen nineties it was hypothesized that the decreasing trend in sperm counts during the last 50 years may share an etiology with the increasing incidence of testicular cancer and genital malformations in man. In wild life populations, developmental and reproductive disorders such as feminization of the external genital organs in amphibians and bears, decreased fertility in mammals and egg shell thinning in birds have been reported. It has been proposed that endocrine disrupters present in the environment and our food could be responsible for the disorders.

Many reproductive disorders which have been increasing in incidence are thought to originate in developing stages of the fetus’s life in the womb. Exposure during early stages of life is of particular concern. Both unborn and new born babies are thought to be more susceptible to xenoestrogen exposure. Hormones play many critical roles in controlling growth and development in early life, such that any interference could have serious and irreversible effects on the child. The increase in the incidence of certain conditions of the reproductive system (and other health effects) has revealed a parallel rise in the manufacture and use of therapeutics and chemicals.

One of the burning problems during the past few decades is drug abuse, mainly the female hormones. One of the examples is diethylstilbestrol (DES) a synthetic estrogen used to prevent spontaneous abortions-induced effects on the male and female reproductive tracts, strongly supports the endocrine disrupting hypothesis. Daughters whose mother took diethylstilbestrol suffer reproductive organ dysfunction, abnormal pregnancies and a reduction in fertility. The sons whose mothers were prescribed with DES, suffered with increased incidences of hypospadias, testicular cancer.
Progesterone is one of the most widely prescribed anti abortive drug in this part of the country. The effects of this drug exposure on many physiological and morphological events are unknown. As this drug resembles that of DES, the author is very curious to know the effects of progesterone on male reproduction.

The present research has been undertaken to evaluate the effect of *in utero* exposure to progesterone on F1 generation male reproduction in mice. This study deals with effect of progesterone on pregnancy, growth and feed in-take, serum hormone levels of testosterone, follicle stimulating hormone and luteinizing hormone, histological studies of testis, first generation reproductive performance of male mice and protective effect of testosterone on the above parameters.

The dissertation presents a humble effort by the author towards a better understanding of the effect of female hormones for further studies to promote male reproduction. The author assumes the responsibility for any deficiencies presented in the text, which could be due to oversight, and earnestly request condonation.