Obseva

nature meets nurture

Focused on unmet needs in women's reproductive health

H.C. Wainwright Global Life Sciences Conference

March 9, 2021

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About ObsEva

ObsEva (NASDAQ: OBSV and SIX: OBSN) is a 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 endometriosis, uterine fibroids and preterm labor.

- Founded in 2012
- Locations: Geneva, Switzerland and Boston, MA
- Employees: 46 total EU and US
- Listings: NASDAQ (OBSV) and SIX (OBSN)
- Collaborations with Kissei, Yuyuan Bioscience, Merck Serono

Seasoned leadership team

Brian O'Callaghan
Chief Executive Officer

- Petra Pharma
- NPS Pharma. The Nexus of Patients and Science™
- Sangart®
- Merck Serono
- COVANCE

Elizabeth Garner MD, MPH
Chief Medical Officer

- Agile® Therapeutics
- MERCK
- Abbott
- myriad® When Decisions Matter

David Renas
Chief Financial Officer

- Petra Pharma
- Sangart®
- DLA Piper
- Deloitte.
- Adkins Black LLP

Fabien de Ladonchamps
Chief Administrative Officer

- addex Therapeutics

Jean-Pierre Gotteland, PhD
Chief Scientific Officer

- Pierre Fabre
- serono biotech & beyond
- preglem reproductive medicine

Wim Souverijns, PhD
Chief Commercial Officer

- AMGEN
- Celgene

Investor highlights

1. Pursuing promising large indications for serious conditions that compromise **women's reproductive health and beyond**, with the potential to extend into other indications including prostate cancer
2. Ebopiprant, the **only known product in development for preterm labor, has positive Phase 2a data** that support a **Phase 2b dose ranging study**
3. Yselty® has potential **best in class efficacy, a favorable tolerability profile, and unique flexible dosing options**
4. Business model built on strong **global partnerships and collaborations**
5. Seasoned **leadership team** with a track record for success

Product overview

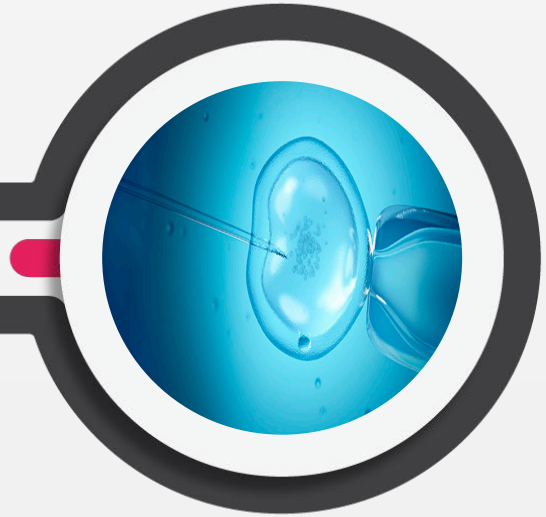
YSELTY® (LINZAGOLIX)

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

EBOPIPRANT (OBE022)

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

NOLASIBAN



Potential to improve live birth rate following IVF & embryo transfer

Multiple development programs drive value

	Phase 1	Phase 2	Phase 3	Next Milestones
YSELTY® (LINZAGOLIX) Oral GnRH receptor antagonist	Uterine Fibroids – Ph3 PRIMROSE 2 (EU & US)			NDA submission (Q2:21) MAA for uterine fibroids expected approval (Q4:21)
	Uterine Fibroids – Ph3 PRIMROSE 1 (US)			
	Endometriosis – Ph3 EDELWEISS 3 (EU & US)			EDELWEISS 3: Primary endpoint readout expected (Q4:21)
EBOPIPRANT Oral $PGF_{2\alpha}$ receptor antagonist	Preterm Labor – Ph2b (EU & Asia)			Initiation of Phase 2b dose ranging study (Q4:21)
NOLASIBAN Oral oxytocin receptor antagonist	IVF – Ph1/2 (China)			In development, partnership with Yuyuan BioScience Technology (PRC)

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EBOPIPRANT

Potential To Delay Preterm Birth To Improve Newborn Health And Reduce Medical Costs

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 WW[1]

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

$16.9B+ US infant medical costs

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

$50K average US cost for a preterm infant

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WHO 'Born Too Soon: The Global Action Report on Preterm Birth' (2012); Kissin et al. NEJM, 2014
Behrman et al., National Academies Press, 2007
[1]WHO: 15 million babies born preterm each year worldwide, and number is rising.

Ebopiprant is designed to delay delivery by at least 48 hours

Short-term prolongation of pregnancy *(at least 48 hours)* provides a critical window for impact on neonatal outcomes:

- Allows full effect of corticosteroids on neonatal lung maturity
  - Prematurity associated with respiratory complications due to insufficient lung maturation
  - Corticosteroids used to speed up maturation process
  - Maximum effect occurs ~48+ hours after administration
- Allows patient transfer to centers with NICU*

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*NICU=neonatal intensive care unit

Ebopiprant, a potential breakthrough for preterm labor*

Over 50% reduction of singleton delivery within 48 hrs

Enabling administration of critical drugs for neonatal protection

Favorable maternal, fetal and neonatal safety

Maternal, fetal and neonatal safety comparable to placebo

Supports advancing ebopiprant into Phase 2b

Phase 2b study will include higher doses to more fully define ebopiprant potential and the longer-term benefits for babies

Ebopiprant has demonstrated proof of concept in delaying preterm birth, enabling ObsEva to plan its further development

** on top a Standard of care Atosiban*

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yselty®
linzagolix

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

300,000

are because of uterine fibroids

>4 million

women in the US are treated annually for fibroids

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Cardozo et al., Am J Obstet Gynecol 2012; Stewart et al. NEJM, 2015; Flynn et al., Am J Obstet Gynecol 2006; Truven Health, Fibroid Foundation website; Epidemiology of women's health, Jones & Bartlett Learning, Ruby T. Senie, 2014

Uterine fibroids are ruining lives…

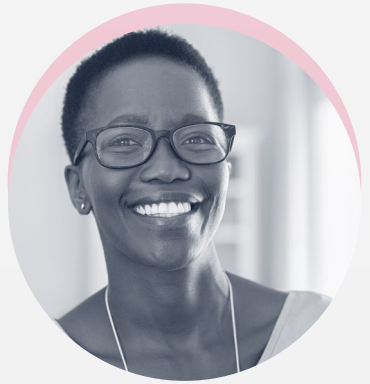
No two women are the same, but millions share a common problem: suffering the daily consequences of uterine fibroids

Yselty® 200 mg once daily with concomitant ABT

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

Yselty® 100 mg once daily without ABT

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



Yselty® 200 mg once daily without ABT

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

…Yselty®, designed to treat more women

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The hypothetical patients represented on this slide are for illustrative purposes only as no strength of linzagolix has been approved nor is there FDA-approved Prescribing Information to guide clinical decisions

Potential new gold standard treatment for uterine fibroids, designed to treat more women

Potentially best-in-class

Unique PD/PK Profile

Efficacy sustained up to 52 weeks for all dose regimens

Favorable tolerability profile

No safety signal of concern

BMD remains within normal ranges during and after treatment

Unique set of treatment options

Unique low dose option without ABT

Significant uterine volume reduction for 200 mg without ABT

ABT[1] containing regimens may be contraindicated in up to 50% of US women with uterine fibroids based on the elagolix US label[2] and analysis of CDC data[3]

[1] ABT = estradiol 1mg/norethindrone acetate 0.5mg
[2] U.S. FDA elagolix PI, section 4. Contraindications and section 5.1. Warnings and precautions – thromboembolic disorders and vascular events
[3] Current Cigarette Smoking Among Adults in the United States. Centers for Disease Control and Prevention https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm#nation; https://www.cdc.gov/2018

DISCLAIMER: YSELTY is still not approved for use in the US

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

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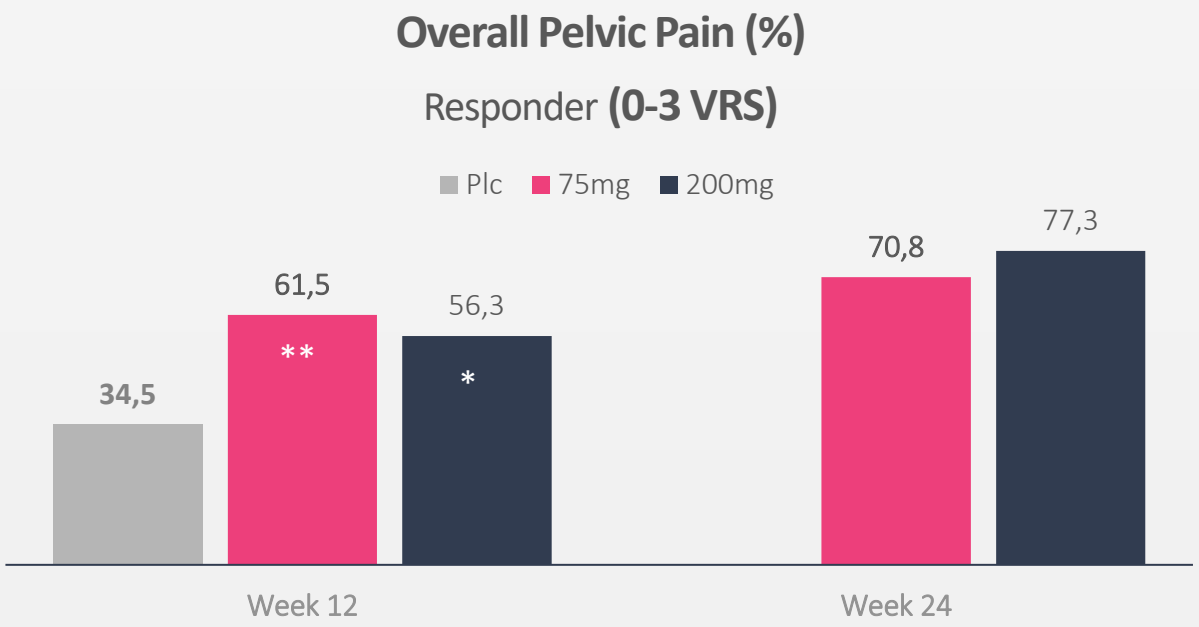
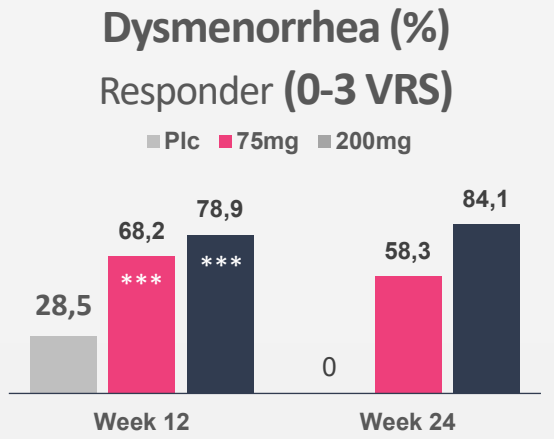
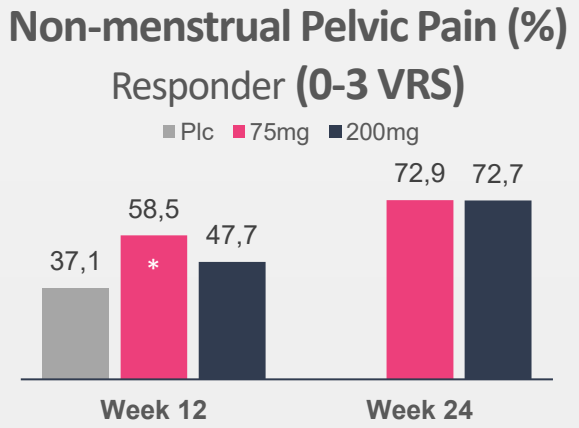
Cardozo et al., Am J Obstet Gynecol 2012; 2017; Stewart et al. NEJM, 2015; Flynn et al., Am J Obstet Gynecol 2006; Truven Health, Fibroid Foundation website

Phase 2b EDELWEISS in endometriosis







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

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Thank you

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