Supernus Pharmaceuticals

Jefferies Healthcare Conference

June 2017

Safe Harbor Statement

This presentation and other matters discussed today or answers that may be given to questions asked include forward-looking statements within the meaning of the federal securities laws. These statements, among other things, relate to Supernus' business strategy, goals and expectations concerning its product candidates, future operations, prospects, plans and objectives of management. The words "anticipate", "believe", "could", "estimate", "expect", "intend", "may", "plan", "predict", "project", "will", and similar terms and phrases are used to identify forward-looking statements in this presentation. Supernus' operations involve risks and uncertainties, many of which are outside its control, and any one of which, or a combination of which, could materially affect its results of operations and whether the forward-looking statements ultimately prove to be correct. Supernus assumes no obligation to update any forward-looking statements except as required by applicable law.

Supernus has filed with the U.S. Securities and Exchange Commission (SEC) reports and other documents required by Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended. Before you purchase any Supernus securities, you should read such reports and other documents to obtain more complete information about the company's operations and business and the risks and uncertainties that it faces in implementing its business plan. You may get these documents for free by visiting EDGAR on the SEC website at http://www.sec.gov.

Supernus® Pharmaceuticals

Proven Execution

Nine Marketed Products Using Our Technologies

		Launch Year		
		2013	2014	2017*
Supernus® Pharmaceuticals		Trokendi XR® Oxtellar XR®		Trokendi XR®
Shire	Carbatrol®, Adderall XR®, Equetro®, Intuniv®			SHP 465
GALDERMA	Oracea®			
ALLERGAN	Sanctura XR®			
United Therapeutics CORPORATION			Orenitram®	

* As publically disclosed by Shire

All trademarks are the property of their respective owners.

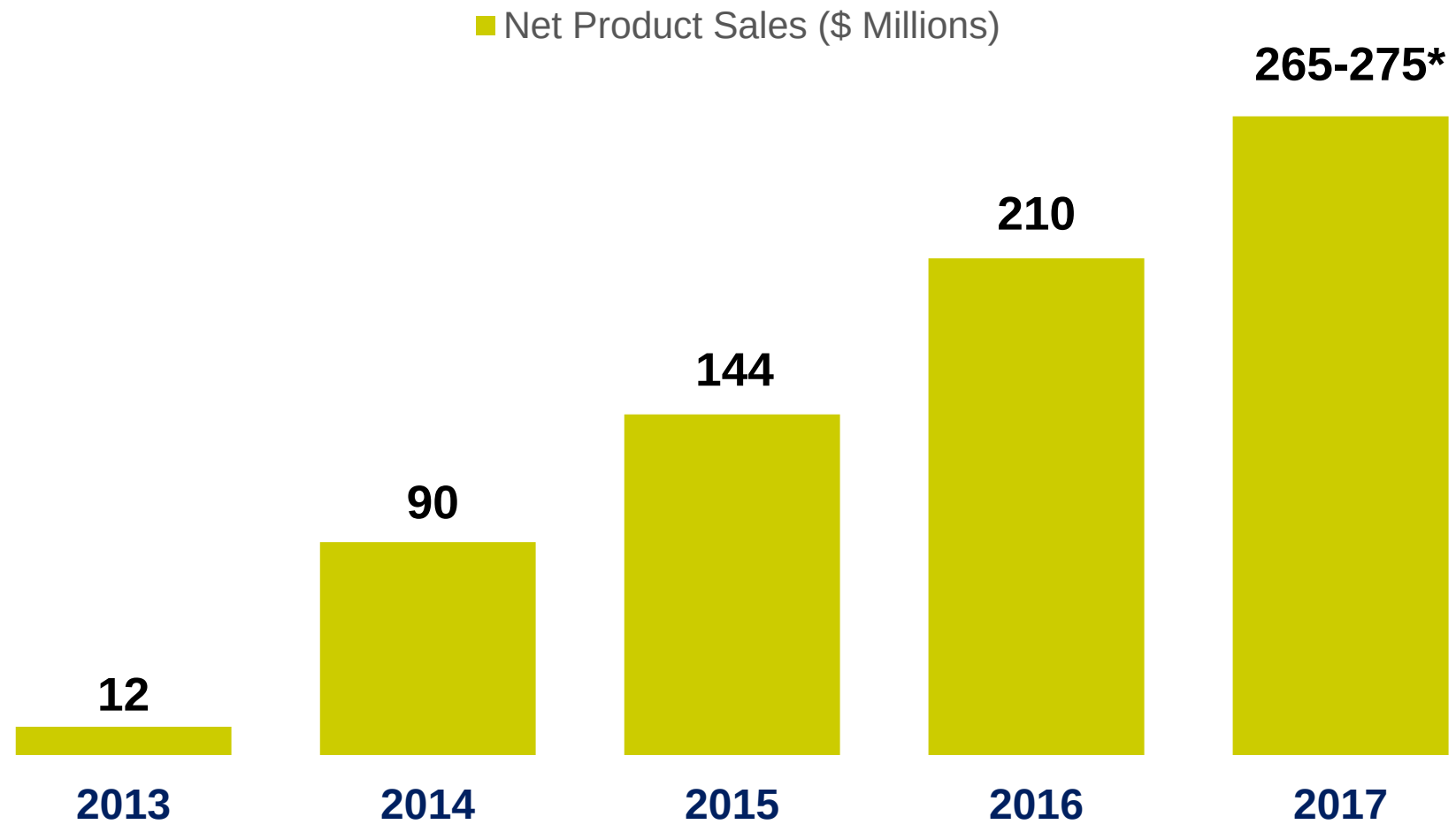
Supernus® Pharmaceuticals

Robust Portfolio of CNS Products

Product	Indication	Development	NDA	Launch
Oxtellar XR®	Epilepsy			February 2013
Trokendi XR®	Epilepsy			August 2013
Trokendi XR®	Migraine			April 2017
Oxtellar XR®	Bipolar	Phase I		
SPN-810	Impulsive Aggression	Phase III		
SPN-812	ADHD	Phase IIb Complete		
SPN-809	Depression	IND/Phase II Ready		

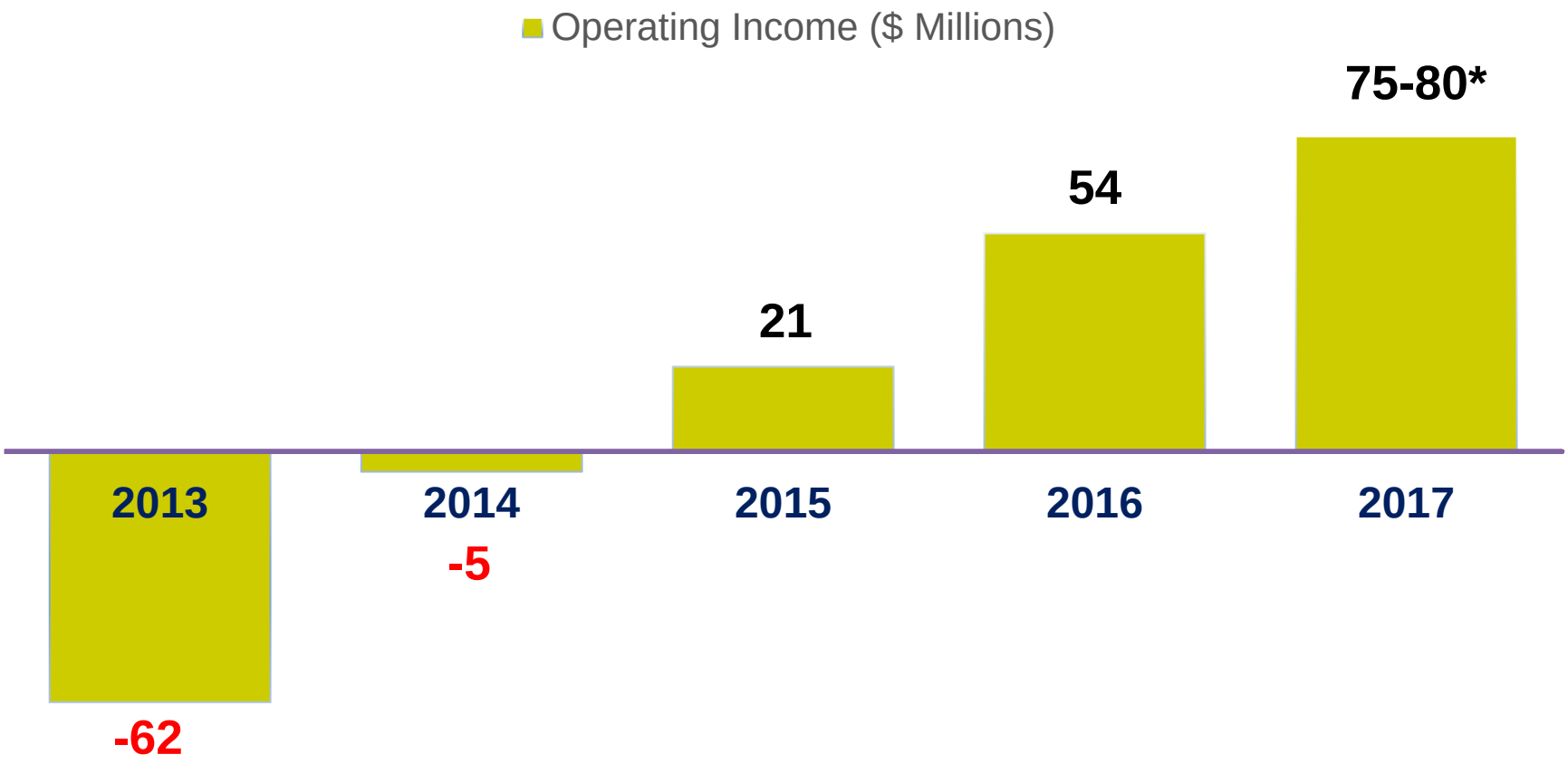
Supernus® Pharmaceuticals

Strong Net Product Sales Growth



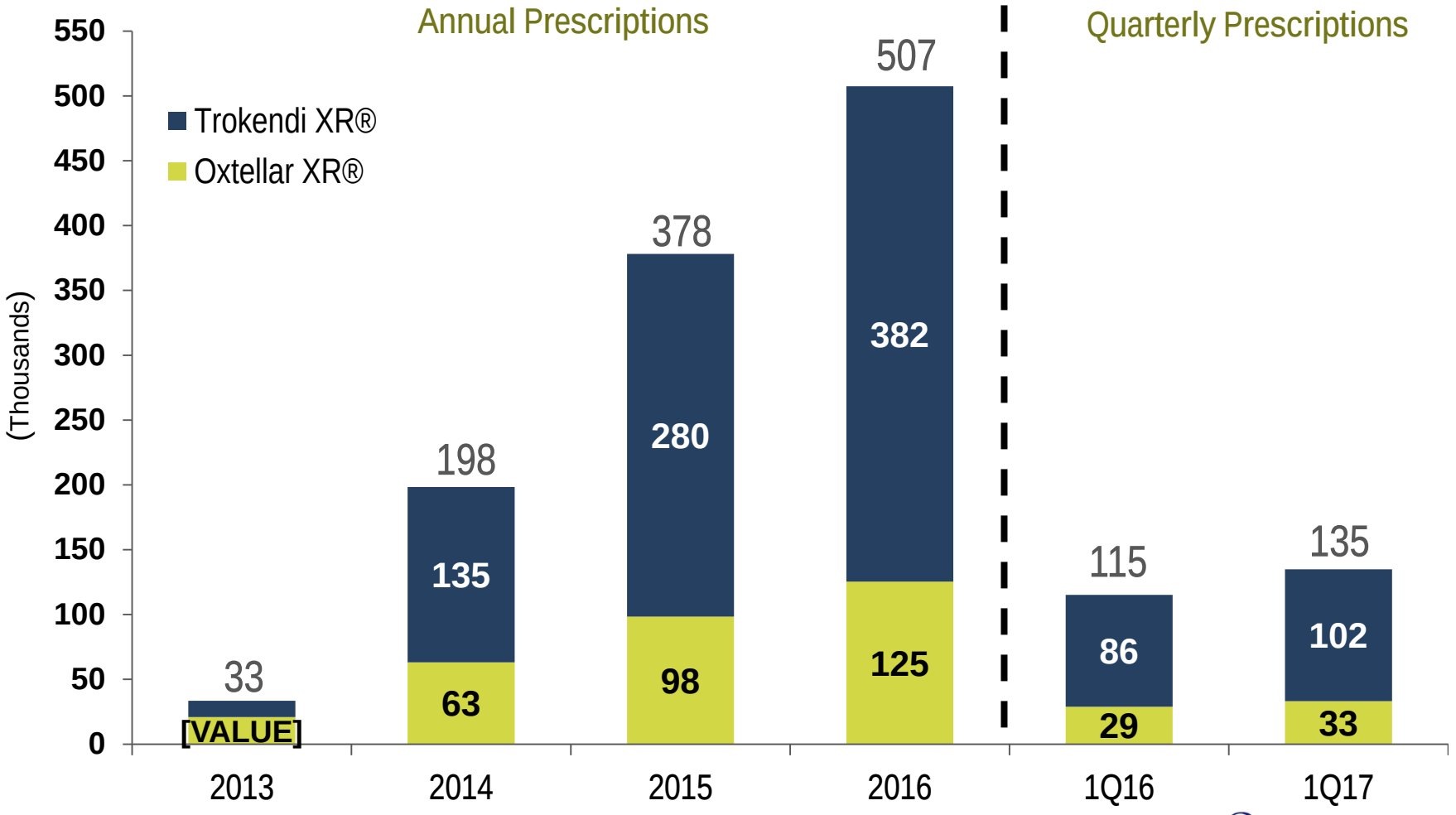
* Guidance provided on May 9, 2017 which has not been updated

Growing Operating Income



* Guidance provided on May 9, 2017 which has not been updated

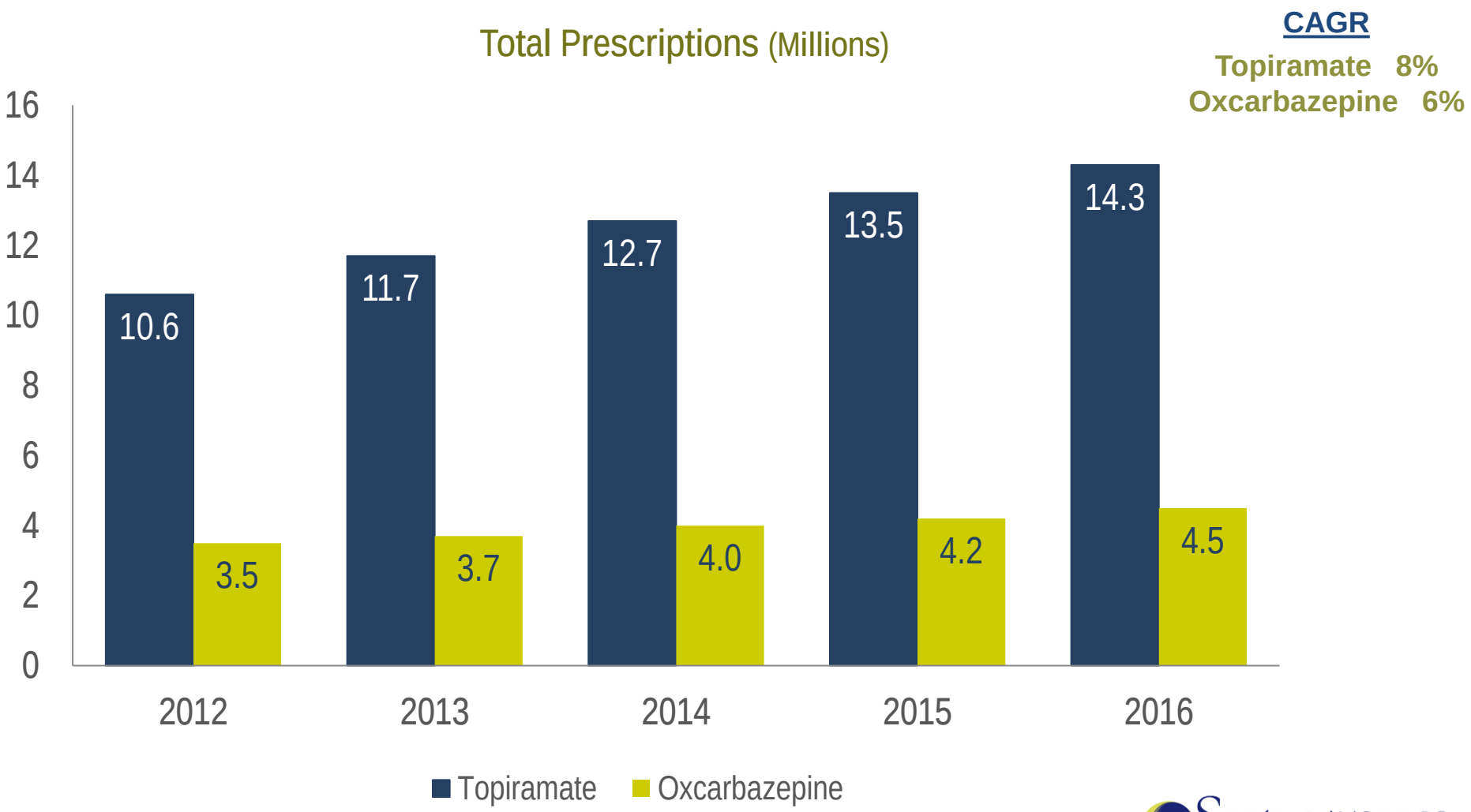
Solid Prescription Growth Since Launch



Source: IMS Monthly Prescriptions

Supernus® Pharmaceuticals

Continued Growth in Target Markets

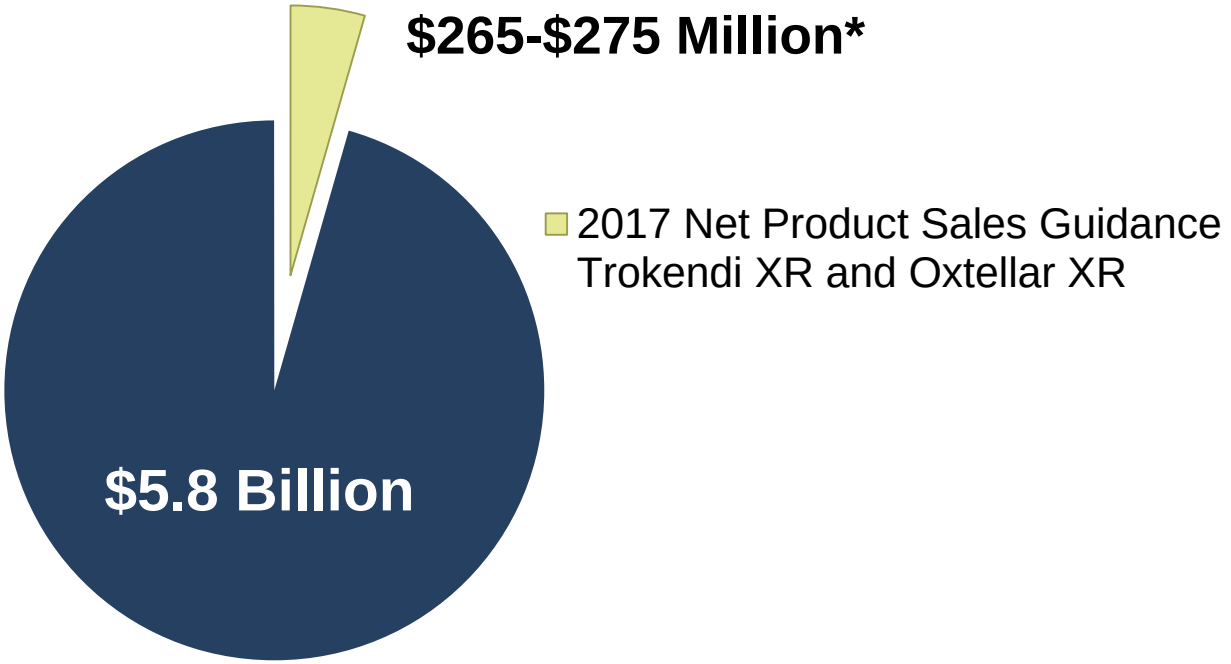


Source - IMS NPA

Supernus® Pharmaceuticals

Combined Target Markets Potential of $5.8 Billion

Potential Peak Sales for Oxtellar XR® and Trokendi XR® >$500Million

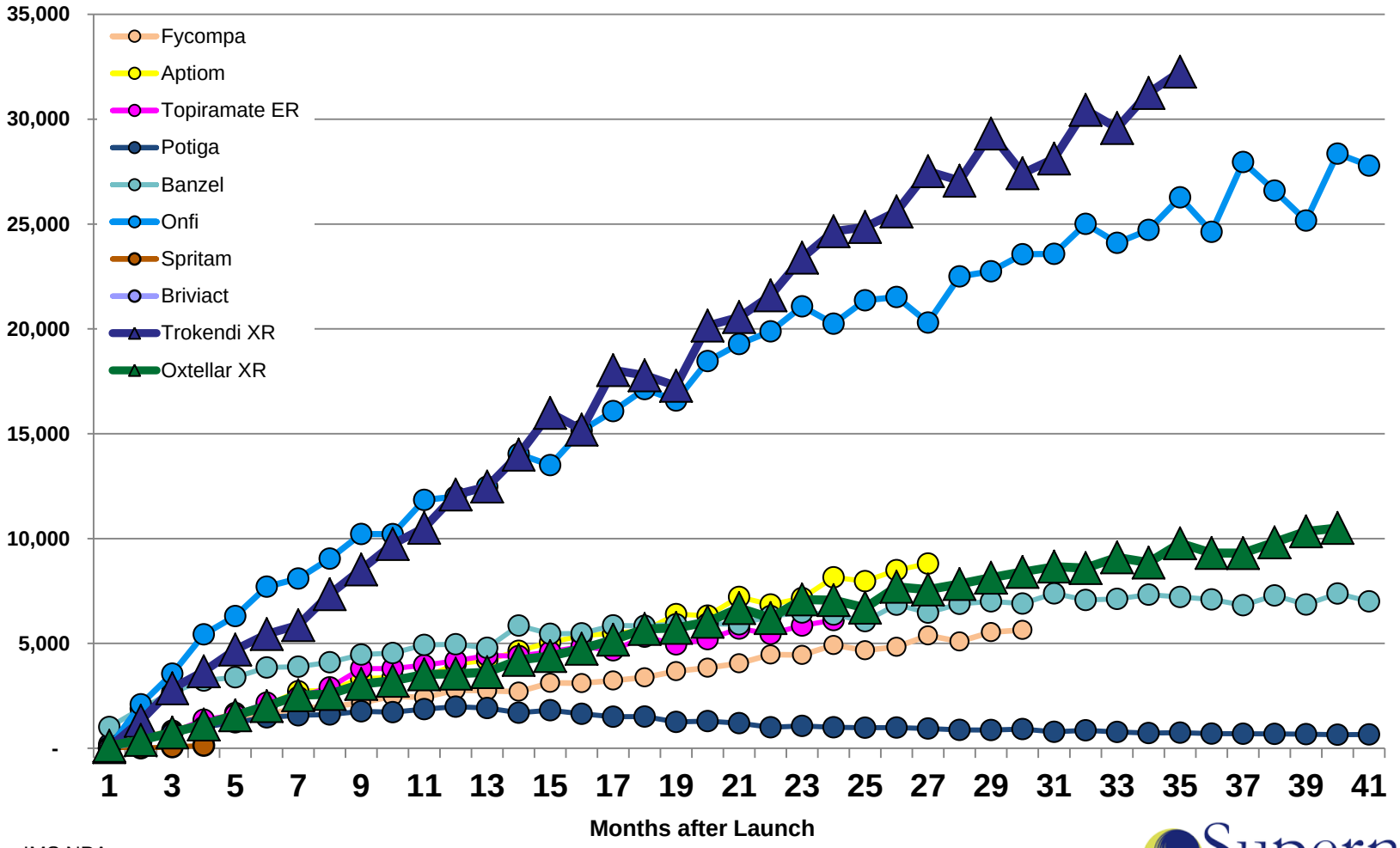


* Guidance provided on May 9, 2017 which has not been updated

Supernus® Pharmaceuticals

Trokendi XR®

The Most Successful Anti-Epileptic Drug Launch Since 2010



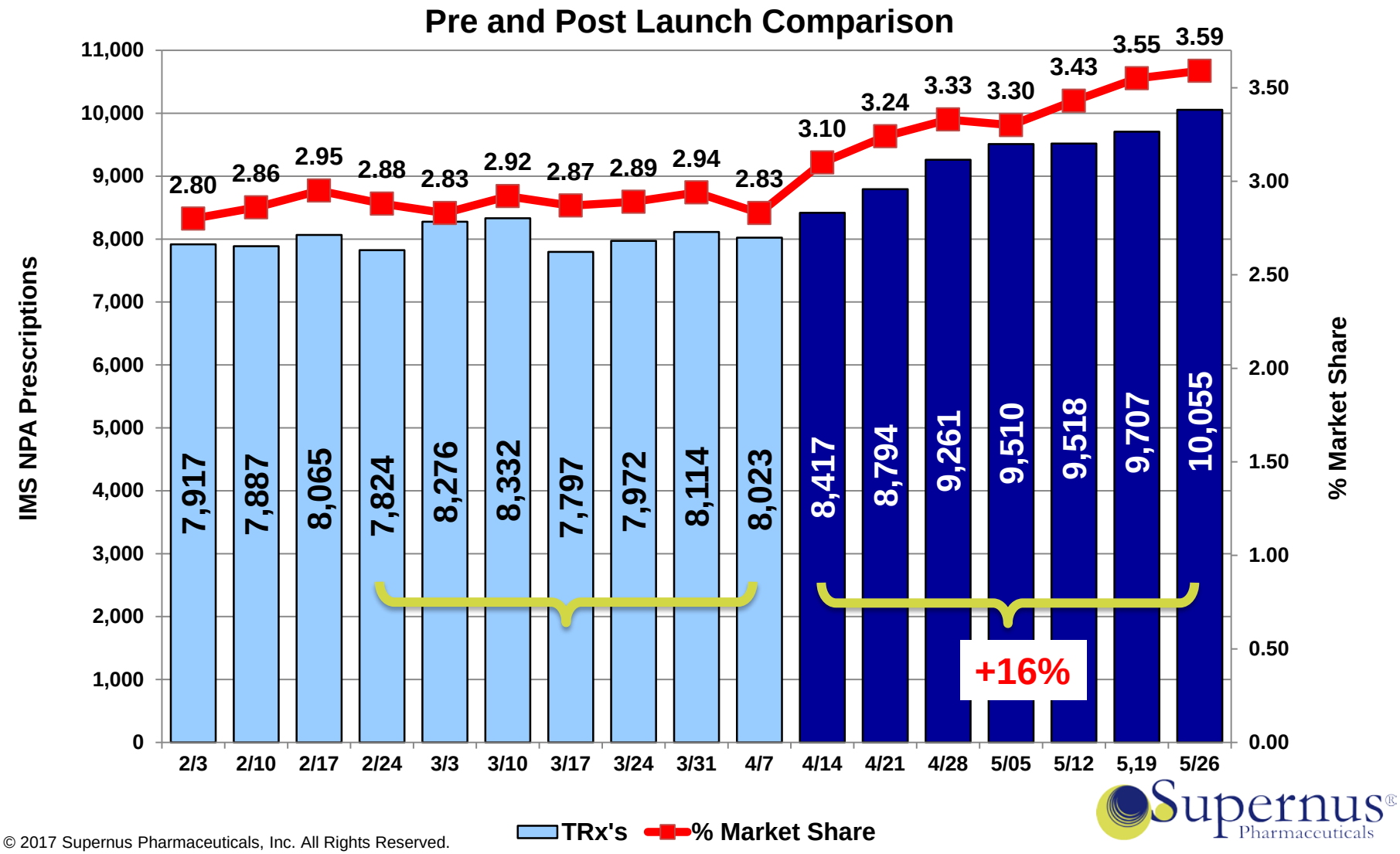
Source: IMS NPA

Launch Dates – Trokendi XR 8/13; Potiga 5/12, Fycompa 1/14, Aptiom 4/14, Oxtellar XR 2/13, Topiramate ER 7/14, Banzel 1/09, Onfi 12/11

Supernus® Pharmaceuticals

Trokendi XR® Migraine Launch

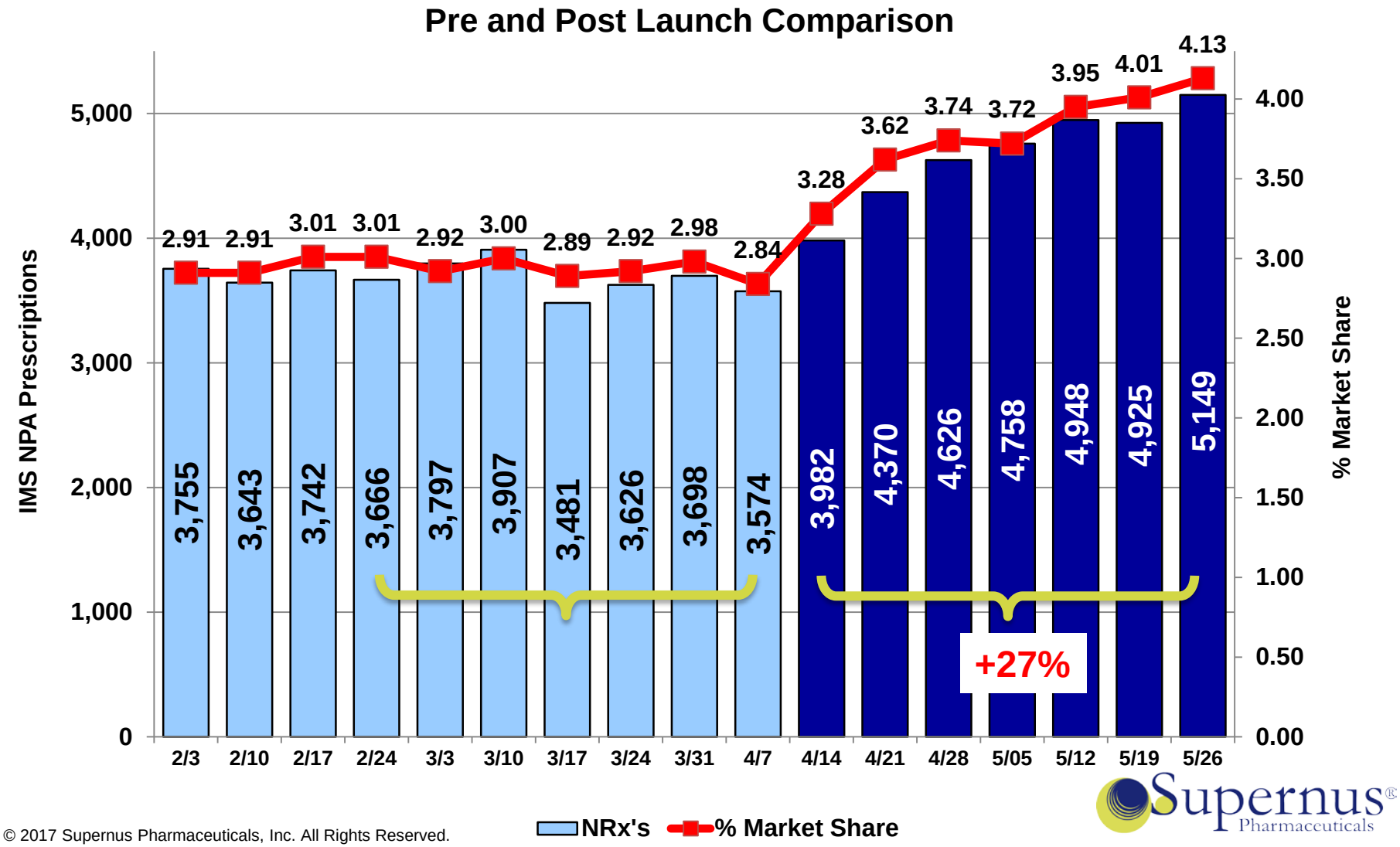
National Weekly Total Prescriptions (TRx) and Market Share Trends



Supernus® Pharmaceuticals

Trokendi XR® Migraine Launch

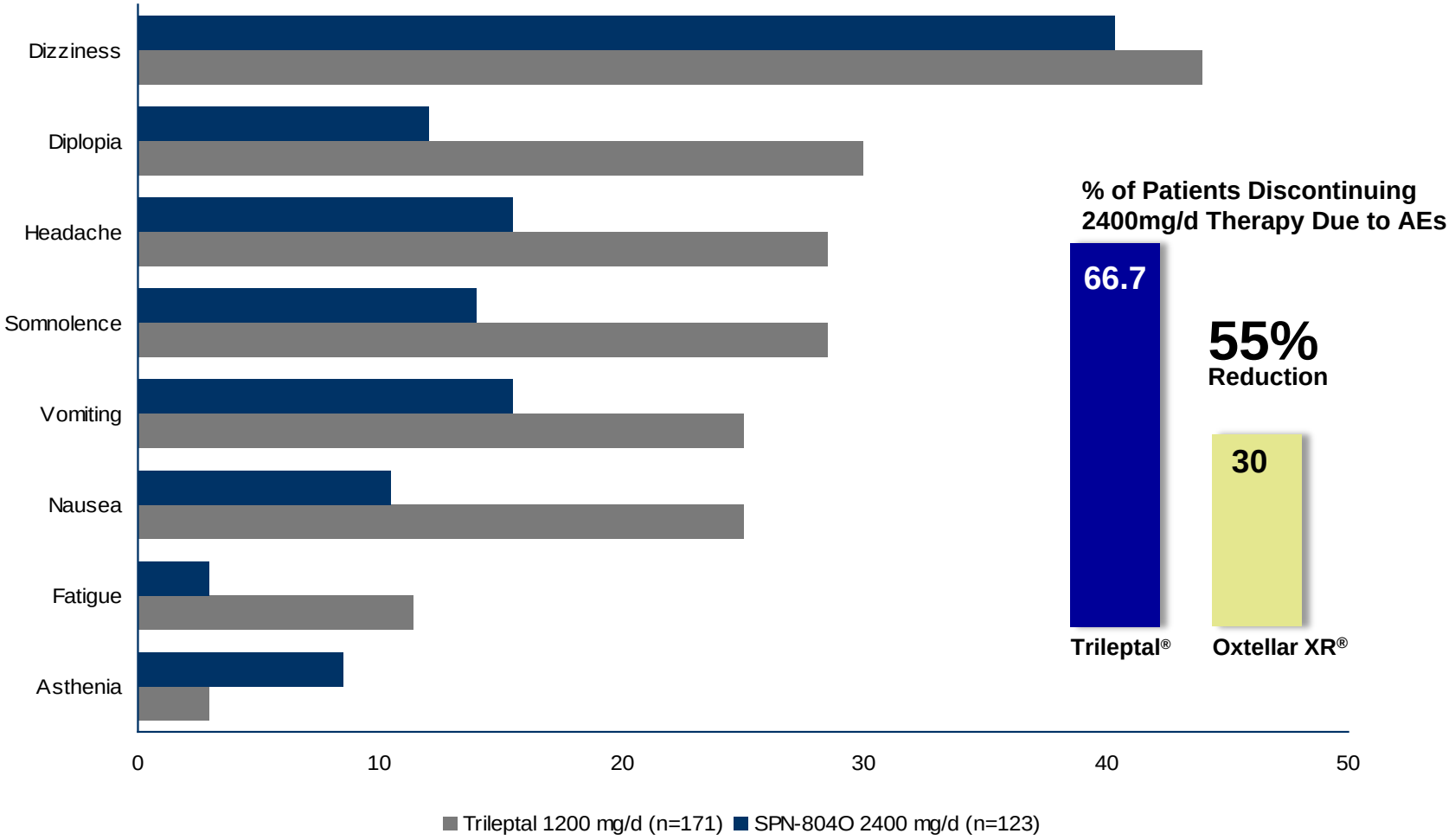
National Weekly New Prescriptions (NRx) and Market Share Trends



Supernus® Pharmaceuticals

Oxtellar XR®

Improved Adverse Event Profile at Double the Dose of Trileptal®

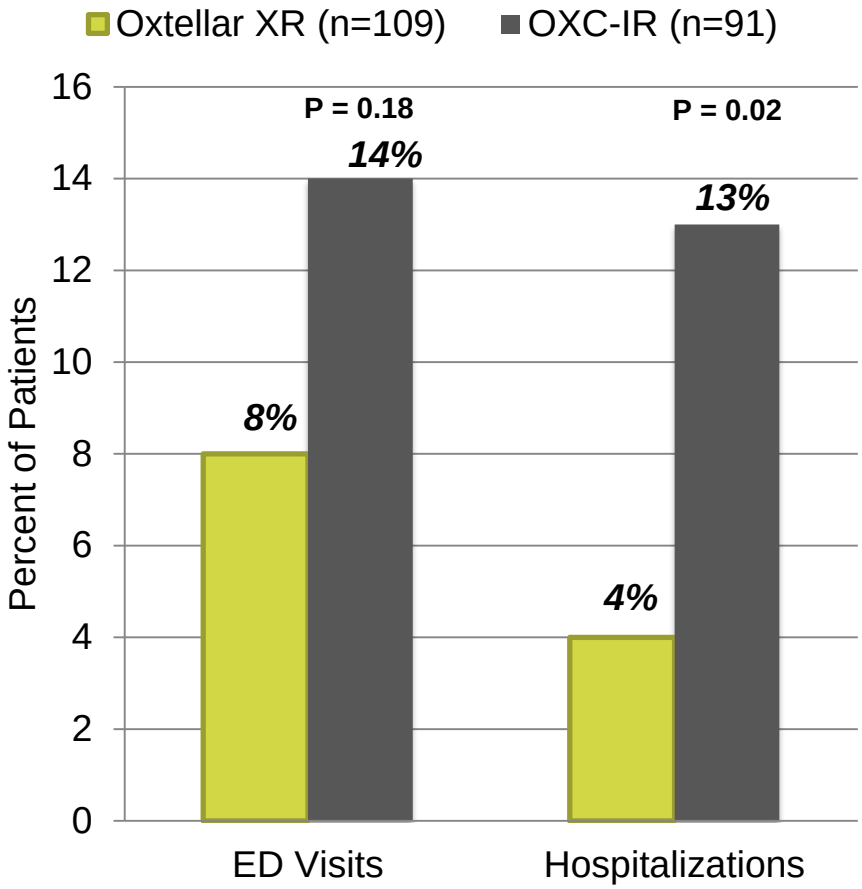


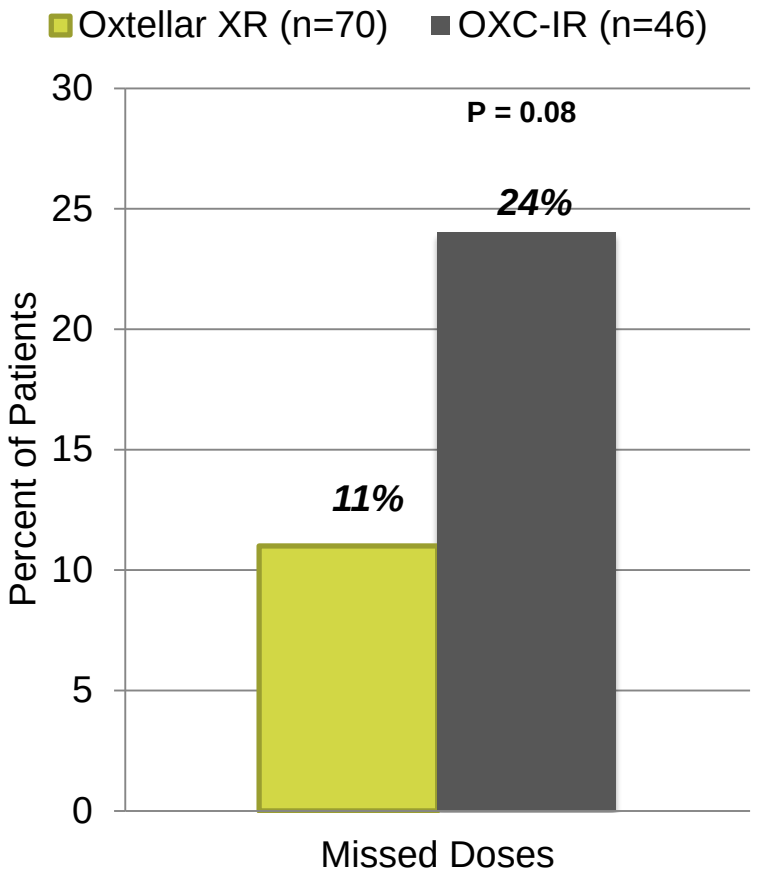
Based on comparison of Oxtellar XR (SPN-804O) Phase III vs. Trileptal PI (adjunctive therapy study in adults); differences in trial design exist between the two studies. Dizziness includes vertigo in Trileptal group because of change in the MedDRA system

Supernus® Pharmaceuticals

Oxtellar XR®

More Favorable Clinical Outcomes & Greater Adherence Compared to OXC-IR[1]





[1]O'Neal W, et al., Adherence and Resource Utilization with Extended-Release Oxtellar XR® or Immediate-Release Oxcarbazepine (OXC-IR) Treatment in Clinical Practice: A Standardized Case Record Review. Neurology 2015;84 (P1.244)

Supernus® Pharmaceuticals

Psychiatry Pipeline

Innovative Late Stage Portfolio

SPN-810	**First Treatment to be Developed for Impulsive Aggression**
SPN-812	**Highly Effective & Well Tolerated Non-Stimulant**
Oxtellar XR	**Novel Product for Bipolar Disorder**

Multi-Billion Dollar Product Opportunities

Supernus® Pharmaceuticals

Understanding Impulsive Aggression (IA)

- IA is a subtype of Maladaptive Aggression
- Impulsivity can be defined neurobiologically
  - Impairment in self-control
- IA occurs across multiple disorders including
  - ADHD, autism, bipolar disorder, schizophrenia, Alzheimer's, PTSD and disorders of traumatic stress

Supernus® Pharmaceuticals

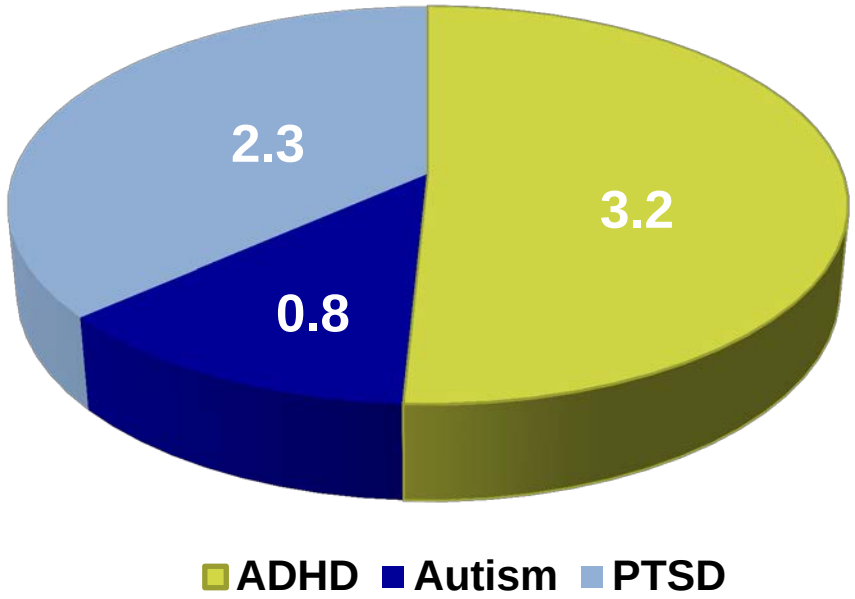
SPN-810: Novel Product for IA

Granted Fast Track Development Designation

1st **Expected to be First Product Approved to Treat IA**

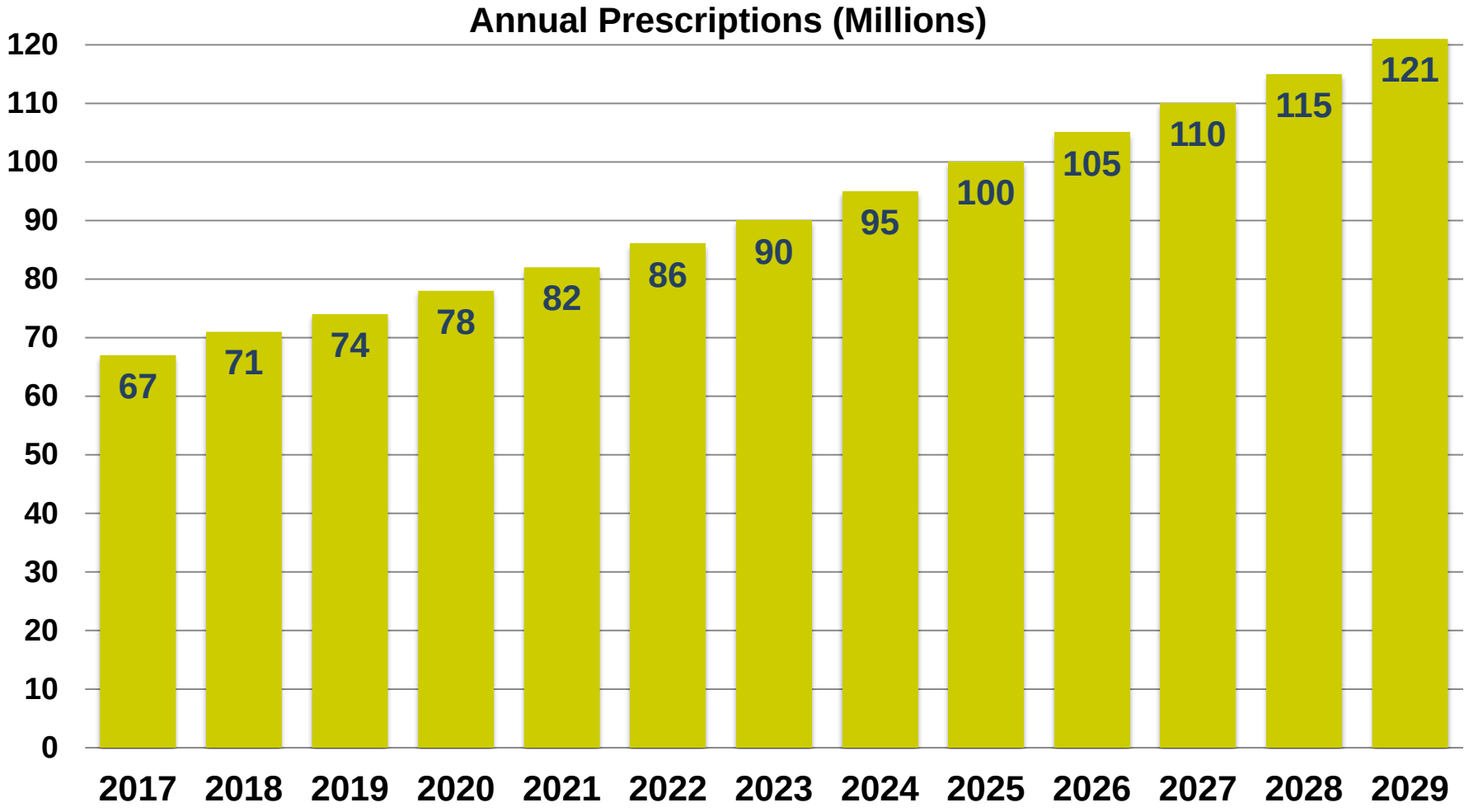
2017 **Two Ongoing Phase III Trials**

Market Opportunity
+$6.3B



Supernus® Pharmaceuticals

ADHD Market Opportunity in the U.S



Source - IMS NPA and Company Estimates

Supernus® Pharmaceuticals

SPN-810 Market Opportunity for IA in ADHD

	Percent	Prescriptions in Peak Year
ADHD Market Prescriptions		95 - 110 Million
Child and Adolescent ADHD Prescriptions Child Psychiatrists, Child Neurologists, Psychiatrists, and Top Pediatrician Deciles		24 - 28 Million
Prevalence of Impulsive Aggression	22.5 - 32%	5.4 - 9.0 Million
	Peak Market Share	**SPN-810 Potential Prescriptions**
SPN-810 Peak Demand	**16 - 20%**	**0.9 - 1.8 Million**

SPN-810 Market Sizing and Demand Study (April 2015); Assumes prevalence and demand from quantitative research are applicable to high ADHD pediatrician prescribers, and peak market share at 3–5 years post launch

Supernus® Pharmaceuticals

SPN-810: A Billion Dollar Product for Supernus

	Potential Gross Revenue
ADHD	$515 - $1,050 Million
Autism and PTSD	$590 - $720 Million
Total at Peak	$1,105 - $1,770 Million

+

Other Impulsive Aggression Opportunities:

Schizophrenia, Bipolar, Alzheimer's, Oppositional Defiant Disorder, etc.

Supernus® Pharmaceuticals

SPN-810 Phase IIb Study

Demonstrated Proof of Concept in IA in ADHD Patients

- Extended release molindone
- Randomized, double-blind, placebo-controlled, multicenter
- 6–12 year old patients with IA co-morbid with ADHD
- Primary endpoint: change from baseline to endpoint (Visit 10) in R-MOAS* ratings.
- Optional six-month open-label extension

	Children < 30 kg (mg/day)	Children ≥ 30 kg (mg/day)
Low Dose	12	18
Medium Dose	24	36
High Dose	36	54

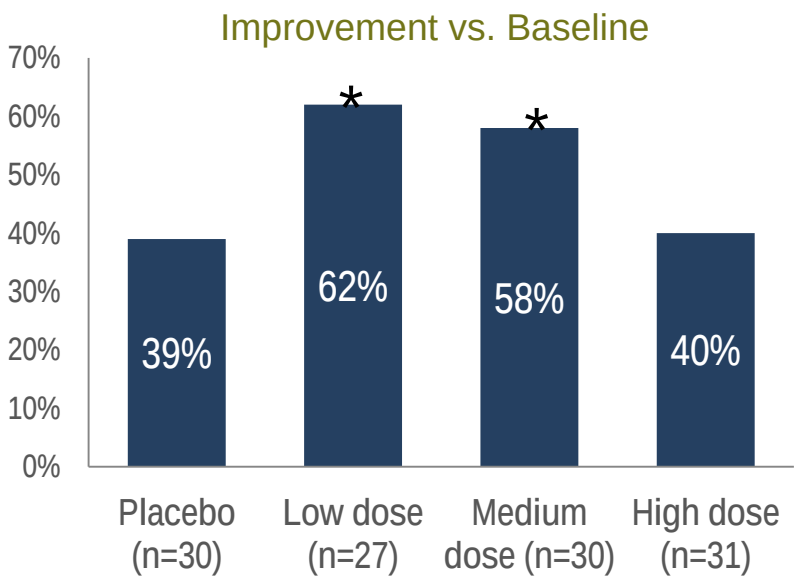
* Retrospective modified overt aggression scale

Supernus® Pharmaceuticals

SPN-810 Phase IIb Demonstrated Efficacy

Primary Endpoint: Change from Baseline at Visit 10 in R-MOAS# Score[1]

LOCF, ITT Population



* P<0.05 vs. placebo

\# Retrospective modified overt aggression scale

[1] Primary Endpoint based on FDA input

Improved Remission Rate at End of Study[2]

R-MOAS	Placebo (n=30)	Low Dose (n=27)	Medium Dose (n=30)	High Dose (n=31)
Subjects Remitted	6 (20%)	14 (52%)	12 (40%)	10 (32%)
P-value for Remission Rate		**0.009**	**0.043**	0.276

Remission: RMOAS≤10, P significant at p< 0.05

[2] Primary Endpoint before FDA input

Supernus® Pharmaceuticals

SPN-810 Was Well-Tolerated

Most Common Adverse Events* (*Reported by ≥ 5% of Subjects in one or more treatment groups*)	Placebo (n=31) N (%)	All Treatment (n=90) N (%)
Headache	4 (13%)	9 (10%)
Sedation	2 (7%)	8 (9%)
Somnolence	1 (3%)	2 (2%)
Abdominal Pain	1 (3%)	5 (6%)
Increased Appetite	1 (3%)	7 (8%)
Decreased Appetite	0	5 (6%)
Fatigue	0	3(3%)
Abnormal Weight Gain	0	1 (1%)
Extrapyramidal Symptoms (EPS)		
Dystonia	0 (0)	2 (2%) [Severe]
Akathisia	1 (3.2%) [Mild]	0 (0)
Dyskinesia	0 (0)	1 (1%) [Moderate]

*There is no statistically significant difference in the rate of incidence of AEs between the placebo arm and all active treatment groups combined

Supernus® Pharmaceuticals

SPN-810 Phase III Study Design

Study	Population	Primary Objective*	Study Duration	Treatment Duration	Dose Range	No. of Subjects	Status
P301	Pediatric (6-12 years)	Efficacy	10 weeks	6 weeks	Placebo 18mg 36mg	291 Randomized	Enrolling
P302	Pediatric (6-12 years)	Efficacy	10 weeks	6 weeks	Placebo 18mg 36mg	291 Randomized	Enrolling

*Primary Endpoint : Change in IA behavior frequency

Supernus® Pharmaceuticals

SPN-812: Novel Non-Stimulant ADHD Product

- Viloxazine hydrochloride
  - Norepinephrine reuptake inhibitor
- Once-daily oral extended-release product
- New Chemical Entity (NCE)
  - Five year market exclusivity
  - Previously marketed outside the US as an antidepressant
- Building strong IP portfolio with expirations from 2029-2033
- Emerging clinical profile points to a well differentiated ADHD product
  - A highly effective non-stimulant with a tolerable side effect profile

Supernus® Pharmaceuticals

SPN-812 Phase IIb Design

- **Objectives:**
  - Assess effect in reducing symptoms of ADHD in children aged 6-12 years
  - Evaluate safety and tolerability
- **Primary Endpoint**:
  - Change from baseline to End of Study in the ADHD-RS-IV total score
- **Design:**
  - Double-blind, placebo-controlled, multicenter, dose-ranging study
    - Placebo, 100/200/300/400mg
  - Monotherapy
  - 222 subjects randomized
  - 3 weeks titration (100mg/week), 5 weeks treatment
  - Rollover to Open-Label Extension Study

Supernus® Pharmaceuticals

Three SPN-812 Doses Met Primary Endpoint

Primary Analysis
Change from baseline in ADHD-RS-IV Total Score (ITT Population with LOCF)

Statistics	400 mg N=44	300 mg N=47	200 mg N=46	100 mg N=45	Placebo N=24	
LS Mean	-19.0	-18.6	-18.4	-16.7	-10.5	End of Study
Effect Size	0.63	0.60	0.55	0.46		
P-value	**0.021***	**0.027***	**0.031***	**0.089**		
* At end of study all SPN-812 doses except the 100 mg dose are statistically significant compared to placebo at α = 0.05 level.						

ITT = Intent To Treat
LOCF = Last Observation Carried Forward

Supernus® Pharmaceuticals

SPN-812 Was Well Tolerated

Percentage of Patients with Related AEs, >5%		SPN-812 ER			
Adverse Event (AE)	Placebo N=24	100 mg N=48	200 mg N=48	300 mg N=48	400 mg N=49
Somnolence	0	14.6	20.8	20.8	24.5
Decreased appetite	8.3	10.4	12.5	8.3	16.3
Headache	0	4.2	10.4	6.3	12.2
Insomnia	0	6.3	4.2	6.3	6.3
Nausea	0	4.2	2.1	8.3	4.1
Fatigue	0	4.2	4.2	2.1	10.2
Irritability	0	2.1	8.3	4.2	2.0
Weight decreased	0	0	0	0	8.3
Discontinuations Due to AEs	0	8.3	6.3	2.1	10.2

Supernus® Pharmaceuticals

SPN-812: A Billion Dollar Product for Supernus

	Percent	Prescriptions in Peak Year
ADHD Market Prescriptions		**90 - 100 Million**
	Peak Market Share	**SPN-812 Potential Prescriptions**
SPN-812 Peak Demand	**3 - 5%**	**2.7 - 5.0 Million**
SPN-812 Peak Gross Revenue		**$1.6 - 3.0 Billion**

Source - IMS NPA, Company Research and Estimates – Assumes peak at 3-5 years post launch

Supernus® Pharmaceuticals

Oxtellar XR: Novel Product for Bipolar

50% **Use of Oxcarbazepine in Psychiatry**

1st **Expected to be Only Oxcarbazepine Product Approved to Treat Bipolar**

2017 **Investigator-Initiated Trial To start in 3Q**

Market Opportunity
+53 Million Prescriptions

Class of Drugs	% of Prescriptions
Antiepileptics	34
Antipsychotics	29
SSRI's	15
SNRI's	6
Antimania	6
Other Antidepressants	6
Benzodiazepines	4
Total	100

Source: IMS 2016

SSRI = Selective serotonin reuptake inhibitor
SNRI = Serotonin & norepinephrine reuptake inhibitor

Supernus® Pharmaceuticals

Financial Summary

2017 First Quarter Results

- Net product sales of $56.4 million, up 31% over 2016
- Operating income of $16.8 million, up 161% over 2016
- Capital resources:
  - Cash, cash equivalents, marketable securities and long term marketable securities at $176.3 million as of March 31, 2017
  - $165.5 million at December 31, 2016

Supernus® Pharmaceuticals

Financial Summary

2017 Full Year Financial Guidance[1]

- Net product sales: $265 million - $275 million
- Operating income: $75 million to $80 million
- R&D expenses: approximately $55 million

[1] Guidance provided on May 9, 2017 which has not been updated

Supernus® Pharmaceuticals

Positioned For Continued Strong Growth

Strong Portfolio in Neurology

Potential Peak Sales for Oxtellar XR® and Trokendi XR® >$500M

Innovative Late Stage Portfolio in Psychiatry

SPN-810 : First Treatment to be Developed for Impulsive Aggression
SPN-812 : Highly Effective and Well Tolerated Non-Stimulant
Oxtellar XR : Novel Product for Bipolar Disorder

Supernus® Pharmaceuticals