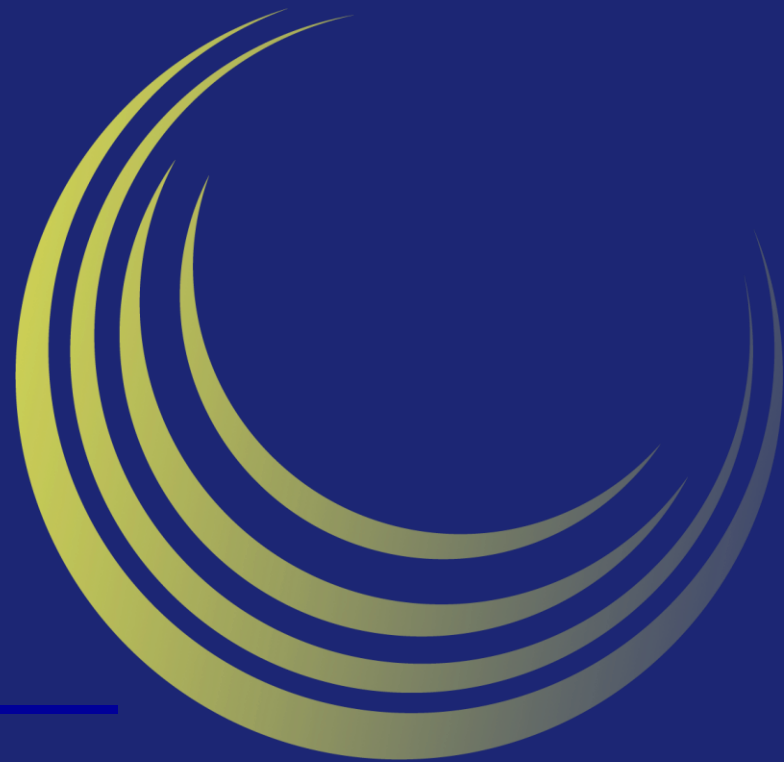


# Supernus Pharmaceuticals

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## Investor Presentation

March 2018

# Safe Harbor Statement

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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.

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# Proven Execution

## Ten Marketed Products Using Our Technologies

					Launch Year		
					2013	2014	2017
					 Trokendi XR® Epilepsy		 Trokendi XR® Migraine
	 Oxtellar XR®						
	 Carbatrol®	 Adderall XR®	 Equetro®	 Intuniv®		 Mydayis™	
	 Oracea®						
	 Sanctura XR®						
					 Orenitram®		

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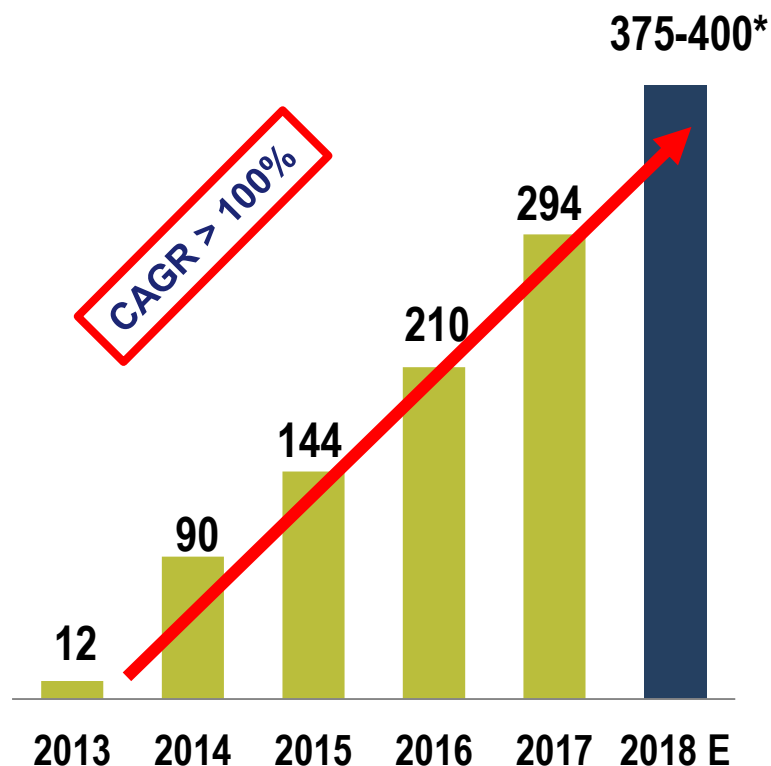
# Robust Portfolio of CNS Products

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

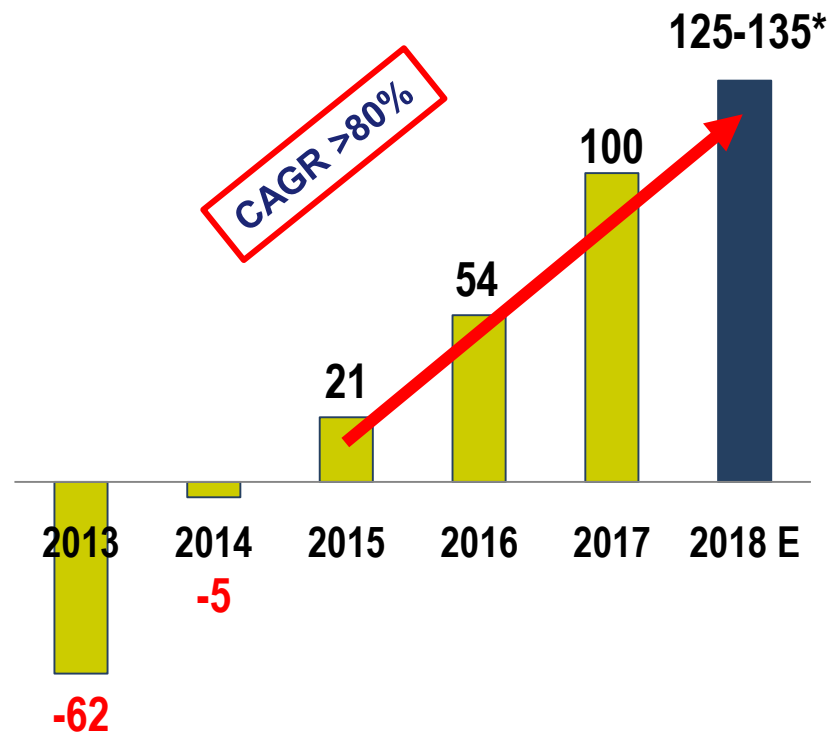
# Profitable CNS Pharma Company

## Strong Sales and Operating Income Growth

Total Net Product Sales (\$ Millions)



Total Operating Income (\$ Millions)



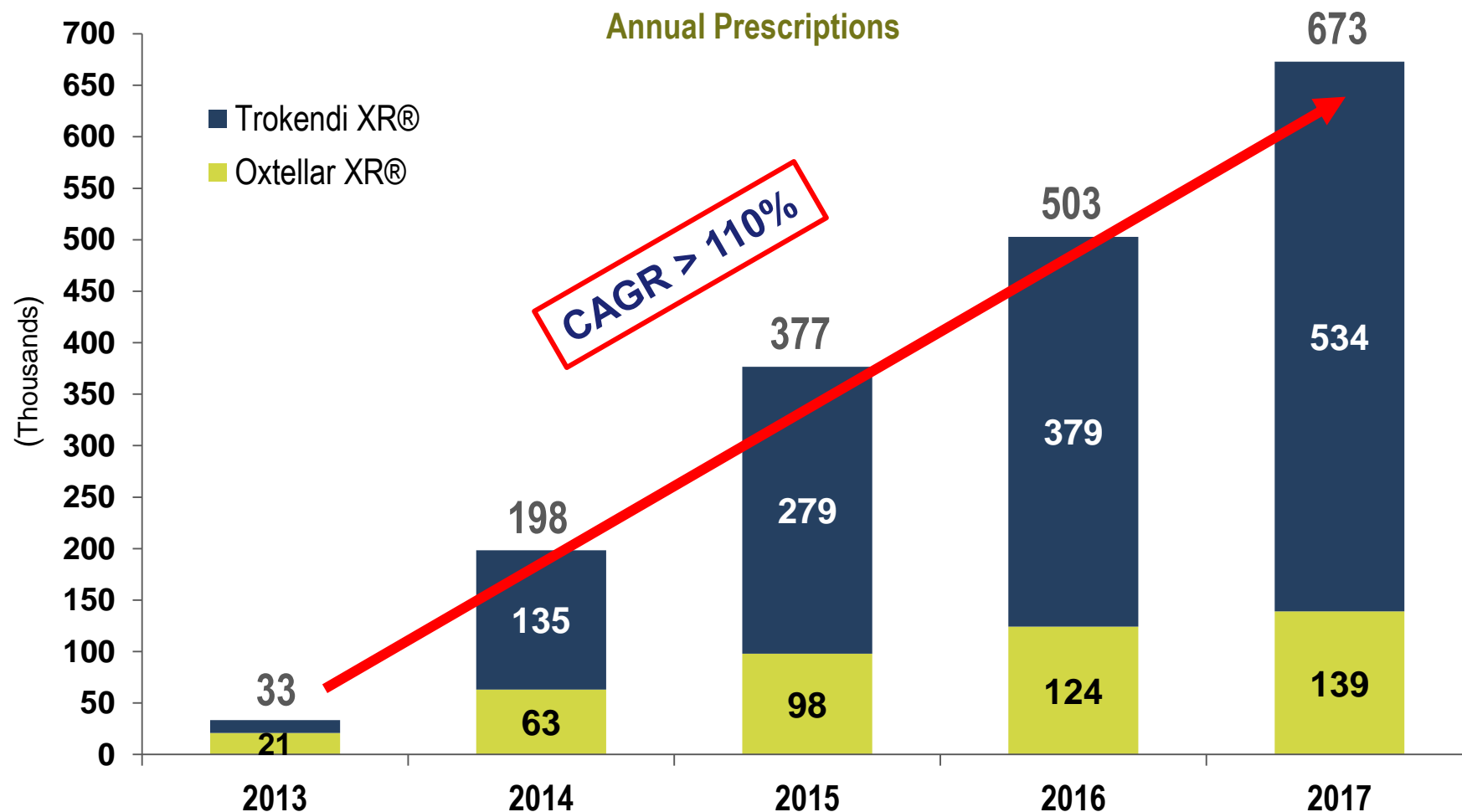
\*Guidance as provided on February 27, 2018 which has not been updated.

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# Trokendi XR and Oxtellar XR

## Solid Prescription Growth Since Launch



Source: IQVIA Monthly Prescriptions

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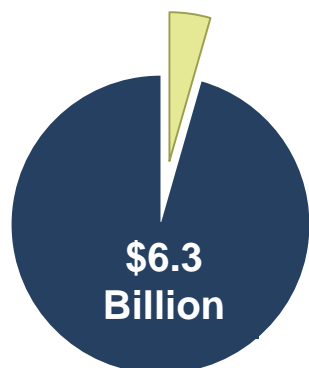


# Trokendi XR and Oxtellar XR

Combined Target Markets Opportunity of \$13.5 Billion

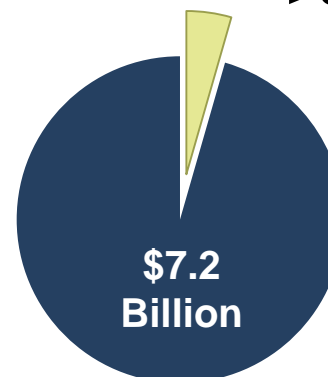
***Potential Peak Sales - Oxtellar XR and Trokendi XR >\$800 Million***

**>\$500 Million<sup>1</sup>**



**Epilepsy and Migraine Opportunity  
Oxtellar XR and Trokendi XR**

**>\$300 Million<sup>2</sup>**



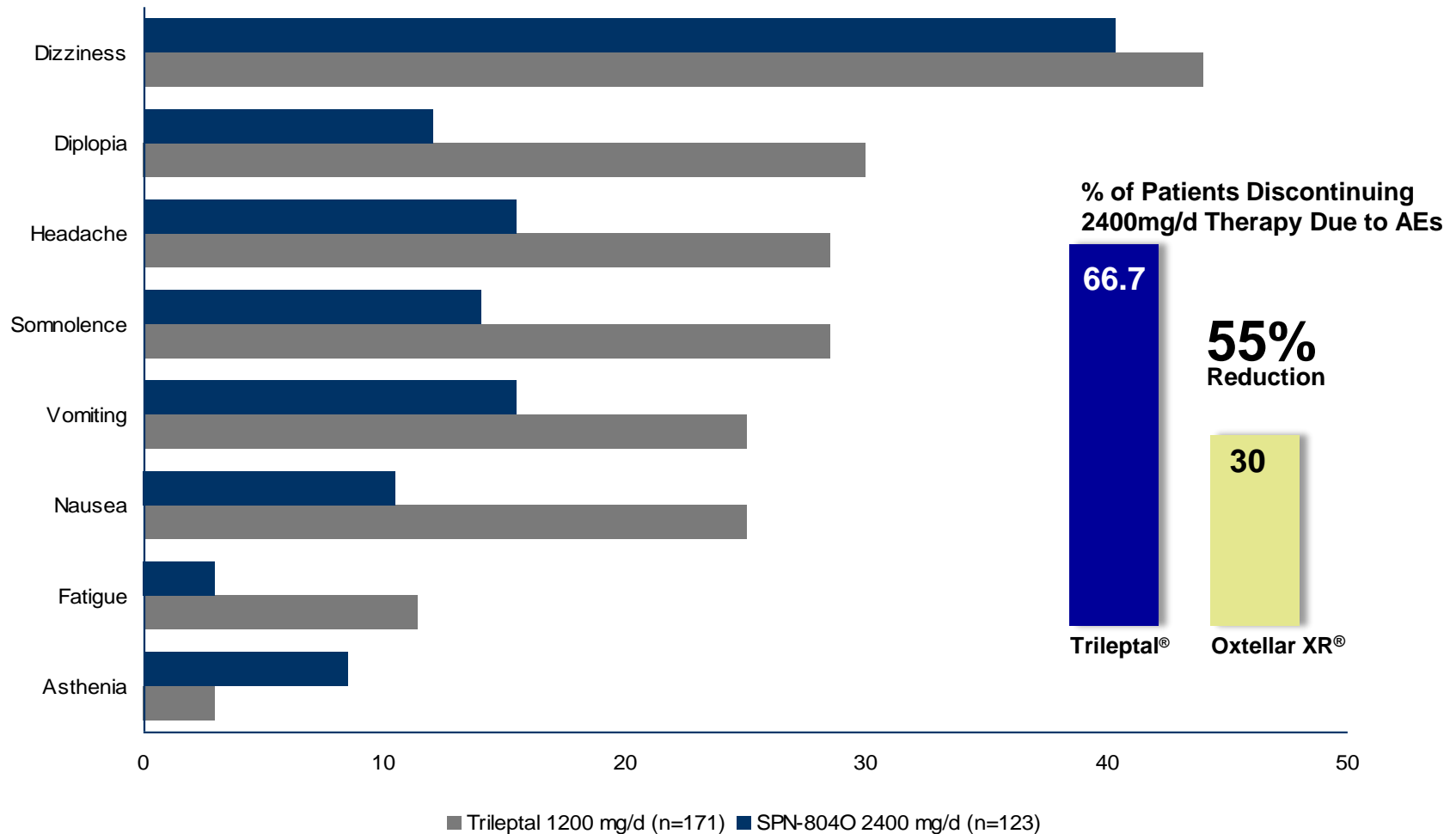
**Bipolar Opportunity  
Oxtellar XR**

1- Combined annual prescriptions of topiramate and oxcarbazepine of 14 million excluding psychiatry. Average net price of \$450. Peak share of ~8%.

2- Anti-epileptic drugs represent 34% of 53 million prescriptions for bipolar (IQVIA). Average net price per prescription of \$400. Peak share of ~5%.

# 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

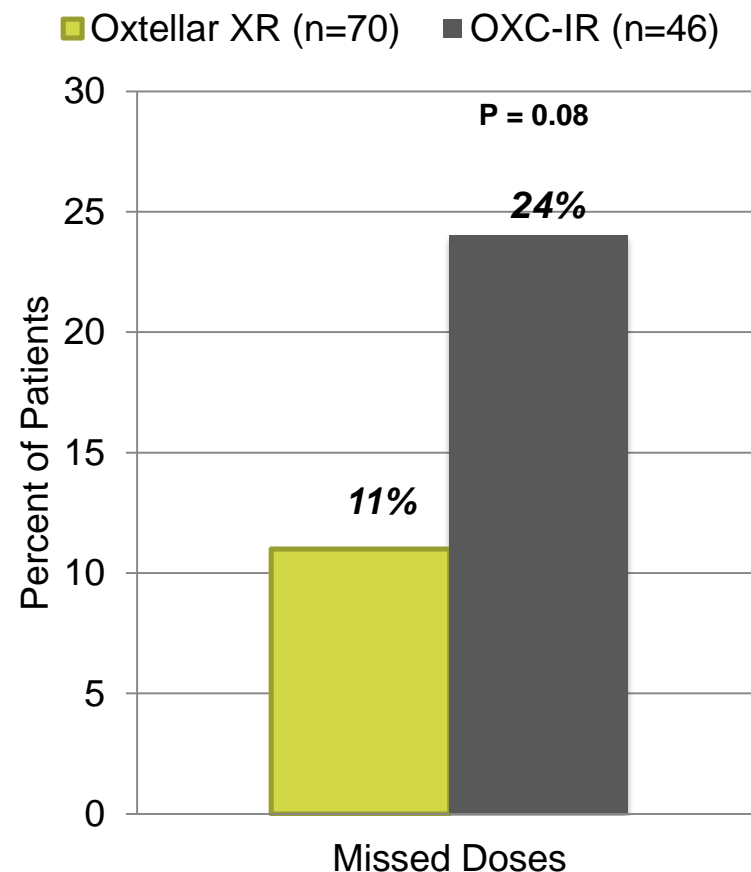
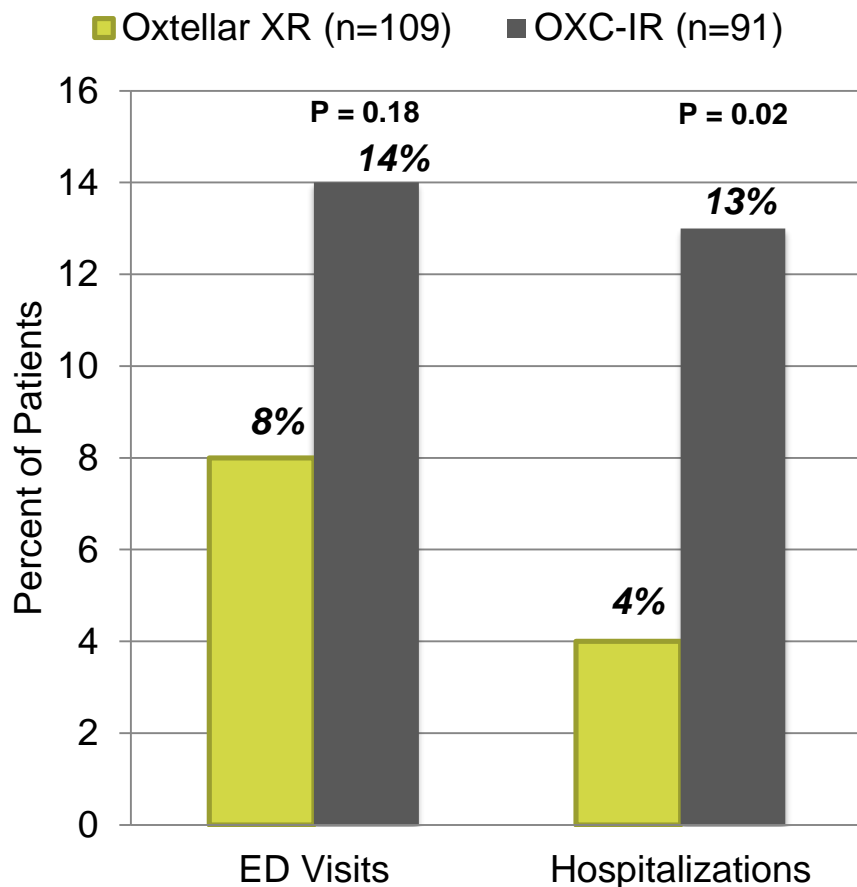
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# Oxtellar XR

## More Favorable Clinical Outcomes & Greater Adherence Compared to OXC-IR<sup>1</sup>

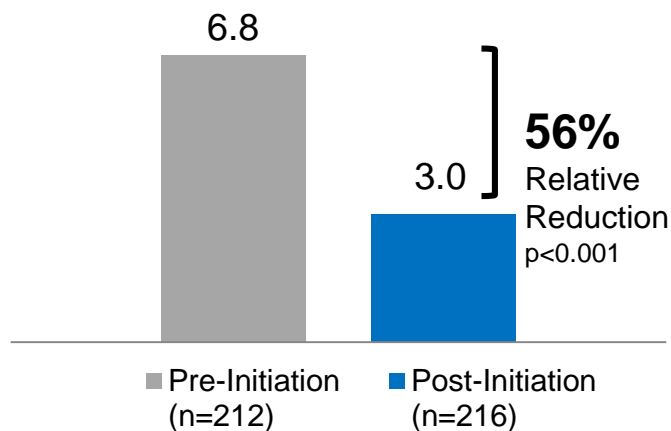
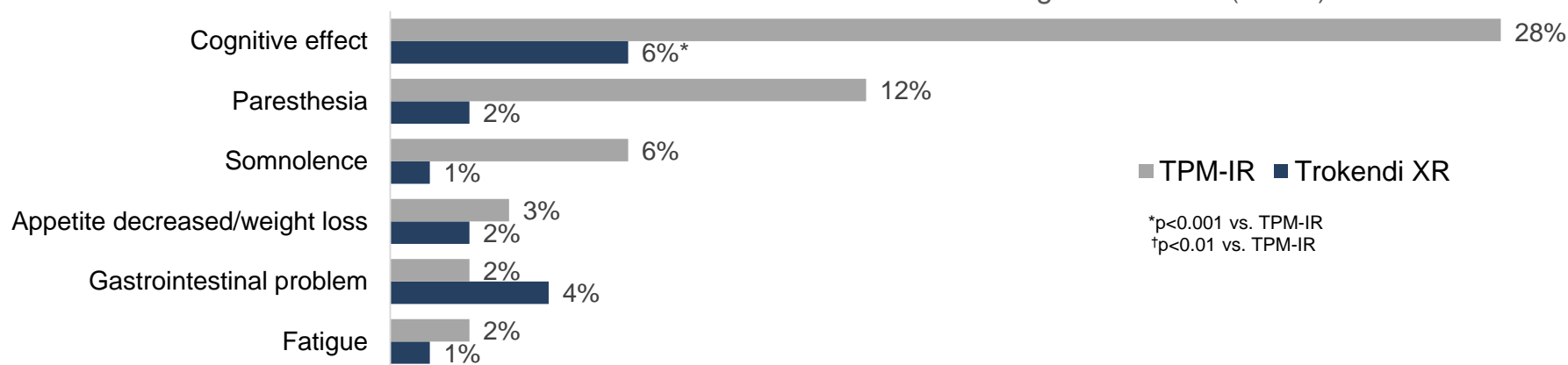


<sup>1</sup>O'Neal W, et al., Adherence and Resource Utilization with Extended-Release Oxtellar XR® or Immediate-Release Oxcarbazepine (OXC-IR) Treatment in Clinical Practice: A Standardized Case Record Review. Neurology 2015;84 (P1.244)

# Trokendi XR

## More Favorable Clinical Outcomes Compared to TPM-IR<sup>1</sup>

Side Effects with Trokendi XR vs. TPM-IR in Migraine Cohort (n=124)

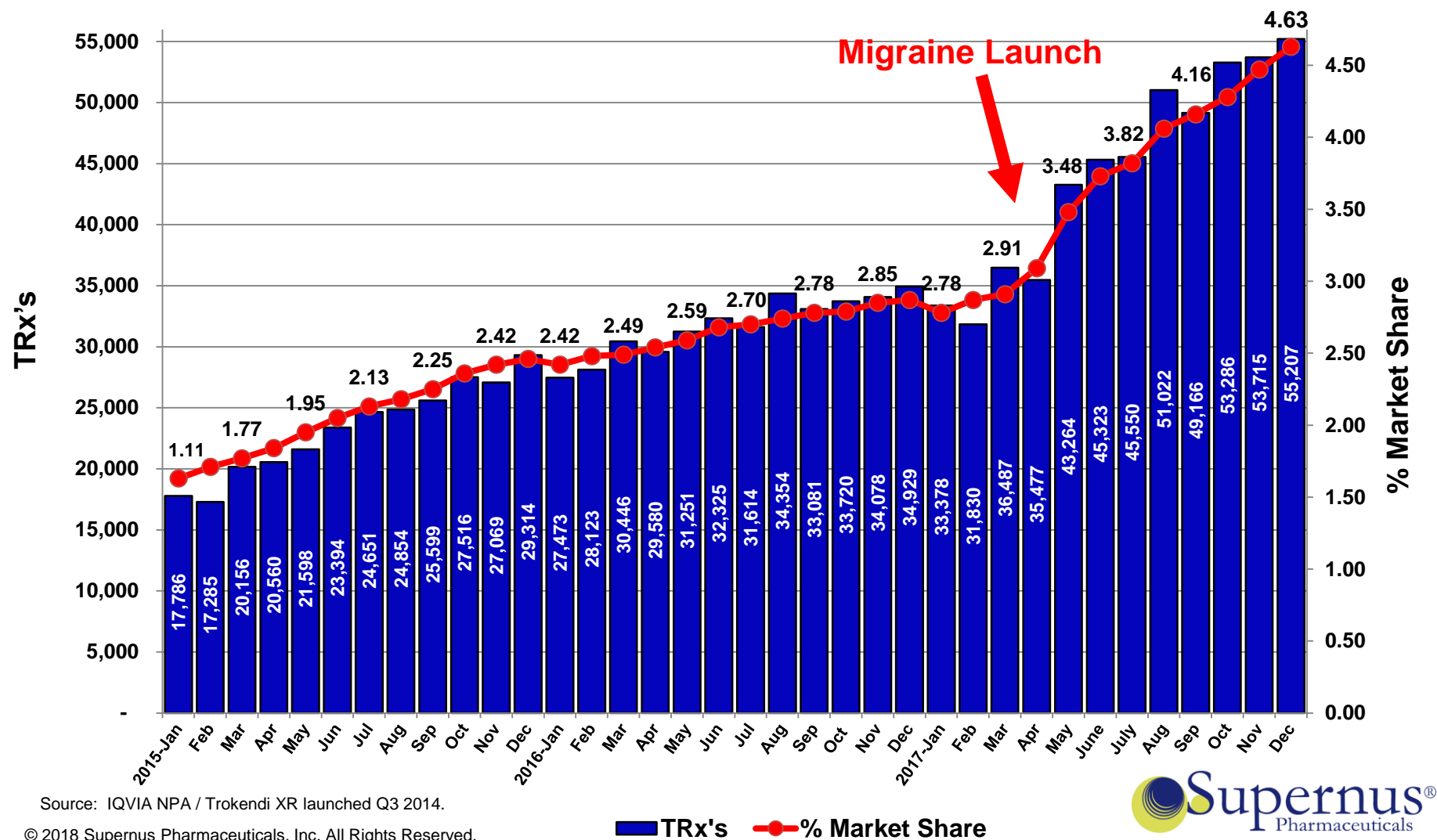


Median Monthly Migraine Frequency  
Pre- vs. Post-Initiation of Trokendi XR

<sup>1</sup> O'Neal W et al. Cognitive tolerability and health outcomes with Trokendi XR (extended-release topiramate) in migraineurs. J Pain 2017; 18(4): S67. Retrospective Medical Chart Review  
TPM-IR = Topiramate immediate release

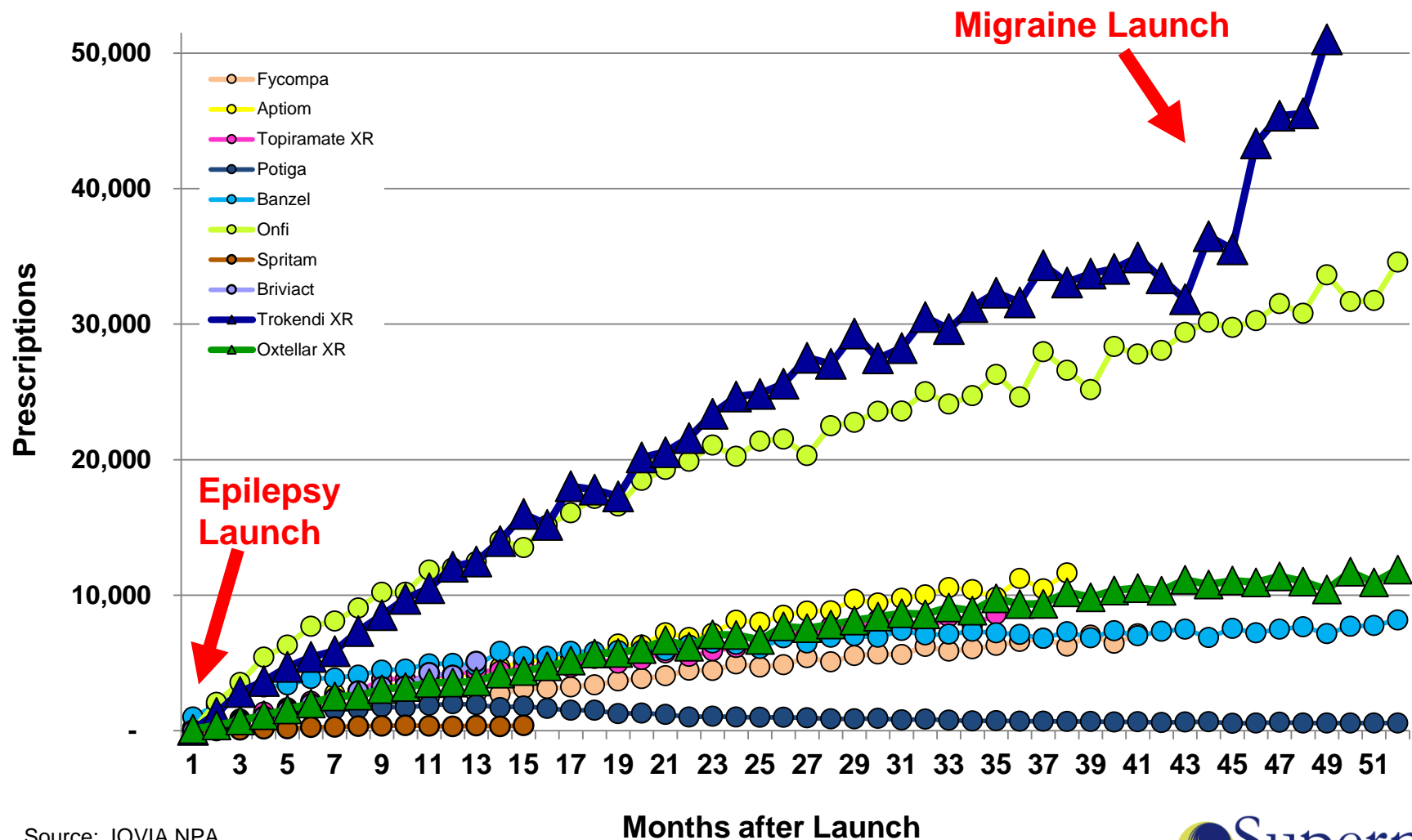
# Trokeni XR Migraine Launch

## National Monthly Total Prescriptions and Market Share Trends



# Trokeni XR

## The Most Successful Anti-Epileptic Drug Launch Since 2010

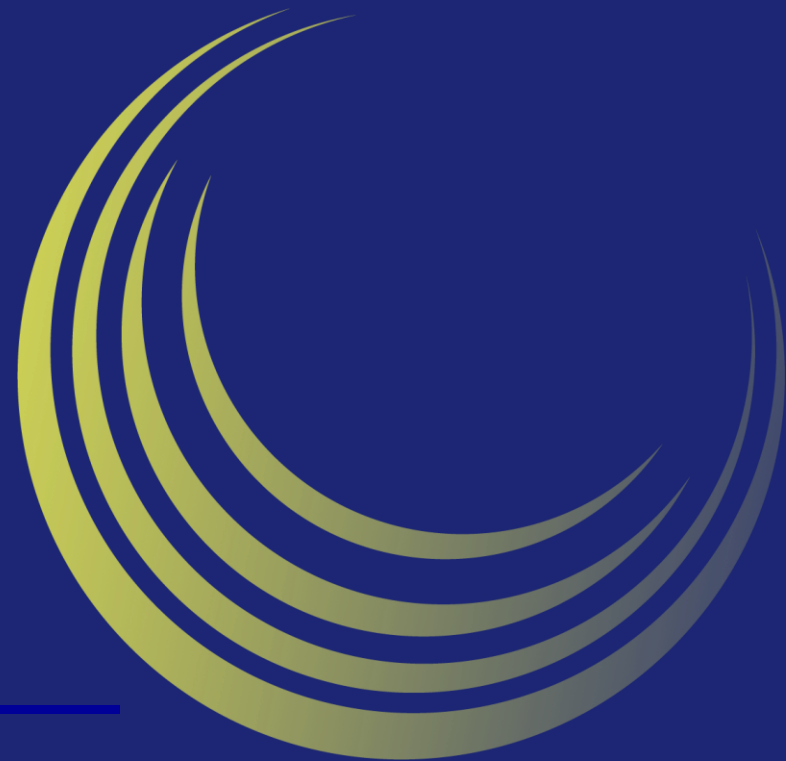


Source: IQVIA NPA

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# Psychiatry Pipeline



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## Innovative Late Stage Portfolio

SPN-810	First Treatment to be Developed for Impulsive Aggression
SPN-812	Well Differentiated Novel Non-Stimulant
Oxtellar XR	Novel Product for Bipolar Disorder

## Multi-Billion Dollar Product Opportunities

# SPN-810

## Understanding Impulsive Aggression (IA)

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- 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
- SPN-810 development initiated in ADHD with plans to expand into other areas.

# SPN-810

## Novel Product Candidate for IA



**Granted Fast Track  
Designation**



**Market Opportunity<sup>1</sup>  
+\$6.3B**

**1<sup>st</sup>**

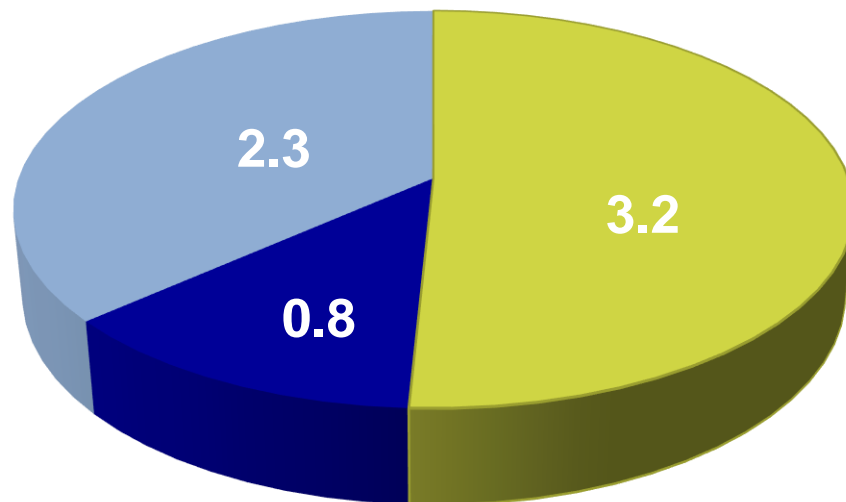
**Expected to be First  
Product Approved to Treat IA**



**Building Strong IP with  
Expirations 2029-2033**

**2018**

**Two Ongoing Phase III Trials  
Phase III Adolescent Trial  
Expected to Start Mid-2018**

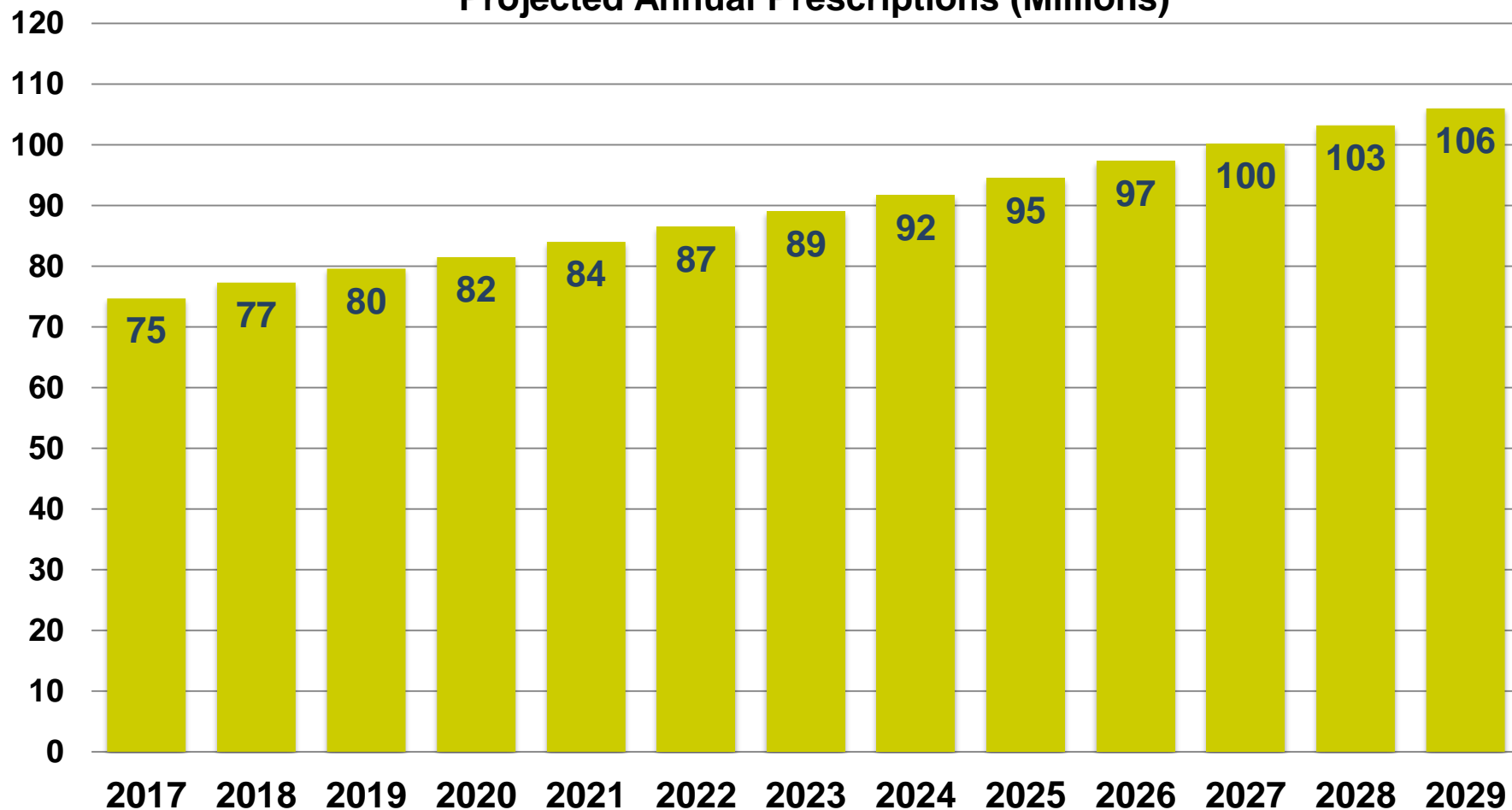


■ ADHD ■ Autism ■ PTSD/Bipolar

<sup>1</sup> Initial indication in ADHD population with plans to expand into areas such as Autism and PTSD. CDC/US Census; IMS; Qualitative Opportunity Assessment Research 2014; \* Assumption that quantitative research in ADHD is applicable to Autism, PTSD and Bipolar Disorder. Does not account for IA in other CNS areas. Company Research and Estimates

# ADHD Market Opportunity in the U.S

Projected Annual Prescriptions (Millions)



Source - IMS NPA and Company Estimates

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# SPN-810

## A Potential Billion Dollar Product for Supernus

	Percent	Estimated Prescriptions in Peak Year
<b>ADHD Market Prescriptions</b>		92 - 103 Million
<b>Child and Adolescent ADHD Prescriptions</b> Child Psychiatrists, Child Neurologists, Psychiatrists, and Top Pediatrician Deciles		24 - 28 Million
<b>Prevalence of Impulsive Aggression</b>	22.5 - 32%	5.4 - 9.0 Million
	Peak Market Share	SPN-810 Potential Prescriptions
<b>SPN-810 Peak Demand</b>	<b>16 - 20%</b>	<b>0.9 - 1.8 Million</b>

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 3–7 years post launch



# SPN-810

## Phase IIb Study 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)
<b>Low Dose</b>	12	18
<b>Medium Dose</b>	24	36
<b>High Dose</b>	36	54

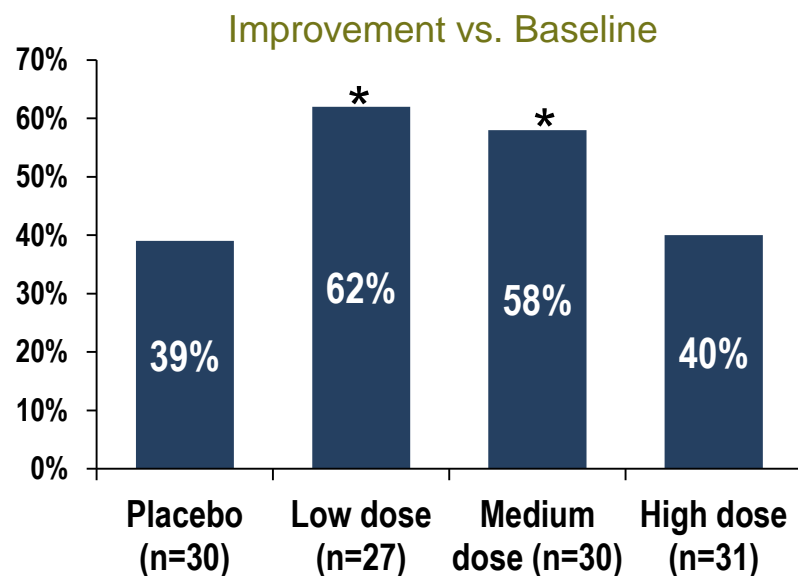
\* Retrospective modified overt aggression scale

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# SPN-810

## Phase IIb – Low and Medium Doses Met Primary Endpoints

Primary Endpoint: Change from Baseline at Visit 10 in R-MOAS<sup>#</sup> Score<sup>1</sup>  
 LOCF, ITT Population



\* P<0.05 vs. placebo

<sup>#</sup> Retrospective modified overt aggression scale

<sup>1</sup> Primary Endpoint based on FDA input

### Improved Remission Rate at End of Study<sup>2</sup>

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		<b>0.009</b>	<b>0.043</b>	0.276

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

<sup>2</sup> Primary Endpoint before FDA input

# SPN-810

## Phase IIb – Well Tolerated by Patients

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

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# SPN-810

## Phase III Studies

Study	Population	Primary Objective*	Study Duration	Treatment Duration	Dose Range <sup>1</sup>	No. of Subjects	Status
P301	Pediatric (6-12 years)	Efficacy	10 weeks	6 weeks	Placebo 36mg	291 Randomized	Enrolling
P302	Pediatric (6-12 years)	Efficacy	10 weeks	6 weeks	Placebo 36mg	291 Randomized	Enrolling

\*Primary Endpoint : Change in IA behavior frequency

<sup>1</sup>Predefined interim analysis of P301 completed September 2017

- Both trials proceeding to completion with 1:1 randomization to 36mg dose and placebo

● Data expected in 1Q 2019

# SPN-812

## Novel Non-Stimulant ADHD Product Candidate

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- Viloxazine hydrochloride
  - Norepinephrine reuptake inhibitor
  - New Chemical Entity (NCE) with five year market exclusivity
  - Previously marketed outside the US as an antidepressant
- Building strong IP with expirations from 2029-2033
- Emerging clinical profile points to a potentially well differentiated ADHD product
- Four Phase III trials currently ongoing
  - Pediatric and adolescent patients
  - Data expected in 1Q 2019

# SPN-812

## Phase IIb Study in Pediatric ADHD Patients

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### ● Objectives:

- Assess effect in reducing symptoms of ADHD 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

# SPN-812

## Phase IIb – Three 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		
<b>P-value</b>	<b>0.021*</b>	<b>0.027*</b>	<b>0.031*</b>	<b>0.089</b>		
* 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



# SPN-812

## Phase IIb – Well Tolerated by Patients

### Percentage of Patients with Related AEs, >5%

Adverse Event (AE)	SPN-812 ER				
	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

# SPN-812

## A Potential Billion Dollar Product for Supernus

	Percent	Estimated Prescriptions in Peak Year
ADHD Market Prescriptions		89 - 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 3-7 years post launch



# Oxtellar XR

## Novel Product Candidate for Bipolar

**50%** Use of Oxcarbazepine  
in Psychiatry

**1<sup>st</sup>** Expected to be Only  
Oxcarbazepine Product  
Approved to Treat Bipolar

**2018** Investigator-Initiated Trial  
Ongoing



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: IQVIA 2016

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

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# Financial Summary and Guidance

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## 2017 Full Year Financial Results

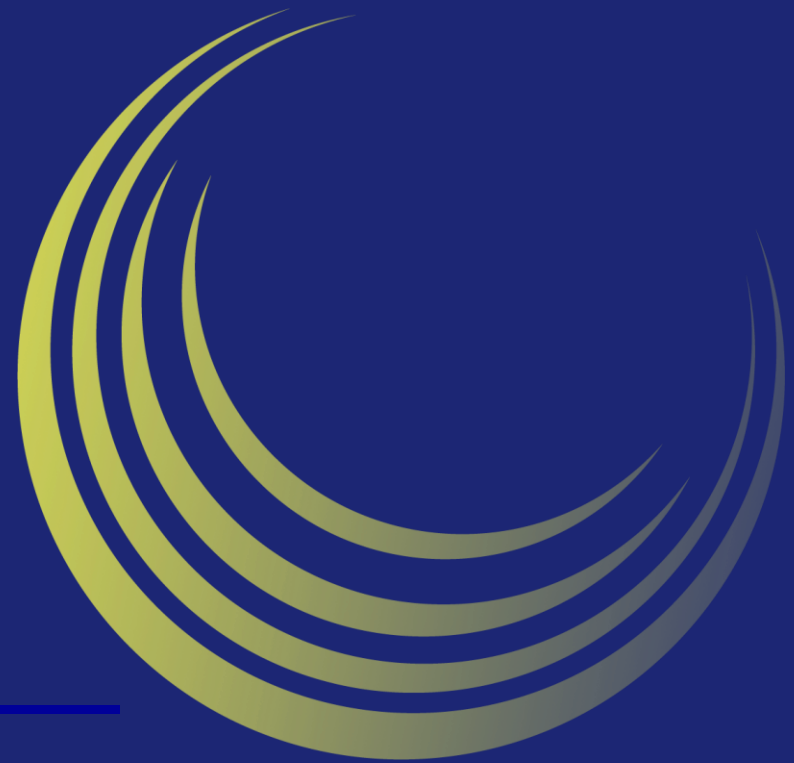
- Net product sales of \$294.1 million, up 40% over 2016
- Operating income of \$99.5 million, up 84% over 2016
- Cash, cash equivalents, and investments at \$273.7 million as of December 31, 2017
  - \$165.5 million at December 31, 2016

## Full Year 2018 Financial Guidance<sup>1</sup>

- Net product sales: \$375 million - \$400 million
- Operating income: \$125 million - \$135 million
  - R&D expenses: ~\$80 million

<sup>1</sup> Guidance as provided on February 27, 2018.

# Positioned For Continued Strong Growth



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## Growth Potential for Existing Products

Potential Peak Sales for Oxtellar XR® and Trokendi XR® >\$800M

## Innovative Late Stage Portfolio in Psychiatry

SPN-810	First Product to be Developed for Impulsive Aggression
SPN-812	Well Differentiated Novel Non-Stimulant
Oxtellar XR	Novel Product for Bipolar Disorder