



*Developing clinical stage small molecule
therapeutics to treat hormonal and reproductive
system disorders*

Repros Disclaimer

Any statements that are not historical facts contained in this release are forward-looking statements that involve risks and uncertainties, including Repros' ability to have the partial hold on Proellex® lifted and to determine a safe and effective dose for Proellex®, raise needed additional capital on a timely basis in order for it to continue to fund its operations and pursue its development activities, and such other risks which are identified in the Company's most recent Annual Report on Form 10-K and in any subsequent quarterly reports on Form 10-Q. These documents are available on request from Repros Therapeutics or at www.sec.gov. Repros disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

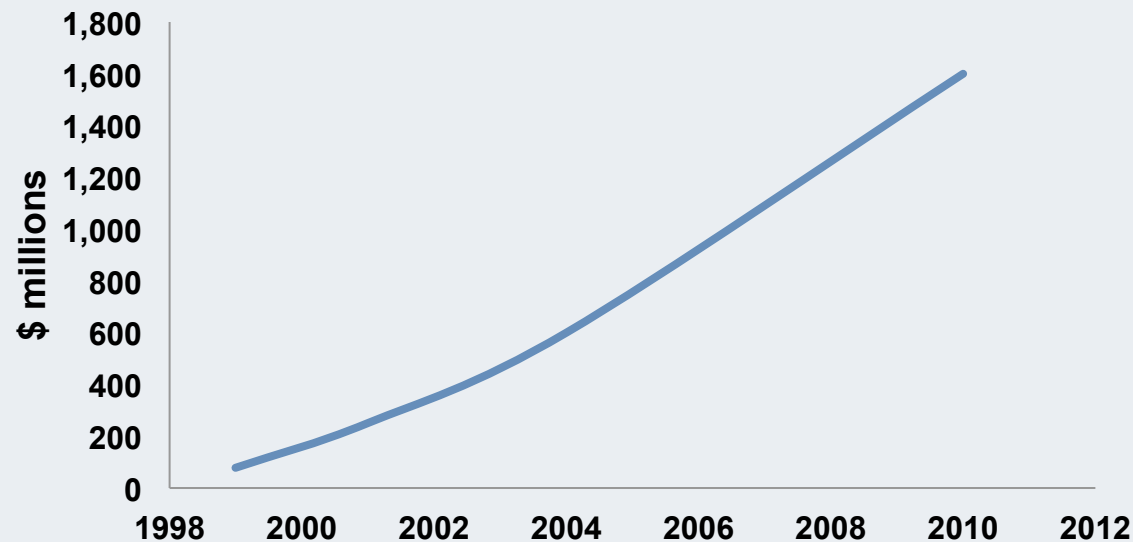
Investment Highlights

- **Focused strategy: small molecule therapeutics for endocrine and reproductive disorders**
- **Two late stage clinical programs with \$1B+ sales potential**
- **Androxal[®]: oral treatment for endocrine disorders (\$1B+ market)**
 - Normalization of testosterone (T) levels in treatment of 2^o hypogonadism (most common cause of low T)
 - Impact of restoration of testicular function on glycemic control in Type II Diabetic men with low testosterone
- **Proellex: oral treatment for female reproductive disorders (\$5B + market)**
 - Chronic relief of uterine fibroid symptoms
 - Fibroid de-bulking
 - Chronic relief of the symptoms associated with endometriosis
- **Substantial clinical news flow in the next 12 months**

Testosterone Market Continues to Grow

- *Current worldwide sales >\$1.6B*
- *25% compound annual growth*
- *US accounts for 75% of global sales*
- *Major pharmaceutical companies have moved to capture US opportunity*
 - *Abbott acquired Solvay (Androgel), Lilly licensed global rights to Axiron®*

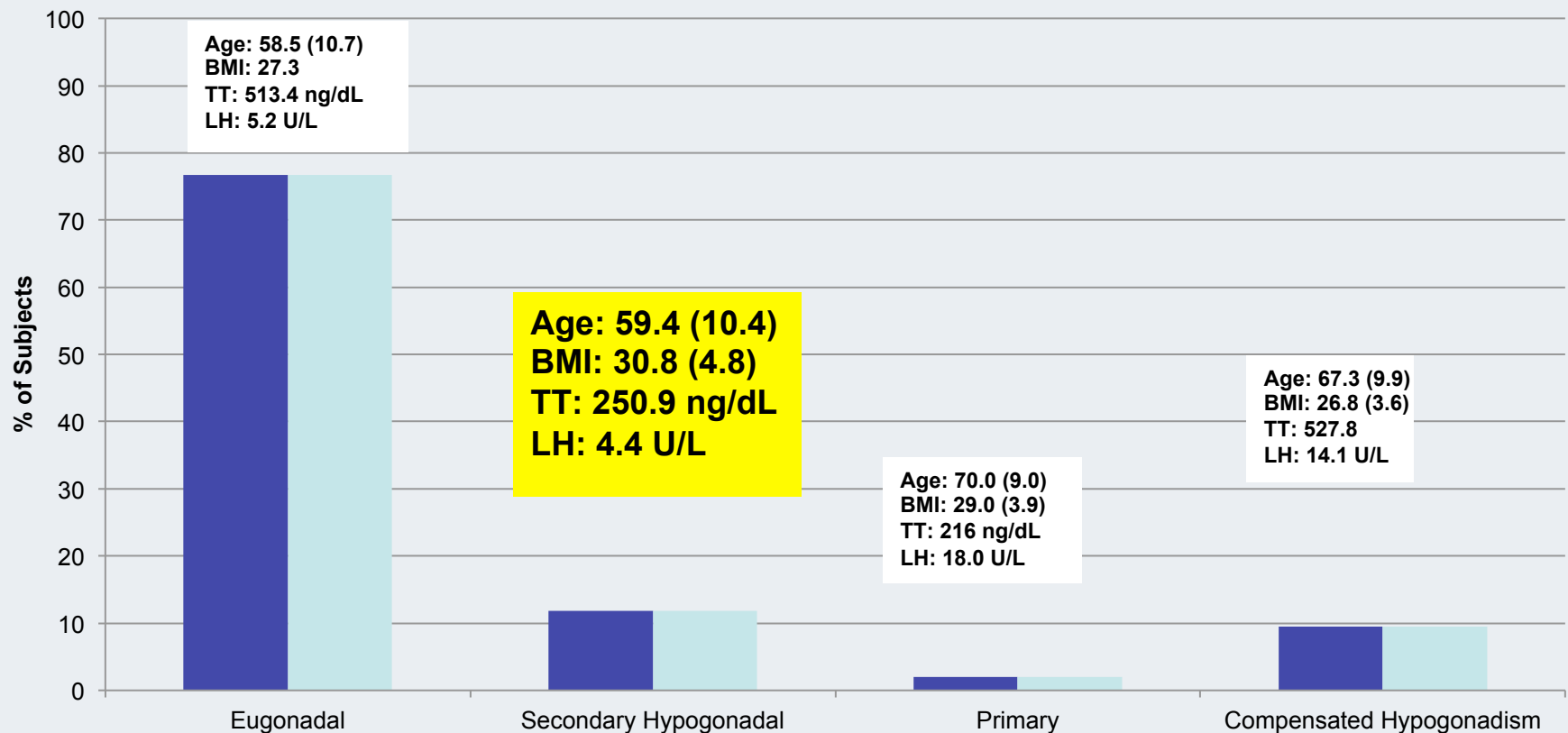
Worldwide Testosterone Sales



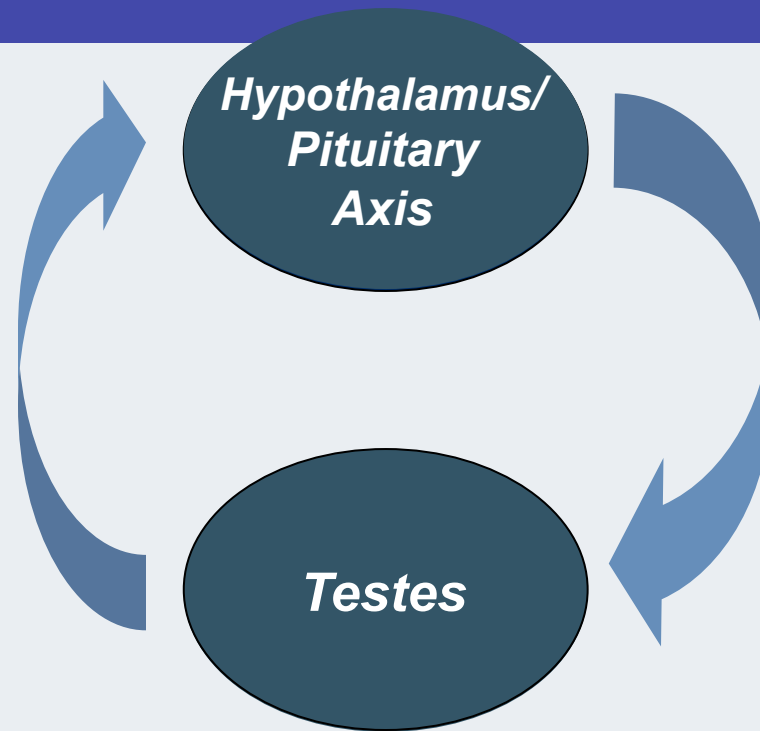
European Male Aging Study

Distribution and Selected Characteristics of Men Ages 40-79 (Tajar et al)

Data derived from over 3000 men



Secondary Hypogonadism



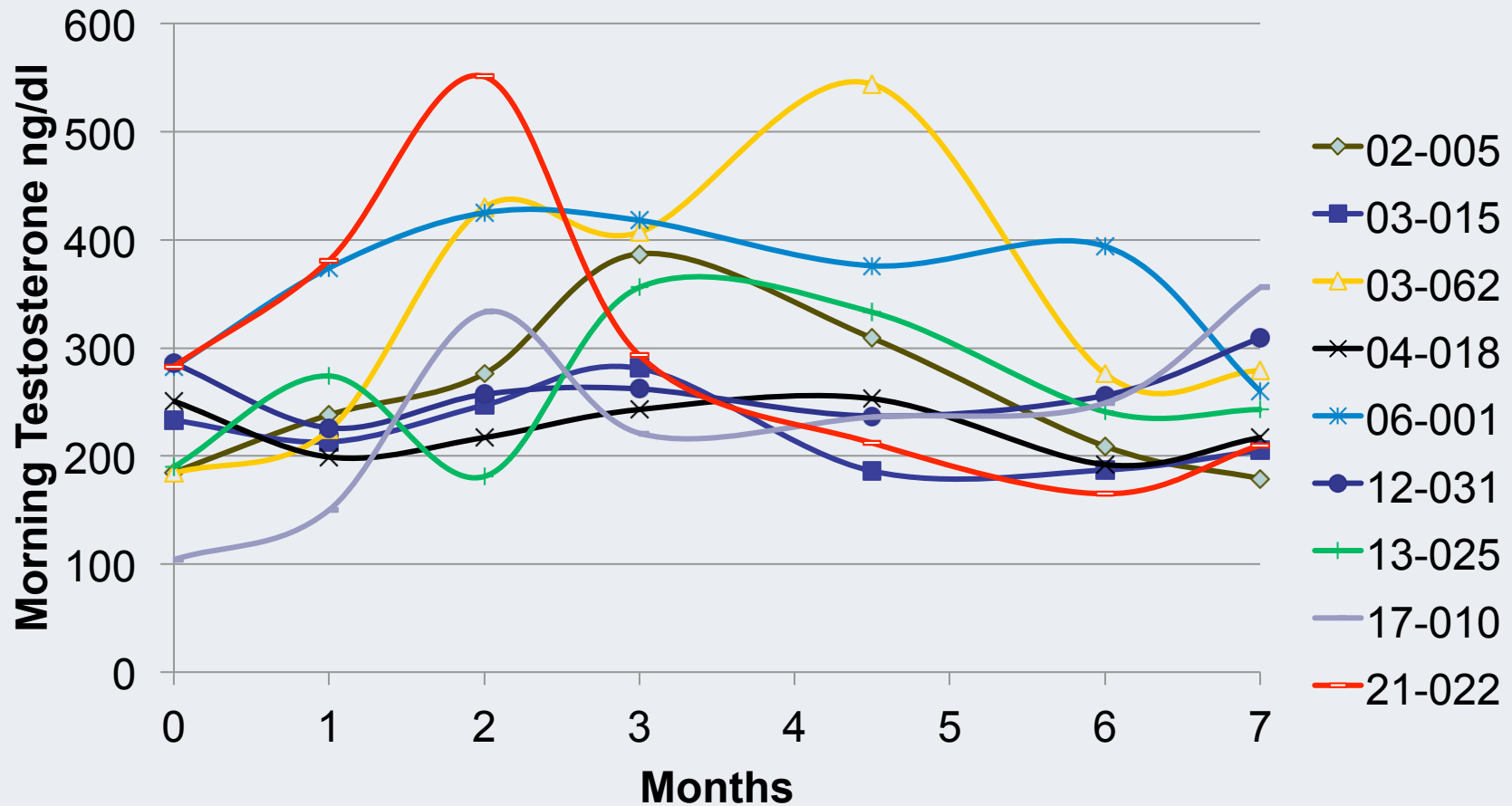
- *Luteinizing hormone (LH) drives Leydig cell production of testosterone*
- *Follicle Stimulating Hormone (FSH) drives spermatogenesis in the Sertoli cells of the testes*

- Majority of men with low T have secondary hypogonadism
- Results from a suppression of secretion of pituitary hormones
 - **Obese men are estrogenized**
- LH & FSH secretions are low to low normal
- Testosterone Levels <300ng/dl
- Men with secondary hypogonadism are typically still fertile

Day to Day Morning T Variability

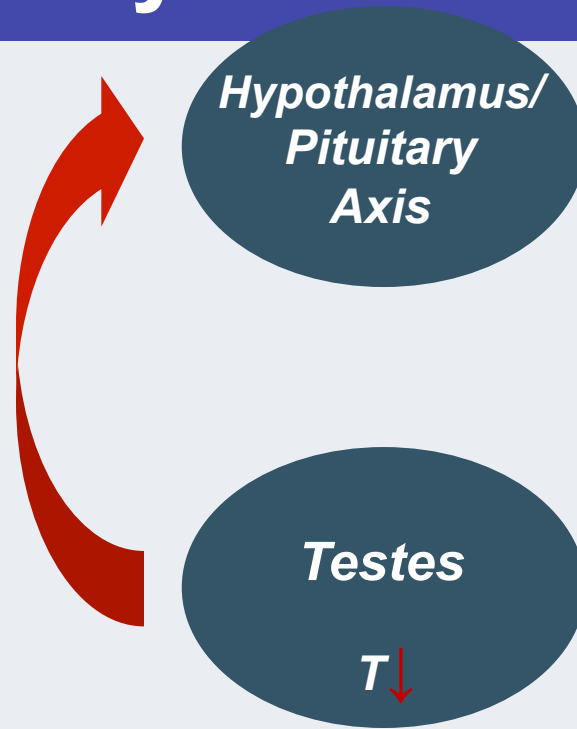
Sampling of Placebo Subjects ZA-003

Should these men be prescribed testosterone replacement therapy?



Traditional HRT May Contribute to Male Infertility

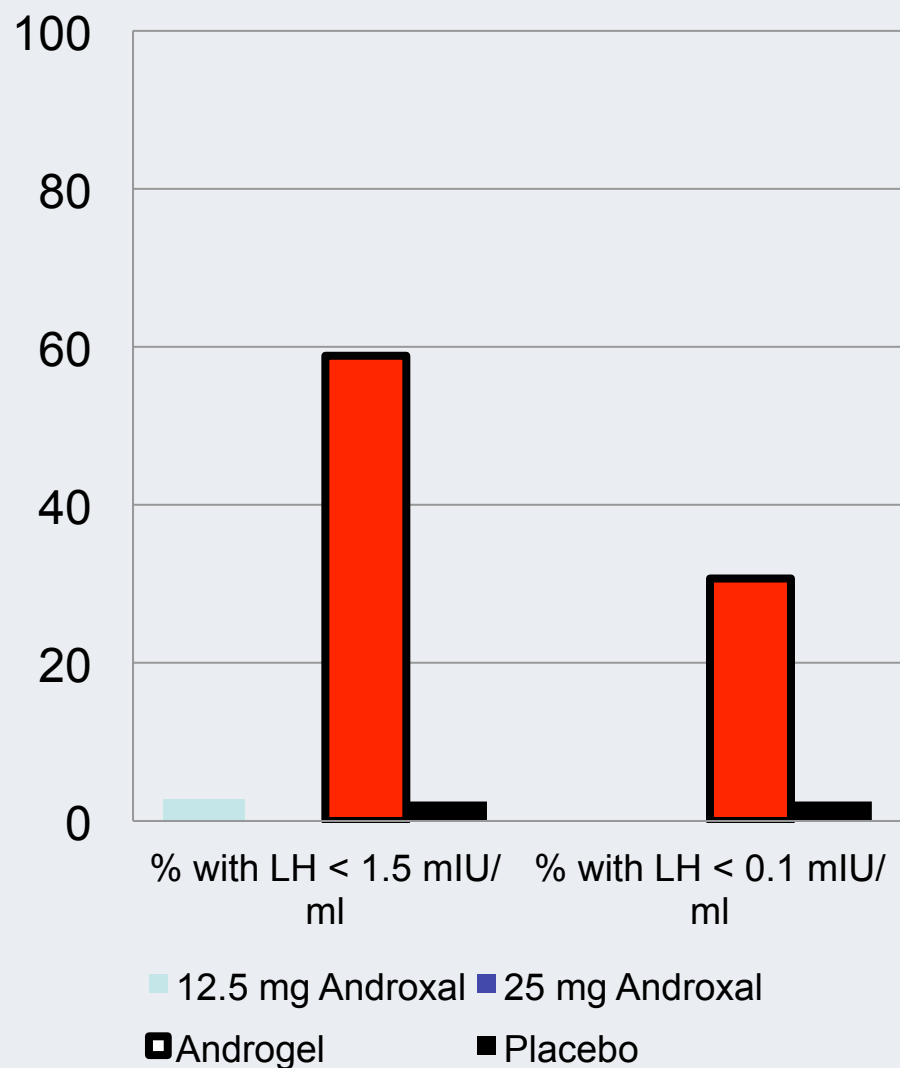
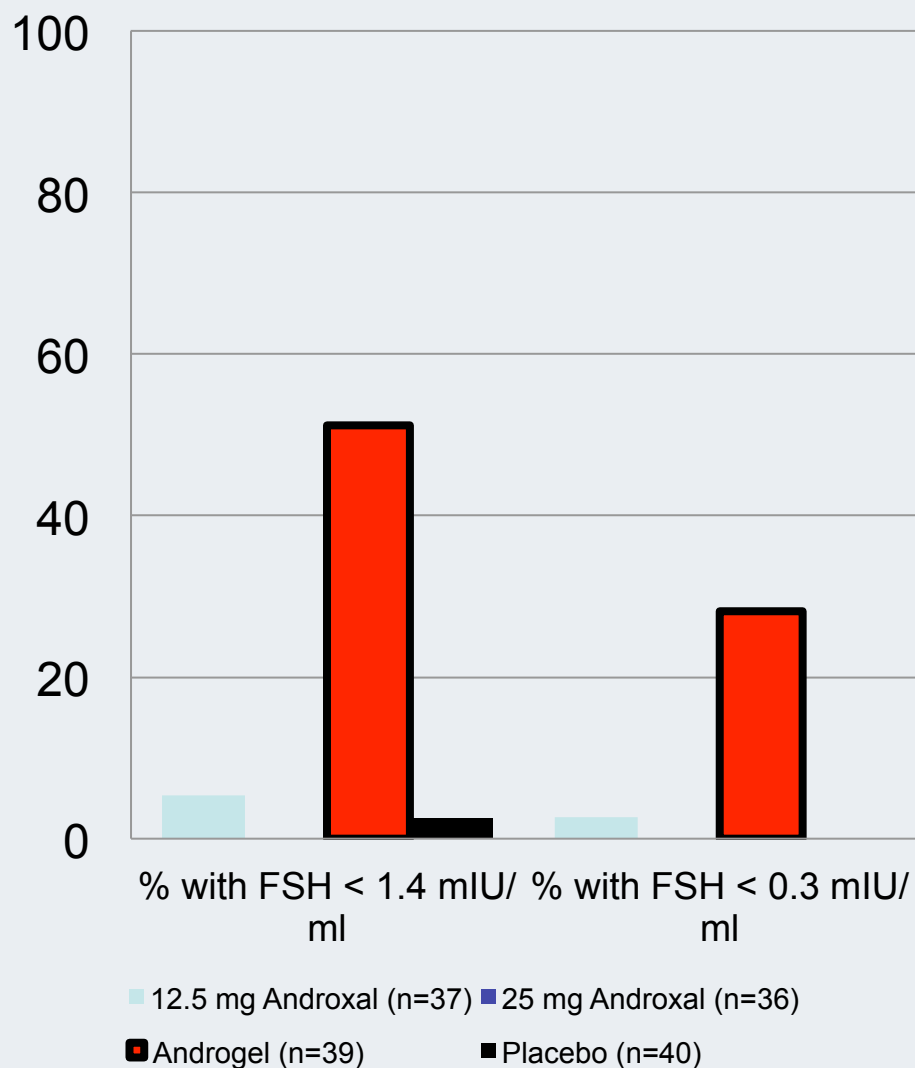
- **Exogenous testosterone and endogenous estrogen provide negative feedback**
- **Pituitary secretions decrease or shut down**
- **Testicular function decreases or shuts down**



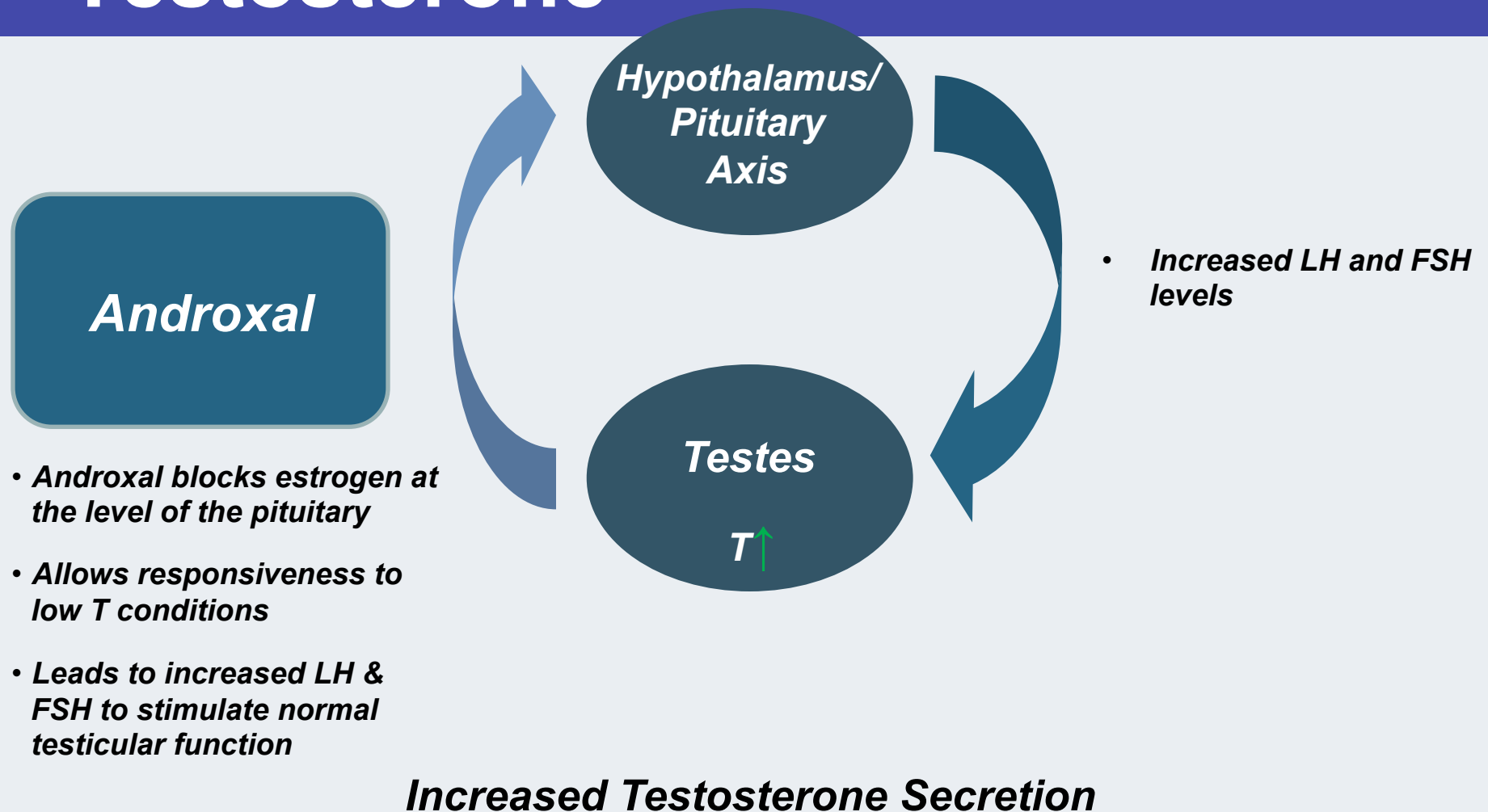
**Leydig Cell Activity Suppressed
Spermatogenesis Suppressed Leading to Infertility**

% of Subjects with LH & FSH Below the Lower Limit of Normal and Below the Lower Limit of Detection after 6 months

ZA-003 “Completer” Analysis



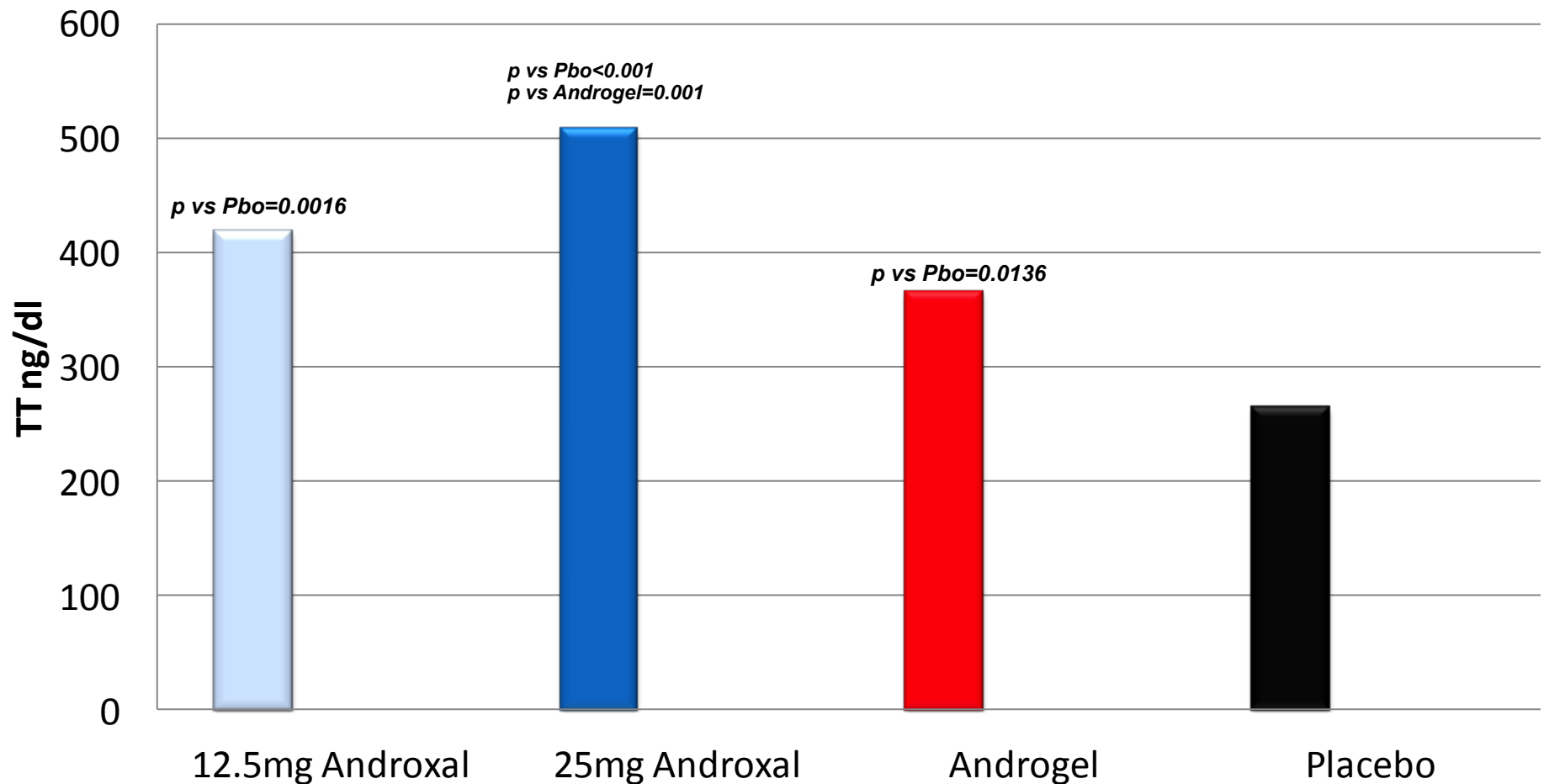
Androxal Boosts Endogenous Testosterone



Previous Androxal Experience ZA-003

n=200

Month 6 Morning Total Testosterone



Outcome of Joint FDA Type C Meeting

- FDA recommends Repros pursues Urology Division recommendation
- Endocrine Division requires metabolic endpoint
- Current Phase 2b study to be the basis for the design of Phase 3 studies
 - Primary efficacy endpoint
 - Morning testosterone compared to baseline
 - Change in reproductive status is a safety endpoint
 - Comparison of two doses of drug to placebo and open label topical testosterone
- **Repros is following FDA recommendation**

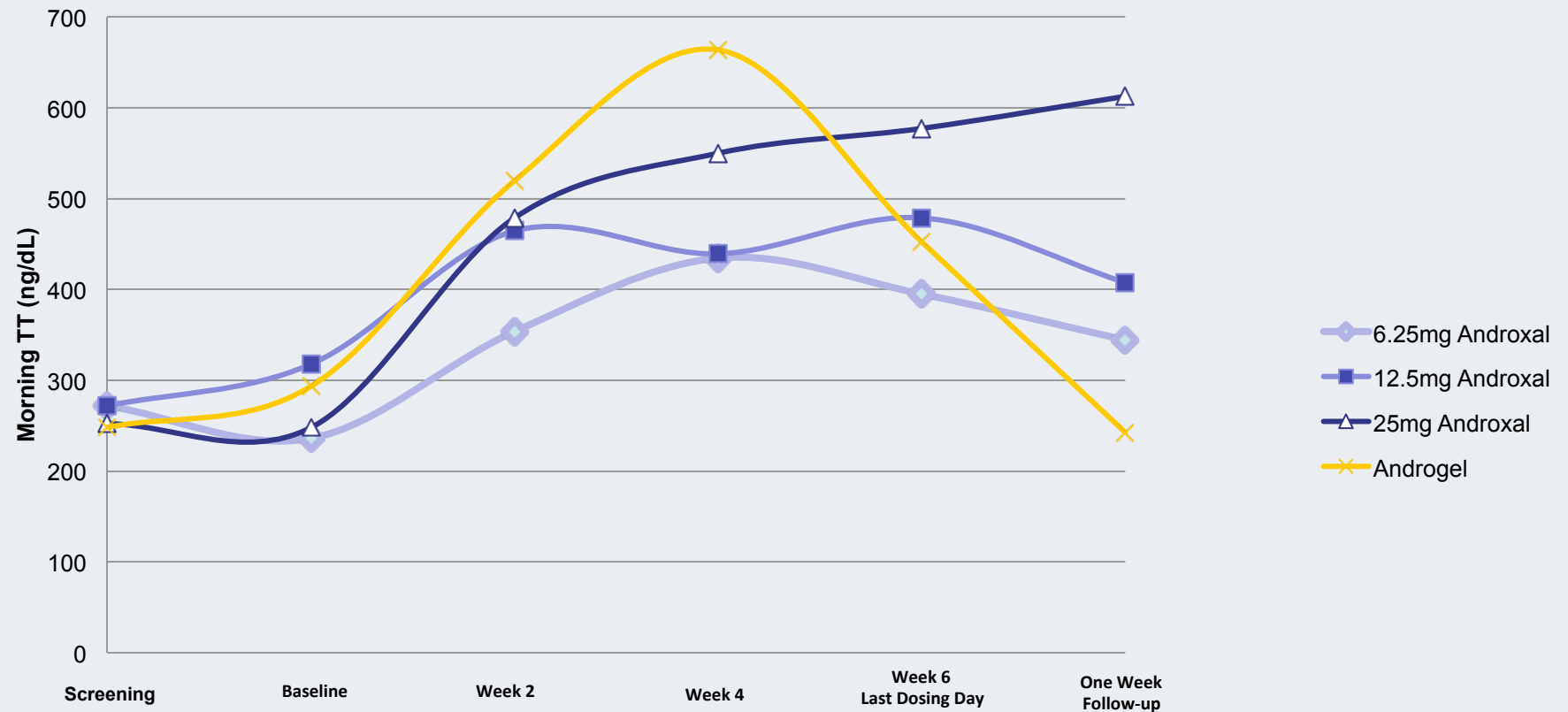
Key Study Discussion Points for Upcoming Type B Meeting 2012

- ZA-204 Results
 - Predictable C_{max} and C_{avg} for Androxal compared to testosterone
 - Continuing benefit for Androxal after stopping treatment
- ZA-203 Results
 - No negative impact on sperm parameters compared to testosterone
 - Equivalent impact on testosterone levels

ZA-204

6 Week Study with 24 hour TT assessment at Baseline and Week 6

Fig. 14: Mean Morning TT Over Time (ZA-204)

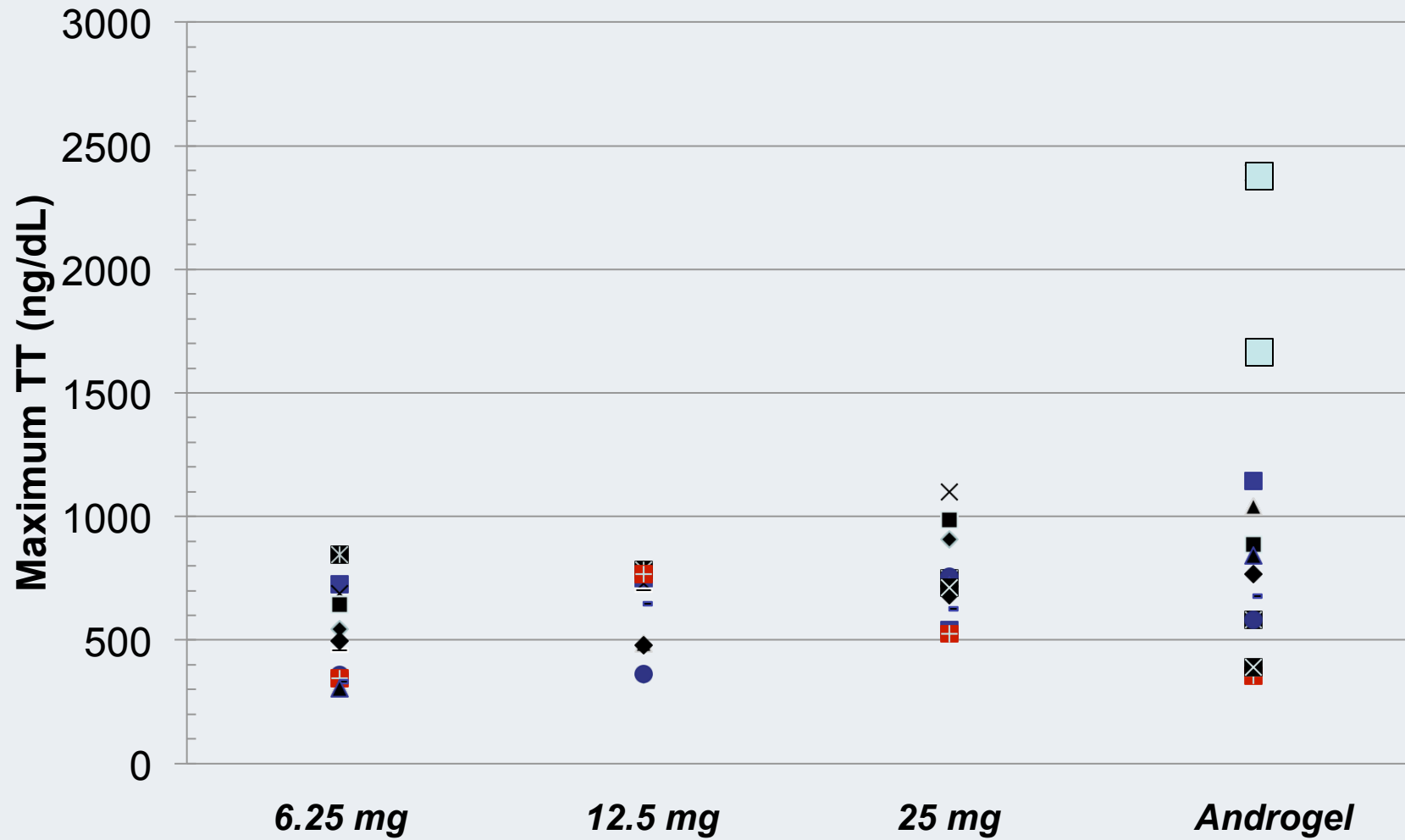


Summary of ZA-204

Dose	Baseline T ng/dl (stdev)	Week 6 T	Follow-up T	ITT LOCF	24 hr Average T	Subjects With 24 hr Avg. T<300ng/dl @Week 6	Subjects with any T >1100 ng/dl @ Week 6
6.25 mg	247 (75.6)	392 (154.2)	341 (150.7)	n=15 402 (159.3)	N=12 392 (152.8)	4 out of 12	0 out of 12
12.5 mg	312 (110.5)	495 (170.4)	437 (188.2)	n=14 493 (163.9)	n=9 461 (129.2)	2 out of 10	0 out of 10
25 mg	248 (114.8)	577 (133.4)	612 (125.4)	n=16 541 (159.0)	n=13 587 (142.1)	0 out of 13	0 out of 13
Androgel	293 (117.5)	452 (243.0)	242.3 (89.3)	n=14 452 (243.1)	n=13 544 (230.1)	2 out of 13	3 out of 13

Good correlation exists between morning T, T_{avg} and T_{max} for Androxal , correlation coefficient near 0.9 (p value < 0.0001)

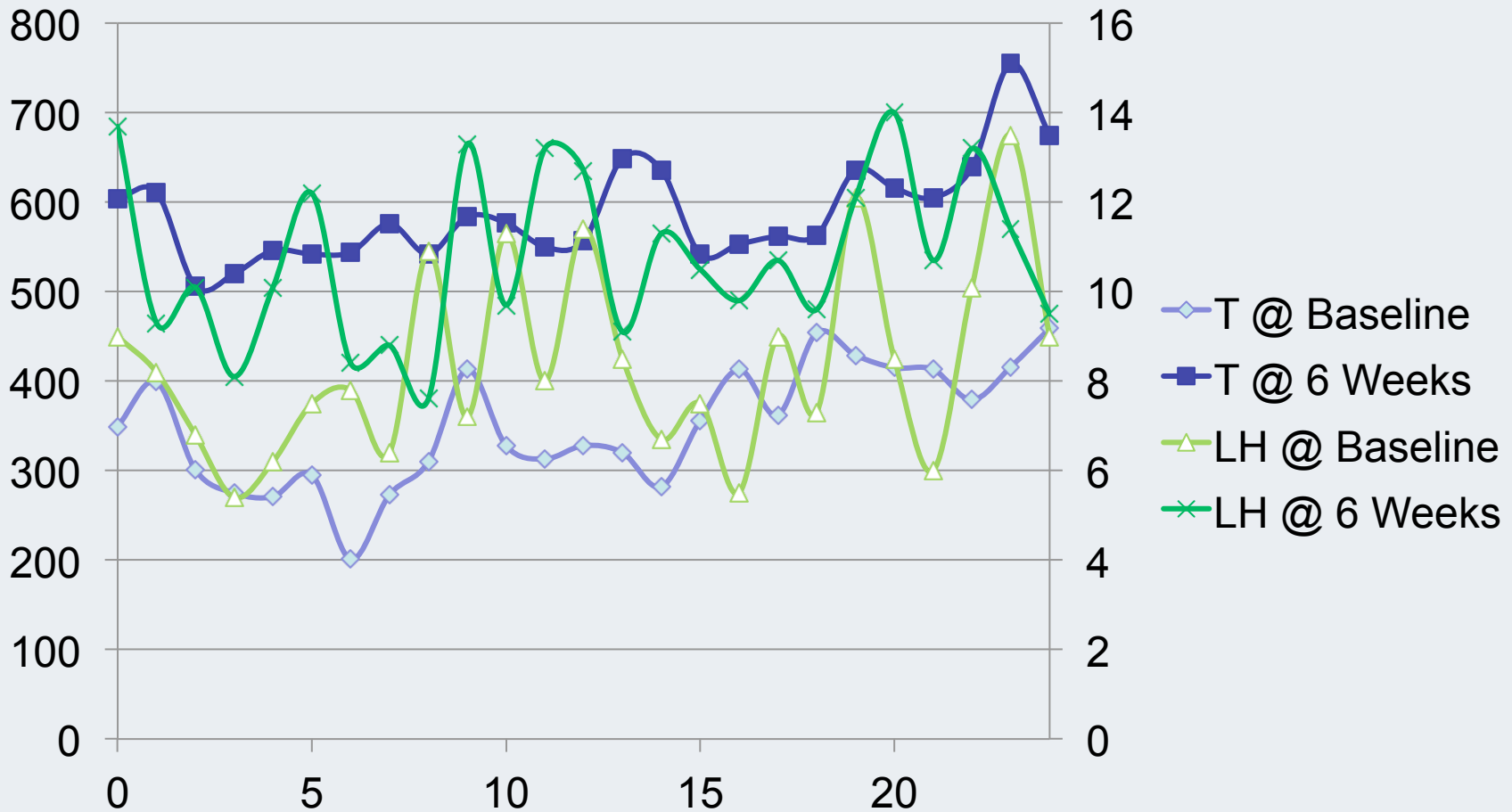
ZA-204 Maximum Recorded TT @ Week 6



24 Hour T & LH

25 mg Androxal Subject Study ZA-204

Subject 2-003 Age: 55, BMI: 32

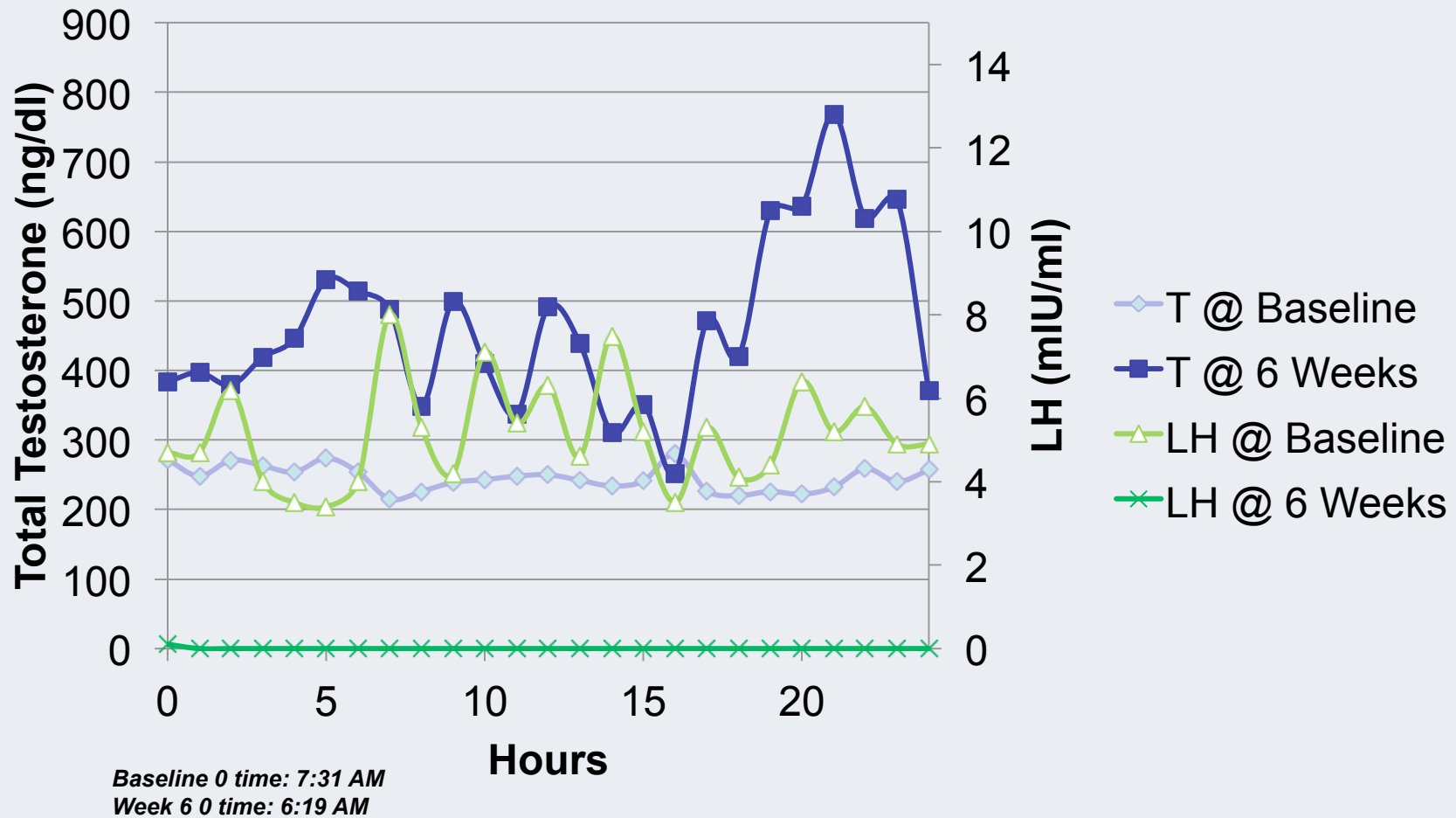


Baseline 0 time: 8:09 AM
Week 6 0 time: 7:25 AM

24 Hour T & LH

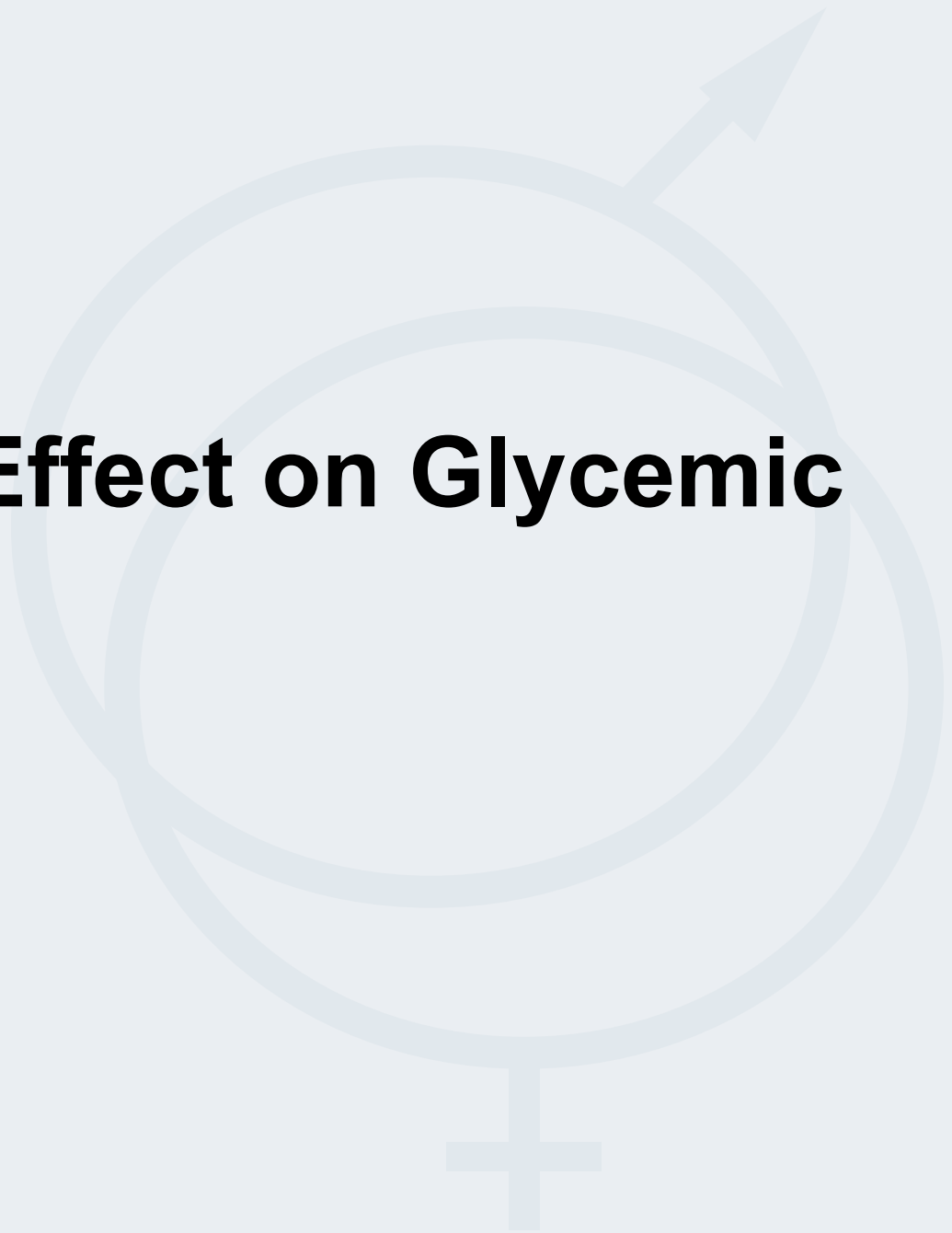
Androgel Subject Study ZA-204

Subject 2-049 Age: 58 , BMI: 24.1



Androxal's Effect on Glycemic Control

ZA-202

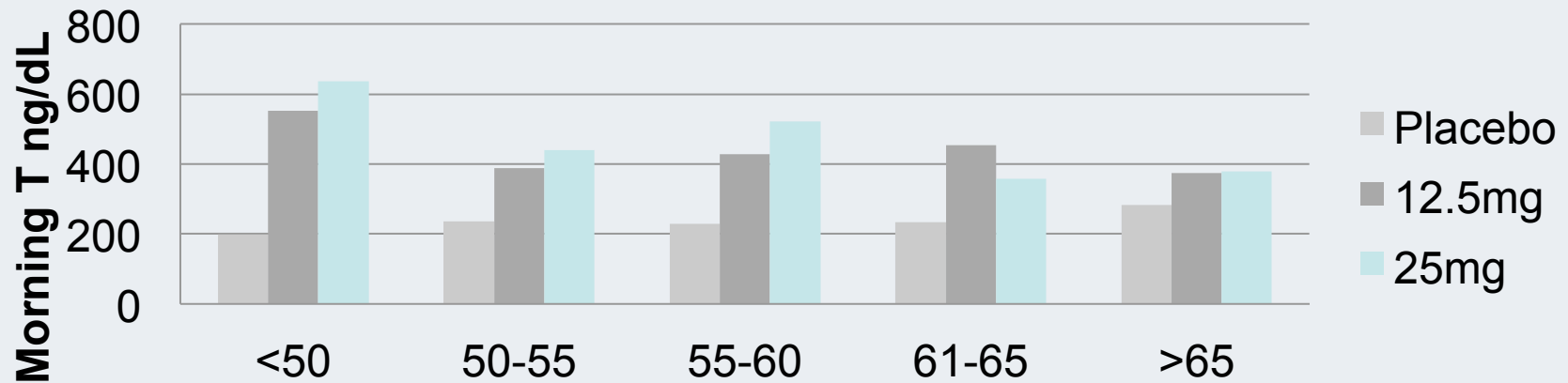


ZA-202

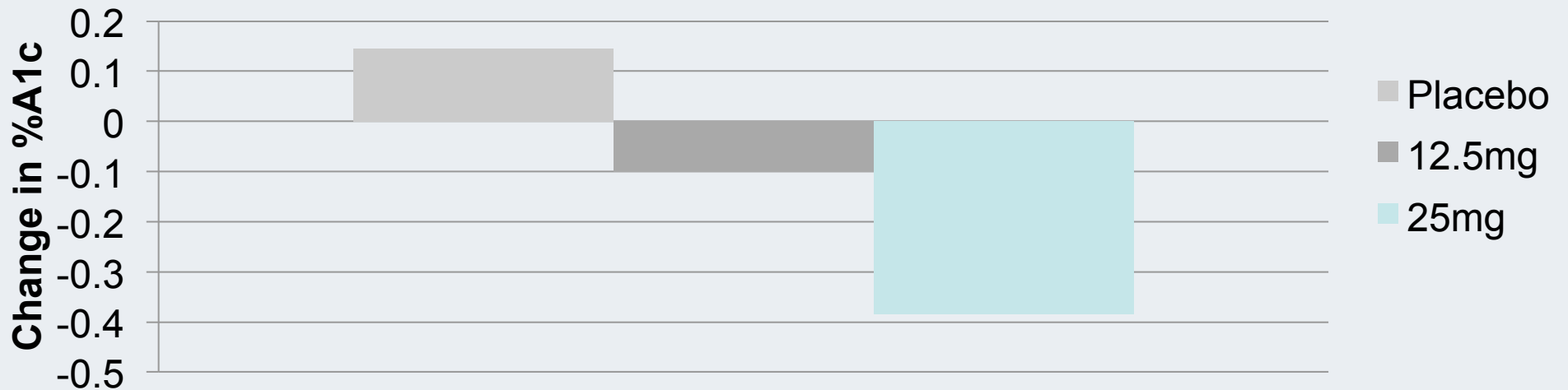
Total T & A1c After 12 Weeks Dosing

All men receiving oral hypoglycemic agents

ZA-202



Men < 65



Androxal's Effect on Sperm

ZA-203

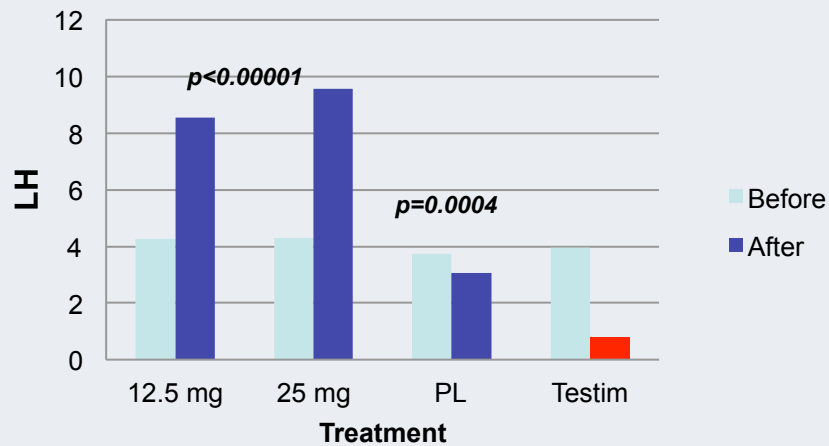


ZA-203 Phase 2b Trial Design

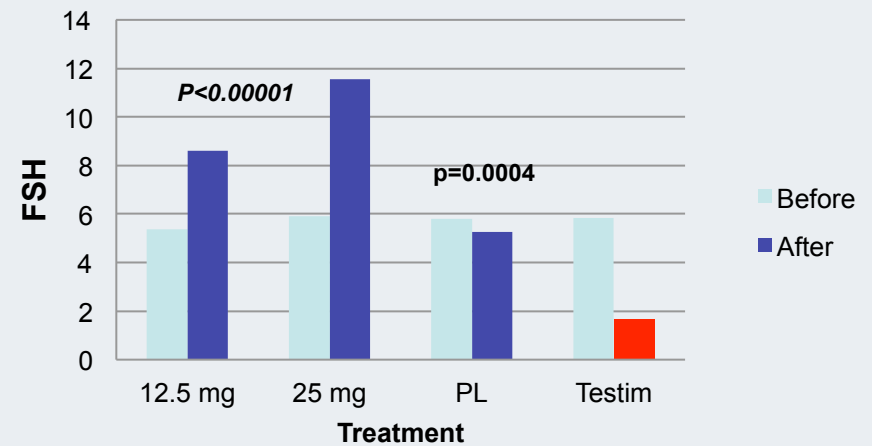
- Up to 120 subject, four arm double blind placebo controlled study comparing two doses of Androxal to placebo and **open label Testim** at 19 clinical sites
- In men with:
 - Confirmed morning T<250ng/dl on two occasions separated by at least 10 days
 - Naïve to T treatment
- Primary Efficacy Endpoint: change in morning testosterone
- Primary Safety Endpoint: Impact on fertility status
- *Over 900 subjects screened to randomize 126*
 - *~8 screen failures per randomized subject due to fluctuating T at baseline*

ZA-203 Top Line Findings

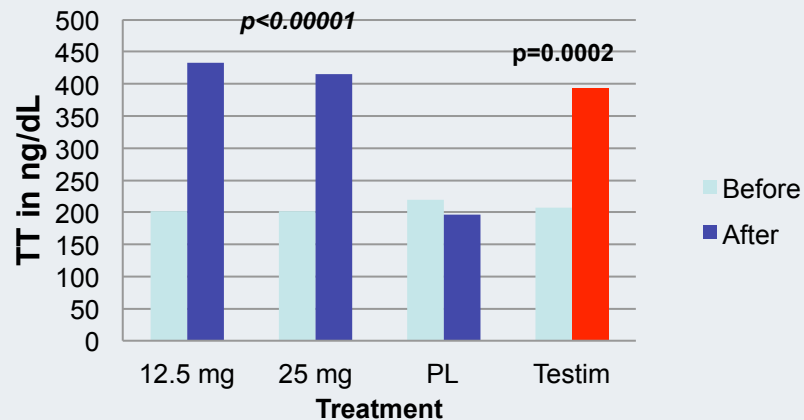
Effect of Treatment on Median LH
p versus Testim



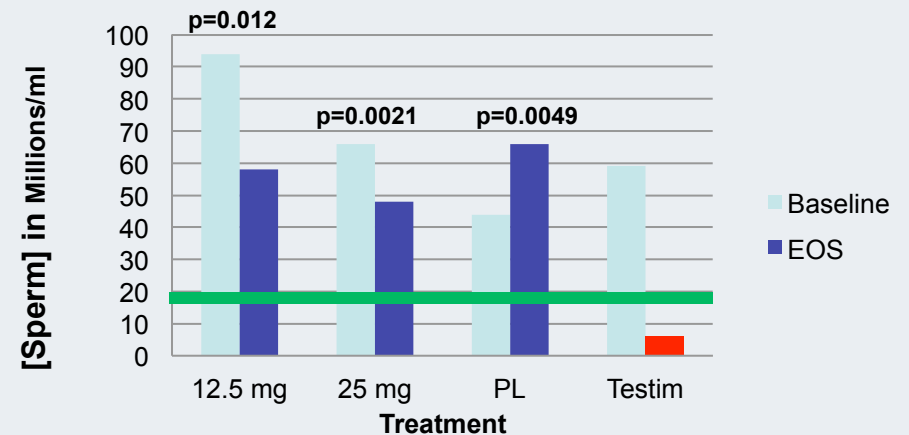
Effect of Treatment on Median FSH
p versus Testim



Effect of Treatment on Median Serum TT
p versus placebo



Effect of Treatment on Median Sperm Concentration
p versus Testim



Androxal Profiles Favorably vs. Current Gels/Creams

	T Gels/Creams	Androxal
Administration	Applied to Skin	Oral ✓
Controlled Substance	Yes	No ✓
Infertility Risk	Yes	No ✓
Shrinks Testes	Yes	No ✓
Sexual Partner Risk	Yes*	No ✓
Unpredictable Peak Testosterone	Yes	No ✓
Potential for Abuse/Super-Normal Levels	Yes	No ✓
Prostate Effects	Yes	No ✓
Worsens Secondary Hypogonadism	Yes	No ✓

** Included within "Black Box" warning on product label*

Favorable Reimbursement Potential for Androxal

- **Third party assessment of payers indicates vast majority (>90%) would add Androxal to formularies**
 - Cost will be key for tier placement
 - 50% of plans indicated they would require a PA(Prior Authorization) to show proper diagnosis
- **Majority of payers believe Androxal's oral administration and non-chronic use may offer overall cost savings**
- **Pricing at parity to branded Androgel would not impact payer's initial formulary decisions**
 - Androgel has high rebates for exclusive preferred status. Abbott has different contracts and therefore plans' costs for this product could substantially differ
- **62% of respondents expect Androxal to be priced at parity to Androgel**
 - Anticipated Androxal pricing of \$170-350/month would be competitive with Androgel

Proellex for the Treatment of Uterine Fibroids and Endometriosis

Low Dose Oral
&
Vaginal Delivery

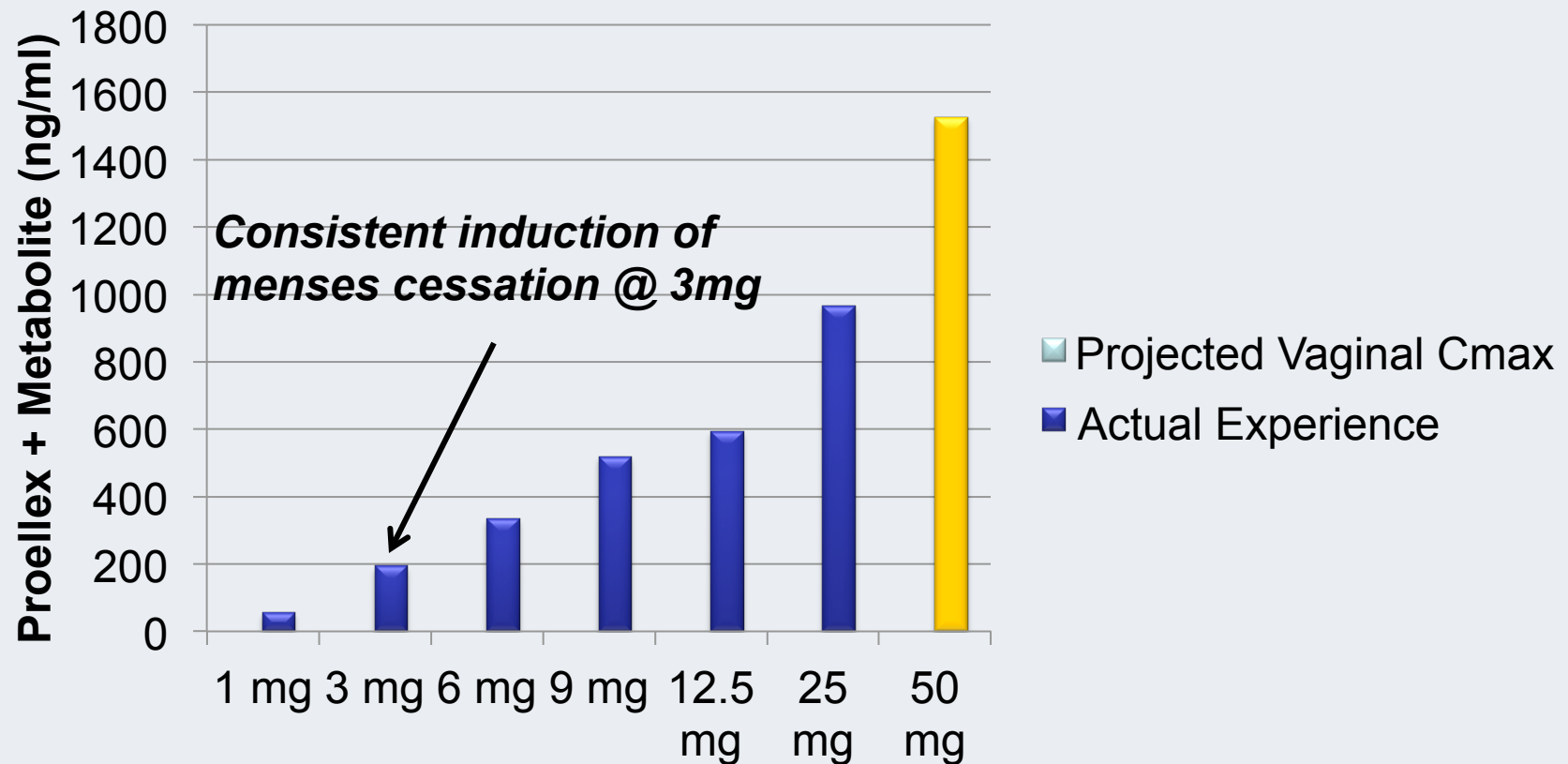


Proellex Status

- **Previously on clinical hold for elevated liver enzymes observed at highest dose in Phase 3 studies**
- **Partial hold for oral doses until low dose study complete (now complete)**
 - oral intended for endometriosis indication
 - No liver enzyme elevations at any dose in low dose study
- **New IND for vaginal delivery**
 - No clinical hold issue
 - Intended for fibroid “debulking” and symptom elimination

Cmax for Current Low Dose Study

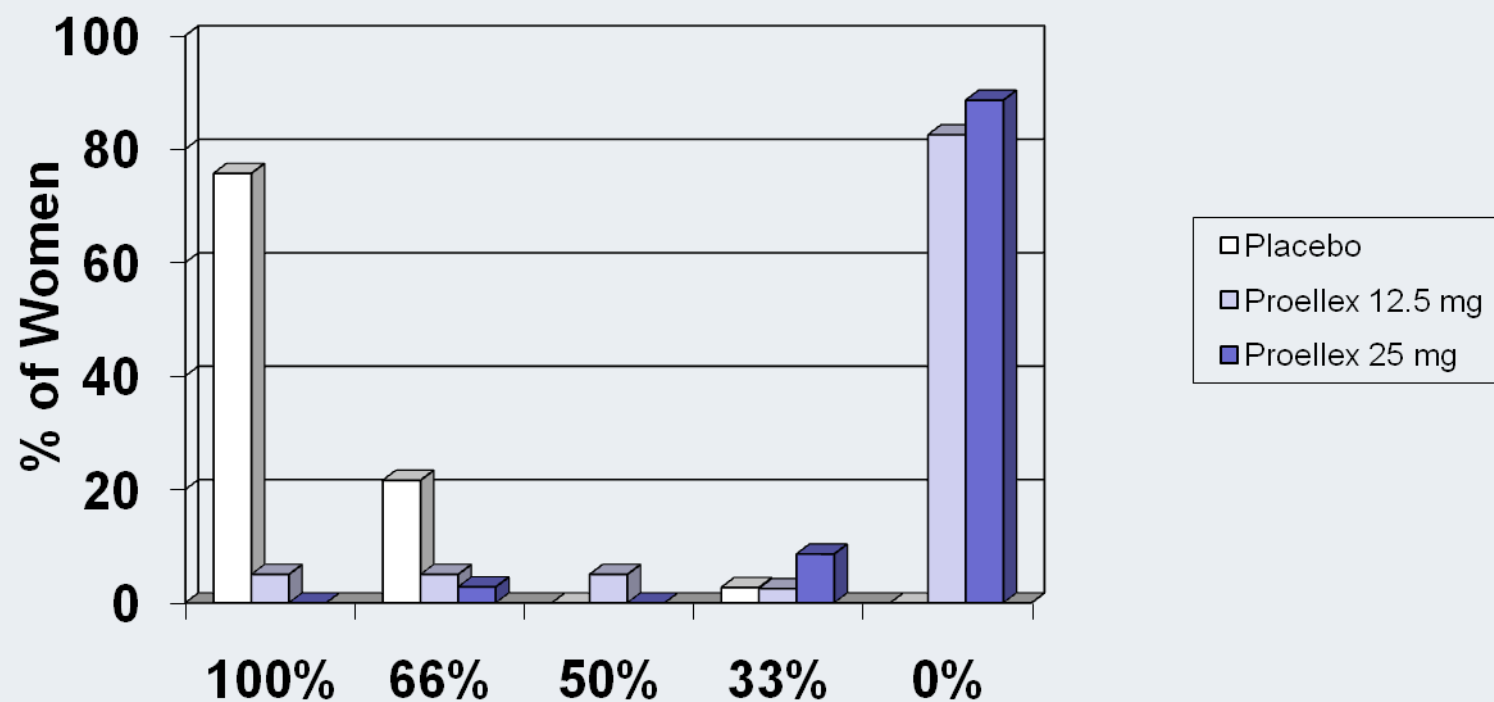
Maximum Concentration in Serum



ZPU-003

Phase II Uterine Fibroid Study

Percent of Women Continuing to Experience Menstrual Cycles



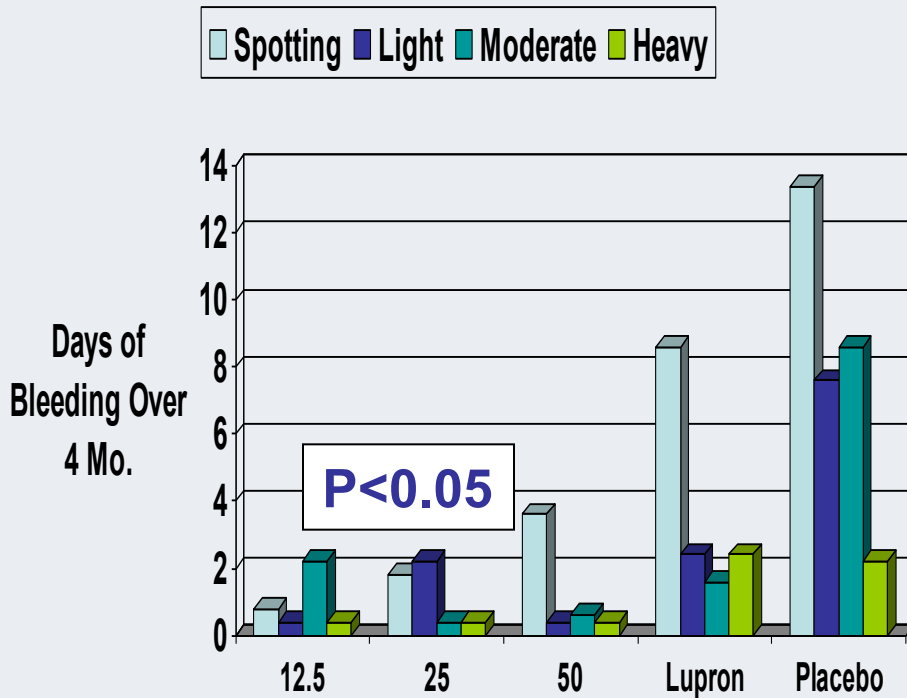
% of Potential Cycles Where Menses Was Observed

- The underlying physiologic outcome of an antiprogestin is to stop menses*
- *Eliminates excessive menstrual bleeding in the case of fibroids*
 - *Eliminates menstrual pain in the case of endometriosis*

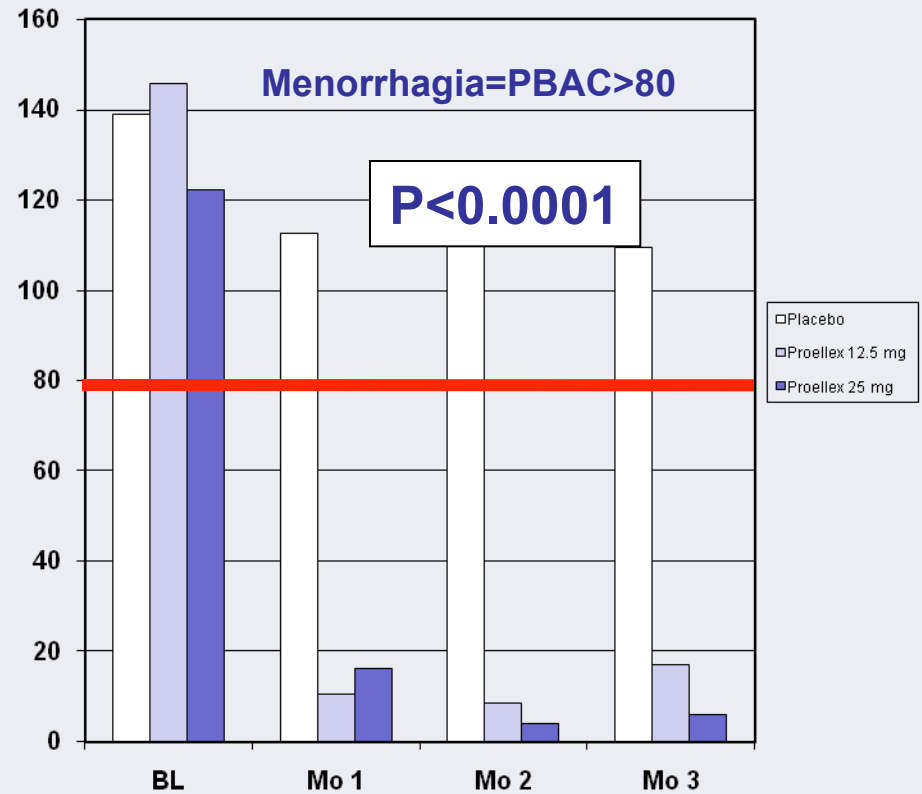
Can a Low Dose Work?

Key Symptom Driving Women to Seek Therapy
for Uterine Fibroids
“Excessive Menstrual Bleeding”

Days of Vaginal Bleeding Over 4 Months



European Pilot Study
(n=30)



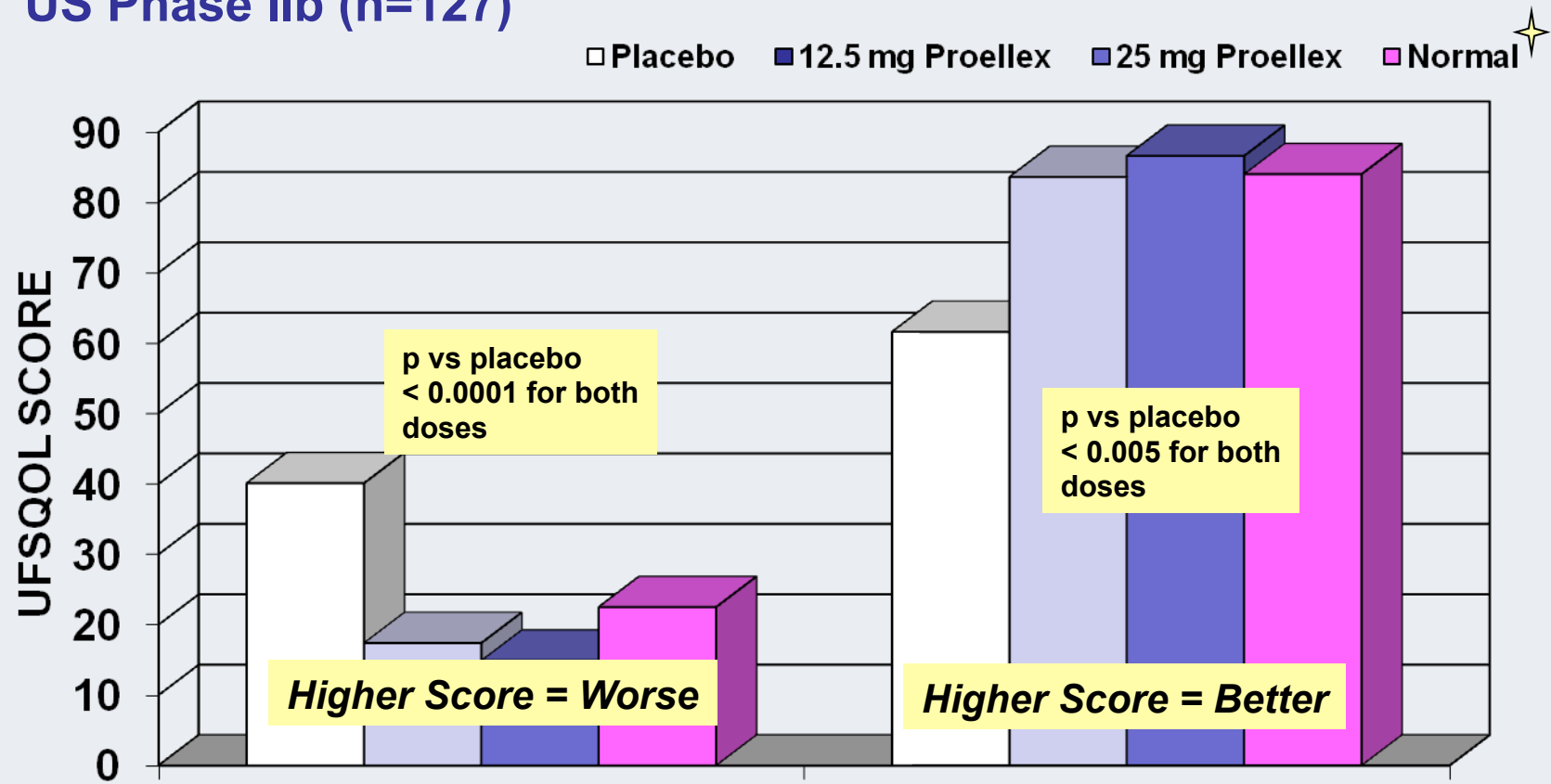
US Phase IIb
(n=127)

•Basis for Commencement of US Phase III Studies

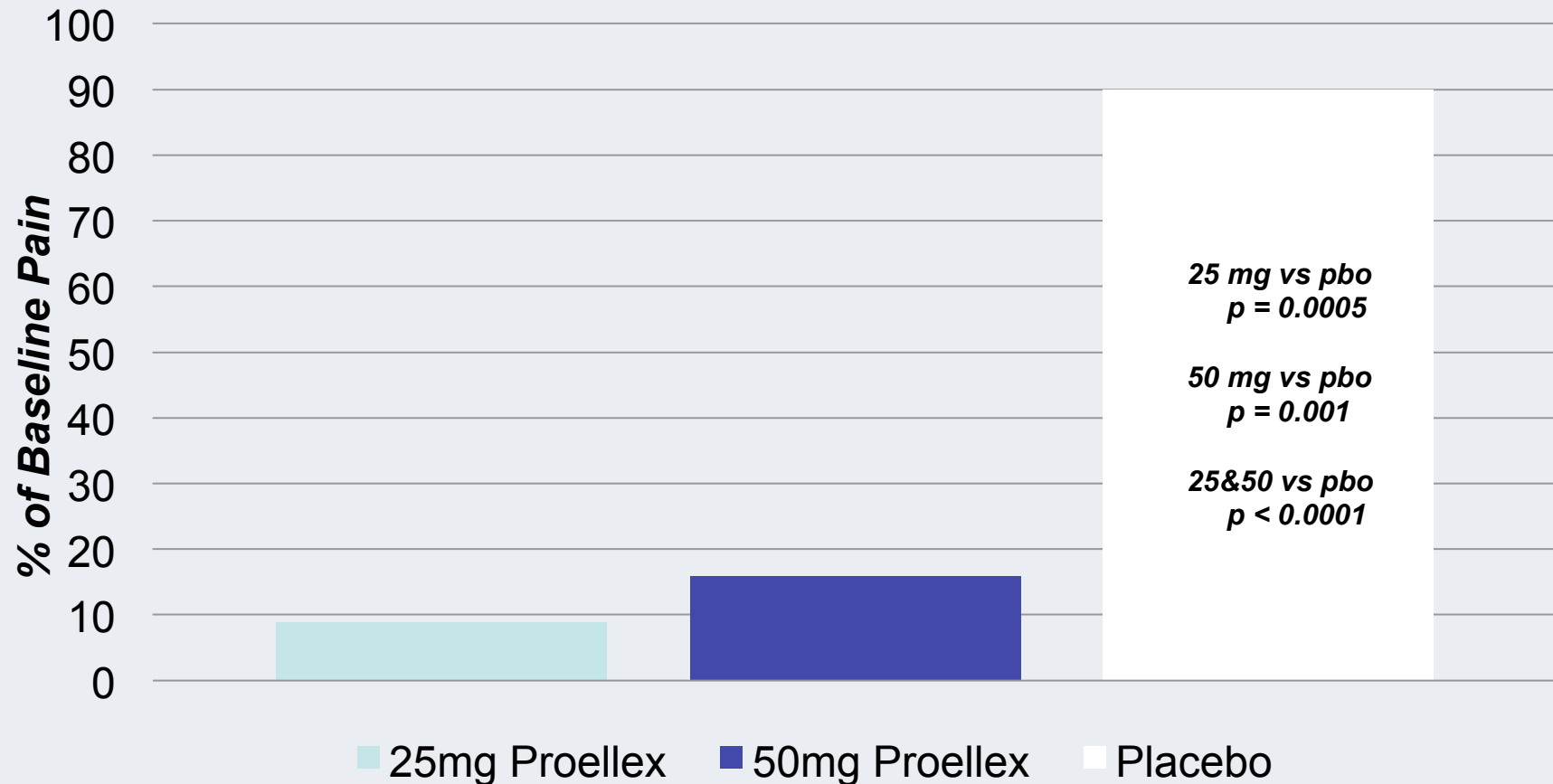
Proellex Produces Significant Clinical Benefit Resulting in Substantially Asymptomatic Uterine Fibroids

UFSQOL Uterine Fibroid Symptom Survey

US Phase IIb (n=127)



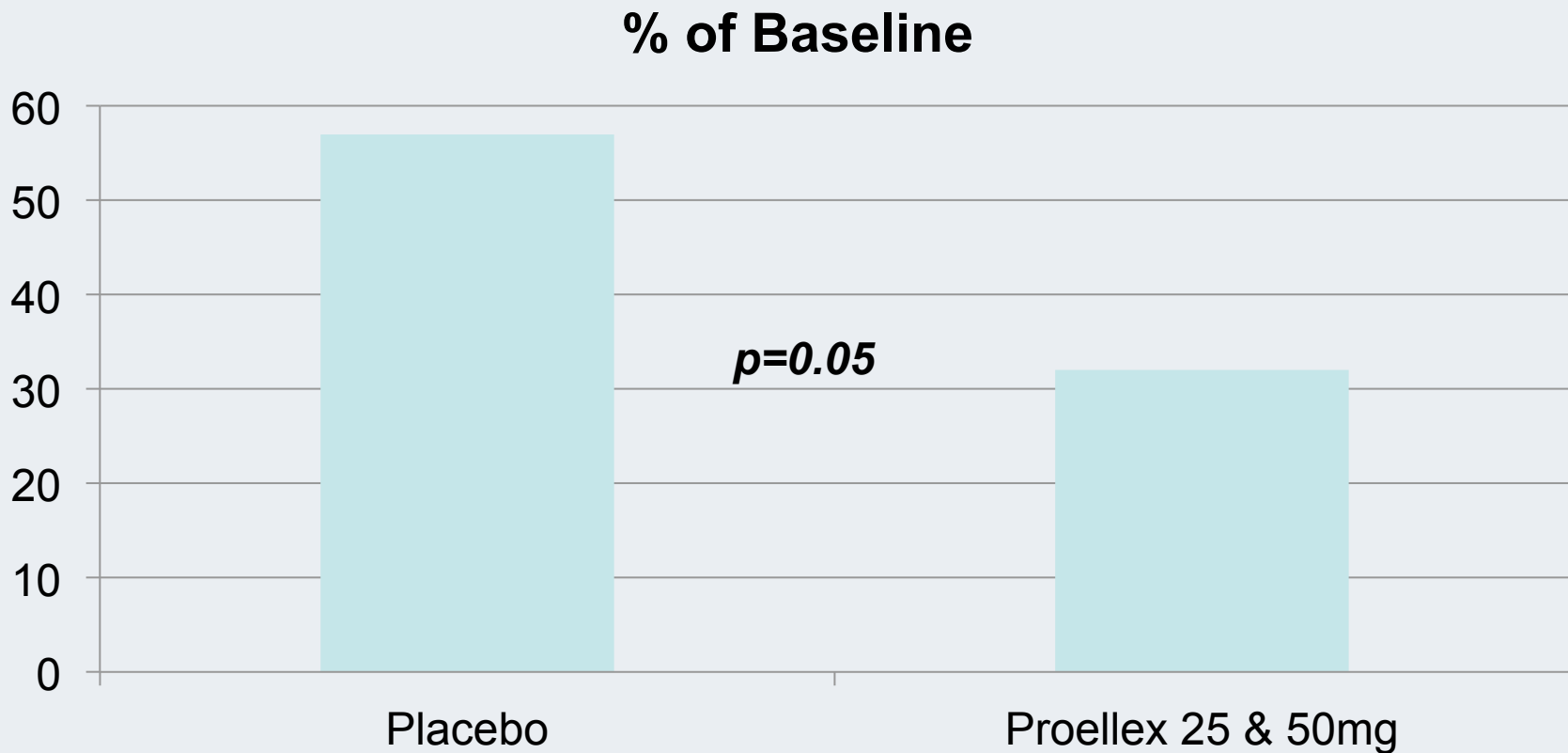
BASELINE vs LAST 28 DAYS DYSMENORRHEA



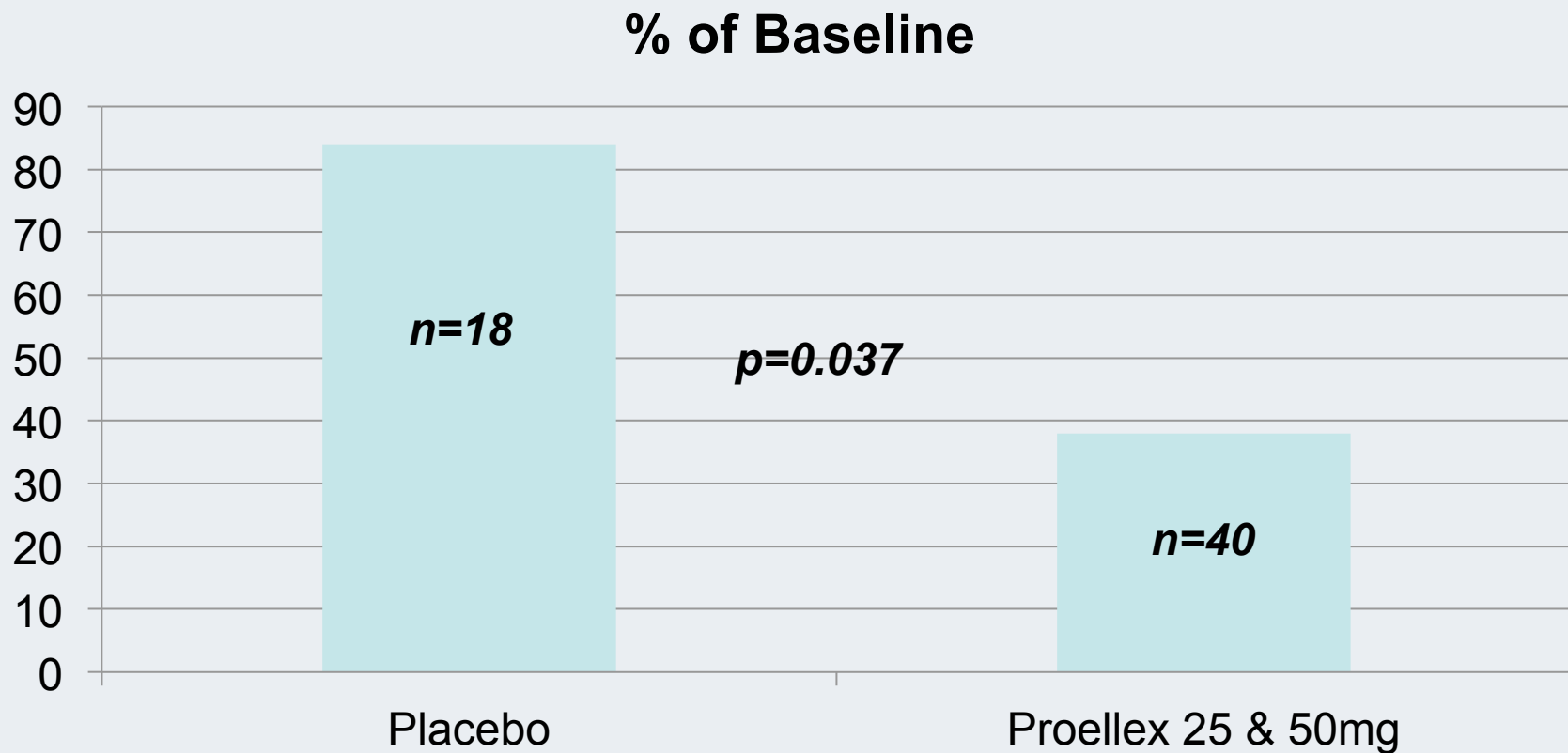
N = 18 for placebo and 25 mg

N = 22 for 50 mg

Baseline vs Last 28 Days Non Menstrual Pelvic Pain

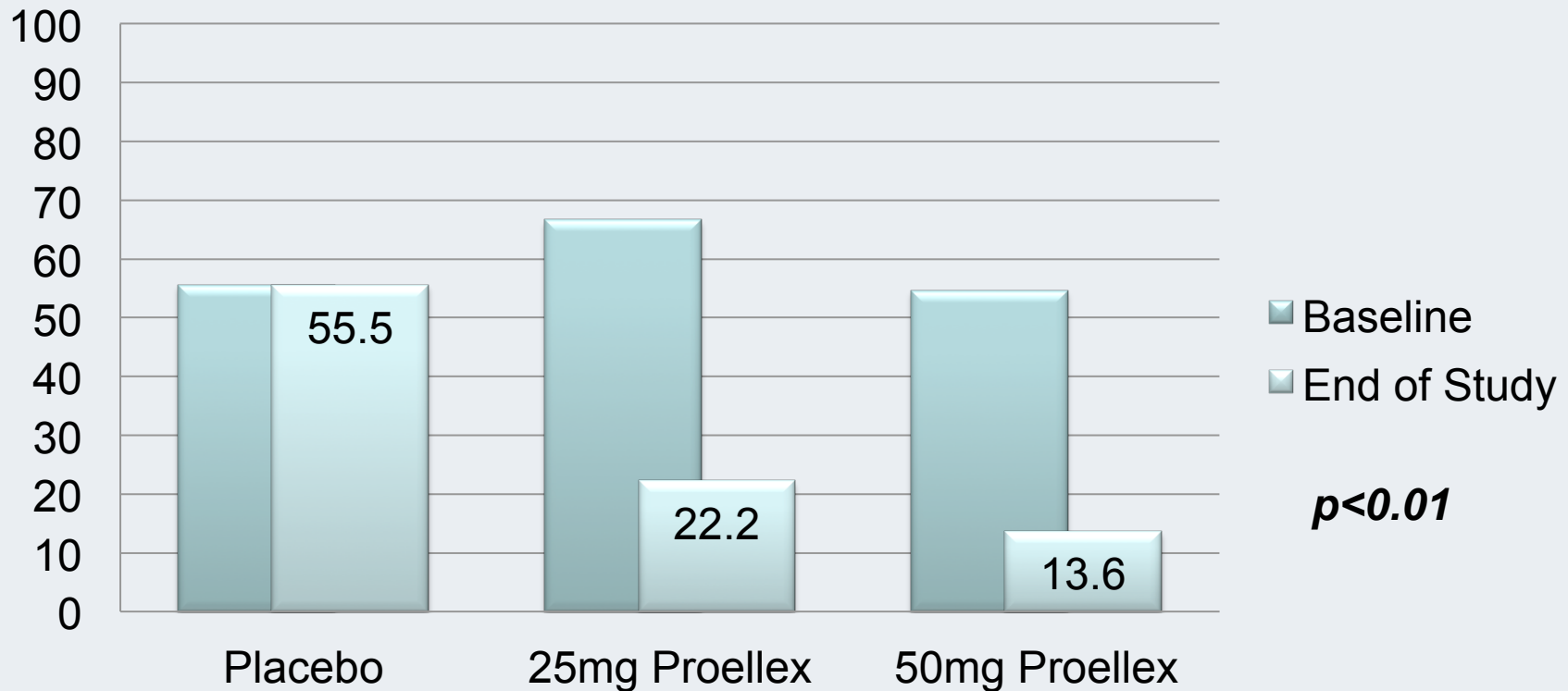


Baseline vs Last 28 Days Dyspareunia



Impact of Proellex on Need for Narcotics in Treatment of Endometriosis Symptoms

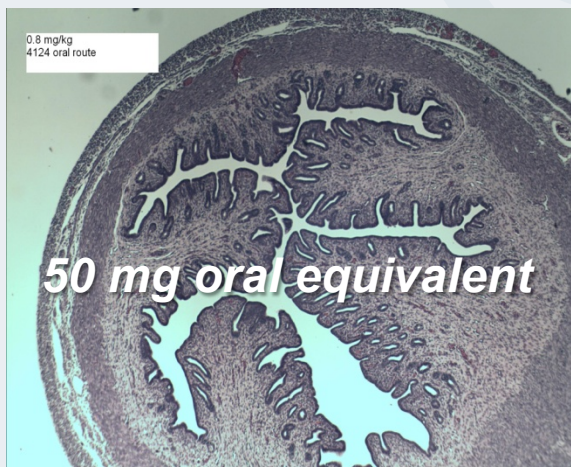
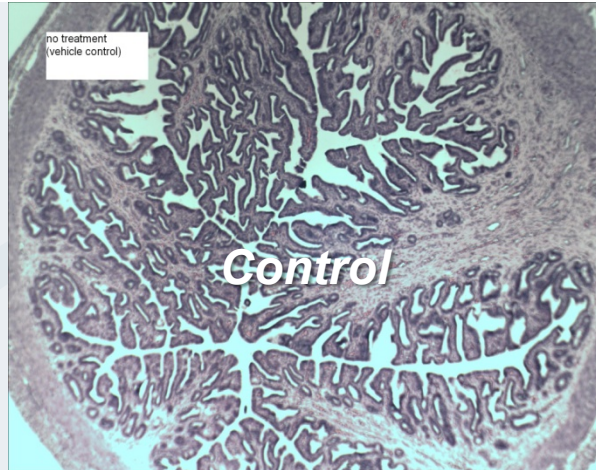
% of Subjects Requiring Narcotics at End of Study



Vaginal Proellex

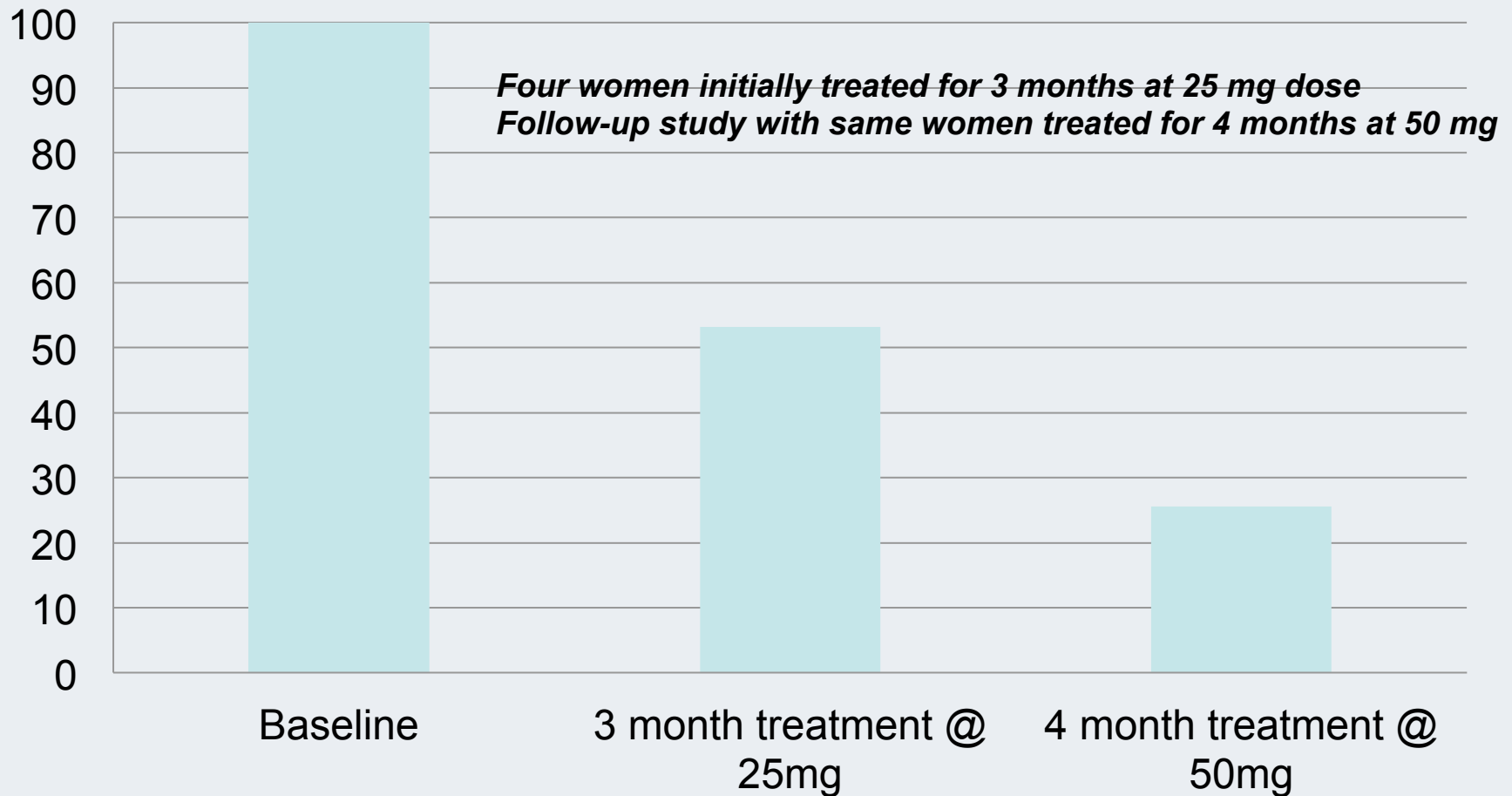
- New IND effective
- Initial Phase 2 study to test three doses of vaginal administration in the treatment of uterine fibroids
 - Assess reduction of fibroid size and elimination of symptoms
 - Company anticipates efficacy effects greater than highest dose tested in humans (50mg) with systemic exposure less than 3 mg oral.

Rabbit anti-Clauberg Study



Increasing Oral Dose Continues to Shrink Fibroids

Repros Expects Vaginal Delivery to Exceed Shrinkage Effects of Highest Oral Dose Tested



Financial Summary

- **Cash and equivalents** (as of 1/1/12, unaudited) = \$4.6M
- **Cash burn** = 2011 = ~\$12.3 M)
- **Cash runway** = beginning Q3 2012
- **12.32 MM shares outstanding, 15.21 MM fully diluted**
 - Warrants outstanding = 1.75MM Series A (Purchased in unit deal @\$2.46) + 1.69MM Series B (@\$2.49 with cashless exercise provision)
 - Forced warrant strike at \$8/share

Upcoming Milestones

24-hour P2 assessment data on Androxal	Q4 2011
Complete P2b data on Androxal in diabetic men	Q4 2011
P2b data on Androxal for hypogonadism	Q4 2011
Low dose P2 data on Proellex	Q4 2011
Open IND for P2 study of vaginal Proellex for uterine fibroids	Q4 2011
Initiate P3 studies of Androxal for hypogonadism	Q2 2012
Initiate pivotal studies on low dose Proellex for endometriosis	H2 2012