

# Contents

Review of literature	Page: 1-17
Systematic Position of <i>Anabas testudineus</i>	Page: 18 - 20
General Introduction	Page: 21 - 22
Chapter I	Page: 23 - 42
Chapter II	Page: 43 - 62
Chapter III	Page: 63 - 78
Chapter IV	Page: 79 - 90
Summary	Page: 91-96
References	Page: 97 - 128

### Abbreviation

FSH	Follicle stimulating hormone
LH	Luteinizing hormone
GtH	Gonadotropin hormone
E2	17 $\beta$ -estradiol
T	Testosterone
P	Progesterone
IL	Interleukin
TNF- $\alpha$	Tumour necrosis factor- $\alpha$
NF $\kappa$ $\beta$	Nuclear factor kappa light chain enhancer of activated B cells
MMP	Matrixmetalloprotenase
CL	Corpus luteum
PG	Prostaglandin
MIF	Migration inhibitory factor
hCG	Human chorionic gonadotropin
GH	Growth hormone
FF	Follicular fluid
GC	Granulosa cell
OCC	Oocyte cumulus complex
CC	Cumulus cell
JAK/STAT	Janus kinase/signal transducers and activators of transcription
ERK	Extracellular signal regulated kinase
MAPK	Mitogen activated protein kinase
COX-2	Cyclooxygenase-2
NFAT	Nuclear factor of activated T cells
MIH	Maturation-inducing hormone
MIS	Maturation-inducing steroid hormone
MPF	Maturation promoting factor
GVBD	Germinal vesicle breakdown
GV	Germinal vesicle
TGF- $\beta$ 1	Transforming growth factor beta-1
ROS	Reactive oxygen species

NOS	Nitrogen oxygen species
SEM	Standard error of the mean
ELISA	Enzyme-linked immunosorbant assay
PCR	Polymerase chain reaction
GAPDH	Glyceraldehyde 3-phosphate dehydrogenase
kDA	Kilodalton
RIA	Radioimmunoassay
DMSO	Dimethylsulfoxide
cdc2	Cell division control2
V	Vitellogenic
$\mu$	micro
ml	mililitre
g	Gram
mM	millimole
BSA	Bovine serum albumin
mRNA	Messenger RNA
cDNA	complementary Deoxyribonucleic acid
ng	nanogram
mg	microgram
pg	picogram
IU	International unit
$\mu$ M	micromole
min	minutes
h	Hour