Supernus Pharmaceuticals

Investor Presentation

March 2017

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Supernus® Pharmaceuticals

Proven Execution

Nine Marketed Products Using Our Technologies

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

* As publically disclosed by Shire

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Robust Portfolio of CNS Products

Product	Indication	Development	NDA	Launch
Oxtellar XR®	Epilepsy			February 2013
Trokendi XR®	Epilepsy			August 2013
Trokendi XR®	Migraine		Tentative Approval Aug 2016	
SPN-810	Impulsive Aggression		Phase III	
SPN-812	ADHD		Phase IIb Complete	
SPN-809	Depression		IND/Phase II Ready	

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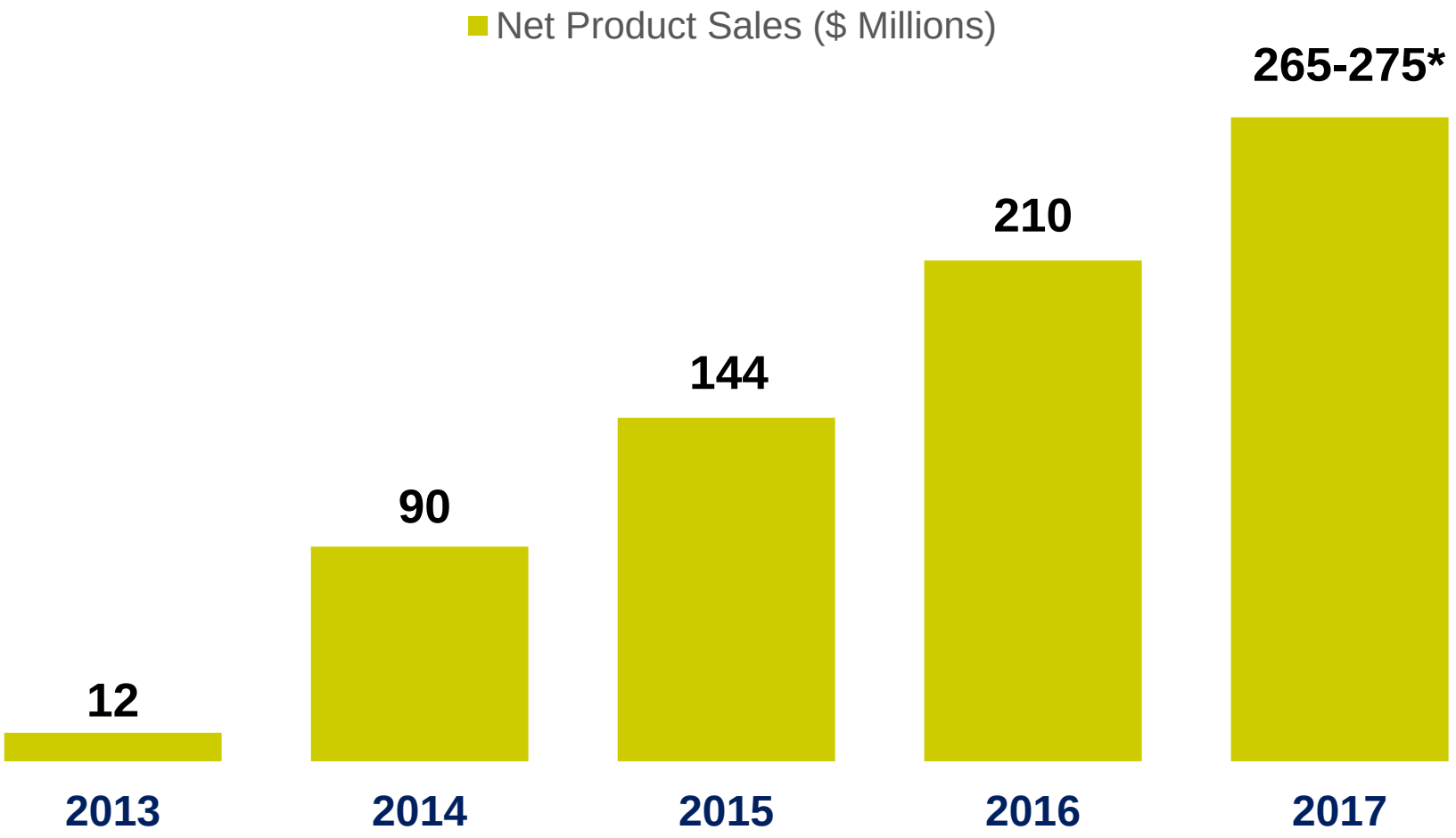
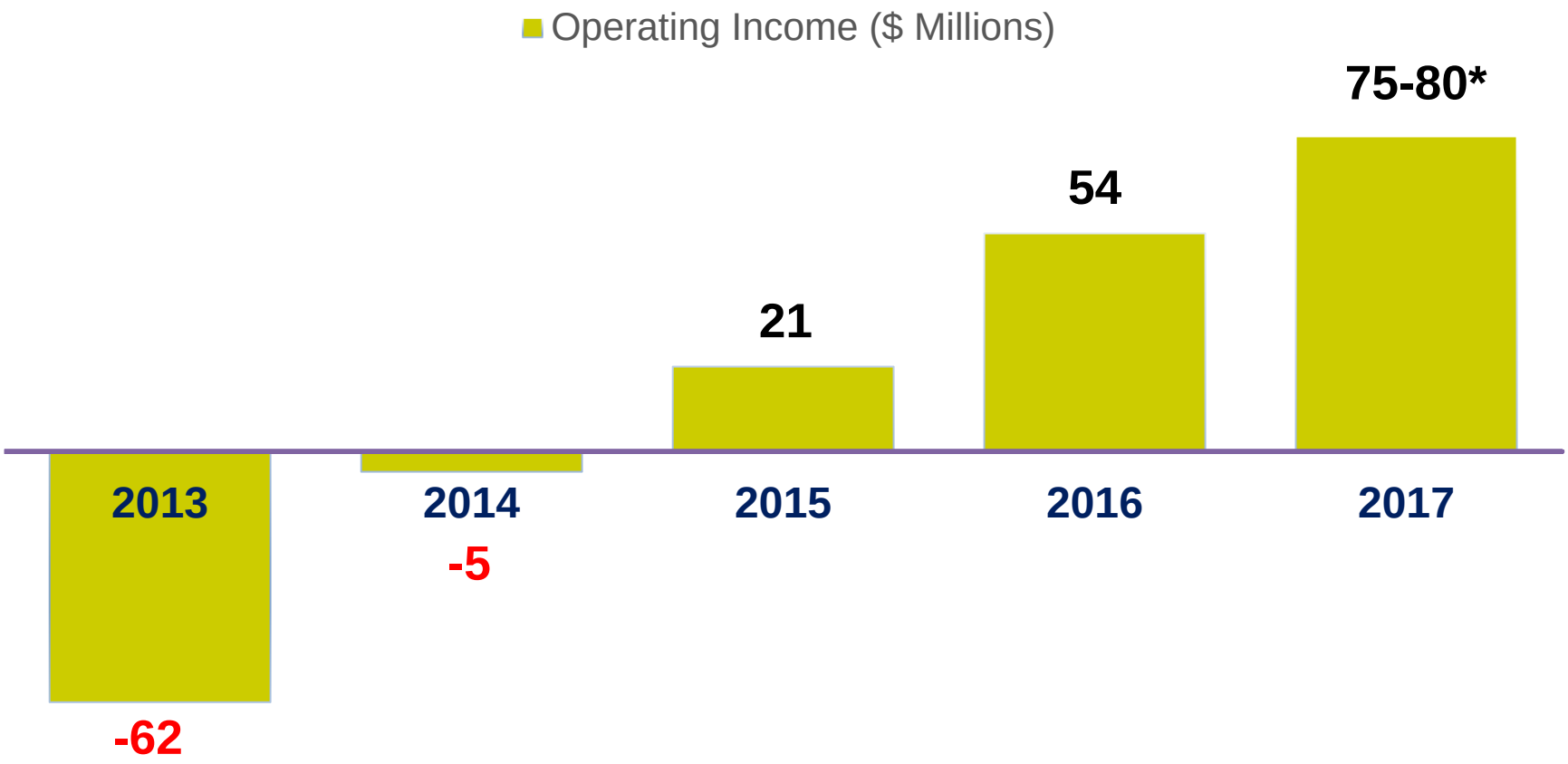
Strong Net Product Sales Growth



* Guidance provided on February 28, 2017 which has not been updated

Growing Operating Income



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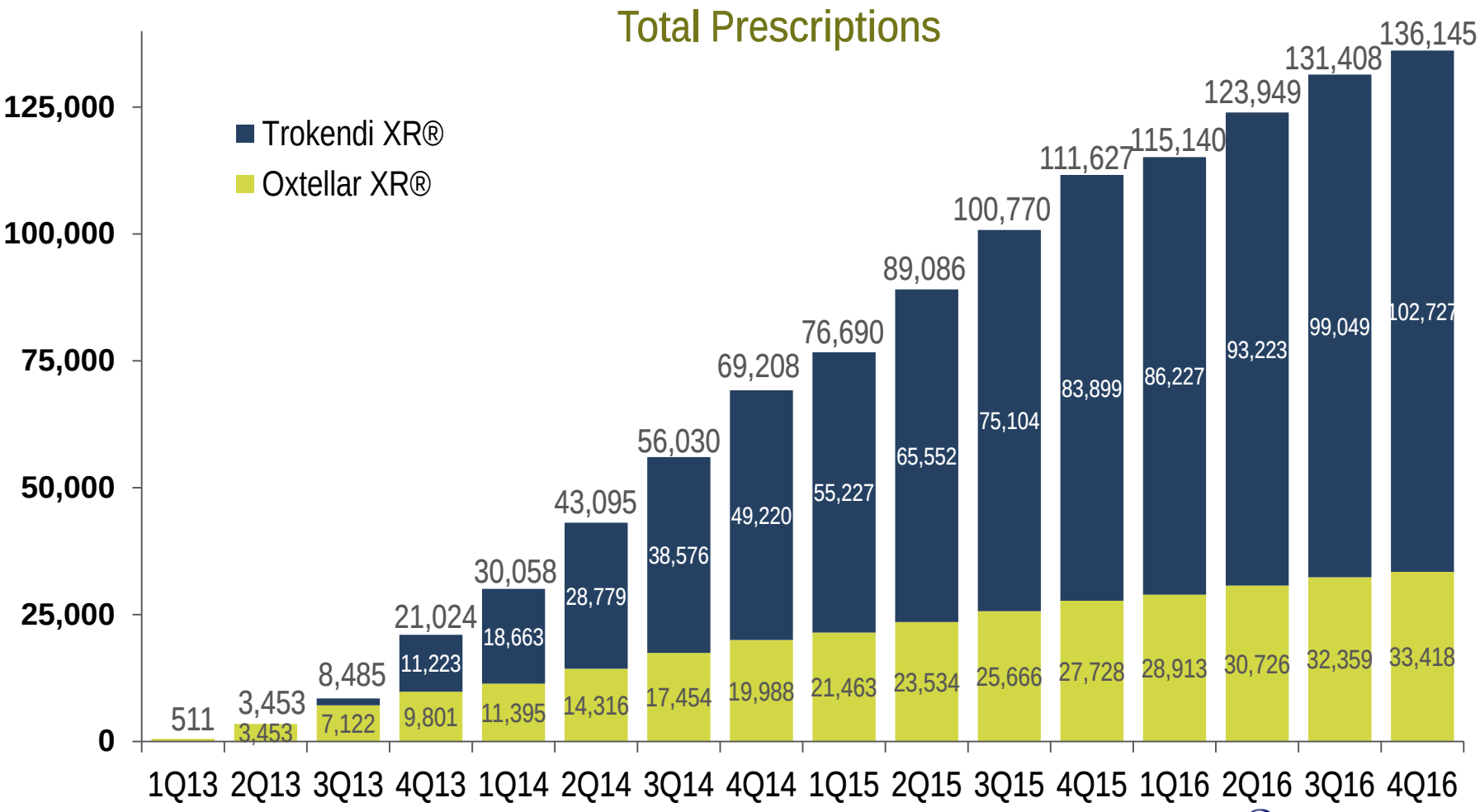
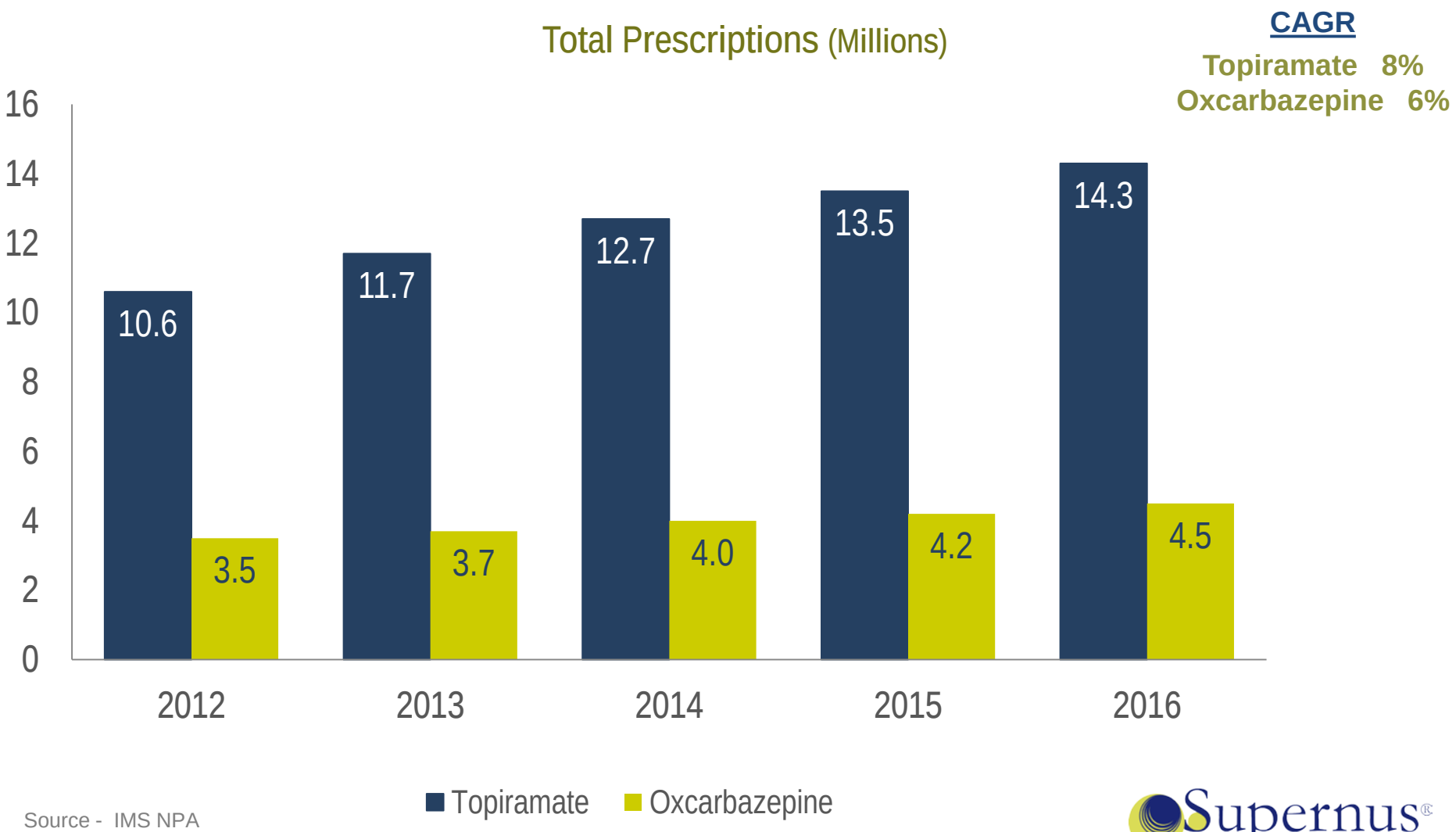
Solid Prescription Growth Since Launch



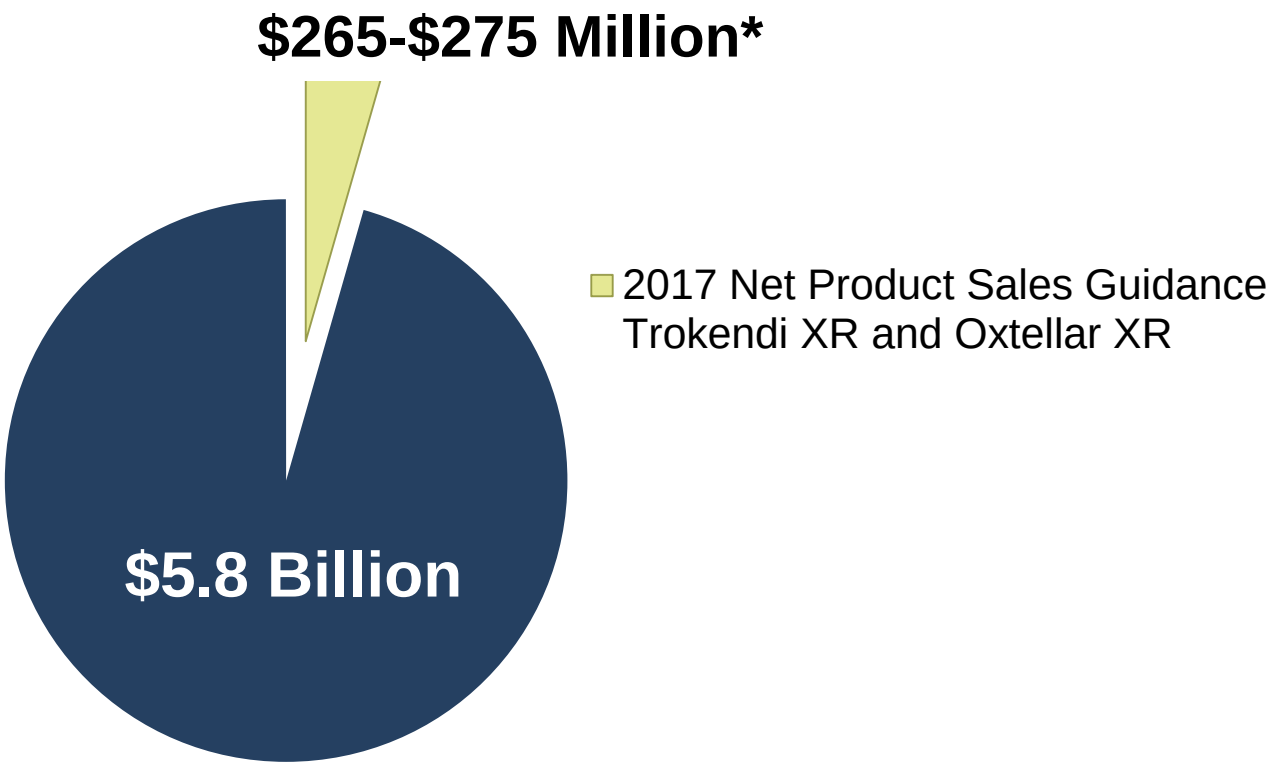
Source: IMS Monthly Prescriptions

Continued Growth in Target Markets



Source - IMS NPA

Combined Target Markets Potential of $5.8 Billion



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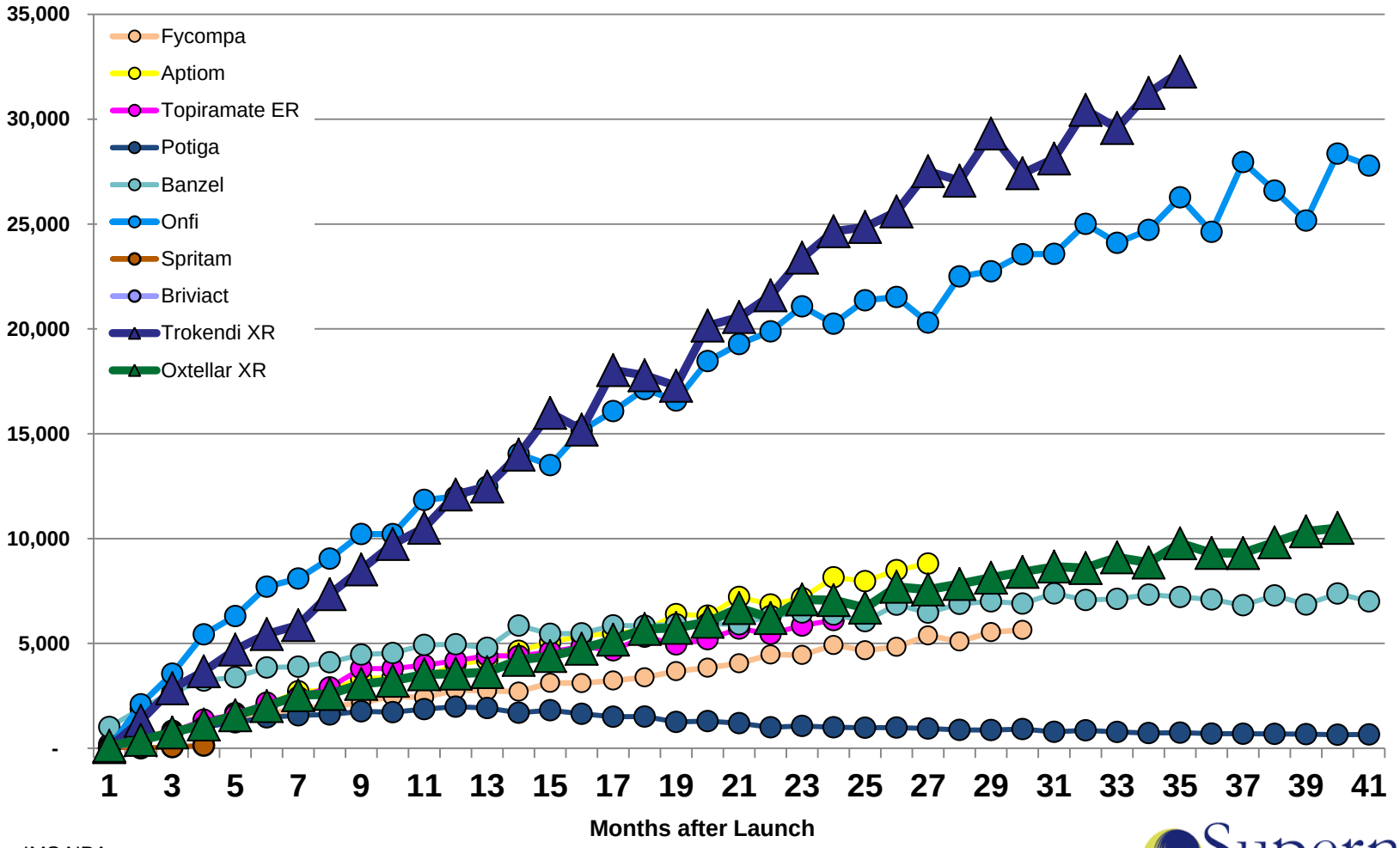
Trokendi XR®

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, Vimpat 6/09

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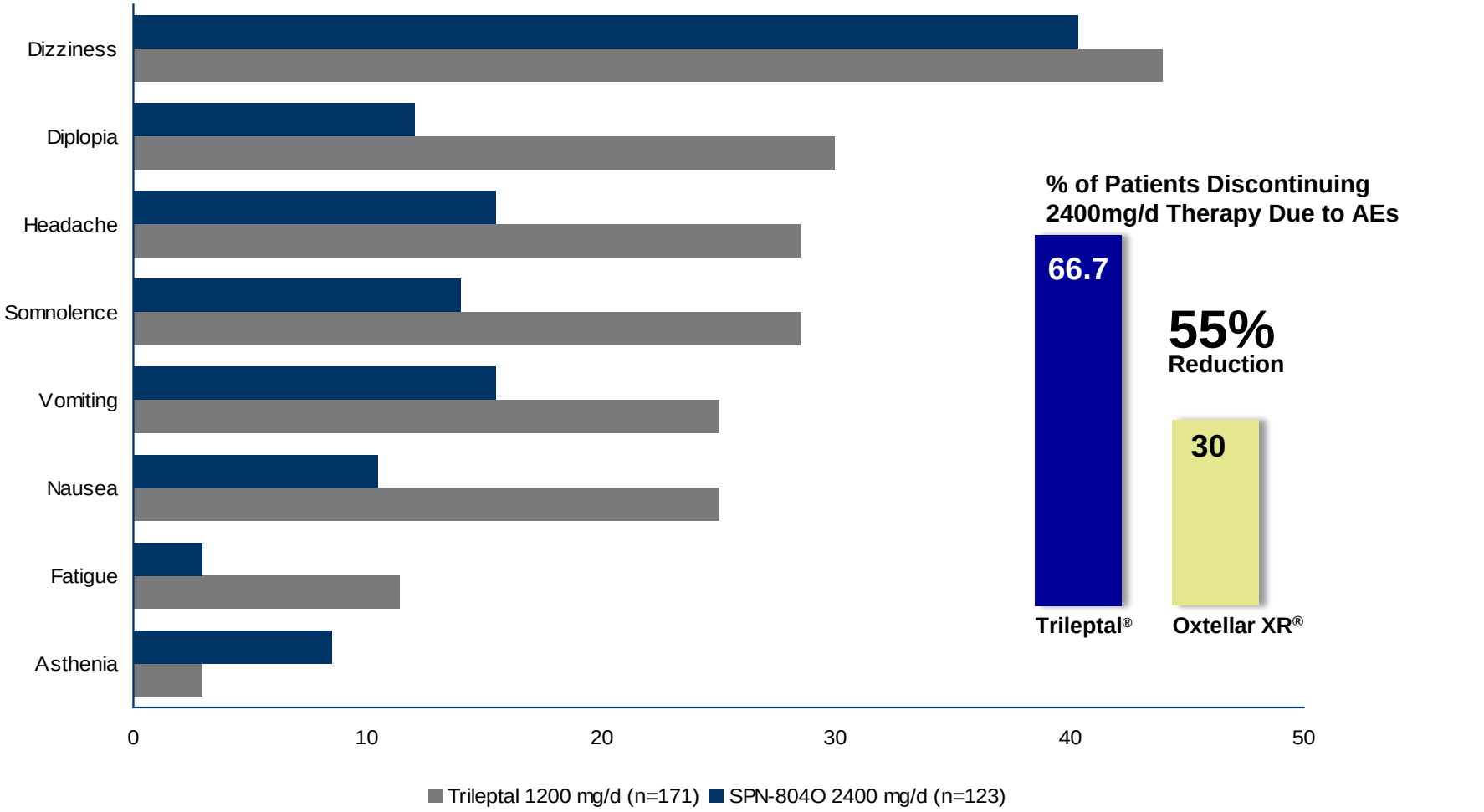
Oxtellar XR®

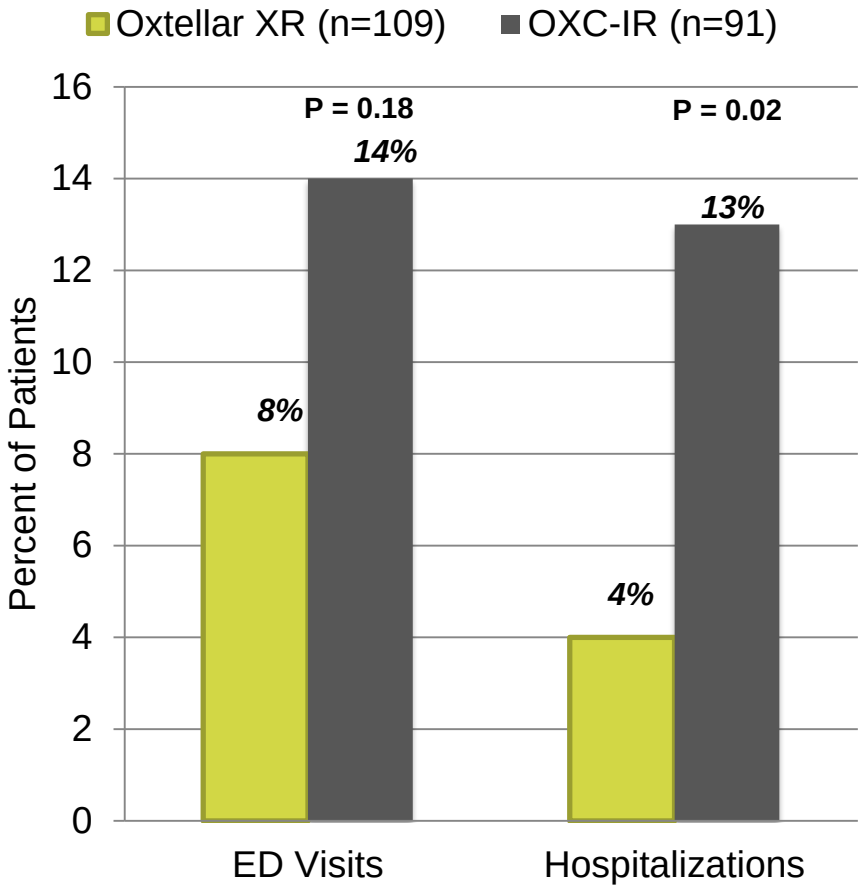
Improved Adverse Event Profile at Double the Dose of Trileptal®

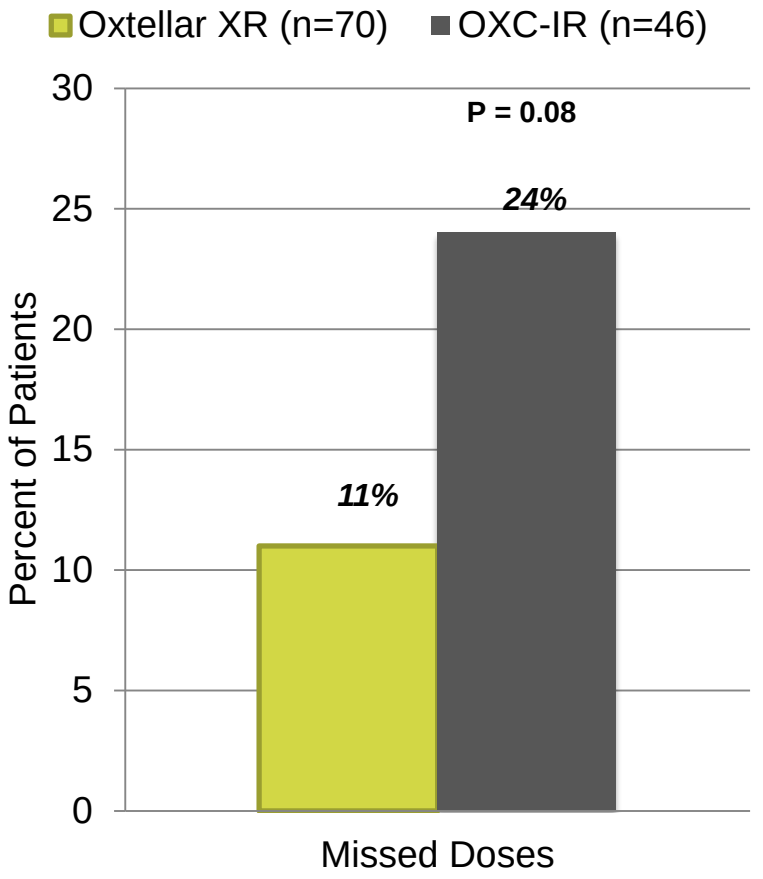


Based on comparison of Oxtellar XR (SPN-804O) Phase III vs. Trileptal PI (adjunctive therapy study in adults); differences in trial design exist between the two studies. Dizziness includes vertigo in Trileptal group because of change in the MedDRA system

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)

Psychiatry Pipeline

SPN-810 & SPN-812

Innovative Late Stage Portfolio

SPN-810 : The First Treatment for Impulsive Aggression

SPN-812 : Highly Effective and Well Tolerated Non-Stimulant

Multi-Billion Dollar Products

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Understanding Impulsive Aggression (IA)

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

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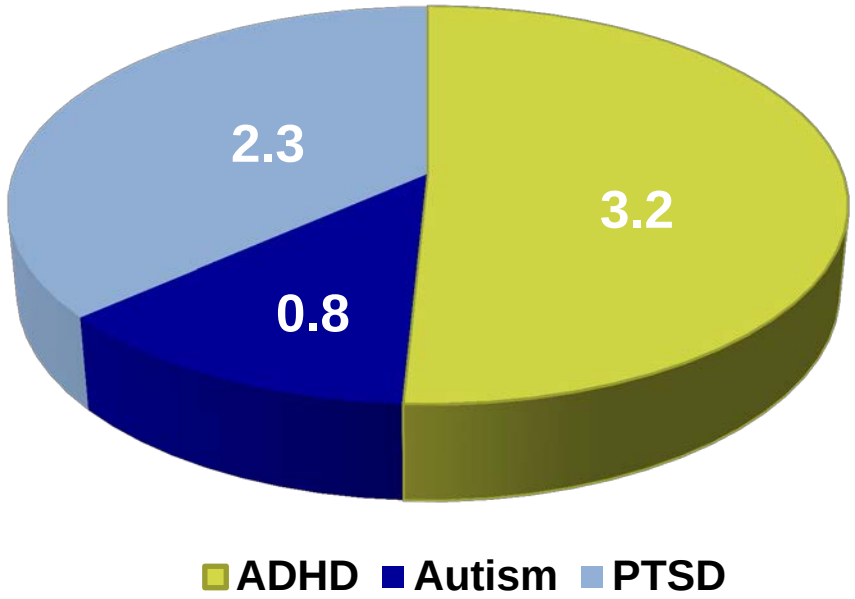
SPN-810: Novel Product for IA

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



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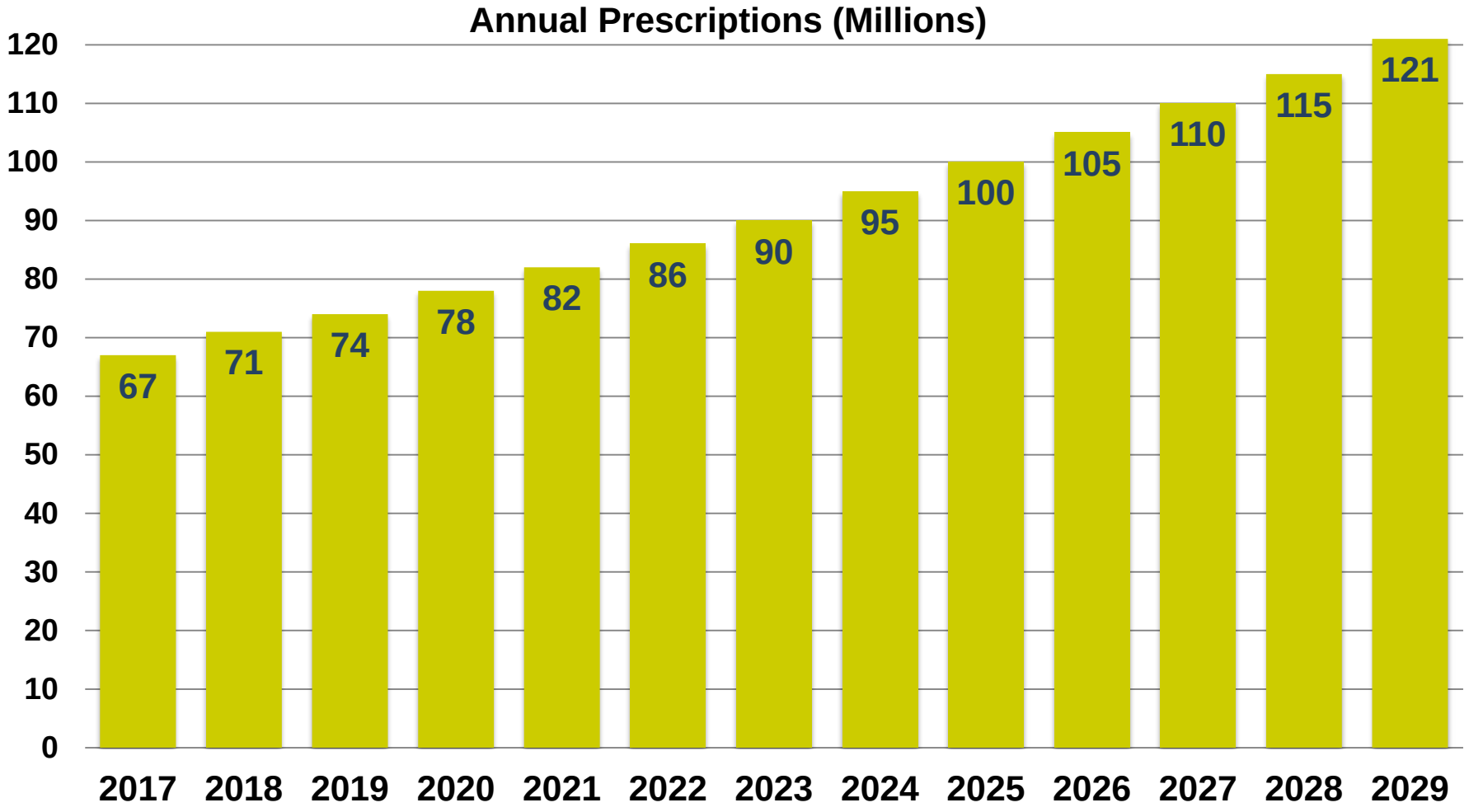
ADHD Market Opportunity in the U.S



Source - IMS NPA and Company Estimates

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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

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.

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

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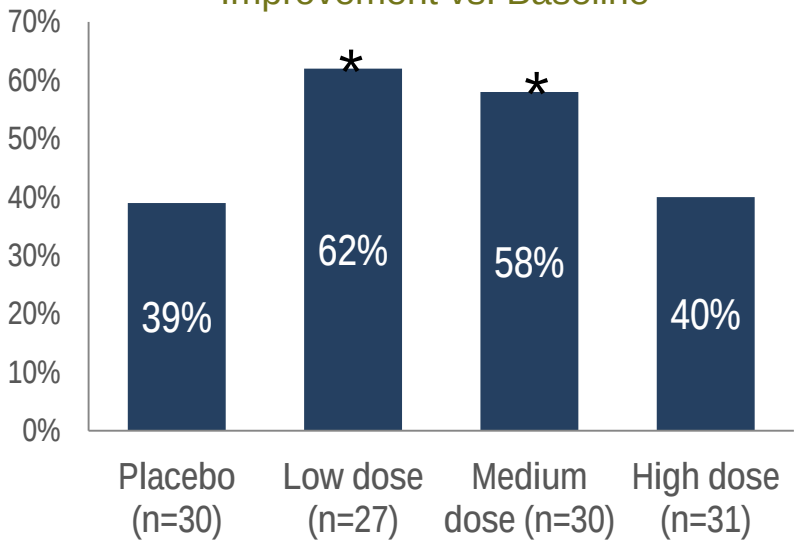
SPN-810 Phase IIb Demonstrated Efficacy

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

LOCF, ITT Population

Improvement vs. Baseline



* 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

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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

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SPN-810 Phase III Study Design

Study	Population	Primary Objective*	Study Duration	Treatment Duration	Dose Range	No. of Subjects	Status
810P301	Pediatric (6-12 years)	Efficacy	10 weeks	6 weeks	Placebo 18mg 36mg	291 (randomized)	Enrolling
810P302	Pediatric (6-12 years)	Efficacy	10 weeks	6 weeks	Placebo 18mg 36mg	291 (randomized)	Enrolling

*Primary Endpoint : Change in IA behavior frequency

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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

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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

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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

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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

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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

Financial Summary

2016 Full Year Results

- Net product sales of $210 million, up 46% over 2015
- Operating income of $54 million, up 160% over 2015
- As of December 31,2016, cash, cash equivalents, marketable securities and long term marketable securities were $165.5 million
  - $117.2 million at December 31, 2015
- Exceeded original 2016 net product sales and operating income guidance

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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

* Guidance provided on February 28, 2017 which has not been updated

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-812 : Highly Effective and Well Tolerated Non-Stimulant

SPN-810 : The First Treatment for Impulsive Aggression