# UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 8-K

# CURRENT REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported): January 9, 2017

	TherapeuticsMD, Inc.	
	(Exact Name of Registrant as Specified in its Charter)	
Nevada	001-00100	87-0233535
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification No.)
	6800 Broken Sound Parkway NW, Third Floor Boca Raton, FL 33487	
	(Address of Principal Executive Office) (Zip Code)	
Regis	trant's telephone number, including area code: (561) 961	-1900
Check the appropriate box below if the Form 8-K provisions ( <i>see</i> General Instruction A.2 below):	filing is intended to simultaneously satisfy the filing obl	igation of the registrant under any of the following
☐ Written communications pursuant to Ru	ale 425 under the Securities Act (17 CFR 230.425)	
☐ Soliciting material pursuant to Rule 14a	1-12 under the Exchange Act (17 CFR 240.14a-12)	
☐ Pre-commencement communications pu	ursuant to Rule 14d-2(b) under the Exchange Act (17 CF	R 240.14d-2(b))
☐ Pre-commencement communications pu	ursuant to Rule 13e-4(c) under the Exchange Act (17 CF)	R 240.13e-4(c))

#### Item 7.01. Regulation FD Disclosure.

TherapeuticsMD, Inc. is furnishing as Exhibit 99.1 to this Current Report on Form 8-K an investor presentation which will be used, in whole or in part, and subject to modification, on January 9, 2017 and at subsequent meetings with investors or analysts.

The information in this Current Report on Form 8-K (including the exhibit) is being furnished pursuant to Item 7.01 of Form 8-K and shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section, nor will any of such information or exhibits be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except as expressly set forth by specific reference in such filing.

#### Item 9.01. Financial Statements and Exhibits.

(d)	Exhibits.	
	Exhibit Number 99.1	Description TherapeuticsMD, Inc. presentation dated January 2017.

#### **SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: January 9, 2017 THERAPEUTICSMD, INC.

/s/ Daniel A. Cartwright

By: Name: Daniel A. Cartwright Chief Financial Officer Title:

#### EXHIBIT INDEX

Exhibit Number 99.1

Description <u>TherapeuticsMD</u>, Inc. presentation dated January 2017.



TherapeuticsMD.com

THER-0086 1/13

### **Forward-Looking Statements**

This presentation by TherapeuticsMD, Inc. (referred to as "we" and "our") may contain forward-looking statements. Forward-looking statements may include, but are not limited to, statements relating to our objectives, plans and strategies, as well as statements, other than historical facts, that address activities, events or developments that we intend, expect, project, believe or anticipate will or may occur in the future. These statements are often characterized by terminology such as "believe," "hope," "may," "anticipate," "should," "intend," "plan," "will," "expect," "estimate," "project," "positioned," "strategy" and similar expressions and are based on assumptions and assessments made in light of our managerial experience and perception of historical trends, current conditions, expected future developments and other factors we believe to be appropriate.

Forward-looking statements in this presentation are made as of the date of this presentation, and we undertake no duty to update or revise any such statements, whether as a result of new information, future events or otherwise. Forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties, many of which may be outside of our control. Important factors that could cause actual results, developments and business decisions to differ materially from forward-looking statements are described in the sections titled "Risk Factors" in our filings with the Securities and Exchange Commission, including our most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, as well as our current reports on Form 8-K, and include the following: our ability to maintain or increase sales of our products; our ability to develop, protect and defend our intellectual property; our ability to develop and commercialize our hormone therapy drug candidates and obtain additional financing necessary therefore; whether the company will be able to prepare a new drug application for its TX-001HR product candidate and, if prepared, whether the FDA will accept and approve the application; whether the FDA will approve the company's new drug application for its TX-004HR product candidate and whether any such approval will occur by the PDUFA date; the length, cost and uncertain results of our clinical trials; potential adverse side effects or other safety risks that could preclude the approval of our hormone therapy drug candidates; our reliance on third parties to conduct our clinical trials, research and development and manufacturing; the availability of reimbursement from government authorities and health insurance companies for our products; the impact of product liability lawsuits; the influence of extensive and costly government regulation; the volatility of the trading price of our common stock; and the concentration of power in our stock ownership.

TX-004HR (Yuvvexy<sup>TM</sup>), TX-001HR, TX-005HR, and TX-006HR are investigational drugs and are not approved by the FDA. This non-promotional presentation is intended for investor audiences only.

PDF copies of press releases and financial tables can be viewed and downloaded at our website: www.therapeuticsmd.com/pressreleases.aspx.

Therapeutics MD\*

# Therapeutics MD° (TXMD)

**Innovative women's health company** exclusively focused on developing and commercializing products for women throughout their life cycles



Drug candidate portfolio is built on SYMBODA™ technology for the solubilization of bio-identical female hormones

Therapeutics MD\*

# Two Late Stage Women's Health Assets With Large Total Addressable Market Opportunities

Proposed Indication

Condition Description

**Active Ingredients** 

Moderate to Severe Dyspareunia, a Symptom of VVA, due to Menopause

TX-004HR (Yuvvexy<sup>™</sup>)

VVA due to Menopause

Bio-Identical 17 β-Estradiol

Form Vaginal softgel capsule

Key Value Proposition Negligible systemic exposure, early onset of action, ease of use

32 million women<sup>1,2</sup>

US TAM Opportunity >\$

Status

Affected US Population

>\$20B<sup>5</sup>

NDA submitted July 7, 2016
PDUFA target action date: May 7, 2017

**TX-001HR** 



Moderate to Severe Hot Flashes due to Menopause

Menopause

Bio-Identical 17 β-Estradiol + Bio-Identical Progesterone

Oral softgel capsule

Potential first and only bio-identical FDA-approved combination product

36 million women<sup>3</sup>

>\$25B4,5

Positive Phase 3 topline data NDA submission expected 3Q17

Menopouse, 2011;18(11):1160-1171.

4) Based on pre-WHI annual scripts of FDA-approved HT products

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The North American Menopause Society. Management of symptomatic vulvovaginal atrophy: 2013 position statement of The North American Menopause Society. Management 2013;20(9):688-902

Gass MI, Cochrane BB, Larson KC, et al. Patterns and predictors of sexual activity among women in the hormone therapy trials of the Women's Health Initiative Memography. 2011;18(1):11169–1171.

## **Seasoned Management Team with a Proven Track Record of Commercial Execution**



Chairman of the Board



- · Former U.S. Secretary of Health and Human Se (2001-2005)
- · Holds multiple board memberships, including Centene and United Therapeutics
- · 40-year public health career



- · Former Chief Executive Officer and Chief Financial Officer of Shire PLC
- Former Vice President of Corporate Finance at AstraZeneca
- · Holds multiple board memberships, including Chairman of Revance Therapeutics



- · Former President and Chief Executive Officer of
- Boehringer Ingelheim (U.S.)

  Former EVP of Customer Marketing and Sales of U.S. Human Health at Merck
- Holds multiple board memberships, including



- Co-founded vitaMedMD
- Co-founded CareFusion (Sold to Cardinal Health in 2006)
- 22 years of experience in early stage healthcare company development



- Co-founded vitaMedMD
- 25 years of experience in healthcare/women's health
- Past OBGYN Department Chair Boca Raton Regional Hospital, and
- · Past ACOG Committee Member
- OBGYN trained
   University of Pennsylvania



- . Former Clinical Lead of
- 15+ years of experience developing women's health products
- · Reproductive endocrinologist & infertility specialist



- · Co-founded CareFusion
- · Held executive sales and operation management positions at McKesson, Cardinal and Omnicell
- · 20+ years of operations



- Participated in American Wireless/Arush Entertainment merger
- Former KPMG and PricewaterhouseCoopers accountant



- · 25+ years of women's
- Product development leader for J&J, Wyeth, Aventis, and others
- Worked on development of Prempro®, Premphase®, and Estalis®



- · 25+ years of pharmaceutical marketing, sales, and operations experience
- Led commercialization of anti-estrogens/estradiol, breast cancer, and ovarian cancer drugs



- 20+ years of commercial
- · SVP of the Pfizer Consumer Healthcare Wellness Organization
- Commercial lead for sales and marketing of the Pfizer Women's Health Division
- Head of Global Innovation at Weight Watchers International



- · 20+ years of experience in
- SVP of BD at Paratek Pharmaceuticals
- VP and GM at Teva
- · Senior women's health positions at Bayer and Pfizer



- · Former CFO of American Wireless, Telegeography, and WEB Corp

Pharmaceuticals

Therapeutics MD<sup>®</sup>



### **Menopause Overview**

- Menopause represents the natural life-stage transition when women stop having periods as the production of Estrogen (E) and Progesterone (P) decreases
  - Average age of menopause 51 years<sup>1</sup>
  - Women may spend, on average, more than one-third of their lives in a hypoestrogenic state
- May result in physical and emotional symptoms<sup>1</sup>
  - Symptoms include hot flashes, night sweats, mood changes and vaginal dryness
  - Prolonged lack of estrogen can affect the bones, cardiovascular system, and increases risks for osteoporosis
- > Long history of Estrogen (E) and Progesterone (P) use
  - Estrogen and Progesterone have been used for over 50 years as treatment
  - Estrogen to reduce symptoms and other long-term conditions
  - Progesterone to prevent thickening of the uterine wall<sup>2</sup>
    - Increased risk for endometrial hyperplasia/endometrial cancer if estrogen unopposed<sup>2</sup>

|| National Institutes of Health, National Institute on Aging, https://www.nis.nih.gov/health/publication/menopause, last accessed November 3, 2015.

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### **TX-001HR Product Development Rationale**

- July 2002 Women's Health Initiative (WHI) study showed that <u>synthetic</u> hormones in combination increased the risk of breast cancer, stroke, heart attack and blood clots
- Since the WHI, both women and healthcare providers have chosen unapproved, bio-identical hormones that are now cash pay over FDA-approved, synthetic hormones that are covered by insurance
- Today, patients have the choice between two second best therapies:
  - Unapproved, <u>compounded</u> bio-identical hormones that have not been proven safe and effective, or
  - FDA-approved, <u>synthetic</u> hormones

TherapeuticsMD's goal is to deliver a best in class, bio-identical hormone therapy that is FDA-approved based on safety and efficacy and covered by insurance

TX-001HR Specifically Designed to Deliver This Unmet Medical Need

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# TX-001HR - Potential Best in Class VMS Therapy



#### Potential first and only:

- 1) Bio-identical combination
- 2) FDA-approved

#### **Dosing and Delivery**

Once-a-day Oral Softgel Capsule

#### **Addresses Unmet Medical Need**

- First and only bio-identical combination of E2 and P4 product candidate
- Single dose option
- Positive Phase 3 Replenish trial safety and efficacy results
- Potential FDA-approval with insurance coverage

Benefits to women, healthcare providers, and pharmacies

NDA to be submitted
 Selection or anticipated if EDA approved

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## Medical Societies Discourage Prescribing of Compounded Bio-Identical Hormones

- ACOG and ASRM Committee Opinion states compounded hormones may pose additional risks compared to FDA-approved products<sup>1</sup>
  - Lack of efficacy and safety data
  - Lack of Good Manufacturing Practices (GMP)
  - Variable purity
  - Variable content uniformity
  - Variable potency (under/over dose)
  - Lack of stability
  - Unopposed E / Ineffective P leads to increased risk of endometrial hyperplasia / cancer









BOOCHE 100 YEARS



 Committee on Gynecologic Practice and the American Society for Reproductive Medicine Practice Committee, Number 532, August 2012 (Reuffirmed 2014, Replaces No. 387, November 2007 and No. 322, November 2005). Therapeutics MD\*

## TX-001HR (if approved) - Healthcare Provider Benefits

- Provide clinically validated dose regimens
- Meet medical standards of care and society guidelines while reducing liability
- Eliminate risks of compounded hormone therapy
- Meet patient demands and reduce patient out-of-pocket costs via insurance coverage



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### TX-001HR (if approved) - Pharmacy Benefits

- > 2014 Majority of major payors eliminated reimbursement of compounded medications
- > 2017 Average pre-tax profit per script of compounded bio-identical hormones is \$3-\$5

#### Pharmacy benefits if TX-001HR is approved:

- Improve net margin per script vs compounded bio-identical hormones
- Meet patient and physician demand for bio-identical hormone therapy
- Drive top-line growth due to third-party reimbursement
- Lower legal and regulatory costs and risk



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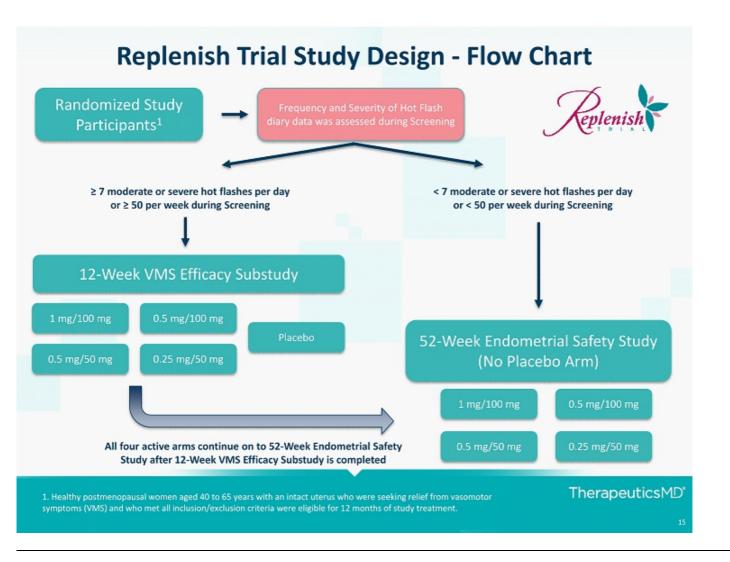
## TX-001HR (if approved) - Patient Benefits

- Meet demand for bio-identical hormone therapy that is FDA-approved based on safety and efficacy
- Eliminate risks of compounded hormone therapy
- Reduce out-of-pocket costs via insurance coverage and a single co-pay
- Provide convenience of one combination product
- Be available at most pharmacies



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## **Replenish Trial Co-Primary Endpoints**

Estradiol/Progesterone	1 mg/100 mg (n = 141)	0.5 mg/100 mg (n = 149)	0.5 mg/50 mg (n = 147)	0.25 mg/50 mg (n = 154)	Placebo (n = 135)
		Frequency			
Week 4 P-value versus placebo	<0.001	0.013	0.141	0.001	-
Week 12 P-value versus placebo	<0.001	<0.001	0.002	<0.001	
		Severity			
Week 4 P-value versus placebo	0.031	0.005	0.401	0.1	-
Week 12 P-value versus placebo	<0.001	<0.001	0.018	0.096	
Primary Safety Endpoint: In-	cidence of Consens	us Endometrial H	lyperplasia or M	alignancy up to 1	2 months.
	Endomet	rial Safety Popul	ation <sup>‡</sup>		
Endometrial Hyperplasia	0% (0/280)	0% (0/303)	0% (0/306)	0% (0/274)	0% (0/92)

MITT = Modified intent to treat

P-value < 0.05 meets FDA guidance and supports evidence of efficacy

# Primary Efficacy Analysis pre-specified with the FDA in the clinical protocol and Statistical Analysis Plan (SAP)

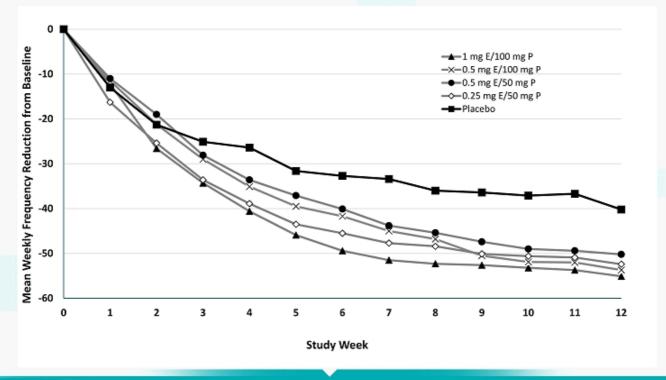
• P-value < 0.05 meets FDA guidance and supports evidence of efficacy

Replenish Trial Topline Data

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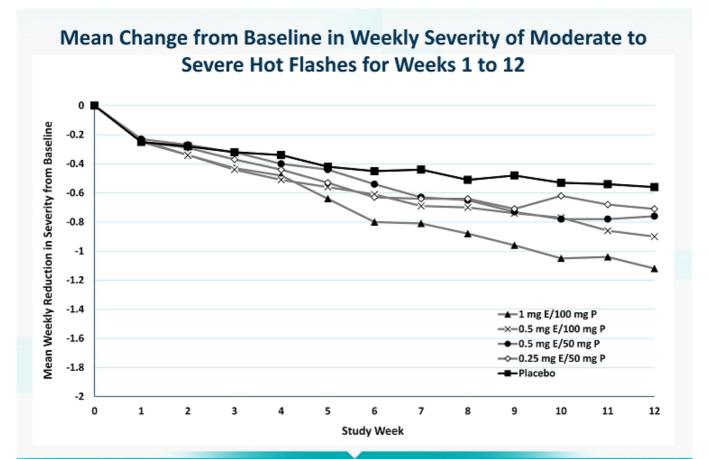
<sup>&</sup>lt;sup>†</sup>Per FDA, consensus hyperplasia refers to the concurrence of two of the three pathologists be accepted as the final diagnosis

### Mean Change from Baseline in Weekly Frequency of Moderate to Severe Hot Flashes for Weeks 1 to 12



Replenish Trial Topline Data

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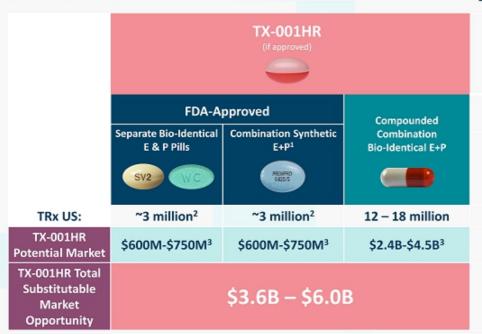
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## **Multi-Billion Dollar Total Substitutable Market Opportunity**



If approved, TX-001HR can provide a single pill solution for women and physicians who: 1) Demand an FDA-approved bio-identical combination hormone product

2) Do not trust compounded hormones

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# Compounded Combination Bio-Identical E+P Substitutable Market Opportunity

### **Commercialization Strategy: BIO-IGNITE**

BIO-IGNITE is an outreach program to quantify and qualify the interests of 3,000 independent and community based pharmacies that compound bio-identical E+P

#### Goal:

Understand and identify the high volume pharmacies and prescribers that have developed a specialty focus around women's menopausal health

#### Mission:

Work with these specialists to transition patients from unapproved compounded therapies to an FDA-approved treatment

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# BIO-IGNITE Progress and Results Partnerships with Large Pharmacy Networks

**Pharmacy Network Partners** 

Network Size

Combination
Bio-Identical E+P Scripts



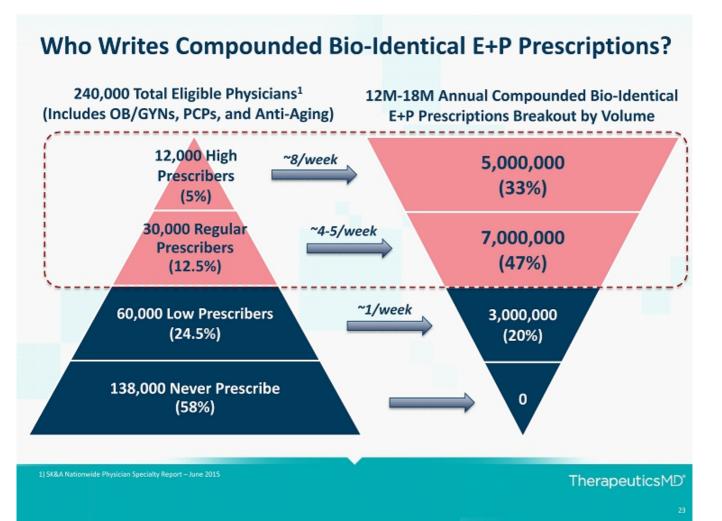
225 Pharmacies In Network ~1,000,000 prescriptions annually



104 Pharmacies In Network ~500,000 prescriptions annually

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# Adverse Reimbursement and Regulatory Environments Continue to Erode Independent Pharmacy Margins



**November 2013:** Congress enacts Drug Quality and Security Act (DQSA), which prohibits compounding of essential copies of an FDA-approved drug except in limited circumstances such as drug shortage<sup>1</sup>



**June 3, 2014:** ESI launches a "Compound Management Solution," creating a list of excluded ingredients that eliminated almost 95% of all compound claims<sup>2</sup>





**July 2018:** USP-800 implementation will set new identification requirements for receipt, storage, mixing, preparing, compounding, dispensing, and administration of hazardous drugs<sup>4,5</sup>

- Considered "prohibitively expensive" requiring major pharmacy upgrades and renovations to be compliant
- Large fixed capital expenditure requirements, with some totaling >\$150,000 per pharmacy to implement

http://www.fda.gov/Drugs/DrugSafety/DrugIntegrityandSupplyChainSecurity/DrugSupplyChainSecurityAct/ucm376829.htm

- http://www.lacprx.org/general/custom.asp?page=CCins16131
- http://www.optum.com.br/content/optum/en/optumrx/pharmacy-insights/restoring-trust-compound-medications.htm
- 4) http://www.usp.org/sites/default/files/usp\_pdf/EN/m7808.pd
- 5) https://www.ascp.com/sites/default/files/Joint%20USP%20letter%202015%20FINAL.pdf

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# **Independent Pharmacy Net Income Per Compounded Script**

		ance Coverage efore 2H14)	Pr	esent Day (2017)	Post USP-800 (July 2018)		
Revenue							
Patient Co-Pay		50.00		50.00		50.00	
Third-Party Reimbursement		115.00		-		-	
Total Net Revenue	\$	165.00	\$	50.00	\$	50.00	
Costs of Good Sold		7.50		7.50		7.50	
Gross Profit	\$	157.50	\$	42.50	\$	42.50	
Gross margin	95.5%			85.0%		85.0%	
Operating Expenses							
G&A		15.00		15.00		15.00	
S&M		7.50		7.50		7.50	
Additional Compounding Costs <sup>1</sup>		15.00		15.00		15.00	
Cost of USP-800 Requirements <sup>2</sup>		-		-		10.00	
Total Operating Expenses	\$	37.50	\$	37.50	\$	47.50	
Pre-Tax Profit	\$	120.00	\$	5.00	\$	(5.00)	
Operating margin		72.7%		10.0%		-10.0%	

1) includes additional bloss, pharmacists, technicians, regulatory, and legal expenses.
2) July 2018 implementation, includes >5150,000 capital expenditure as well as new identification requirements for receipt, storage, mixing, preparing, compounding, dispensing, and schribitization of hourshous churs.

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## **Economic Incentives Provide Catalyst to Switch to TX-001HR**

Independent Pharmacy Net Income Per Script with TX-001HR							
		Compounded E+P Post USP-800		-001HR nch 2H18			
Revenue							
Patient Co-Pay		50.00		50.00			
Third-Party Reimbursement		-		200.00			
Total Net Revenue	\$	50.00	\$	250.00 <sup>1</sup>			
Costs of Good Sold		7.50		200.00 <sup>2</sup>			
Gross Profit	\$	42.50	\$	50.00			
Gross margin	85	5.0%	20.0%				
Operating Expenses							
G&A		15.00		15.00			
S&M		7.50		5.00			
Additional Compounding Costs <sup>3</sup>		15.00		-			
Cost of USP-800 Requirements <sup>4</sup>		10.00		-			
Total Operating Expenses	\$	47.50	\$	20.00			
Pre-Tax Profit	\$	(5.00)	\$	30.00			
Operating margin	-10	0.0%	12.0%				

) Assume AWP-18% Third-Party Reimbursement

2) Assume \$250 WAC less 20% distribution discount

l) includes additional labor, pharmacists, technicians, regulatory, and legal expenses

4) July 2018 implementation, includes >5150,000 copital expenditure as well as new identification requirements for receipt, storage, mixing, preparing, compounding, dispensing, and administration-households.

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## FDA-Approved Separate Bio-Identical E & P Substitutable Market Opportunity

Healthcare providers not comfortable with compounding will often prescribe two separate
 FDA-approved bio-identical products to treat menopausal symptoms









Product Use by Age	AGES 41-50	AGES 51-60	AGES 61-70	AGES 71+	TRx Totals
Progesterone*	528,325	1,326,618	1,060,666	678,775	3,594,384 <sup>1</sup>
<u>Estradiol</u>	2,677,210	5,494,846	2,826,636	1,083,726	12,082,418 <sup>1</sup>

<sup>\*</sup>Menopausal use of progesterone directly substitutable to TX-001HR

~3M Potential Prescriptions for TX-001HR (if approved)
Market Opportunity = \$600M-750M<sup>2</sup>

- This regimen carries <u>significant risk</u> of endometrial hyperplasia/cancer if the patient is noncompliant with regular progesterone use
  - Progesterone's side effects of nausea and somnolence can lead to a patient not taking the progesterone
  - Results in two separate co-pays for the patient

1) Symphony Health Solutions PHAST Data powered by IOV; 12 months as of December 31 2015 2) Assume YVAC pricing between \$200-250

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## FDA-Approved Combination Synthetic E+P **Substitutable Market Opportunity**

### FDA-Approved Combination Synthetic E+P Prescriptions by Age







AGES	AGES	AGES	AGES	AGES	Unknown	TRx
31-40	41-50	51-60	61-70	71+	Ages	Totals
52,575	372,968	1,712,852	759,634	151,821	68,672	3,118,522 <sup>1</sup>

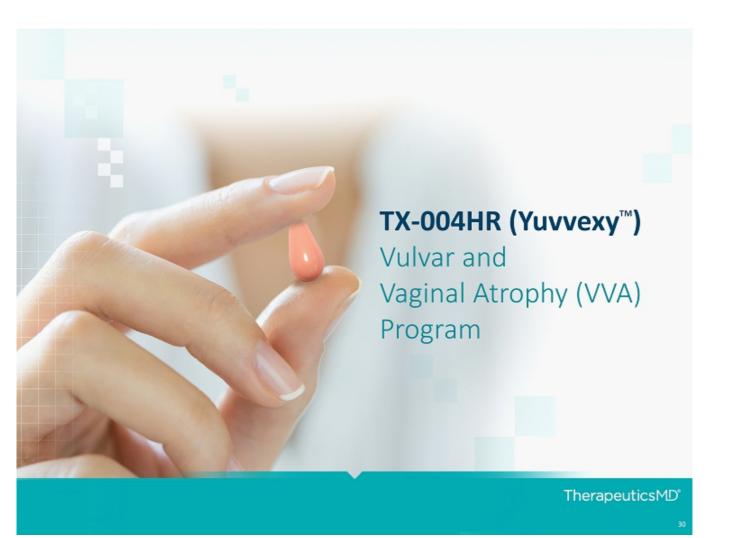
~3M Potential Prescriptions for TX-001HR (if approved) Market Opportunity = \$600M-750M<sup>2</sup>

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# Expect Robust Insurance Coverage For TX-001HR, If Approved, In-Line with Product Class

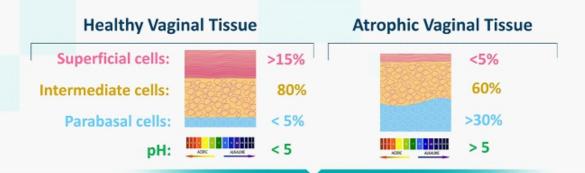
4,315 Commercial Plans	% Unrestricted Access of Commercial Plans	Not Covered		
Estrace® (Oral)	96%	1%		
Prempro®	94%	5%		
CombiPatch®	93%	4%		
Climara Pro®	92%	4%		
FemHRT®	87%	6%		
Duavee®	86%	5%		
Vivelle-Dot®	84%	5%		
Activella®	83%	8%		
Prometrium®	83%	6%		

Data Source MMIT August 17, 2016 - 4,300 commercial plans All trademarks are the property of their respective owners. Therapeutics MD\*



# Overview – Vulvar and Vaginal Atrophy (VVA)

- Chronic and progressive condition characterized by thinning of vaginal tissue from decreased estrogen levels
- Diagnosed in approximately 50% of postmenopausal women¹
- Primary symptom = dyspareunia
- Secondary symptoms include: dryness, itching, irritation, dysuria, bleeding with sexual activity
- Current treatments include: prescription creams, lubricants and tablets



 Kingsberg, Sheryl A., et al. "Nulvar and Vaginal Atrophy in Postmenopousal Women: Findings from the REVIVE (REal Women's Views of Treatment Options for Menopousal Vaginal Changlia) Survey." International Society for Sexual Medicine 2013, no. 10, 1790-1779. Therapeutics MD\*

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## **Current FDA-Approved VVA Competitive Landscape**

- U.S. sales more than doubled since 2008<sup>1</sup>
- Global market expected to be \$2.1 billion in 2022<sup>2</sup>
- 7% current market penetration

Product	Company	Compound	2015 TRx (000) <sup>1</sup>	2015 U.S. Sales (\$M) <sup>1</sup>	WAC Price <sup>3</sup>
Premarin® Cream	Pfizer	Conjugated equine vaginal estrogen	1,615	\$502	\$288.40
Vagifem® Tablets	Novo Nordisk	Vaginal estradiol	1,620	\$456	\$382.86*
Yuvafem® Tablets (Vagifem AG)	Amneal	Vaginal estradiol	Launched	October 2016	\$349.17**
Estrace® Cream	Allergan	Vaginal estradiol	1,548	\$420	\$263.81
Estring® Ring	Pfizer	Vaginal estradiol ring	284	\$91	\$310.44
Osphena® Tablets	Shionogi	Oral SERM	263	\$66	\$530.07
Total			5,330	\$1,535	

() Symphony Health Solutions PHAST Prescription Monthly Powered by IDV, 12 months as of December 31, 2015.

3) Medi-Span Price Re Basic \* for 18 tablets (\$170.16 WAC for 8 tablets) \*\*for 18 tablets (\$155.18 for 8 tablets)

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### **Current VVA Market Overview**



#### 32M Women with VVA Symptoms<sup>1,2</sup>

~50% of women seek treatment for VVA4

- 7%, or 2.3M women, are currently being treated today with Rx hormone therapy (HT)<sup>3</sup>
- 18%, or 5.7M women, have tried HT and were unsatisfied/unsuccessful<sup>4</sup>
- 25%, or 8M women, use OTC products\*\*, such as lubricants<sup>4</sup>

>\$20B Branded Total
US Market Opportunity<sup>5</sup>

The North American Menopause Society, Management of symptomatic vulvovaginal atrophy: 2013 position statement of The North American Menopause Society, Menopause, 2013;28(5):388–902.

2) Gass ML, Cochrone BB, Larson JC, et al. Patterns and predictors of sexual activity among women in the hormone therapy trials of the Women's Health initiative

Menopouse, 2011;18(11):1160-1171. 30 IMS Health Plan Chims (April 2008-Mar 2013).

4) TherapeuticsMD "EMPOWER" Survey, 2016

system or current convergences in notice, prince; "4" Not breated with an FDA approved its products do not effectively treat the underlying pathological causes of WA and therefore do not halt or reverse the progression of this conditi

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## **Current FDA-Approved VVA Product Use Falls Short**

	Market Size	Perceived Product Shortcomings	VVA Market Opportunity
Current HT Users	2.3M Women <sup>2</sup> 7% of VVA Population	<ul> <li>Long-term safety concerns<sup>1</sup></li> <li>Efficacy<sup>1</sup></li> <li>Messiness<sup>1</sup></li> <li>Need for applicator<sup>1</sup></li> </ul>	>\$1.5B
Past HT Users	5.7M Women <sup>3</sup> 18% of VVA Population	Unsatisfied / unsuccessful with past treatments     Physical and clinical attributes of existing products	>\$3B
OTC Product Users	8M Women <sup>3</sup> 25% of VVA Population	<ul> <li>Do not effectively treat the underlying pathological causes of VVA</li> <li>Do not halt or reverse symptoms</li> </ul>	>\$5B
Not Seeking Treatment	16M Women 50% of VVA Population	Not aware that VVA is a treatable condition     Estrogen exposure concerns	>\$10B

) Wysocki, S et al, Management of Vaginal Atrophy: Implications from the FEVIVE Survey. Chrical Medicine Insights. Reproductive Health 2014 8:23-30 doi:10.4137/CMMH.S14491 () IMS Health Plan Claims (April 2008-Mar 2011). Therapeutics MD\*

## TX-004HR (Yuvvexy™)

- Small, digitally inserted, rapidly dissolving softgel capsule
- No applicator
- Proposed dose packaging to optimize compliance and convenience
- PDUFA target action date of May 7, 2017



YUVVEXY™ is an investigational drug and is not approved for use by the FDA

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## TX-004HR - Potential Best In Class VVA Therapy

	Premarin*	Vagifem®	Estrace®	Osphena*	Yuvvexy™
Products	S TOTAL E		1000- 1000-	O. Activities	
	Pfizer	novo nordisk	Allergan	SHIONOGI	Therape
Method of Admin	Vaginal Cream	Vaginal Tablet	Vaginal Cream	Oral Tablet	Vagina
Application	Reusable Vaginal Applicator	Vaginal Applicator	Reusable Vaginal Applicator	Oral Daily SERM	Digitally Ins
Active Ingredient	625 mcg/g CEEs	10 mcg Estradiol	100 mcg/g Estradiol	60,000 mcg ospemifene	4, 10, 17β-e
Avg Maintenance Dose	312.5 mcg 2x/week	10 mcg 2x/week	100 mcg 2x/week	60,000 mcg daily	4, 10, 2x/
Onset of Action* Dyspareunia	Week 4+	W. d. a	Approval Without	Week 12	We
Onset of Action* <u>Dryness</u>	Not Demonstrated	Week 8	Dyspareunia and Dryness Data	Not Demonstrated	We
Onset of Action = First	efficacy observation				Easy

Yuvvexy (if approved)

Therapeutics MD

Vaginal Capsule

Digitally Inserted Softgel

4, 10, 25 mcg
17β-estradiol

4, 10, 25 mcg
2x/week

Week 2

Week 2

Easy to Use

Easy to Prescribe

Negligible Systemic
Exposure

Based on Product Prescribing Information Not Head-to-Head Comparative Studies

Vageam (package labe) | http://www.ubcours-pi.com/vageam.pdf
Premarin Vagian (fram (package label) http://placita/s.com/doits\_stream asp?product\_group=18306.p-pi&language.
Osphena (package label) http://placita/s.com/doits\_stream asp?product\_group=18306.p-pi&language.
Osphena (package label) http://www.shlonogi.com/pdf/pi/osphena.pdf?do0706672
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## **TX-004HR - Designed for Long Term Compliance**

#### **Current Market**

#### Carrent market

Vaginal Creams:

Mean Duration of Use: 1.5 Months<sup>2</sup>



Reasons Women Stop

Messiness1

Reusable Applicator<sup>1</sup>

Long-term Safety<sup>1</sup>

Dose Preparation by User Required<sup>3</sup> Yuvvexy™

Muco-adhesive, Dissolves Quickly and Completely

No Applicator and No Dose Preparation

Onset-of-Action (Efficacy observed at 2 weeks)

**Negligible Systemic Exposure** 

>75% Patient Satisfaction in a Market with Historically Low Compliance Rate

Vaginal Tablets:

Mean Duration of Use: 3.5 Months<sup>2</sup>



Reasons Women Stop

Efficacy<sup>1</sup>

Applicator<sup>1</sup>

Long-term Safety<sup>1</sup>

Systemic Absorption<sup>1</sup>

#### **Potential Long Term Usage**





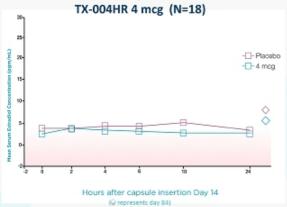
0.69 x 0.3 inch

Waynold, S. et al., Management of Vagani Airophy: Implications from the REVIPE Servey, Christia Medicine highlis, 18-producible health 2018-823-30 doi:10.14.37/DMM.S14498
 Spentrano, D. et al. Cher Year Treatment Persistance with local Straining Therapy in Polismanapusus Witness Diagnosed as Hairdy (Agrind Airophy), American Mercapasis Society, Management of symptomatic vulnovaginal atrophy; 2013 positions latement of the North American Mercapasis Society, Management of symptomatic vulnovaginal atrophy; 2013 positions latement of the North American Mercapasis Society.

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# Co-Primary and Key Secondary Efficacy Endpoints TX-004HR 4 mcg





	AUC <sub>0-24</sub> (pg.h/mL)	C <sub>avg[0-24]</sub> (pg/mL)
4 mcg	87.22 (42.77)	3.634 (1.78)
Placebo	104.16 (66.38)	4.34 (2.76)
P-value vs Placebo	0.3829	0.3829

#### LS Mean Change from Baseline to Week 12

4 mcg	LS Mean Change from Baseline to Week 12		P-value
	4 mcg	Placebo	
Superficial Cells	17%	6%	<0.0001
Parabasal Cells	-41%	-7%	<0.0001
Vaginal pH	-1.3	-0.3	<0.0001
Severity of Dyspareunia	-1.5	-1.3	0.0149
Severity of Vaginal Dryness	-1.27	-0.97	0.0014

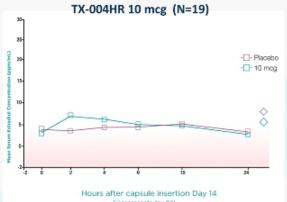
MMRM P-value vs placebo

LS = Least Squares REJOICE Trial Results Therapeutics MD\*

# Co-Primary and Key Secondary Efficacy Endpoints TX-004HR 10 mcg







	AUC <sub>0-24</sub> (pg.h/mL)	C <sub>avg(0-24)</sub> (pg/mL)	
10 mcg	110.14 (54.57)	4.58 (2.27)	
Placebo	104.16 (66.38)	4.34 (2.76)	
P-value vs Placebo	0.7724	0.7724	

#### LS Mean Change from Baseline to Week 12

LS Mean Change from Baseline to Week 12		P-value	
10 mcg	Placebo		
17%	6%	<0.0001	
-44%	-7%	<0.0001	
-1.4	-0.3	<0.0001	
-1.7	-1.3	<0.0001	
-1.47	-0.97	<0.0001	
	10 mcg 17% -44% -1.4	Baseline to Week 12           10 mcg         Placebo           17%         6%           -44%         -7%           -1.4         -0.3           -1.7         -1.3	

MMRM P-value vs placebo

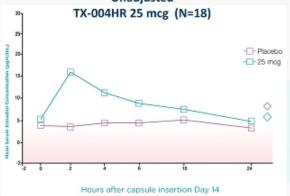
LS = Least Squares REJOICE Trial Results Therapeutics MD\*

3!

# Co-Primary and Key Secondary Efficacy Endpoints TX-004HR 25 mcg



#### Arithmetic Mean Estradiol Serum Concentrations - Unadjusted



	AUC <sub>0-24</sub> (pg.h/mL)	C <sub>avg(0-24)</sub> (pg/mL)
25 mcg	171.56 (80.13)	7.14 (3.33)
Placebo	104.16 (66.38)	4.34 (2.76)
P-value vs Placebo	0.0108	0.0108

#### LS Mean Change from Baseline to Week 12

25mcg		nange from o Week 12	P-value
	25 mcg	Placebo	
Superficial Cells	23%	6%	<0.0001
Parabasal Cells	-46%	-7%	<0.0001
Vaginal pH	-1.3	-0.3	<0.0001
Severity of Dyspareunia	-1.7	-1.3	<0.0001
Severity of Vaginal Dryness	-1.47	-0.97	<0.0001

MMRM P-value vs placebo

LS = Least Squares REJOICE Trial Results Therapeutics MD\*

## **Favorable Regulatory Dynamics Driven by Change in Treatment Paradigm**

Removal of Black Box Warning

- · Citizen's Petition, spearheaded by NAMS, for modification of black box warnings
- Nov. 2015 FDA "boxed warnings" workshop provided an opportunity for FDA to obtain input related to prescribing information of lower-dose estrogen alone

















Estrogen Use in **Breast Cancer** Survivors

- ACOG released opinion stating it is safe for breast cancer survivors to use vaginal estrogen as data showed no increased risk2
- Healthcare practitioners may now consider topical estrogen therapy for patients with a history of estrogen-dependent breast cancer



Changing Perception on Use of Estrogen

- Women's Health Initiative's Hormone Trials follow up concluded that the risk/benefit profile for estrogen use is positive3:
  - 63% lower risk of dying of breast cancer
  - 16% reduced risk of illness and death
  - Preventative for heart disease, diabetes, and other illnesses if started early









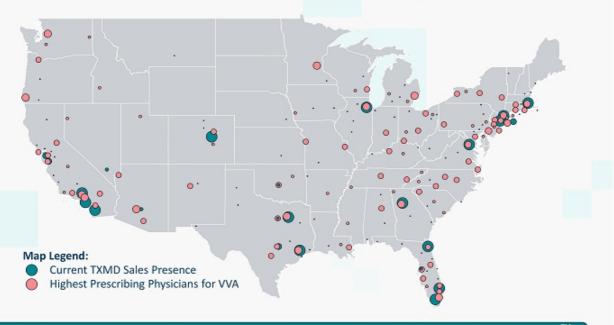




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## **Foundation Built for a Strong Launch**

Operational leverage of OB/GYN relationships in key markets



50 Sales Representatives; Planned Increase to 100-120 With Launch of Yuvvexy

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# Expect Robust Insurance Coverage For TX-004HR, If Approved, In-Line with Product Class

4,312 Commercial Plans	% Unrestricted Acce Commercial Plan	Not Covere	t Covered
Premarin Cream®	94%	2%	2%
Estrace Cream®	96%	2%	
Vagifem <sup>®</sup>	90%	2%	
Estring®	93%	1%	

Data Source MMIT August 17, 2016 – 4,900 commercial plans All trademarks are the property of their respective owners. Therapeutics MD\*

## **TXMD: Financial Snapshot**









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## **Worldwide Patent Filings\***

Strong IP Portfolio with 149 Patent Applications, including 82 international filings, and 17 issued U.S. patents



\*Not all patent filings filed in all jurisdictions.

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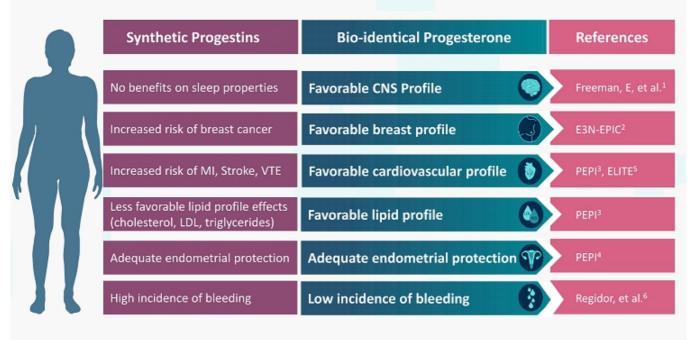


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# Compounded Combination Bio-Identical E+P: Why Has It Been So Successful?



Freeman E, Rickels K, Sonsheimer S I, et al. A double-blind trial of oral progesterone, alpracolam and placebo in treatment of severe premenstrual syndrome. AMM. 1995, 174-51-57.

2) Fournier A, Berrino F, Clavel-Chapelon F. Unequal risks for breast cancer associated with different hormone replacement therapies: results from the EBN cohort study. Breast Cancer Res Treat. 2008;107:103-11

Writing (trough for the PEP) First . Effects of calongous or cathogory progester regimes on heart design. Note include in postmeropeasal source. AMM. 1995;173:199-400.
The Writing Force for the PEP First . Effects of hormone replacement therapy on endomestration livinging in postmeropeasal woman. The postmeropeasal interventions (PEP) trist . AMM. 1996;275:

5) Hods HV, et al. Testing the menopausal hormone therapy liming hypothesis: The early versus late intervention trial with extractor AHA 2014; Abstract 13283

6) Regidor, P-A, et al. Progesterone in Peri- and Postmenopausal: A Review. Geburtshillye Frovenheildd. 2014 Nov; 74 (11): 995-100

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## **Current FDA Guidance for VMS Drug Products**\*

- Co-primary efficacy endpoints (12 week VMS Efficacy Population)
  - Mean Change from Baseline to Weeks 4 and 12 in the frequency and severity of moderate and severe vasomotor symptoms versus placebo
- Primary safety endpoint (12 month Endometrial Safety Population)
  - Incidence rate of endometrial hyperplasia at 12 months (to demonstrate a hyperplasia rate that is ≤ 1% with an upper bound of the one-sided 95% confidence interval for that rate does not exceed 4%)

#### **Study Analysis**

 Clinically meaningful and statistically significant reduction within 4 weeks of initiation of treatment and maintained throughout 12 weeks of treatment

#### **Study Considerations**

Single, 12-month study to demonstrate endometrial protection

#### Single Pivotal Phase 3 trial required unless:

- The drug to be studied is considered a new molecular entity
- The drug to be studied poses unique safety concerns

\* 2003 FDA Draft Guidance for Industry Estrogen and Estrogen/Progestin Drug Products to Treat Vasomotor Symptoms and Vulvar and Vaginal Atrophy Symptoms — Recommendations for Clinical Evaluation http://www.fda.gov/ucm/groups/fdagov-public/@fdagov-drugs-gen/documents/document/ucm071643.pdf Therapeutics MD\*