

Building a Leader by Innovating Women's Reproductive Health and Pregnancy Therapeutics

September 2018



OBSEVA
obstetrics & beyond

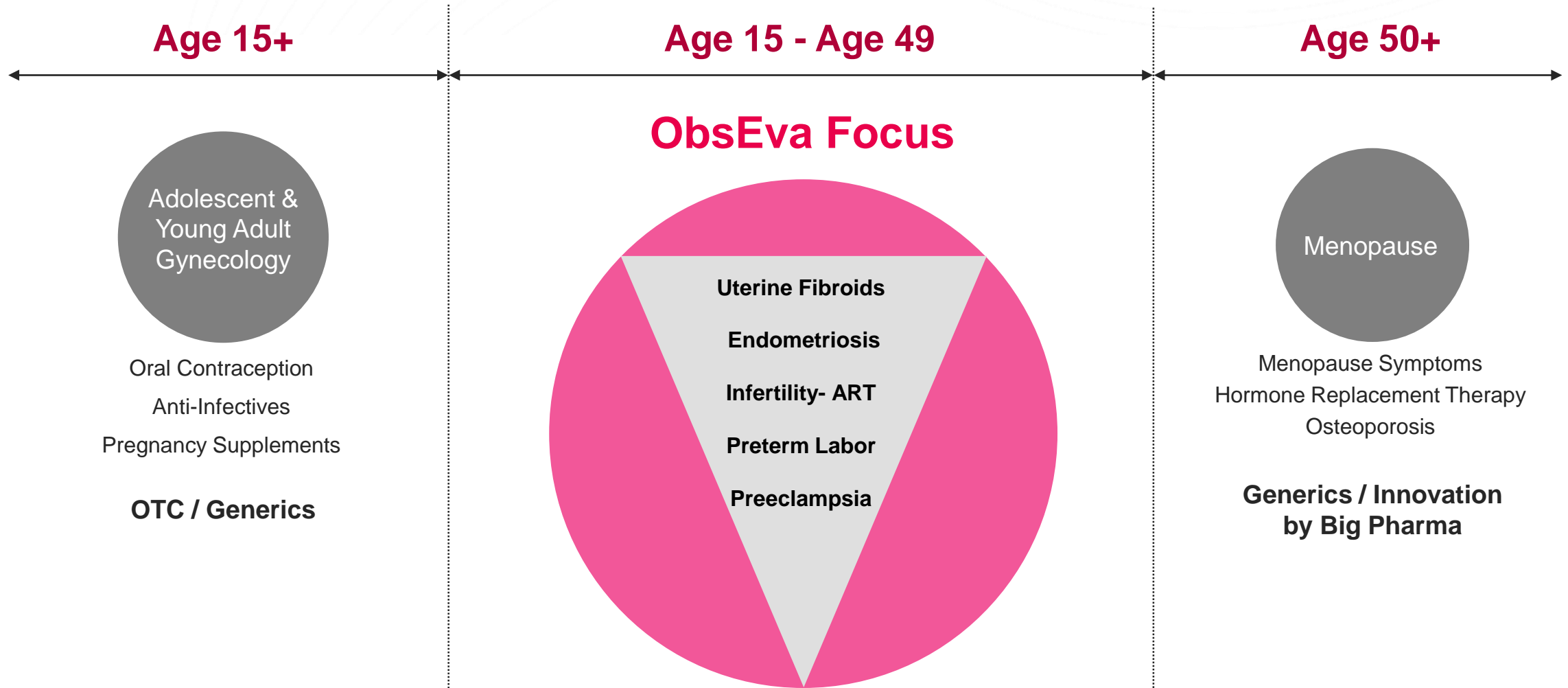
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Strategic Focus: Large populations with high unmet medical need & limited competition



ObsEva Snapshot: Leading Women's Health Drug Development

Large Patient Population Targets

230K U.S. ART Cycles

700K EU ART Cycles

4 million UF U.S. patients diagnosed and treated

Positive Phase 3 Data for Nolasiban in IVF

Positive Phase 2b data for Linzagolix in endometriosis

2.5 million EM U.S. patients diagnosed and treated

Three NCE's with first / best in class potential

Enrolling Phase 3 for Linzagolix in uterine fibroids

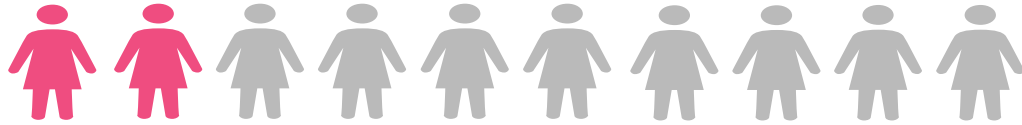
Enrolling Phase 2a for OBE022 in Pre-term labor

500K annual cases of PTL in U.S./Europe

\$167 million cash 6/30/18, runway to 1H:20

Addressing significant medical and emotional issues

Endometriosis is a common disorder that can result in substantial pain, multiple operations and infertility

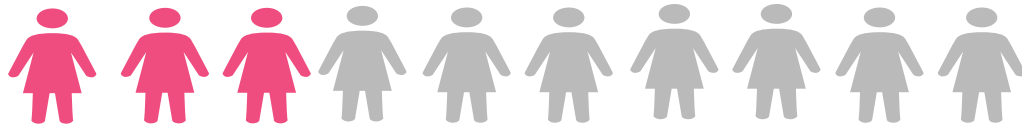


20%
of women affected

Reproductive health conditions

often affect a woman's quality of life, ability to conceive or complicate pregnancy and the health of newborns.

Uterine fibroids are the most frequently seen benign tumors of the female reproductive system

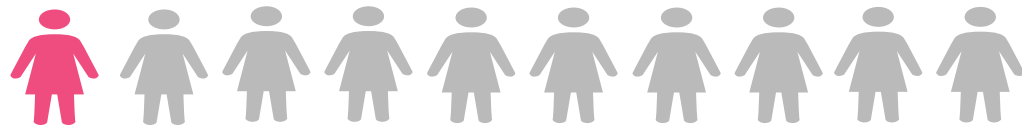


25 - 30%
of women after the age of 30 affected

Infertility is a major life event

For affected couples infertility is often a distressing event which carries emotional, social, economic and psychological consequences. The desire for a baby often concludes in an IVF treatment which has substantial impact on the lives of women and couples. The challenging aspects of undergoing an IVF treatment can include emotional ups and downs, stress of the treatment, uncertainty about the treatment outcome, medical risks or financial ramifications.

Infertility is a condition of the reproductive system that is impairing the ability to perform reproduction



10 - 12%
of women aged 20 – 44 affected

Birth before Week 37th is responsible for numerous deaths and health problems of newborns



10%
of all births are considered preterm

Serving unmet patient needs in reproductive health and pregnancy

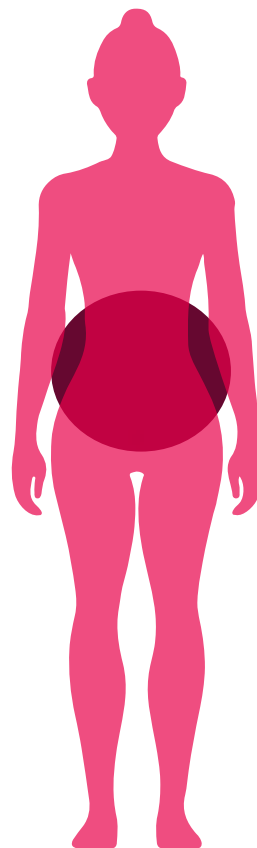
Uterine Fibroids

Uterine fibroids are benign tumors of the uterus. Symptoms is increased **uterine bleeding** (Heavy Menstrual Bleeding).



Endometriosis

Endometriosis is a condition in which uterine tissue grows outside of the uterus. The main symptoms are **pelvic pain** and infertility.



Preterm Labor

Preterm labor are uterine contractions that may result in **birth of a baby at fewer than 37 weeks of gestational age**. Premature infants are at greater risk for numerous medical problems including risk of death.

Infertility

Infertility is a disease of the reproductive system resulting in **the inability of a women to become pregnant** or carry a pregnancy to full term by natural means. The assisted reproductive technology such as in vitro fertilization (IVF) can help infertile couples to conceive a child.



Focus disease areas involve large populations of women with significant symptoms and impact to emotional and physical well being as they progress from puberty to menopause over their lifetime

Therapies designed to reduce symptoms and improve pregnancy

Linzagolix

Designed to reduce abdominal pain with endometriosis and heavy menstrual bleeding with uterine fibroids

Nolasiban

Designed to improve success rate of in vitro fertilization with only one fertilized egg

OBE022

Designed to reduce or suppress preterm labor and delay or avoid preterm birth



Linzagolix

Potentially best-in-class therapy for the treatment of uterine fibroids (UF) and endometriosis to reduce symptoms associated with endometriosis and uterine fibrosis. Primary goal is to alleviate pain (endometriosis) and to reduce or eliminate bleeding (uterine fibroids). Potentially on the market 2021/22. Patent until 2036.



Nolasiban

Innovative therapy to improve clinical pregnancy and live birth rates in women undergoing IVF. Currently no competition. Potential to enhance success rates of single embryo transfer. Potentially on the market late 2020/early 2021. Patent until 2035.



OBE022

Potential first in-class therapy to reduce symptoms for preterm labor. Primary goal is to reduce inflammation and uterine contractions and preventing cervical changes and fetal membrane ruptures. Too early to define market introduction. Patent until 2036 in US.

3 late stage potential best-in-class therapies for four indications

Product Candidate	Preclinical	Phase 1	Phase 2	Phase 3	Status & Market Milestones	Commercial Rights
01 Linzagolix (OBE2109) Oral GnRH receptor antagonist	Endometriosis: EDELWEISS				US/EU Phase 2b 24 weeks results Data Q4 2018	Worldwide ex-Asia
	Uterine Fibroids: PRIMROSE 1 & 2				US/EU Phase 3 Primary Endpoint Data 2H 2019	
02 Nolasiban Oral oxytocin receptor antagonist	IVF: IMPLANT2 EU				EU Phase 3 Live birth Q4 2018	Worldwide
	IVF: IMPLANT3 US				US Phase 3 Initiation Q4 2018	
03 OBE022 Oral PGF _{2α} receptor antagonist	Preterm Labor: PROLONG				EU Phase 2a Interim Efficacy Q4 2018	Worldwide

Renowned management with top-tier experience in developing women's health therapies



**Ernest
Loumaye**

MD, PhD, OB/GYN
CEO & Co-founder

Dr. Loumaye is a serial entrepreneur with extensive experience developing therapeutics for women's health. He was the founder and CEO of PregLem, Head of Clinical Development for Reproductive Health at Serono and Head of the Reproductive Medicine Unit at Universite Catholique de Louvain (UCL), University Hospital in Brussels.



**Tim
Adams**

CFO

Tim Adams is a very experienced CFO. He served as CFO of athenahealth, Inc. and as Chief Investment Officer of Constitution Medical Investors, Inc., a private investment firm focused on health-care-sector-related acquisitions and investments. Prior he was Senior Vice President of Corporate Strategy for Keystone Dental, Inc.



**Jean-Pierre
Gotteland**

PhD
CSO

Dr. Gotteland was Chief Development Officer at PregLem SA, and Vice President of Non-Clinical Development and CMC. Dr. Gotteland held several research and development positions at Serono. Dr. Gotteland also served as Medicinal Chemistry Group Leader at Pierre Fabre Medicament.



**Elke
Bestel**

MD
CMO

Dr. Bestel worked at PregLem, as the Chief Medical Officer, as Vice President Clinical Operations and as a Global Project Director. She was one of the key players in the development of Esmya. Prior she worked at Galderma, France where she was responsible for clinical studies, development and registration.



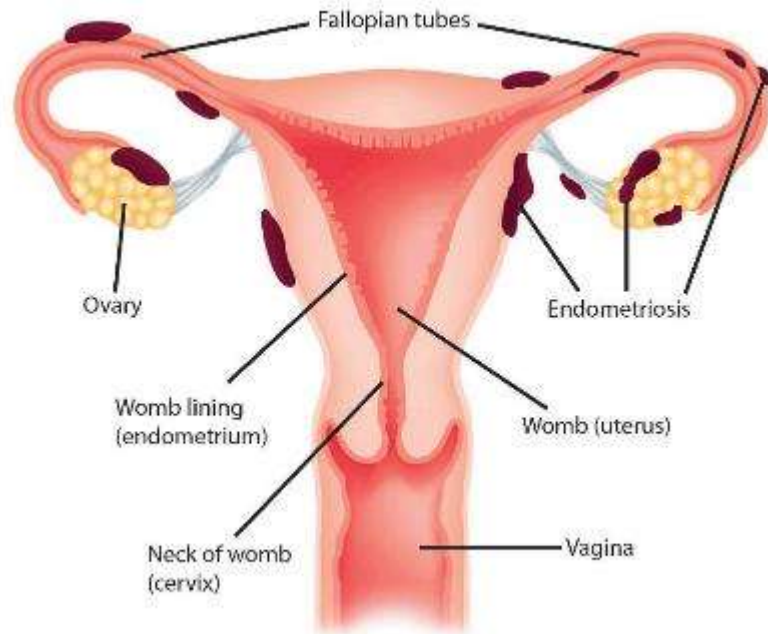
**Ben T.G.
Tan**

MSc
VP Commercial & BD

Ben T.G. Tan has over 25 years of business development, licensing and strategic marketing experience in clinical-stage biotechnology and pharmaceutical companies. Before joining ObsEva Ben successfully divested Evolva's SA lead phase 2 asset. He also worked at Speedel, Novartis and Roche.

Endometriosis and Uterine fibroids: Two conditions for which reduction of estrogen production by the ovaries alleviates symptoms

Endometriosis



Result is pelvic pain and infertility

Uterine Fibroids



Result is heavy menstrual bleeding, pelvic pressure/pain, and dysmenorrhea

Linzagolix: Potential best-in-class, oral, GnRH receptor antagonist

Linzagolix At-a-Glance

- GnRH Receptor Antagonist
- OBE2109 (KLH-2109)
- Licensed from Kissei (WW rights, excludes Asia)
- IP Protection* to 2036 (COM 2032)
- > 1500 female subjects exposed to date

Linzagolix Indications

- **Uterine Fibroids**
 - Symptoms: **Heavy menstrual bleeding** and abdominal pain
 - Primary goal is to reduce/eliminate bleeding
- **Endometriosis**
 - Symptoms: **pain** and infertility
 - Primary goal is to alleviate pain

Landscape

Standard of Care:

Lupron,
oral contraceptives, surgery

Elagolix

(AbbVie/Neurocrine) in Phase 3
Development for fibroids
FDA Approved July 2018 for
endometriosis

Relugolix

(Myovant/Takeda) in
Phase 3 Development

* Including PTA/PTE (Patent Term Adjustment / Patent Term Extension)

Primary endpoint - Overall Pelvic Pain Responder analysis

% of subjects with $\geq 30\%$ reduction of Mean Overall Pelvic Pain Score (0-3 VRS)

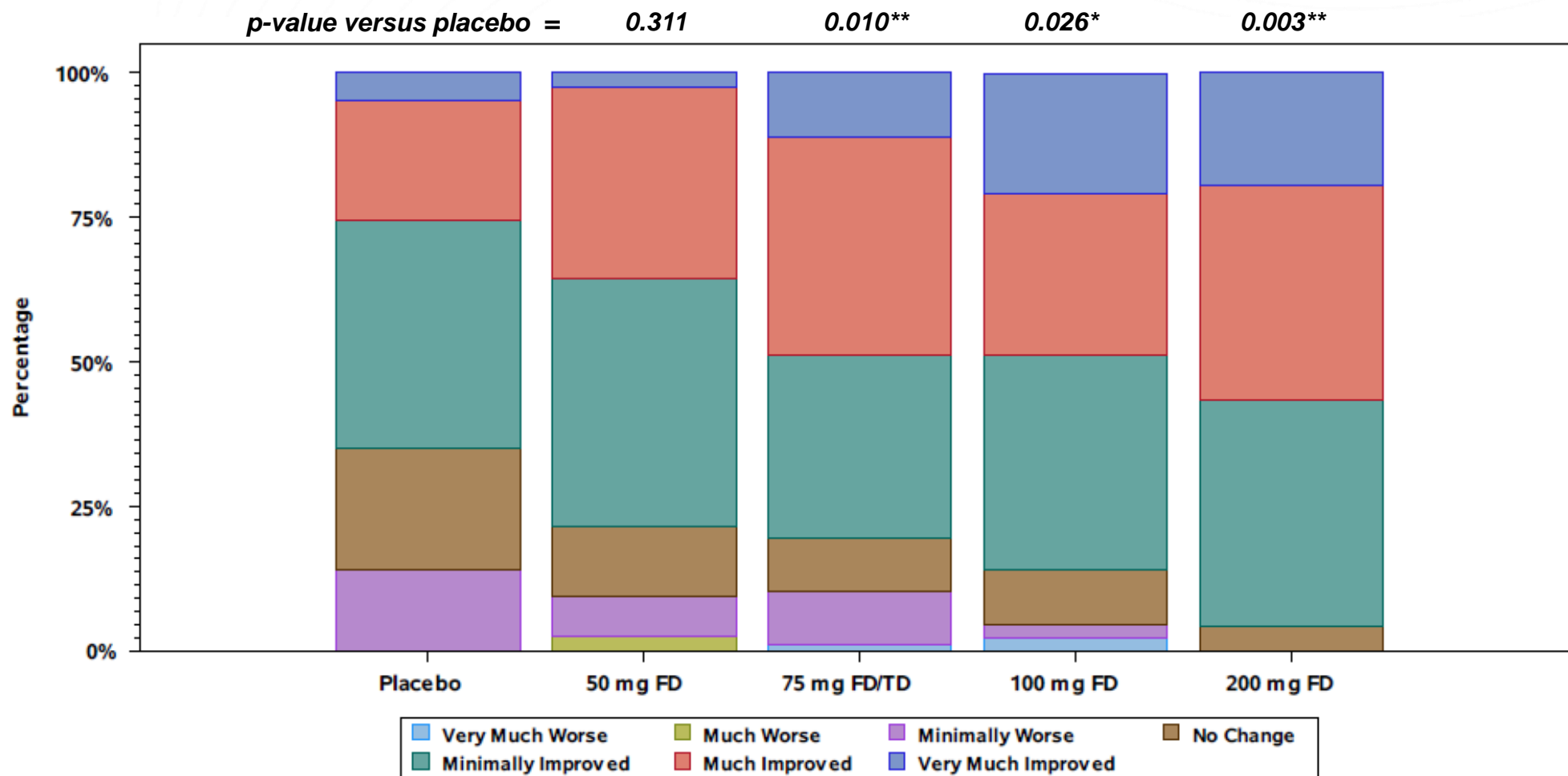
Change from Baseline to Week 12	Placebo (N=53)	OBE2109 50 mg (N=49)	OBE2109 75 mg (N=114)	OBE2109 100 mg (N=51)	OBE2109 200 mg (N=56)
$\geq 30\%$ reduction (%)	34.5	49.4	61.5	56.4	56.3
95% CI	22.38, 49.09	34.92, 63.90	51.76, 70.38	41.59, 70.17	42.28, 69.42
Odds Ratio	-	1.85	3.03	2.45	2.45
95% CI	-	0.791, 4.317	1.469, 6.239	1.049, 5.741	1.069, 5.593
p-value vs. placebo	-	0.155	0.003	0.039	0.034

Key secondary endpoint - DYS Responder analysis

% of subjects with $\geq 30\%$ reduction of Mean DYS score (0-3 VRS)

Change from Baseline to Week 12	Placebo (N=53)	OBE2109 50 mg (N=49)	OBE2109 75 mg (N=114)	OBE2109 100 mg (N=51)	OBE2109 200 mg (N=56)
$\geq 30\%$ reduction (%)	28.5	43.3	68.2	68.6	78.9
95% CI	17.44, 42.85	29.56, 58.13	58.68, 76.46	53.53, 80.50	65.49, 88.08
Odds Ratio	-	1.92	5.40	5.48	9.41
95% CI	-	0.804, 4.575	2.527, 11.523	2.230, 13.462	3.707, 23.885
p-value vs. placebo	-	0.141	<0.001	<0.001	<0.001

Patient Global Impression of Change @ week 12



NOLASIBAN (OBE001): Oral oxytocin receptor antagonist to improve IVF outcomes

NOLASIBAN At-a-Glance

- Oxytocin Receptor Antagonist
- Licensed from Merck Serono
- IP Protection to 2035-2036

NOLASIBAN Indications

- In Vitro Fertilization (IVF)
 - Market size: >2.01M ART/IVF cycles/year globally (~230K in US in 2015, ~680K in Europe in 2013 and ~400K in Japan in 2015)
 - ART cycle cost: \$10-15K+ in the US, EUR 2-10K in the EU and \$3-6k in Japan
 - Estimated global sales of fertility drugs > 2.5bn USD*

LANDSCAPE

Atosiban (Tractocile®)

approved ex-US for Preterm labor

I.V. peptide

No label for IVF use

NOLASIBAN: Well-characterized profile, EU Phase 3 primary endpoint successfully achieved

✓ > 650 subjects exposed

✓ Orally active - Well tolerated

✓ tmax at 2h; t1/2= 12h; High bioavailability

✓ Single oral 900mg optimal dose

* Source: IQVIA's MIDAS Data Tool, 2018.

Results: Efficacy

Primary endpoint: Pooled D3 and D5

Pooled D3 and D5	Placebo	Nolasiban 900mg	Increase	P value
n	390	388		
Ongoing pregnancy rate at 10 weeks	28.5%	35.6%	7.1%	0.031

Absolute 7.1% increase compared to placebo

Relative 25% increase compared to placebo

Results: Efficacy

Secondary endpoints: Individual D3 and D5

	D3				D5			
	Placebo	Nolasiban 900 mg	Delta	p	Placebo	Nolasiban 900 mg	Delta	p
n	194	194			196	194		
Ongoing pregnancy rate at 10 weeks	22.2%	25.3%	3.1%	0.477	34.7%	45.9%	11.2%	0.034 *
Clinical pregnancy rate at 6 weeks	22.7%	27.3%	4.6%	0.290	35.7%	47.4%	11.7%	0.022
Positive pregnancy test at 14 days	33.5%	35.6%	2.1%	0.666	45.9%	54.6%	8.7%	0.112

*** Nolasiban increases the relative ongoing pregnancy rate by 32% following single embryo transfer at Day5**

OBE022: Potential first-in-class, oral and selective PGF2 α receptor antagonist for preterm labor (PTL)

OBE022 AT-A-GLANCE

- Prostaglandin F2 α (FP) receptor antagonist
- Licensed from Merck Serono
- IP Protection through 2037
 - (COM 2037 with PTE)

OBE022 INDICATIONS

- Preterm labor (GA 24-34 week)
 - Incidence: USA: 500,000; EU: 500,000; Asia: 6,900,000*
 - Economic burden for premature infants: ~\$26 billion in the U.S. (\$16.9 billion in infant medical care)

Competition

No drug approved for acute use in the US; atosiban used in the EU;

Progesterone indicated for prevention in a sub-population in the US

Phase 1 & DDI clinical trials completed

- Oral administration
- Favorable preclinical study outcomes

ObsEva summary – leader in reproductive health and pregnancy

Unique clinical solutions

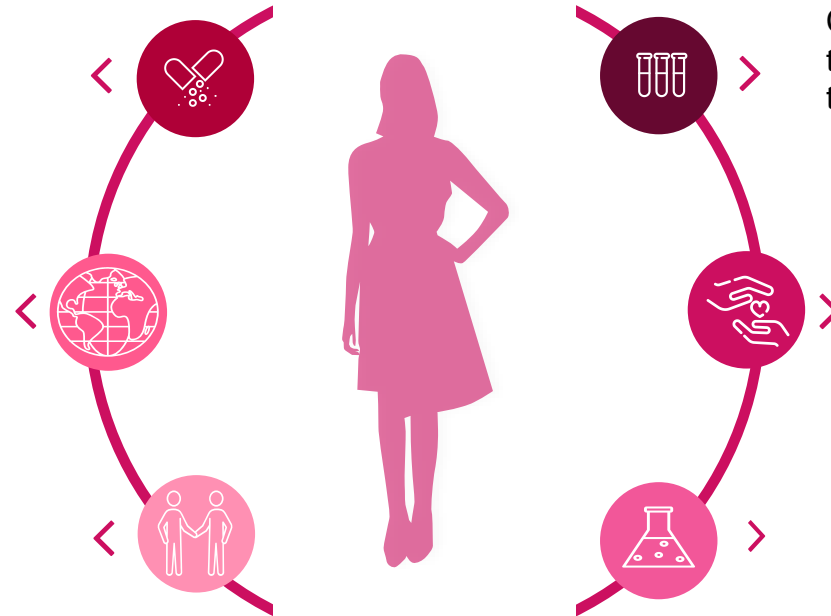
Advancing a rich innovative pipeline of three orally-administered potentially best-in-class, late-stage therapies with potential for additional indications

Attractive large market volume

Addressing a multi-billion market with millions of women worldwide who suffer from reproductive health conditions and offering an option to significantly reduce health costs

Strong partners

Partnering with leading players such as Kissei and Merck Serono through in-licensing expertise and maintaining worldwide IP protection



Leader in reproductive health and pregnancy

Clinical-stage biopharmaceutical company focused on the development and commercialization of novel therapeutics that compromise a women's reproductive health and pregnancy

Significant value for patients

Developing therapeutic solutions that would provide significant patients benefits from symptoms associated with endometriosis uterine fibroids, embryo transfer after IVF or preterm labor

Unique industry experience

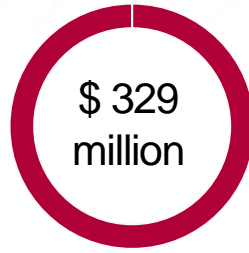
Founded in Geneva, Switzerland by Dr. Ernst Loumaye and other former executives of Preglem SA with unique experience in developing women's health therapies

Committed to create long-term shareholder value



Listed on NASDAQ and SIX

ObsEva is listed on the NASDAQ Global Select Market (OBSV) and the SIX Swiss Exchange (OBSN)



Raised total funds to \$ 329 million

From inception through the end of 2017, ObsEva raised \$238 million of net proceeds from the sale of equity securities



Member of key indices

ObsEva is included in key indices such as the SIX Life Sciences®, SIX Bio+MedTech, SPI (small)



Gained strong investor base

ObsEva's main shareholders include Sofinnova, NEA, Venrock, Ernest Loumaye, Fidelity Investments, OrbiMed and HBM



Attractive Market Cap

ObsEva trades at a Market cap of over \$ 800 million

Numerous potential value creating events over the remainder of 2018 & 2019

Linzagolix Endometriosis	Phase2b EDELWEISS	24 week BMD safety	4Q:18
Nolasiban IVF/ART	Phase 3 IMPLANT 2	Live birth rate (LBR) data	4Q:18
OBE022	Preterm labor	Phase 2a PROLONG Interim efficacy	4Q:18
Linzagolix	Uterine Fibroids	Phase 3 PRIMROSE 1&2 24 week primary endpoint data	2H:19
Nolasiban	IVF/ART	EU Regulatory Target MAA submission	2H:19

Thank You



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