

A close-up profile of a woman with long, dark hair, wearing a traditional Indian sari with a pink and purple pattern. She is looking towards the left of the frame. The background is a soft, out-of-focus light blue and white.

Obseva
nature meets nurture

**Focused on unmet needs in
women's reproductive health**

August 2021

Obseva

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Matters discussed in this presentation may constitute forward-looking statements. The forward-looking statements contained in this presentation reflect our views as of the date of this presentation about future events and are subject to risks, uncertainties, assumptions, and changes in circumstances that may cause our actual results, performance, or achievements to differ significantly from those expressed or implied in any forward-looking statement. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future events, results, performance, or achievements. Some of the key factors that could cause actual results to differ from our expectations include our plans for clinical development and commercialization of our product candidates; our planned clinical trials and preclinical studies for our product candidates, including uncertainties inherent in the conduct of clinical trials and clinical development; the timing of and our ability to obtain and maintain regulatory approvals for our product candidates; the extent of clinical trials potentially required for our product candidates; the clinical utility and market acceptance of our product candidates; our plans and development of any new indications for our product candidates; our reliance on third parties over which we may not always have full control; our commercialization, marketing and manufacturing capabilities and strategy; our intellectual property position; and our ability to identify and in-license additional product candidates. For further information regarding these risks, uncertainties and other factors that could cause our actual results to differ from our expectations, you should read the risk factors set forth in our Annual Report on Form 20-F for the year ended December 31, 2020 filed with the SEC on March 5, 2021, and our other filings we make with the Securities and Exchange Commission from time to time.

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This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

About ObsEva

ObsEva (NASDAQ: OBSV and SIX: OBSN) is a clinical-stage biopharmaceutical company developing and commercializing novel therapies to improve women's reproductive health.

Through strategic in-licensing and disciplined drug development, ObsEva has established a late-stage clinical pipeline with development programs focused on treating uterine fibroids, endometriosis and preterm labor.

- Founded in 2012
- Headquarters: Geneva, Switzerland
- Employees: 47 total EU and US
- Listings: NASDAQ (OBSV) and SIX (OBSN)
- Collaborations with Organon, Kissei, Yuyuan Bioscience, Merck Serono



Seasoned leadership team



Brian O'Callaghan
Chief Executive Officer

Elizabeth Garner MD, MPH
Chief Medical Officer

David Renas
Chief Financial Officer

Fabien de Ladonchamps
Chief Administrative Officer

Jean-Pierre Gotteland, PhD
Chief Scientific Officer

Clive Bertram
Chief Commercial Officer



Board of Directors



Frank Verwiel, MD
Chairperson

Ernest Loumaye,
MD, PhD

Brian O'Callaghan

Annette Clancy, BSc
(Hons)

Anne VanLent

Ed Mathers

Catarina Edfjäll
PhD

Jacky Vonderscher,
PhD



Forest Laboratories, Inc.



Investor highlights

1

Pursuing large indications for conditions that compromise **women's reproductive health and beyond**

2

Linzagolix has potential **best in class efficacy, favorable tolerability, and unique flexible dosing options**

3

Global licensing agreement with **Organon to develop and commercialize ebopiprant**, the only known product in development for preterm labor

4

Business model built on strong **global partnerships and collaborations**

5

Seasoned **leadership team** with a track record for success

Product overview

LINZAGOLIX



Potential to relieve symptoms of heavy menstrual bleeding due to uterine fibroids and pain associated with endometriosis

EBOPIPRANT



Potential to delay preterm birth to improve newborn health and reduce medical costs¹

NOLASIBAN



Potential to improve live birth rate following IVF & embryo transfer

¹The global development, manufacturing and commercial rights of ebopiprant is licensed to Organon

Multiple development programs drive value

| | Phase 1 | Phase 2 | Phase 3 | Next Milestones |
|--|---------|----------------------------------|---|---|
| LINZAGOLIX Oral GnRH receptor antagonist | | | | NDA submission (Q3:21) MAA for uterine fibroids expected recommendation (Q4:21) |
| | | | Uterine Fibroids – Ph3 PRIMROSE 2 (EU & US) | |
| | | | Uterine Fibroids – Ph3 PRIMROSE 1 (US) | |
| | | | | EDELWEISS 3: Completed enrollment with primary endpoint readout expected (Q4:21) |
| EBOPIPRANT Oral PGF _{2α} receptor antagonist | | Preterm Labor – Ph2b (EU & Asia) | | Global rights licensed to Organon |
| NOLASIBAN Oral oxytocin receptor antagonist | | IVF – Ph1/2 (China) | | Rights licensed to YuYuan Bioscience for development and commercialization in China |

Obseva
nature meets nurture



**DESIGNED TO TREAT MORE
WOMEN SUFFERING FROM
UTERINE FIBROIDS**

Yselty®, our proposed trade name for linzagolix, is conditionally acceptable for the FDA. Linzagolix has not been approved by FDA for any indication for use. Linzagolix is an investigational drug.



Uterine fibroids

A significant unmet need translating into a multibillion market

\$34B/yr

total **US** costs from direct costs, lost workdays and complications

9 million

women in the **US** affected by fibroids

70%+

of women have fibroids by age 50

Quality of Life

premenopausal women may experience heavy menstrual bleeding, anemia, bloating, infertility, pain and swelling

600,000

hysterectomies are performed annually in the **US**

>4 million

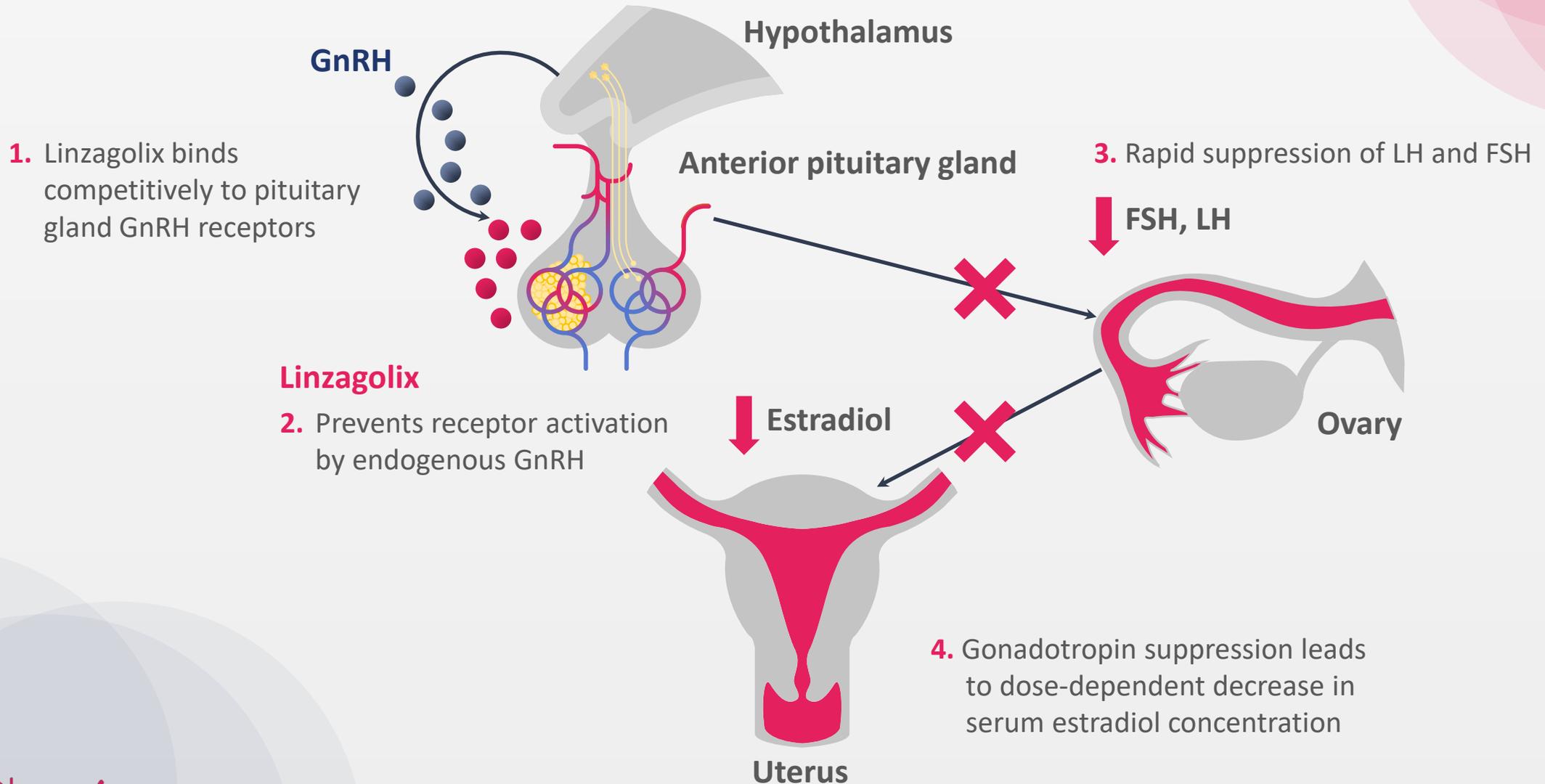
women in the **US** are treated annually for fibroids

300,000

are because of uterine fibroids



GnRH antagonist mechanism of action



A potential new gold standard treatment for uterine fibroids

Differentiated PK/PD profile

1

**Bioavailability
> 80%**

Reliable absorption

Predictable exposure/effect with each dose

2

**Half-life
14-15 hours**

Optimal balance for dosing and effectiveness

- Convenient once-daily dosing that fits into women's busy lives
- Blood levels that last long enough to allow flexibility in dosing time

3

**No CYP3A4
induction/food
effect**

"No hassle" administration profile

- Can be taken with or without food
- No relevant interactions with hormonal add-back therapy, oral iron, calcium or other common medications

Promise of GnRH antagonists

Dose dependent reduction of estradiol (E2)

Women with symptoms of uterine fibroids

No estradiol suppression

Target estradiol

Full estradiol suppression



Disease Symptoms

- Heavy menstrual bleeding/anemia
- Abdominal/pelvic pain and pressure



Outcomes

- Reduction in bleeding
- Minimal to no impact on BMD

***ABT not required**



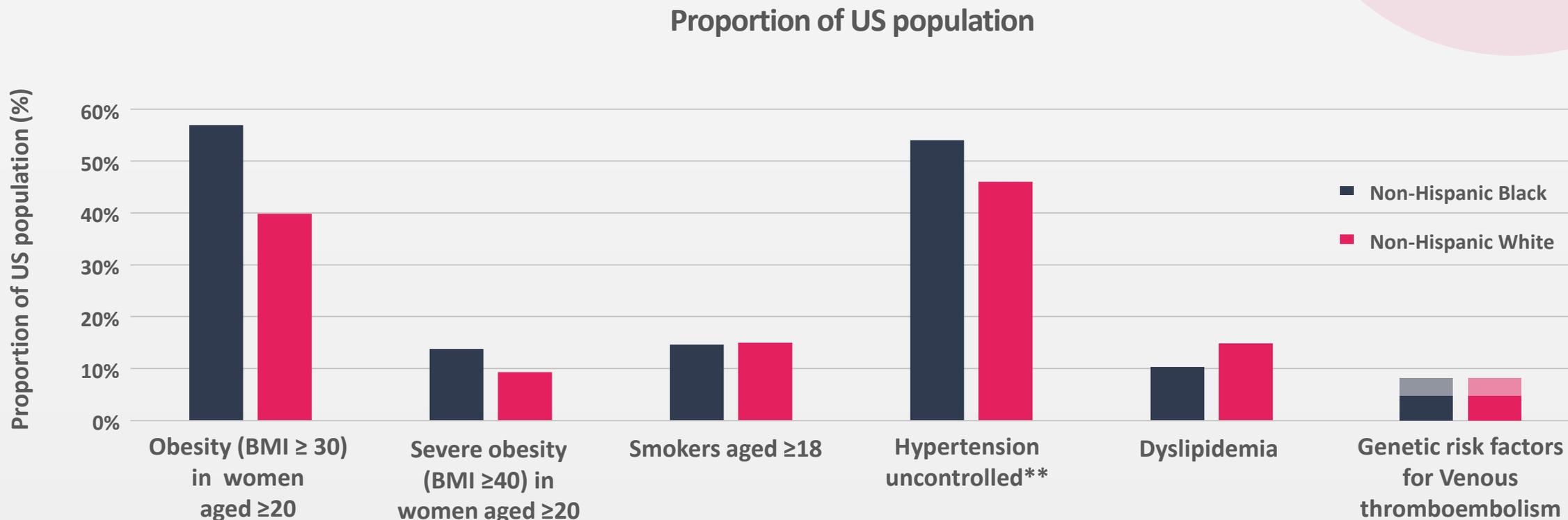
Symptoms/Safety Concerns

- BMD loss
- Hot flashes

***ABT required for long term use (>6 months)**

Up to 50% of US women suffering from uterine fibroids may have a contraindication to hormonal ABT*

Black women are overrepresented



*US FDA elagolix PI, section 4. Contraindications and section 5.1. Warnings and precautions – thromboembolic disorders and vascular events ** Proportion of individuals with hypertension - Overall population Male vs Female: 47% vs 43% **Hales et al., Prevalence of obesity and severe obesity among adults: United States, 2017–2018. NCHS Data Brief, no 360

Uterine fibroids are ruining lives...

No two women are the same, but millions share a common problem: suffering the daily consequences of uterine fibroids



For long-term use for women for whom ABT is appropriate



Linzagolix 200 mg once daily with concomitant ABT



For long-term use for women with a contraindication to or who prefer to avoid ABT



Linzagolix 100 mg once daily without ABT



For short-term use (up to 6 months) when rapid reduction in fibroid and uterine volume is desired

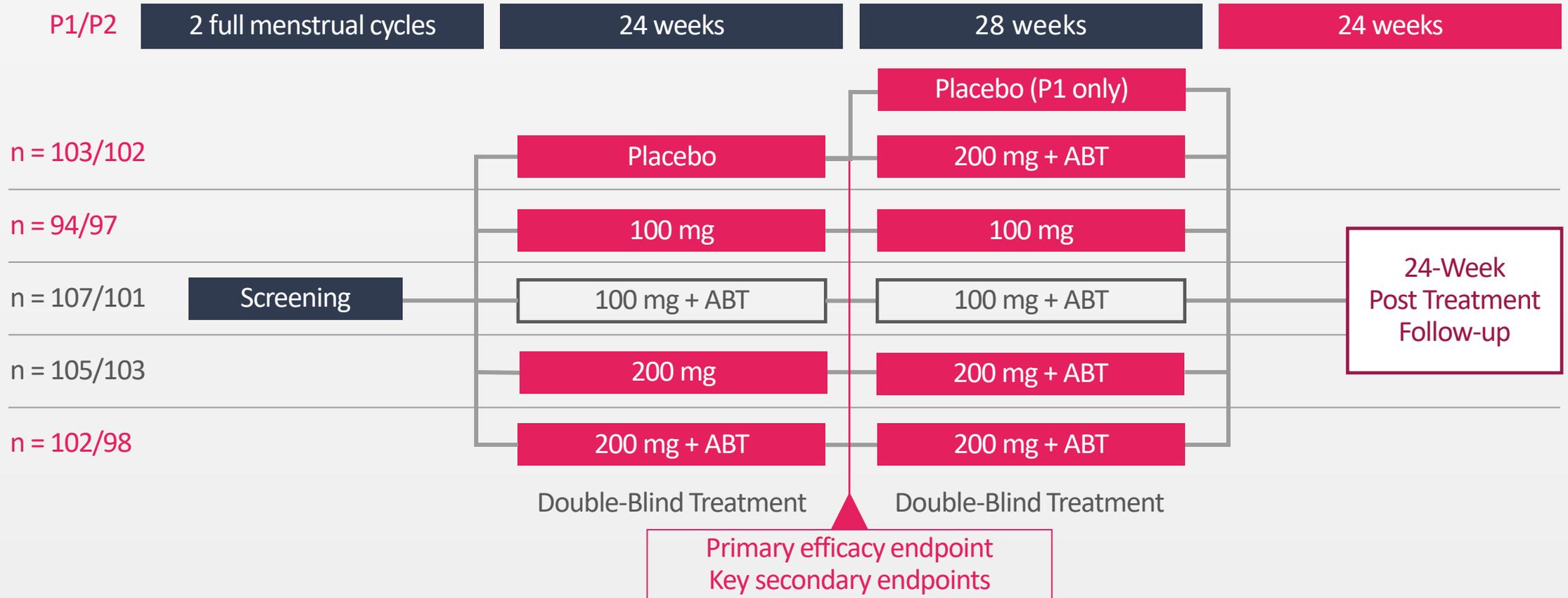


Linzagolix 200 mg once daily without ABT

ABT-containing regimens may be contraindicated in up to 50% of US women with uterine fibroids based on the elagolix US label* and analysis of CDC data**

Phase 3 registration studies

PRIMROSE 1 (US) and PRIMROSE 2 (EU/US)

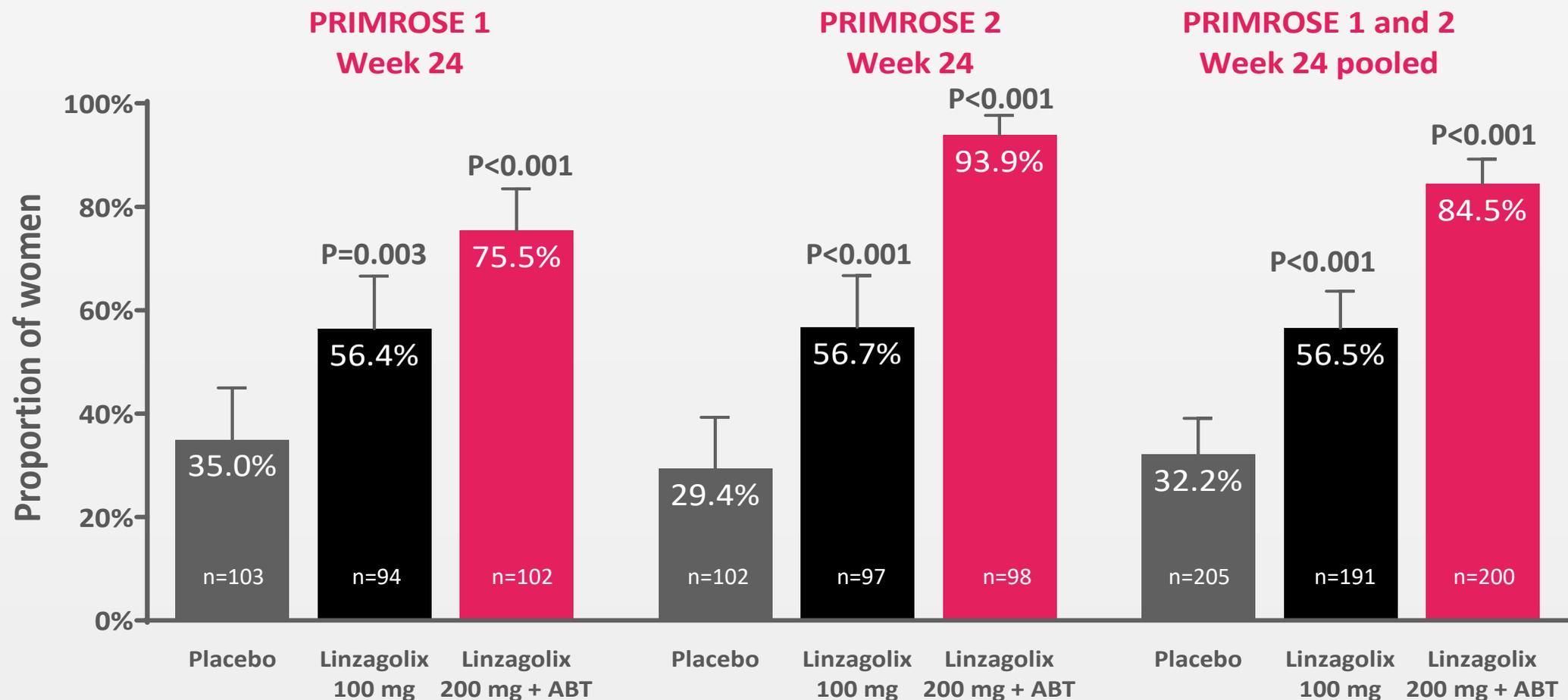


Primary efficacy endpoint: proportion of women with menstrual blood loss ≤ 80 mL (by alkaline hematin method) and $\geq 50\%$ reduction from baseline

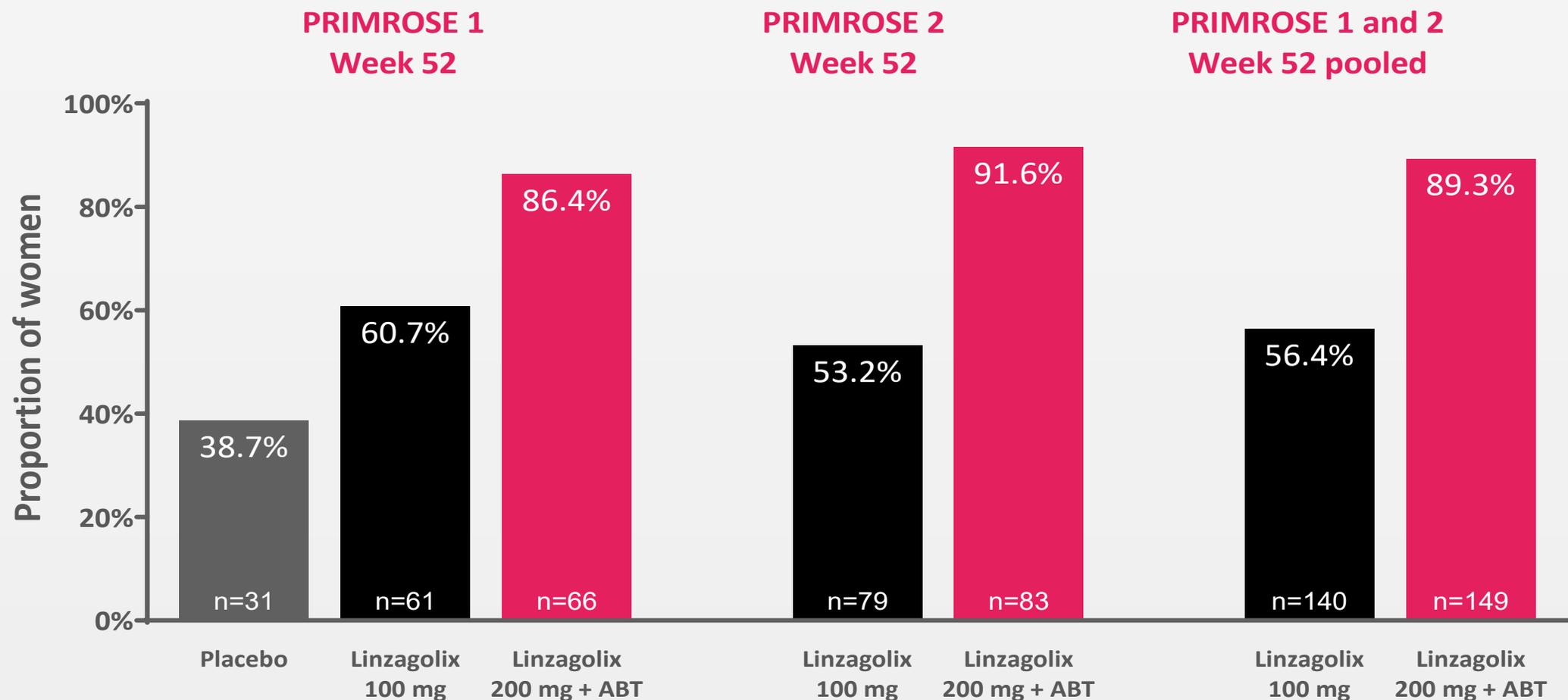
Patients in the studies received no Vitamin D or calcium supplementation

PRIMROSE 1 and 2 achieved primary endpoint for both doses

Responder* analysis at week 24

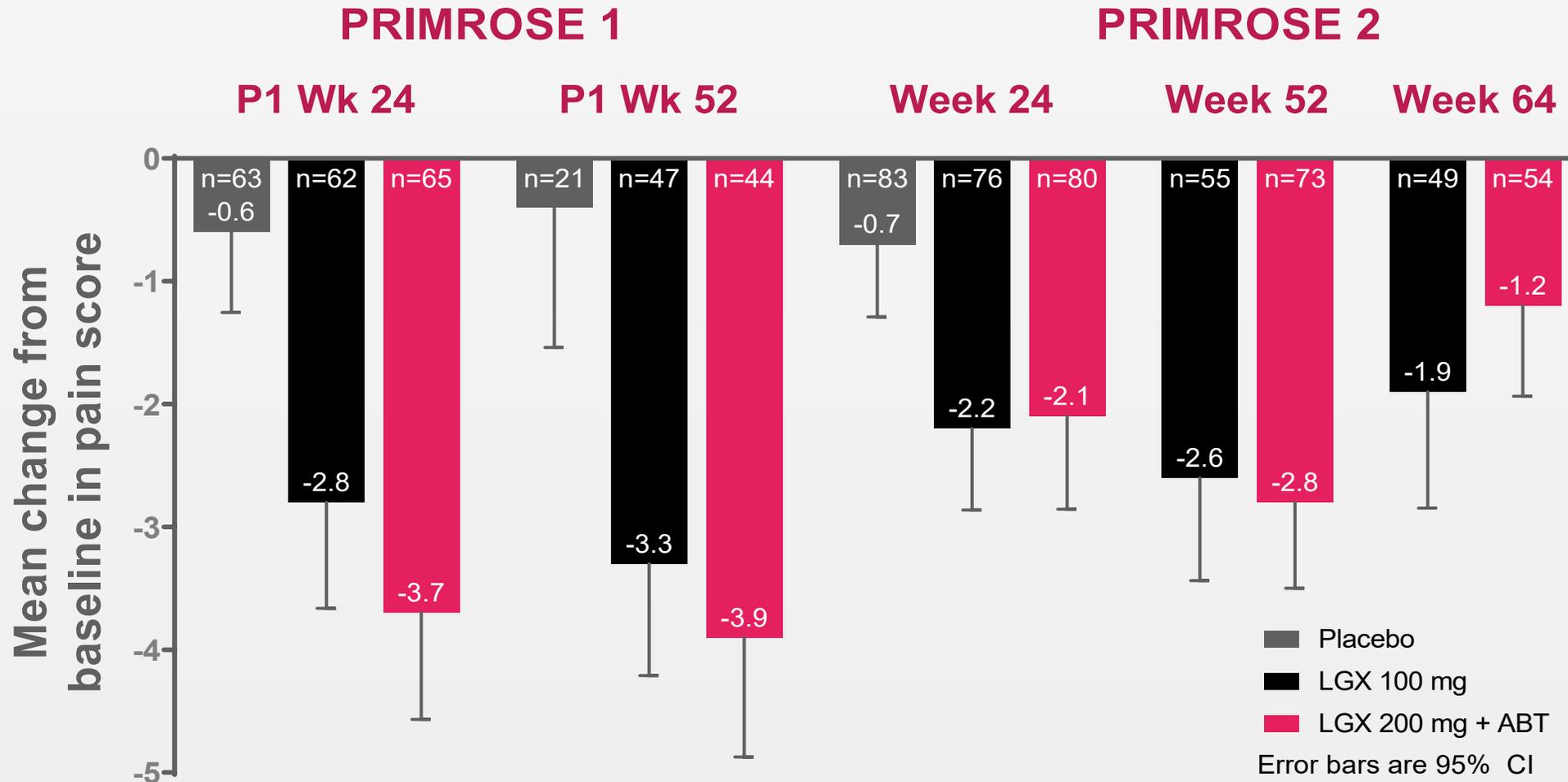


PRIMROSE 1 and 2 achieved sustained reduction in MBL Responder* analysis at week 52



*Proportion of women with menstrual blood loss ≤ 80 mL (by alkaline hematin method) and $\geq 50\%$ reduction from baseline

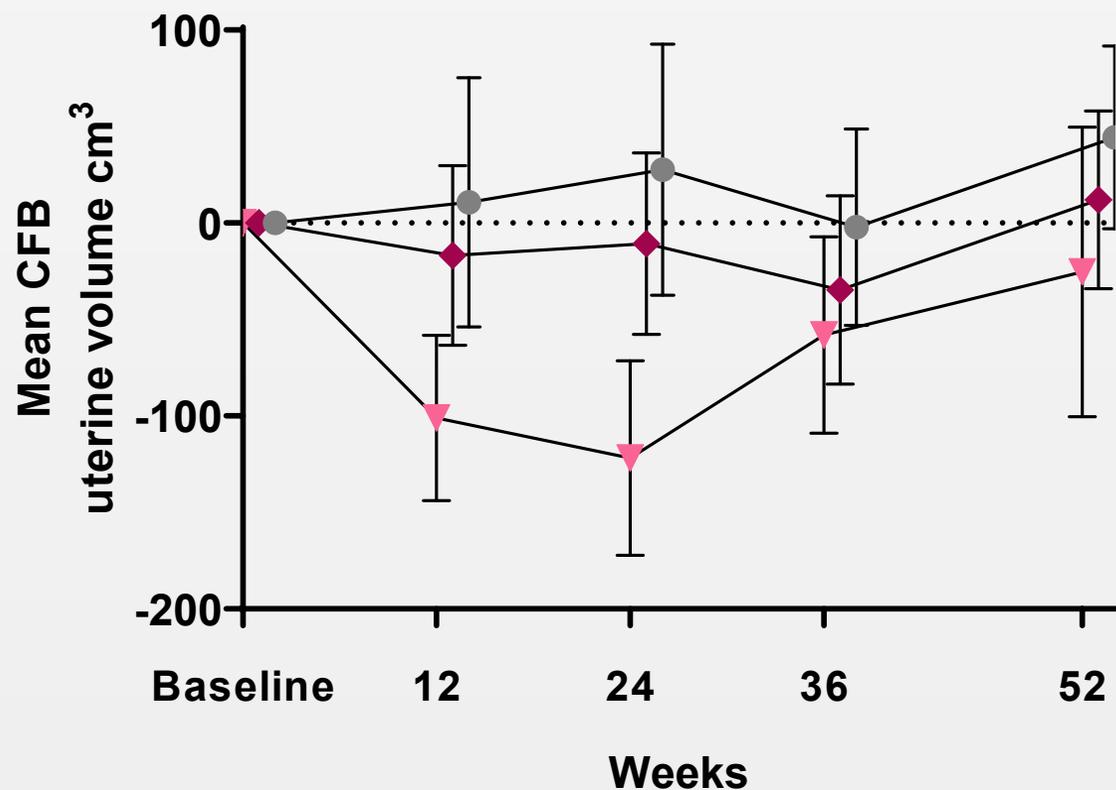
Significant pain reduction maintained at weeks 52 and 64



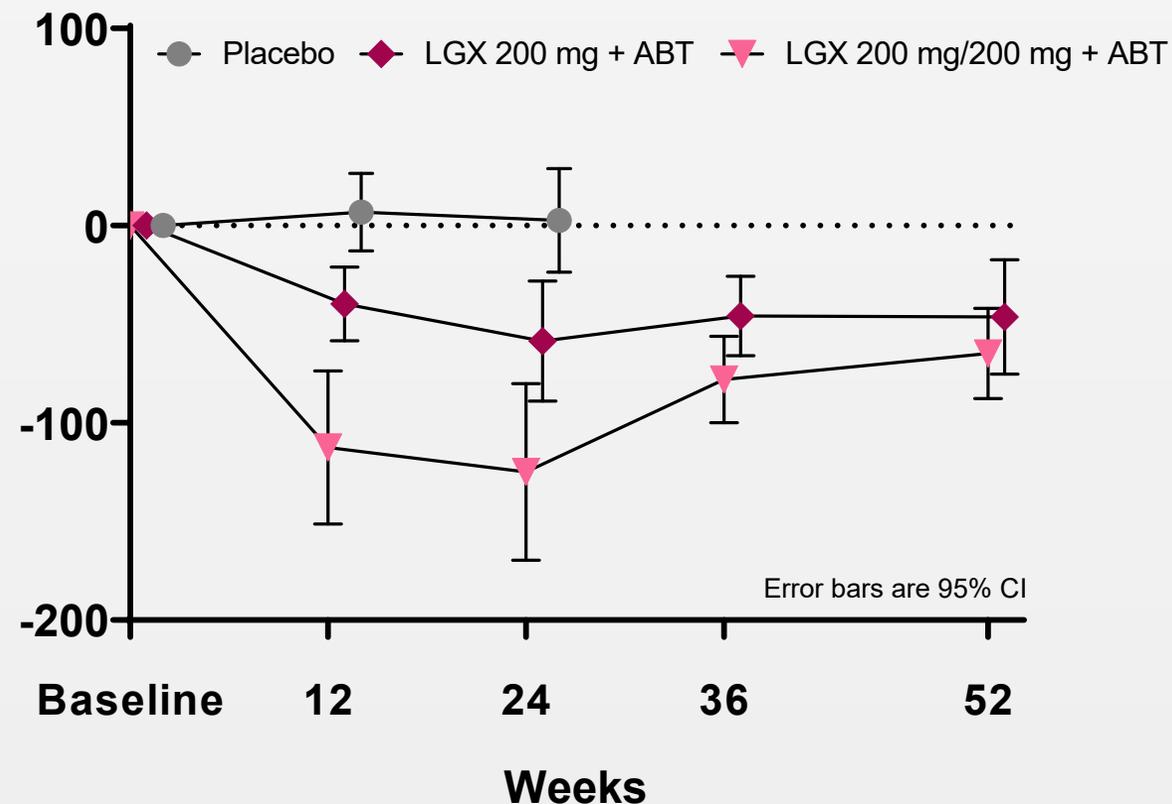
LGX 200 mg without ABT significantly reduces uterine volume

Substantial reduction compared to placebo & LGX 200 mg with ABT at Week 24

PRIMROSE 1

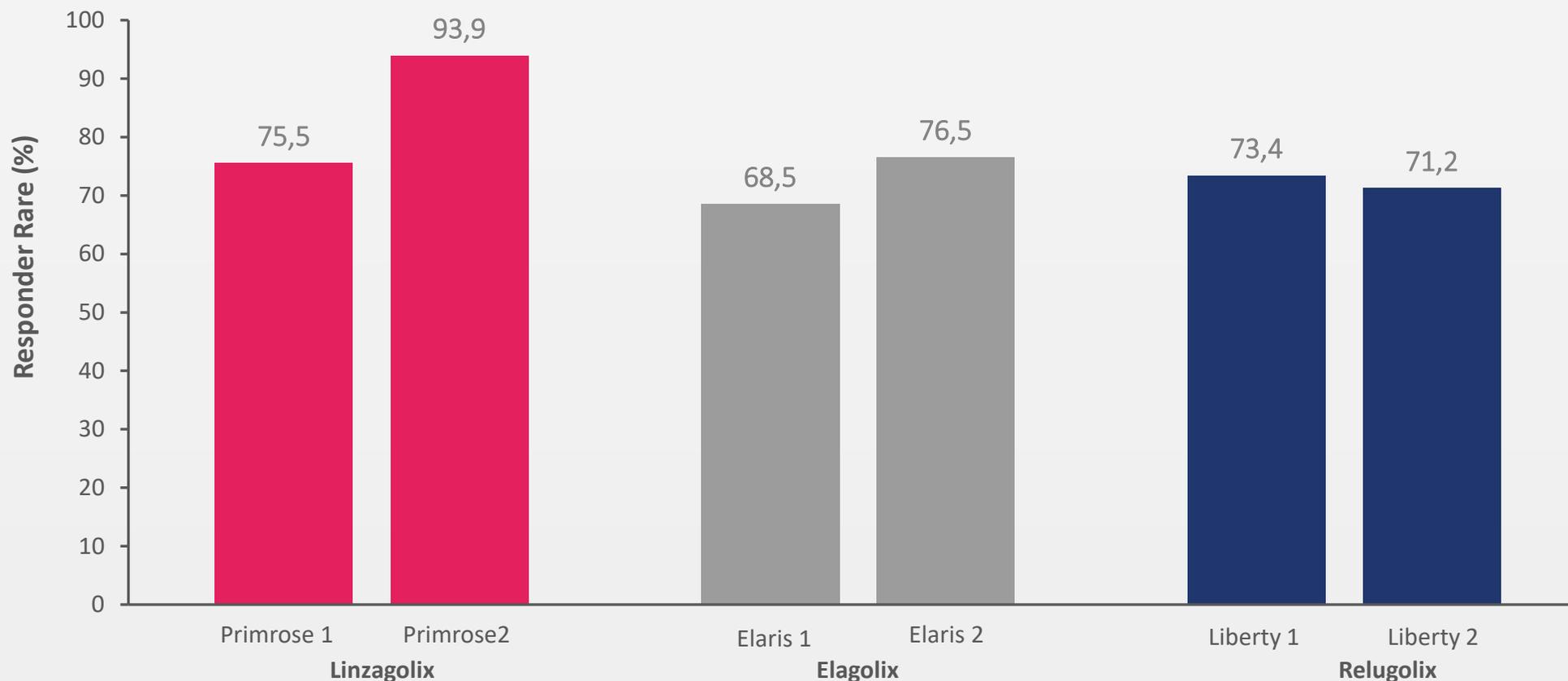


PRIMROSE 2



24-week efficacy data support linzagolix as potential best-in-class GnRH antagonist

Caution advised when comparing across clinical trials. Below data are not head-to-head comparison, and no head-to-head trials have been completed, nor are underway



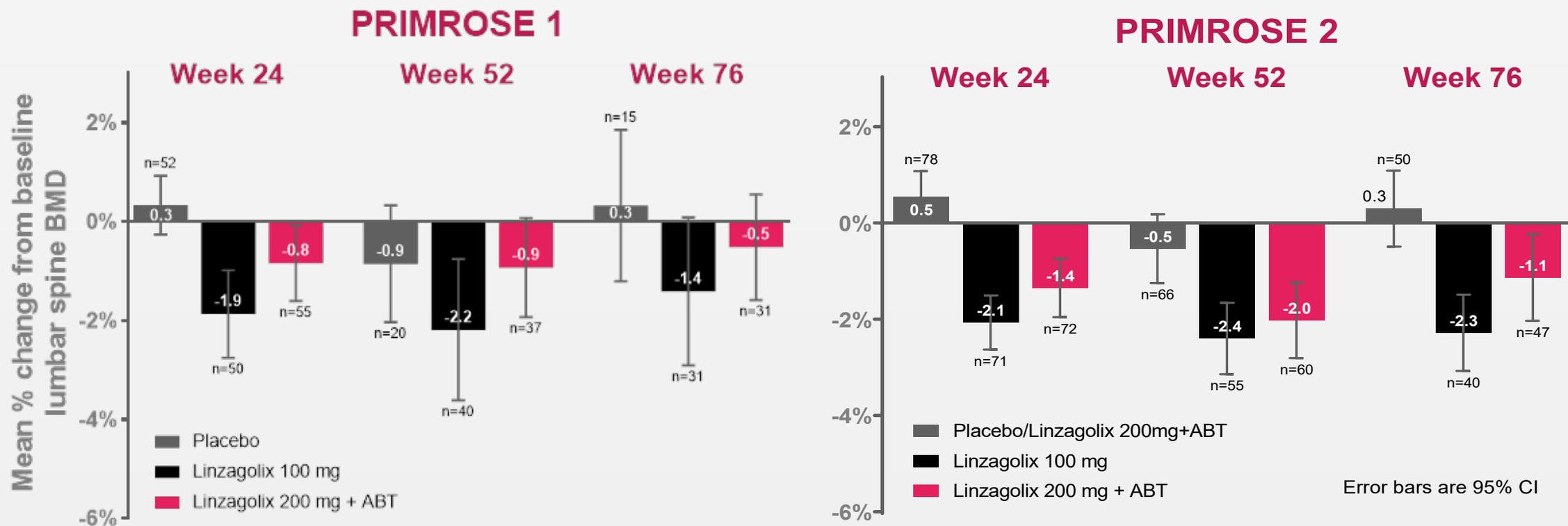
24-week efficacy data support linzagolix as potential best-in-class GnRH antagonist

Caution advised when comparing across clinical trials. Below data are not head-to-head comparison, and no head-to-head trials have been completed, nor are underway

| | Linzagolix | | | Elagolix | | | Relugolix | | |
|-----------------------------|---------------------------|------------|-----------------|-----------------------------|----------|-----------------|--------------------------|-----------|-----------------|
| | PRIMROSE 1 | PRIMROSE 2 | Pooled Analysis | ELARIS 1 | ELARIS 2 | Pooled Analysis | LIBERTY 1 | LIBERTY 2 | Pooled Analysis |
| Dose Regimen | 200mg + ABT Once daily | | | 300 mg + ABT Twice daily | | | 40mg + ABT Once daily | | |
| Mean Age (y) | 41.6 | 43.1 | | 42.6 | 42.5 | | 41.3 | 42.1 | |
| Baseline MBL (mL per cycle) | 197 | 212 | | 238 | 229 | | 229 | 247 | |
| Responder* Rate (RR) (%) | 75.5 | 93.9 | 84.7 | 68.5 | 76.5 | 72.2+ | 73.4 | 71.2 | 72.3++ |
| Amenorrhea | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | |
| Pain | ✓ | ✓ | | NR | NR | | ✓ | ✓ | |
| Fibroid Volume | ✗ | ✓ | | NR** | NR** | | ✗ | ✗ | |
| Uterine Volume | ✗ | ✓ | | NR** | NR** | | ✓ | ✓ | |
| Menstrual Blood Loss | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | |
| Anemia | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | |
| Quality of Life | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | |

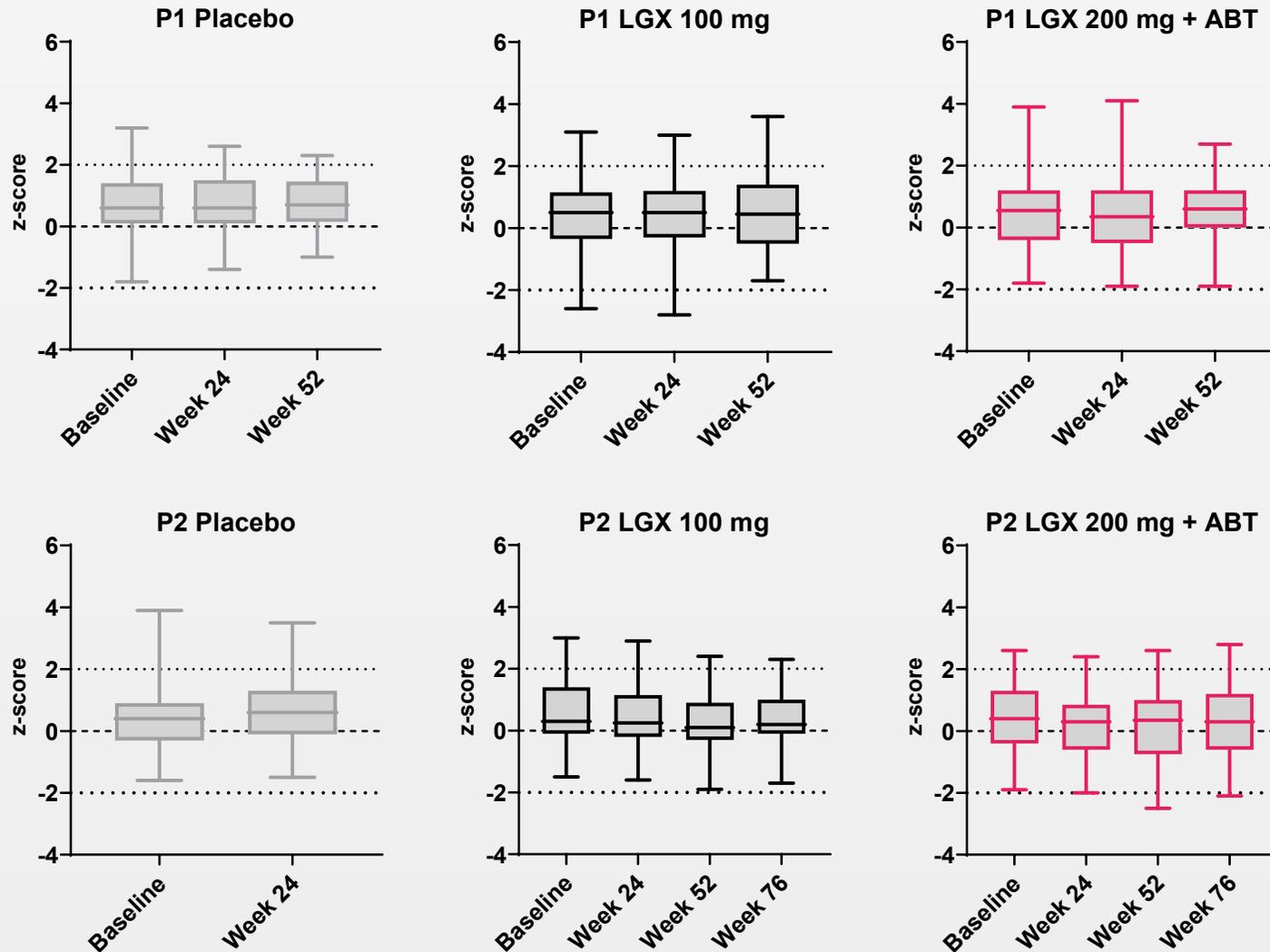
Minimal BMD change with both doses, plateauing after week 24

Expected age-related BMD decline observed in placebo arm at Week 52



Bone mineral density – no change in z-scores

Expected age-related BMD decline observed in placebo arm at Week 52



Z-score compares BMD to the average values of a person of the same age and gender. A score < -2 is a sign of less bone mass than expected

Favorable tolerability profile

Summary of adverse events—week 24 to 52

| Number (%) of women | PRIMROSE 1 | | | PRIMROSE 2 | |
|---|------------|----------------------|----------------------------|----------------------|----------------------------|
| | Placebo | Linzagolix 100 mg | Linzagolix 200 mg + ABT | Linzagolix 100 mg | Linzagolix 200 mg + ABT |
| | n=31 | n=62 | n=70 | n=79 | n=84 |
| Subject with at least one TEAE | 12 (38.7) | 25 (40.3) | 25 (35.7) | 22 (27.8) | 21 (25.0) |
| TEAE leading to discontinuation | 1 (3.2) | 2 (3.2) | 1 (1.4) | 7 (8.9) | 1 (1.2) |
| SAE related to linzagolix | 0 | 0 | 0 | 0 | 0 |
| Occurrence after week 24 of most frequently reported AEs (> 5%) up to week 24 | | | | | |
| Hot flush | 0 | 1 (1.6) | 0 | 2 (2.5) | 3 (3.6) |
| Headache | 1 (3.2) | 3 (4.8) | 0 | 1 (1.3) | 1 (1.2) |
| Anemia | 1 (3.2) | 0 | 0 | 2 (2.5) | 1 (1.2) |

Linzagolix: Potentially “best-in-class” GnRH antagonist

| | Linzagolix | Elagolix | Relugolix |
|---|------------|--------------------|---------------------|
| Flexible dosing to allow dose dependent reduction of estradiol (E2) | ✓ | X | X |
| For long-term use for women for whom ABT is appropriate* | 84% | 72.2% ⁺ | 72.3% ⁺⁺ |
| For long-term use for women with a contraindication to or who prefer to avoid ABT | 56% | X | X |
| Significant reduction in pain | ✓ | X (NR) | ✓ |
| Once a day dosing | ✓ | X | ✓ |
| Favorable bioavailability | >80% | 30-50% | 11% |
| No food effect** | ✓ | X | X |
| Favorable tolerability profile | ✓ | ✓ | ✓ |
| Minimal BMD change | ✓ | ✓ | ✓ |

Source: Company information Note: NR = Not reported. ABT=add-back therapy

*Primary endpoint: Proportion of women with menstrual blood loss ≤ 80 mL (by alkaline hematin method) and ≥ 50% reduction from baseline

** In a dedicated food effect study using a single 200 mg dose of elagolix, there was a decrease of 24% and 36% in AUC and C_{max}, respectively, under high-fat meal conditions; however, labeling states elagolix can be taken without regard to meals; in a food effect study of relugolix, AUC and C_{max} decreased by 38% and 55% respectively, after administration following consumption of a high-fat, high-calorie meal; however, labeling states the decrease in exposure is not clinically meaningful and relugolix can be taken without regard to meals.

*Simon et al, Obstet Gynecol 135, 1313-1326 2020

**Venturella R et al, ESHRE 2020 abstract.

Note: The data on this page are not from head-to-head comparisons.

Linzagolix, designed to treat more women...

Robust clinical data driving differentiated profile



**Linzagolix 200 mg once daily
with concomitant ABT**

For long-term use for women for whom
ABT is appropriate

**Linzagolix 100 mg once daily
without ABT**

For long-term use for women with a
contraindication to or who prefer to avoid
ABT

**Linzagolix 200 mg once daily
without ABT**

For short-term use (up to 6 months) when
rapid reduction in fibroid and uterine
volume is desired

Potentially best-in-class, only GnRH antagonist to address the non-ABT market

Favorable efficacy rates and tolerability profile compared to other GnRH antagonists for the ABT regimen

Unique set of treatment options and complementary solution for uterine fibroids surgeons for pre-op



Endometriosis

An emotionally and physically painful condition

\$22B /yr

total **US** costs

176 million

women **worldwide** suffer from endometriosis

60%+

of women feel symptoms by age 16

Quality of Life

premenopausal women may experience pelvic pain, pain during intercourse and defecation, infertility and emotional distress

Endometriosis affects up to

10%+ in the general population

50%+ in the fertile population

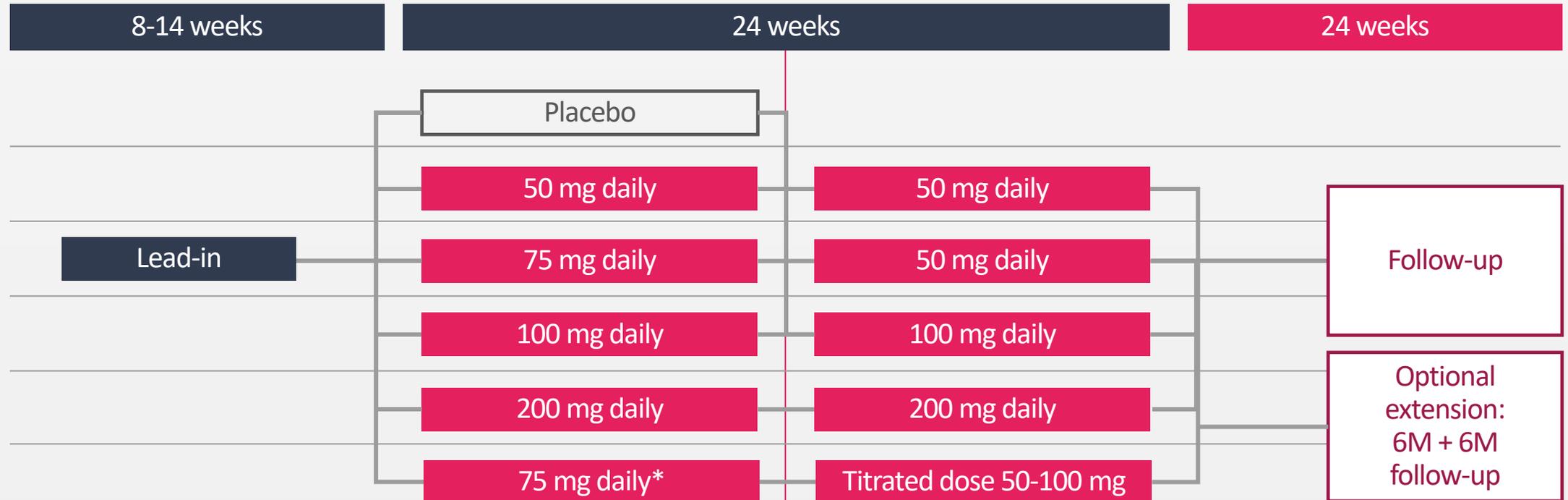
60%+ in patients with chronic pelvic pain

5 million

women in the **US** are treated annually for endometriosis



Phase 2b EDELWEISS in endometriosis



Enrollment 328 patients, ~65/arm
50 sites in US (n=177)
14 sites in EU (n= 151)

Primary efficacy endpoint: VRS
PAIN SCORE RESPONDER RATE
Secondary endpoint: BMD**

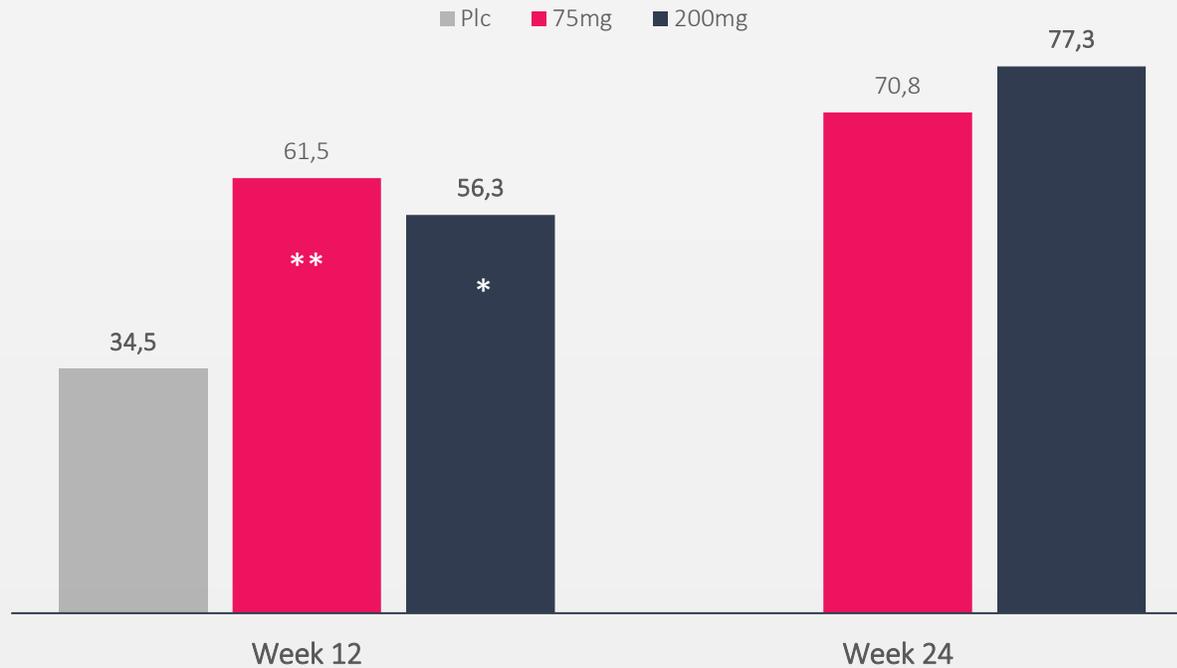
Patients were provided with Vitamin D and calcium

* Titration after 12 weeks based on E2 serum level at weeks 4 and 8

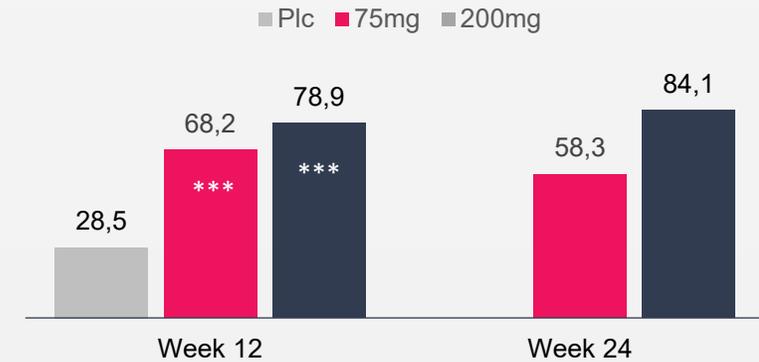
**BMD = bone mineral density

Phase 2b EDELWEISS in endometriosis

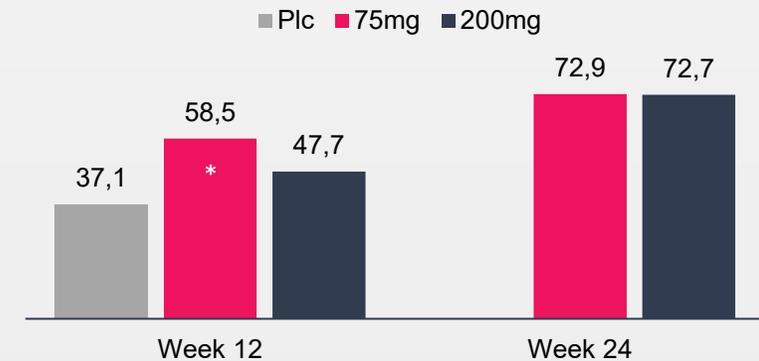
Overall Pelvic Pain (%) Responder (0-3 VRS)



Dysmenorrhea (%) Responder (0-3 VRS)



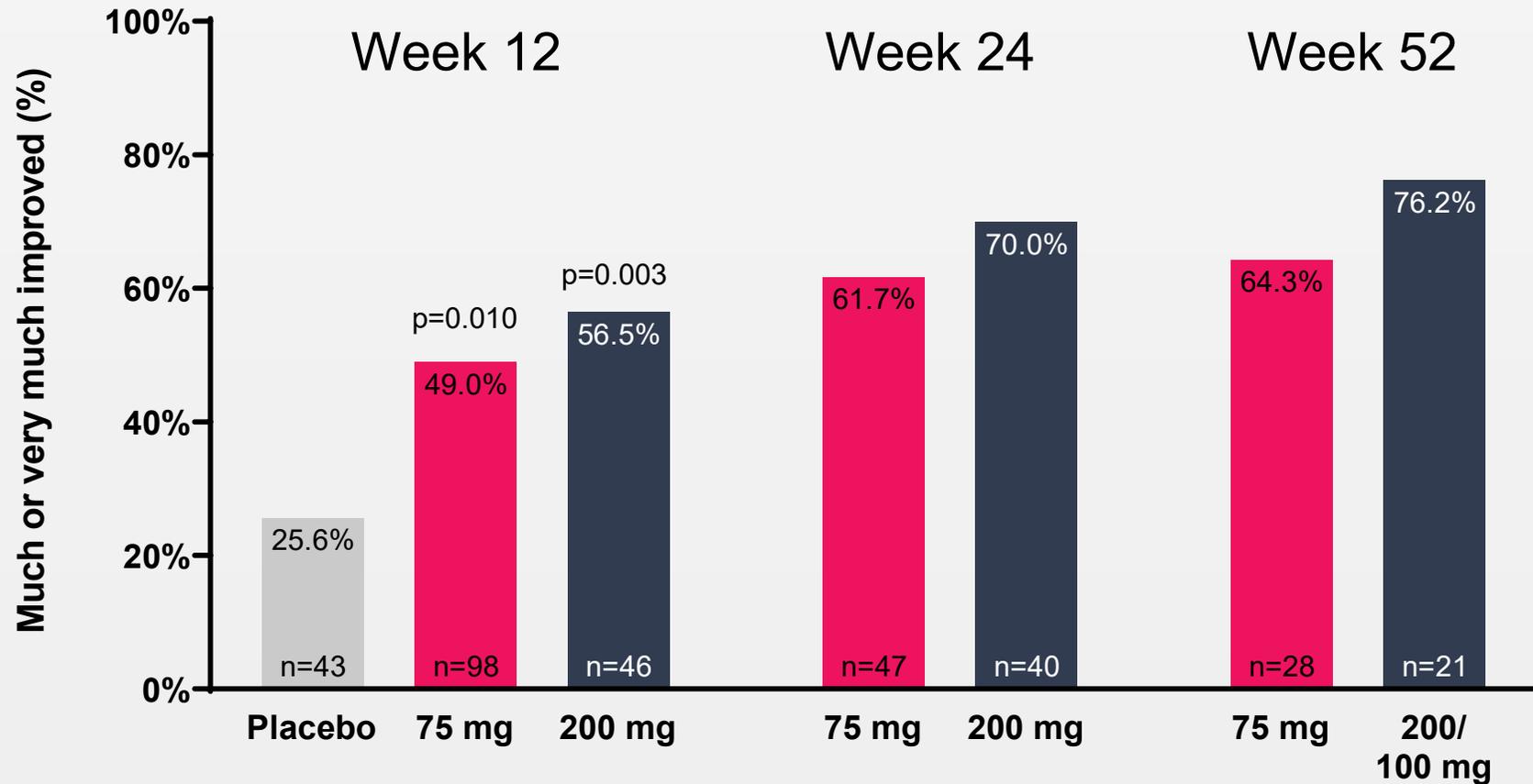
Non-menstrual Pelvic Pain (%) Responder (0-3 VRS)



Potential point of differentiation as 75mg partial suppression dose is nearly as effective as 200mg full suppression dose

Phase 2b EDELWEISS in endometriosis

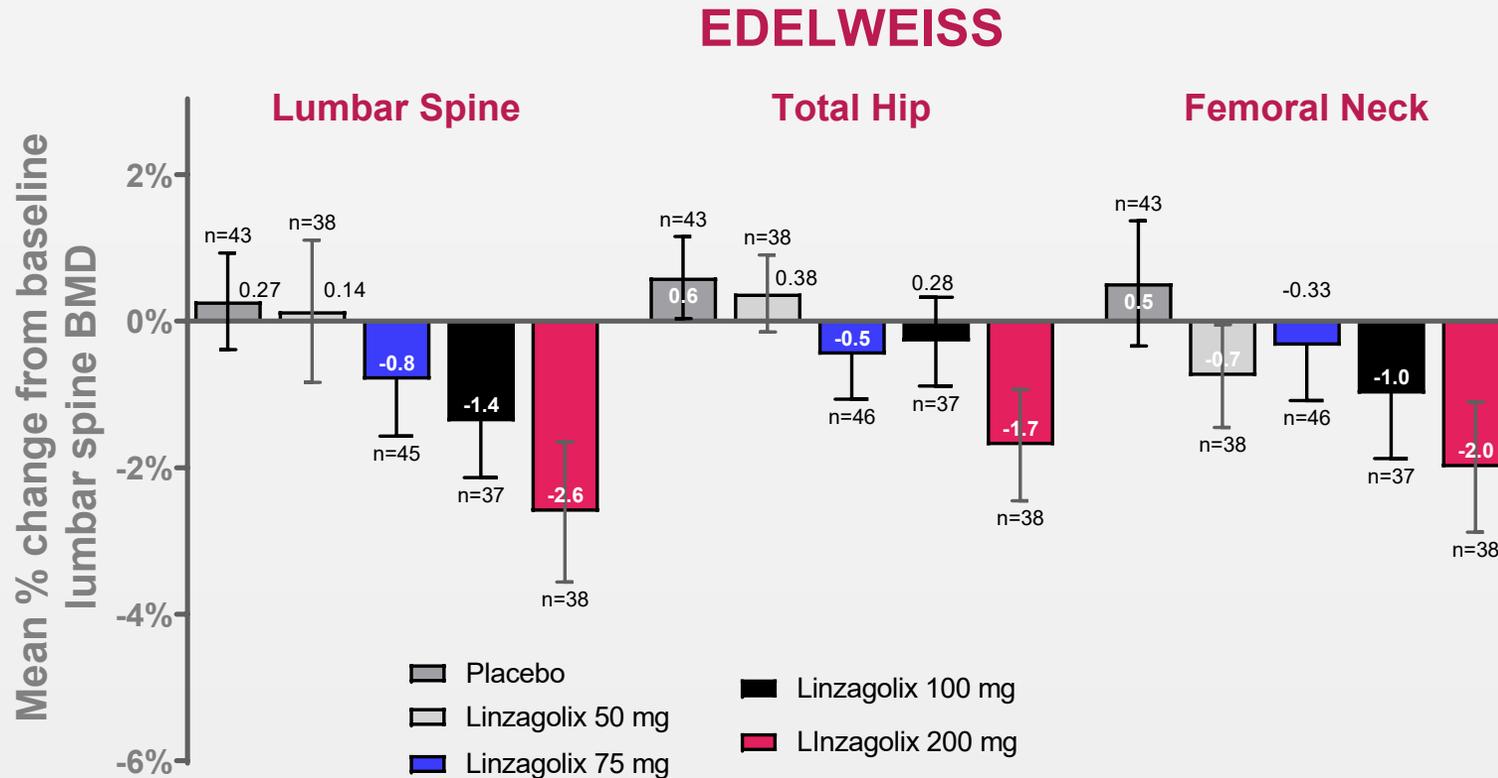
Sustained improvement in overall endometriosis symptoms (PGIC)



Phase 2b EDELWEISS in endometriosis

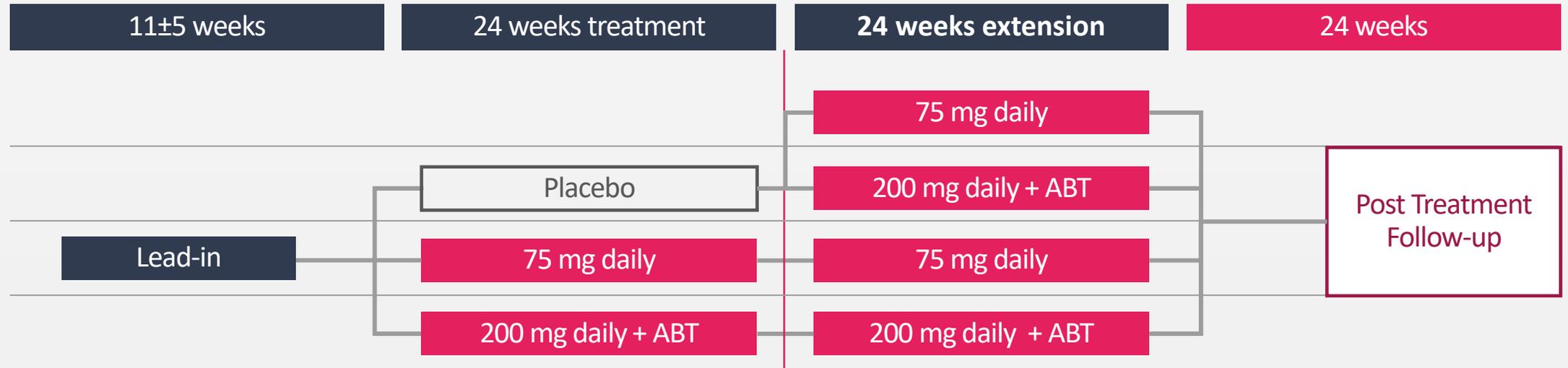
75 mg effective without significantly affecting BMD

Mean % change in BMD from baseline to 24 weeks (12 weeks for placebo)



Phase 3 endometriosis trial

EDELWEISS 3



Co-Primary efficacy endpoint: DYS/NMPP Responder Analysis

Patients are provided with Vitamin D and calcium

Prostate cancer

The second most prevalent form of cancer in men and a leading cause of death due to cancer¹

3.8%

Of all cancer deaths in men in 2018 due to prostate cancer²

1.3M

New cases of prostate cancer reported globally in 2018³

2X Mortality Rate

In African-American men compared to Caucasians; incidence rate of 158.3 new cases diagnosed per 100K African-American men⁴

~130K

Number of patients in the US treated with Lupron

\$600M

Total US sales for GnRH agonists

Lupron was the biggest product in the US with nearly \$350M in revenue

\$2.1B

Total global prostate cancer market for GnRH agonists in 2020⁵

Or over half of the total global GnRH agonist market⁶



Advanced prostate cancer opportunity

Current Standard of Care

Aims to reduce testosterone (T) to castration levels

Limitations

Injectable GnRH agonists (leuprolide) most commonly used but associated with initial T level spike that can worsen symptoms and delay recovery upon drug discontinuation

Benefit of GnRH Antagonists

Evidence from pooled analyses suggest lower cardiovascular risk with GnRH antagonists versus GnRH agonists¹

Paradigm Change

Once-daily oral drugs that can safely and effectively suppress T levels would represent a paradigm change in chronic treatment of the disease

Superiority of relugolix

Myovant's relugolix (Orgovyx™) demonstrated superiority in Phase 3 versus Lupron and launched in January 2021

GnRH analogues in prostate cancer*

| Profile | | | Efficacy ^{††} | | | | Safety | | |
|------------------------|------------------------------|---------------------------|-------------------------|--------------------------|-----------------------------------|----------------------------|---|-----------------------------|---------------|
| GnRH analog | Delivery Route | Flare Effect [†] | Castration on Day 4 (%) | Castration on Day 15 (%) | Sustained T Level to 48 Weeks (%) | PSA Response at Day 15 (%) | MACE [‡] Overall/Prior History (%) | Injection Site Reaction (%) | Hot Flush (%) |
| GnRH Agonist | | | | | | | | | |
| Leuprolide | Injection (Every 1-3 months) | Yes | 0 | 12 | 89 | 20 | 6.2/17.8 | 14 | 51.6 |
| Degarelix [§] | Injection (Monthly) | No | 96 | 99 | 97 | - | - | 40 | 26.0 |
| Relugolix | Oral | No | 56 | 99 | 97 | 79 | 2.9/3.6 | n/a | 54.3 |

*Phase 3 relugolix (HERO) results for leuprolide and Relugolix (Shore et al., NEJM. 2020; 382: 2187 -96 ; Degarelix package insert (PI)

†Flare effect = initial spike in T levels upon treatment initiation due to initial activation of GnRH receptor

††Responder = Testosterone levels <50 ng/dL (i.e., castration)

‡MACE=major cardiovascular event after 48 weeks of treatment; KM analysis showed 54% lower risk in relugolix group vs leuprolide group

§Degarelix PI: Day 3 and Day 14; sustained levels to Day 364 for 240/80mg dose; *rate of hot flush for leuprolide in Degarelix studies was 21%

ObsEva's linzagolix could potentially challenge the current standard of care as the best-in-class oral GnRH antagonist



Potentially best-in-class GnRH antagonist in uterine fibroids & endometriosis



ObsEva exploring development of linzagolix in combination with estrogen for the treatment of advanced prostate cancer



Potential improvement on GnRH antagonist-only regimen by further decreasing cardiovascular & bone loss risk, and mitigating hot flushes: Phase 3 results showed similar hot flush rates (>50%) for relugolix and leuprolide¹



ObsEva has exclusive global rights (excluding Asia) to linzagolix for all indications



EBOPIPRANT

**POTENTIAL TO DELAY
PRETERM BIRTH TO
IMPROVE NEW BORN
HEALTH AND REDUCE
MEDICAL COSTS**

**GLOBAL LICENSING AGREEMENT WITH
ORGANON**



Preterm birth is delivery before 37 weeks of pregnancy

Life altering & costly

\$26B /yr

US economic burden

>1

In 10 babies are born preterm

1 million

preterm related deaths in 2015 WW¹

LEADING

cause of death in children under age 5

Babies surviving early birth face greater likelihood of lifelong disabilities

Preterm birth, a costly burden per baby

\$16.9 B+ US infant medical costs

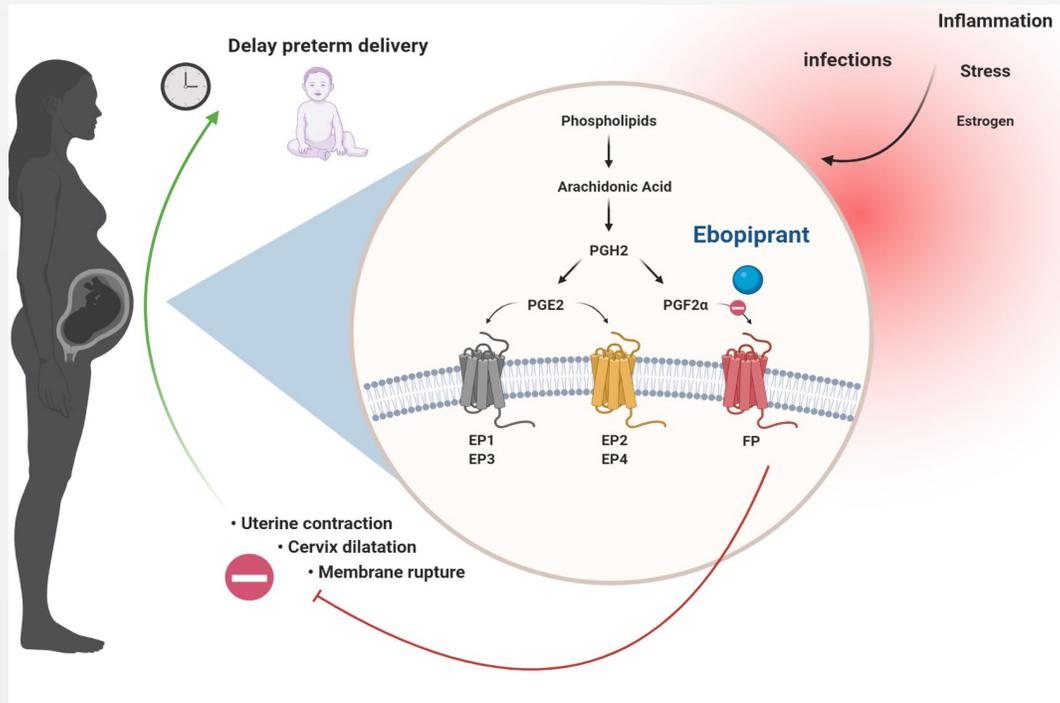
\$195 K+ average cost per US survivor infant born 24-26 weeks

\$50 K average US cost for a preterm infant



Ebopiprant: an advancement in treatment of preterm labor

Orally active, selective prostaglandin $F_{2\alpha}$ ($PGF_{2\alpha}$) receptor antagonist



No FDA–approved preterm labor treatment available in US

Use in setting of active preterm labor and threatened premature delivery

ebopiprant

Selectively blocks
the $PGF_{2\alpha}$
receptor

Ebopiprant, a potential
breakthrough for preterm labor

with improved safety over non-
selective COX *inhibitors
(NSAIDS)

Global license, development and commercialization agreement with Organon optimizes Ebopiprant value

ObsEva entitled to receive tiered double-digit royalties on commercial sales

\$25 million

Upfront payment to ObsEva

\$90 million

Development and regulatory milestones

\$385 million

Achievements in commercial milestones

Investor highlights

1

Pursuing large indications for conditions that compromise **women's reproductive health and beyond**

2

Linzagolix has potential **best in class efficacy, favorable tolerability, and unique flexible dosing options**

3

Global licensing agreement with **Organon to develop and commercialize ebopiprant**, the only known product in development for preterm labor

4

Business model built on strong **global partnerships and collaborations**

5

Seasoned **leadership team** with a track record for success

Thank you

