ADVANCED BIOLOGY

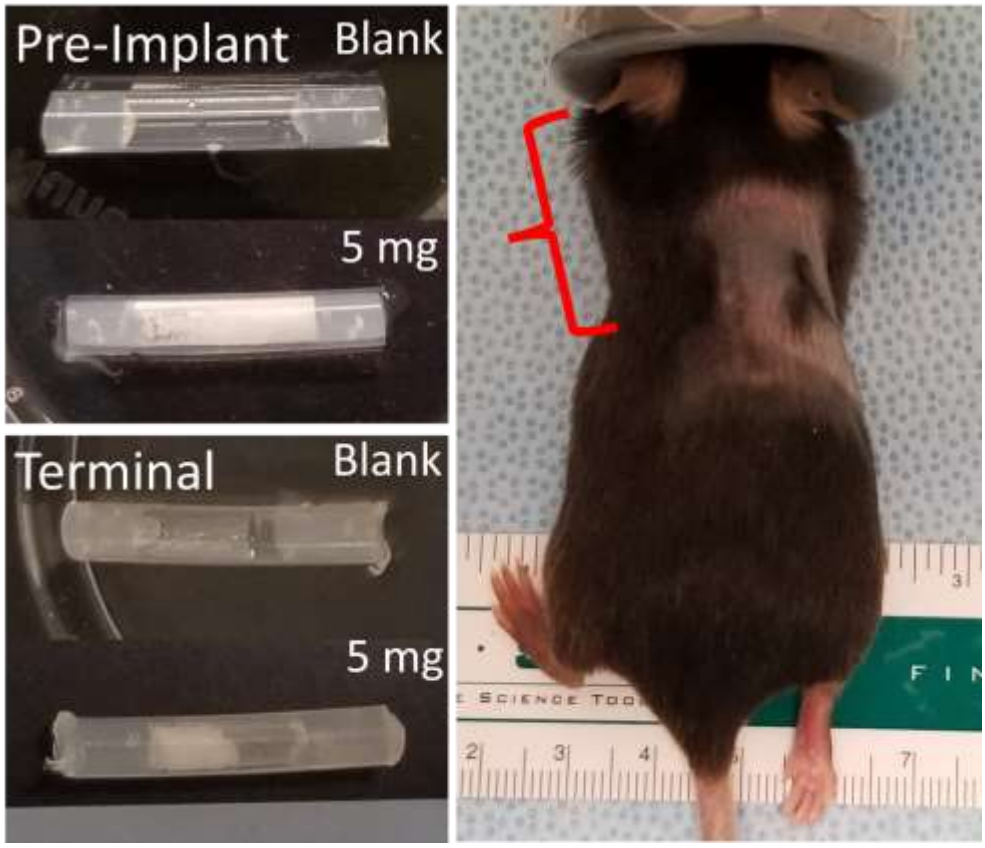
Supporting Information

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A Mouse Model to Investigate the Impact of Gender Affirming Hormone Therapy with Estradiol on Reproduction

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Supplemental Figure 1



Supplemental Table I

Measure	Blank		Low E (1.25 mg)		Mid E (2.5 mg)		High E (5 mg)	
Body Weights (g)	**Mean**	**±*SD***	**Mean**	**±*SD***	**Mean**	**±*SD***	**Mean**	**±*SD***
-1 (Week from implant)	24.46	±1.2	24.68	±0.9	24.35	±0.8	24.99	±1.9
1	24.67	±1.4	24.82	±1	24.52	±1.1	25.62	±1.6
2	25.08	±1.4	27.39	±0.8	26.45	±1.1	27.51	±1.6
3	26.63	±1.7	27.7	±0.8	27.33	±0.8	28.73	±1.3
4	26.62	±1.9	27.38	±1.1	26.72	±1.3	27.98	±1.8
5	26.6	±1.9	26.9	±1.4	26.42	±1.6	28	±1.9
Terminal	27.6	±2.2	27.58	±1.1	27.81	±1.7	28.1	±2
Terminal Organ Weights (mg)								
Testis	91.3	±6.7	81.8	±3.2	86.3	±7.3	**75.7**	**±3.1**
Testis + Epididymis	129.4	±7.5	119	±5.5	120.3	±11.1	**105.7**	**±14.4**
Penis	20.8	±4.6	21.8	±3.7	19.9	±1.7	22.3	±4.9
Seminal Vesicle	290.3	±17.7	**57.8**	**±6.1**	**58.4**	**±9.7**	**47.6**	**±8.1**
Bladder	27.5	±6.6	**58.6**	**±3.9**	**66.8**	**±7.2**	**81.3**	**±9.2**
Kidney	184.8	±16.4	176.2	±13.2	176.5	±5	190	±7.4

Supplemental Table 2

Hormone	Blank		High E (5 mg)		Mid E (2.5 mg)		Low E (1.25 mg)	
Weekly Testosterone (ng/dL)	Mean	±*SD*	Mean	±*SD*	Mean	±*SD*	Mean	±*SD*
Week -1 (from implant)	281.02	±451.02	110.5	±66.7	179.96	±261.11	288.04	±361.17
Week 1	185.31	±118.7	42.15	±16.7	51.89	±24.9	47.42	±17.8
Week 2	317.88	±417.45	**33.88**	**±10.98**	**44.01**	**±7.28**	**44.86**	**±23.67**
Week 3	145.12	±81.55	**42.65**	**±11**	**50.6**	**±12.68**	**49.8**	**±15.37**
Week 4	319.36	±395.57	**43.09**	**±16.96**	**48.83**	**±7.45**	**49.42**	**±9.04**
Week 5	401.74	±436.27	**37.94**	**±8.3**	**43.55**	**±14.23**	**44.54**	**±18.57**
Terminal Hormones								
Testosterone (ng/dL)	634.15	205.81	**38.26**	**±11.59**	**30.99**	**±2.62**	**61.2**	**±77.06**
Estradiol (pg/mL)	>5	n.a.	**30.4**	**±24.9**	**26.44**	**±18.43**	**36.42**	**±23.19**
Luteinizing Hormone (ng/mL)	0.614	±0.57	**0.1**	**±0.046**	0.19	±0.042	0.24	±0.081
Follicle Stimulating Hormone (ng/mL)	28.71	±4.75	**9.74**	**±2.08**	**12.49**	**±1.33**	**11.83**	**±0.66**

Supplemental Table III

Measure	Blank		Low E (1.25 mg)		Mid E (2.5 mg)		High E (5 mg)	
Seminiferous Tubule Morphology	**Mean**	**±*SD***	**Mean**	**±*SD***	**Mean**	**±*SD***	**Mean**	**±*SD***
Tubules with Vacuolitic Sertoli Cells (avg #)	13.8	±4.266	**27**	**±5.431**	**40.2**	**±17.01**	**45.8**	**±5.45**
Epididymal Tubule Cross-Sectional Areas (μm^2)								
Caput Tube	21454	±1531	**16208**	**±993.7**	**15652**	**±993.7**	**14814**	**±2142**
Caput Lumen	5266	±554.2	4846	±625.3	4956	±192.4	4909	±225.9
Cauda Tube	15089	±2638	15271	±2640	15316	±1207	17218	±694.7
Cauda Lumen	53579	±4529	**34222**	**±12126**	**31178**	**±7040**	**20947**	**±4916**