

# Content

<b>Foreword .....</b>	<b>7</b>
<b>Preface .....</b>	<b>8</b>
<b>List of abbreviations .....</b>	<b>10</b>
<b>List of figures.....</b>	<b>11</b>
1   Introduction .....	13
2   Male Reproductive System .....	15
2.1   Parts of the mammalian male reproductive system .....	15
2.1.1   Scrotum.....	15
2.1.1.1 <i>Homo sapiens</i> .....	15
2.1.1.2 <i>Bos taurus</i> .....	16
2.1.1.3 <i>Sus scrofa domesticus</i> .....	17
2.1.1.4 <i>Equus sp.</i> .....	17
2.1.1.5 <i>Canis familiaris</i> .....	17
2.1.1.6 <i>Camelus sp.</i> .....	17
2.1.2   Testes.....	18
2.1.2.1 <i>Homo sapiens</i> .....	18
2.1.2.2 <i>Bos taurus</i> .....	19
2.1.2.3 <i>Sus scrofa domesticus</i> .....	21
2.1.2.4 <i>Equus sp.</i> .....	21
2.1.2.5 <i>Canis familiaris</i> .....	22
2.1.2.6 <i>Camelus sp.</i> .....	23
2.1.3   Epididymis .....	24
2.1.3.1 <i>Homo sapiens</i> .....	24
2.1.3.2 <i>Bos taurus</i> .....	24
2.1.3.3 <i>Sus scrofa domesticus</i> .....	25
2.1.3.4 <i>Equus sp.</i> .....	25
2.1.3.5 <i>Canis familiaris</i> .....	25
2.1.3.6 <i>Camelus sp.</i> .....	26
2.1.4 <i>Vas deferens</i> .....	26
2.1.4.1 <i>Homo sapiens</i> .....	26
2.1.4.2 <i>Bos taurus</i> .....	26
2.1.4.3 <i>Sus scrofa domesticus</i> .....	26
2.1.4.4 <i>Equus sp.</i> .....	27

2.1.4.5	<i>Canis familiaris</i>	27
2.1.4.6	<i>Camelus sp.</i>	27
2.1.5	Ejaculatory duct	27
2.1.5.1	<i>Homo sapiens</i>	27
2.1.5.2	<i>Bos taurus</i>	28
2.1.5.3	<i>Sus scrofa domesticus</i>	28
2.1.5.4	<i>Equus sp.</i>	28
2.1.5.5	<i>Canis familiaris</i>	28
2.1.5.6	<i>Camelus sp.</i>	28
2.1.6	Urethra	28
2.1.6.1	<i>Homo sapiens</i>	28
2.1.6.2	<i>Bos taurus</i>	29
2.1.6.3	<i>Sus scrofa domesticus</i>	29
2.1.6.4	<i>Equus sp.</i>	29
2.1.6.5	<i>Canis familiaris</i>	29
2.1.6.6	<i>Camelus sp.</i>	29
2.1.7	Penis	29
2.1.7.1	<i>Homo sapiens</i>	29
2.1.7.2	<i>Bos taurus</i>	31
2.1.7.3	<i>Sus scrofa domesticus</i>	32
2.1.7.4	<i>Equus sp.</i>	32
2.1.7.5	<i>Canis familiaris</i>	33
2.1.7.6	<i>Camelus sp.</i>	34
2.2	Accessory organs in the male reproductive system	35
2.2.1	Seminal vesicles	35
2.2.1.1	<i>Homo sapiens</i>	35
2.2.1.2	<i>Bos taurus</i>	36
2.2.1.3	<i>Sus scrofa domesticus</i>	36
2.2.1.4	<i>Equus sp.</i>	37
2.2.1.5	<i>Canis familiaris</i>	37
2.2.1.6	<i>Camelus sp.</i>	37
2.2.2	Prostate gland	37
2.2.2.1	<i>Homo sapiens</i>	37
2.2.2.2	<i>Bos taurus</i>	37
2.2.2.3	<i>Sus scrofa domesticus</i>	38
2.2.2.4	<i>Equus sp.</i>	38
2.2.2.5	<i>Canis familiaris</i>	38
2.2.2.6	<i>Camelus sp.</i>	39

2.2.3	Bulbourethral glands .....	39
2.2.3.1	<i>Homo sapiens</i> .....	39
2.2.3.2	<i>Bos taurus</i> .....	39
2.2.3.3	<i>Sus scrofa domesticus</i> .....	40
2.2.3.4	<i>Equus sp.</i> .....	40
2.2.3.5	<i>Canis familiaris</i> .....	40
2.2.3.6	<i>Camelus sp.</i> .....	40
2.3	Semen .....	40
2.3.1	<i>Homo sapiens</i> .....	41
2.3.2	<i>Bos taurus</i> .....	42
2.3.3	<i>Sus scrofa domesticus</i> .....	42
2.3.4	<i>Equus sp.</i> .....	43
2.3.5	<i>Canis familiaris</i> .....	43
2.3.6	<i>Camelus sp.</i> .....	44
2.4	Hormonal control of the male reproductive system .....	44
2.4.1	Mechanism of action of gonadotropin releasing hormone .....	45
2.4.2	Mechanism of action of follicle stimulating hormone .....	46
2.4.3	Mechanism of action of luteinizing hormone .....	47
2.4.4	Mechanism of action of testosterone .....	47
2.4.5	Mechanism of action of other hormones .....	48
2.5	Spermatogenesis.....	48
2.5.1	Spermatogonial multiplication .....	48
2.5.2	Meiotic division.....	49
2.5.3	Spermiogenesis .....	49
2.5.4	Capacitation .....	50
2.5.5	Hyperactivation .....	51
2.5.6	Acrosome reaction .....	51
3	<b>Female reproductive system .....</b>	<b>52</b>
3.1	Parts of the mammalian female reproductive system.....	52
3.1.1	Ovary .....	52
3.1.1.1	<i>Homo sapiens</i> .....	52
3.1.1.2	<i>Bos taurus</i> .....	54
3.1.1.3	<i>Sus scrofa domesticus</i> .....	56
3.1.1.4	<i>Equus sp.</i> .....	57
3.1.1.5	<i>Canis familiaris</i> .....	58
3.1.1.6	<i>Camelus sp.</i> .....	60
3.1.2	Fallopian tube .....	60

3.1.2.1	<i>Homo sapiens</i> .....	60
3.1.2.2	<i>Bos taurus</i> .....	61
3.1.2.3	<i>Sus scrofa domesticus</i> .....	61
3.1.2.4	<i>Equus sp.</i> .....	62
3.1.2.5	<i>Canis familiaris</i> .....	62
3.1.2.6	<i>Camelus sp.</i> .....	63
3.1.3	Uterus.....	63
3.1.3.1	<i>Homo sapiens</i> .....	63
3.1.3.2	<i>Bos taurus</i> .....	64
3.1.3.3	<i>Sus scrofa domesticus</i> .....	65
3.1.3.4	<i>Equus sp.</i> .....	65
3.1.3.5	<i>Canis familiaris</i> .....	66
3.1.3.6	<i>Camelus sp.</i> .....	66
3.1.4	Vagina .....	67
3.1.4.1	<i>Homo sapiens</i> .....	67
3.1.4.2	<i>Bos taurus</i> .....	67
3.1.4.3	<i>Sus scrofa domesticus</i> .....	68
3.1.4.4	<i>Equus sp.</i> .....	68
3.1.4.5	<i>Canis familiaris</i> .....	68
3.1.4.6	<i>Camelus sp.</i> .....	69
3.1.5	External genitalia.....	69
3.1.5.1	<i>Homo sapiens</i> .....	70
3.1.5.2	<i>Bos taurus</i> .....	71
3.1.5.3	<i>Sus scrofa domesticus</i> .....	71
3.1.5.4	<i>Equus sp.</i> .....	71
3.1.5.5	<i>Canis familiaris</i> .....	71
3.1.5.6	<i>Camelus sp.</i> .....	72
3.2	Hormonal control of the female reproductive system.....	72
3.2.1	Mechanism of action of gonadotropin releasing hormone.....	73
3.2.2	Mechanism of action of follicle stimulating hormone .....	73
3.2.3	Mechanism of action of luteinizing hormone .....	74
3.2.4	Mechanism of action of progesterone.....	75
3.2.5	Mechanism of action of estrogen .....	75
3.3	Oogenesis .....	76
4	Conclusions.....	79
	References .....	80