Supernus Pharmaceuticals

Investor Presentation

January 2020

Supernus® Pharmaceuticals

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.

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Proven Execution in CNS & ADHD

20+ Years of CNS experience including Four Programs in ADHD

2005 to Present	Supernus® Pharmaceuticals	Trokendi XR® (topiramate) extended-release capsules Oxtellar XR® (oxcarbazepine) extended-release tablets	SPN-812 SPN 810 SPN-809 SPN-604 SPN-817
1997 to 2005	Shire	ADDERALL XR® CII 5 mg, 10 mg, 15 mg, 20 mg, 25 mg, 30 mg CAPSULES (Mixed Salts of a Single-Entity Amphetamine Product) Dextroamphetamine Sulfate Dextroamphetamine Saccharate Amphetamine Aspartate Monohydrate Amphetamine Sulfate intuniv® (guanfacine) Extended Release Tablets 1·2·3·4 mg	Mydayis® CII (mixed salts of a single-entity amphetamine product) 12.5 | 25 | 37.5 | 50 mg extended-release capsules Carbatrol® carbamazepine EXTENDED-RELEASE capsules 100 mg · 200 mg · 300 mg

For several years, and prior to becoming independent in 2005, Supernus operated as Shire Laboratories, Inc., a division of Shire.
SPN-812, SPN-810, SPN-809, SPN-604, and SPN-817 are product candidates in various stages of development.
All trademarks are the property of their respective owners

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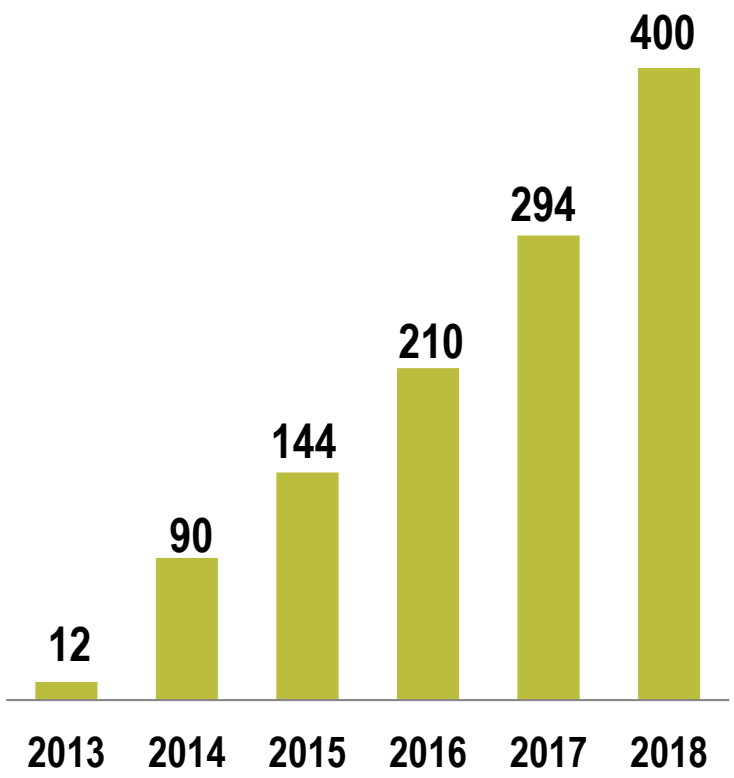
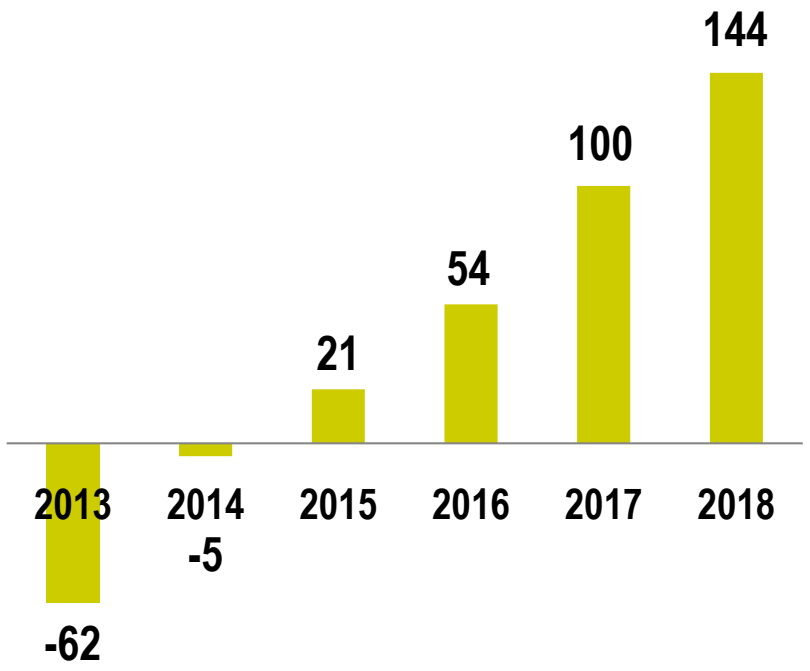
Profitable CNS Company

Strong Sales and Operating Earnings Performance

Total Net Product Sales ($ Millions)



Total Operating Earnings ($ Millions)



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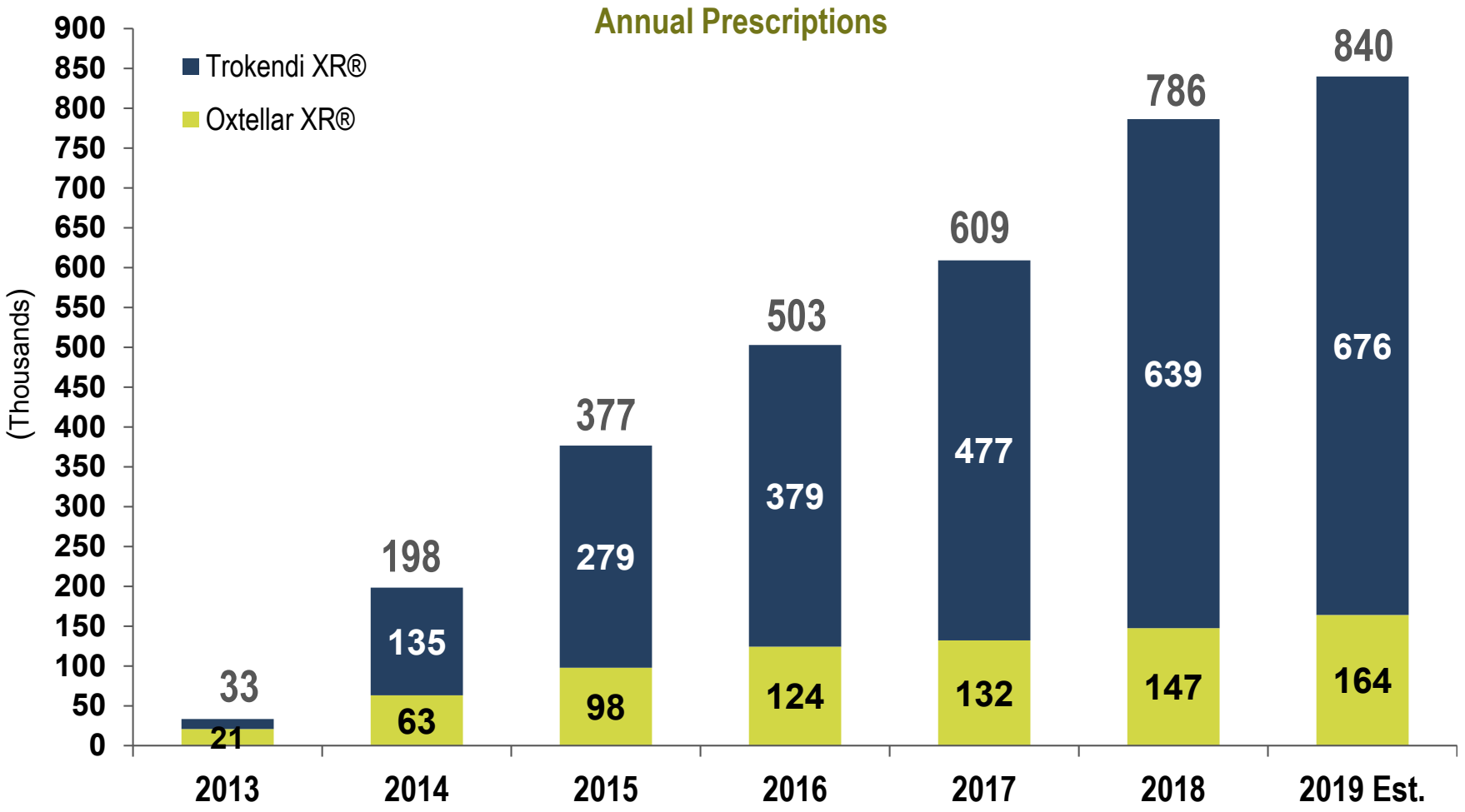
Trokendi XR and Oxtellar XR Prescription Growth

Combined January through November 2019 Prescription Growth of 7%



Source: IQVIA Monthly Prescriptions - Include restatement for 2017 and 2018 by IQVIA
2019 is based on monthly data through November and December weekly data

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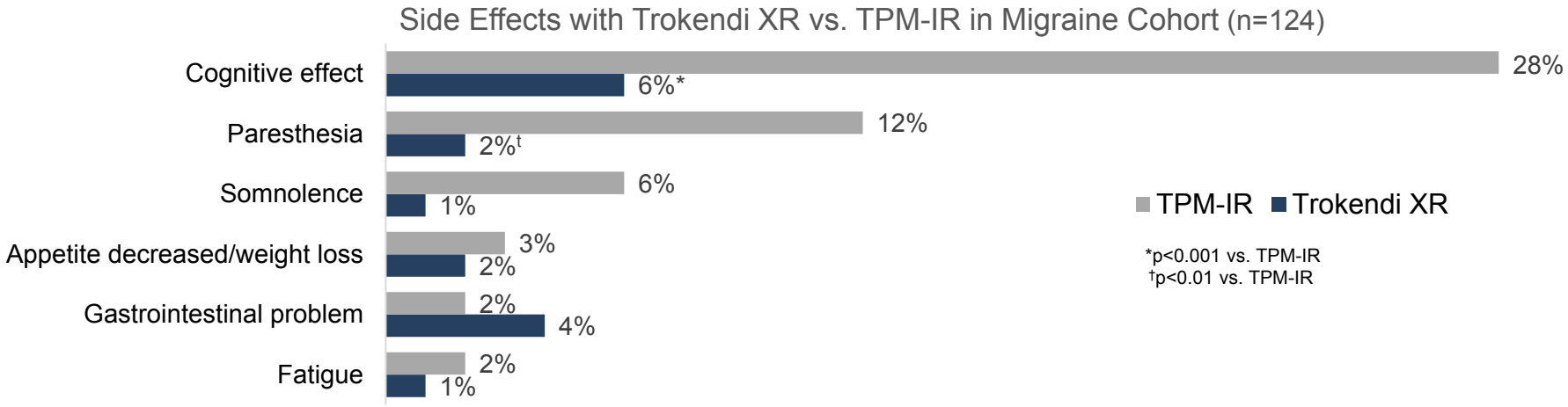
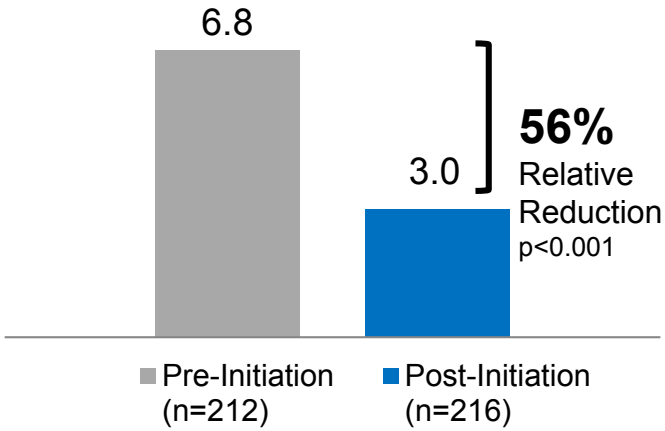
Trokendi XR

More Favorable Clinical Outcomes Compared to TPM-IR[1]





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

[1] 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

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Trokendi XR

Use in Clinical Practice – A Pragmatic Assessment[1]

Responder Rate	% of Patients
≥ 50% Reduction	55
≥ 75% Reduction	41
100% Reduction	24

* Responder Rate: percent change from pre-index migraine frequency associated with Trokendi XR treatment (n=159)

[1] O'Neal W et al. Pragmatic assessment of Trokendi XR (extended-release topiramate) in migraine prevention. Poster presented at 59th Annual Scientific Meeting of the American Headache Society, June 2017

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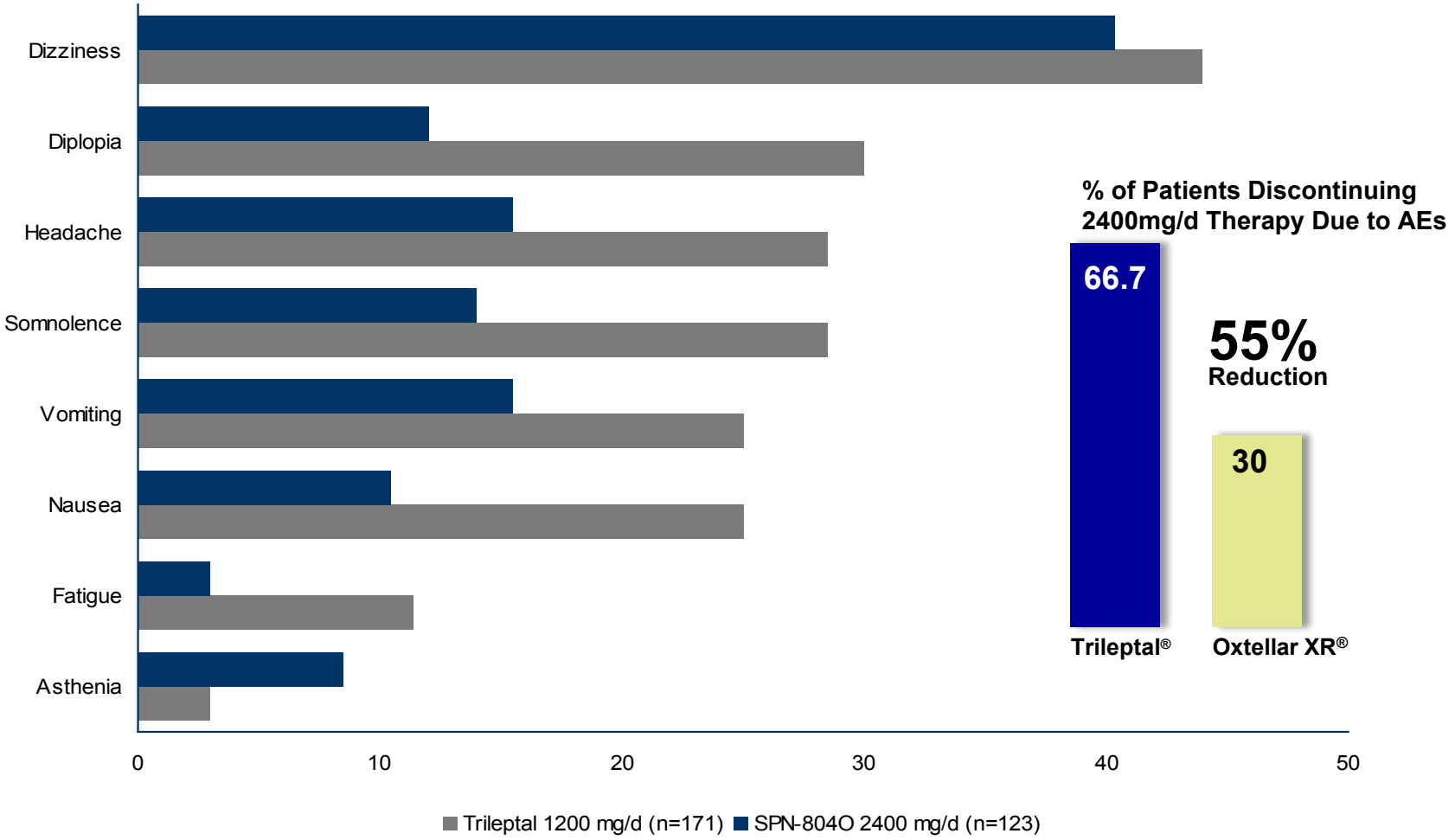
Oxtellar XR

Improved Adverse Event Profile at Double the Dose of Trileptal®

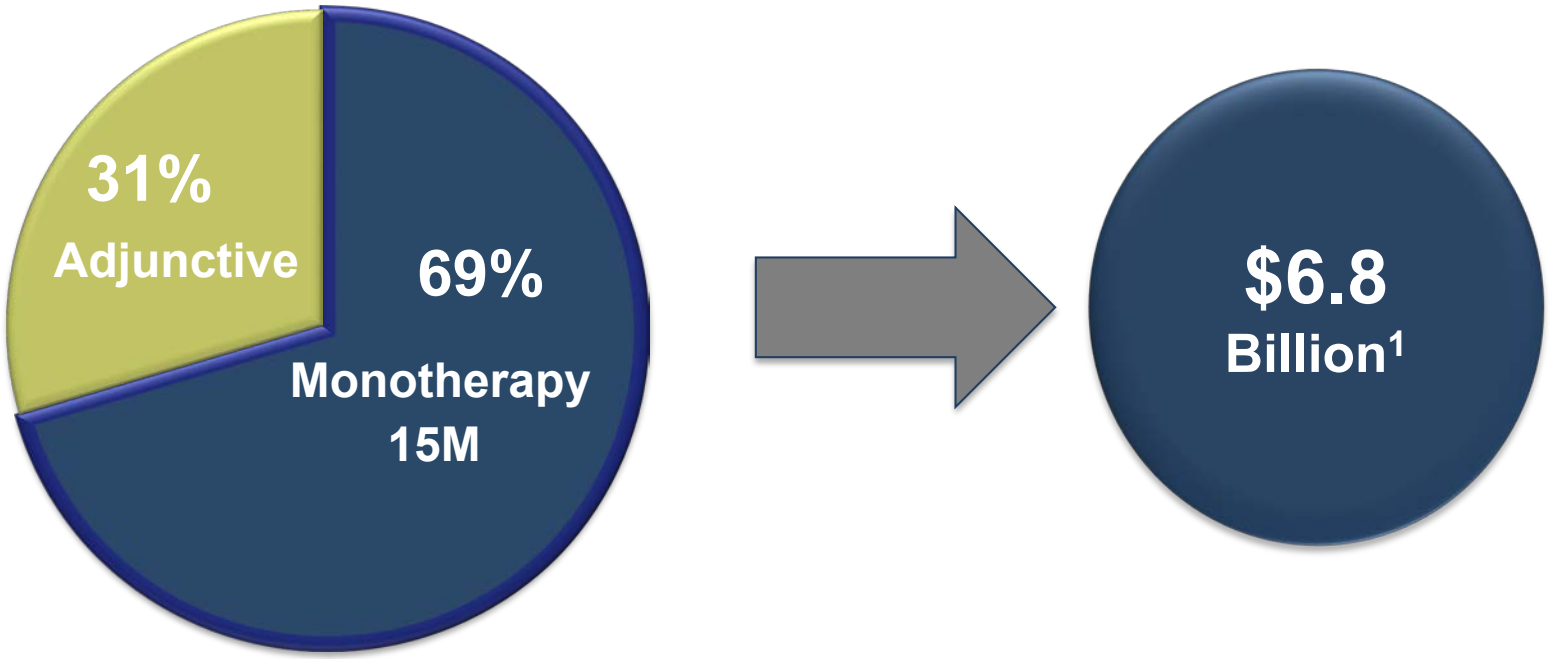


Based on comparison of Oxtellar XR (SPN-804O) Phase III vs. Trileptal PI (adjunctive therapy study in adults); differences in trial design exist between the two studies. Dizziness includes vertigo in Trileptal group because of change in the MedDRA system

Monotherapy Epilepsy Market Opportunity

69% of Partial Seizure Prescriptions Are For Monotherapy

Partial Seizure Prescriptions 22M Annually



Oxcarbazepine – Studied in Monotherapy with 8 Positive Clinical Trials[2]

IMS NDTI MAT12 months

[1] Using a branded TRx at $450 Net

[2] Glauser TA. *Pharmacother.* 2001;21:904-919

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Robust Portfolio of CNS Products

	Product	Indication	Development
Marketed	Trokendi XR® (topiramate) extended-release capsules	Epilepsy / Migraine*	
Marketed	Oxtellar XR® (oxcarbazepine) extended-release tablets	Epilepsy	
Pipeline	SPN-812	ADHD	NDA Submitted November 2019
Pipeline	SPN-810	Impulsive Aggression	Phase III
Pipeline	SPN-604	Bipolar	Phase III
Pipeline	SPN-809	Depression	IND/Phase II Ready
Pipeline	SPN-817	Severe Epilepsy	Phase I

*Prophylaxis of migraine in adolescents and adults

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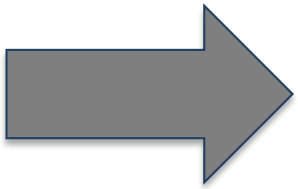
Future Growth Drivers

Several Significant Market Opportunities

Oxtellar XR® (oxcarbazepine) extended-release tablets	Epilepsy
SPN-817	Epilepsy
SPN-812	ADHD
SPN-810	IA*
SPN-604	Bipolar
Corporate Development	



Multi-Billion Dollar Market Opportunities

*IA = Impulsive Aggression

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SPN-812

Novel Non-Stimulant ADHD Product Candidate

- Viloxazine hydrochloride
  - Serotonin norepinephrine modulating agent (SNMA)
  - New Chemical Entity (NCE)
  - Previously marketed outside the US as an antidepressant
- Building strong IP with expirations from 2029-2033
- NDA submitted in November 2019
- Phase III clinical data point to a well-differentiated ADHD product
  - 100mg, 200mg and 400mg in pediatric patients
  - Unique mechanism of action
  - Consistent & reliable efficacy with robust statistical significance
  - Efficacy on both Hyperactivity/Impulsivity and Inattention
  - Fast onset of action
  - Well tolerated

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SPN-812
Phase III Studies

	P301 N = 477	P303 N = 313	P302 N = 310	P304 N = 297
ADHD Patients	6-11 years	6-11 years	12-17 years	12-17 years
Daily Doses	100mg 200mg	200mg 400mg	200mg 400mg	400mg 600mg
Status	**Completed**	**Completed**	**Completed**	**Completed**

Randomized, double-blind, placebo-controlled, multicenter, parallel group, monotherapy for ADHD
Primary Endpoint - Change from baseline on ADHD-RS-5 scale compared to placebo

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SPN-812 Phase III Data: Primary Endpoint

P301 (Children)	Statistics	Placebo (N=155)	100 mg (N=147)	200 mg (N=158)
Week 6 (EOS)	LS Mean	-10.9	-16.6	-17.7
	p-value		0.0004	<.0001
P302 (Adolescent)	**Statistics**	**Placebo (N=104)**	**200 mg (N=94)**	**400 mg (N=103)**
Week 6 (EOS)	LS Mean	-11.4	-16.0	-16.5
	p-value		0.0232	0.0091
P303 (Children)	**Statistics**	**Placebo (N=97)**	**200 mg (N=107)**	**400 mg (N=97)**
Week 8 (EOS)	LS Mean	-11.7	-17.6	-17.5
	p-value		0.0038	0.0063
P304 (Adolescent)	**Statistics**	**Placebo (N=97)**	**400 mg (N=99)**	**600 mg (N=97)**
Week 7 (EOS)	LS Mean	-13.2	-18.3	-16.7
	p-value		0.0082	0.0712

Primary Analysis of ADHD-RS-5 based on Mixed Model for Repeated Measure (MMRM) Intent to Treat (ITT Population)
EOS = End of Study

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SPN-812 Phase III Data

Significant Reduction in Hyperactivity and Inattention

Analysis in ADHD-RS-5 Inattention and Hyperactivity/Impulsivity Subscales

P301 Week 6 (EOS)	Statistics	100 mg (N=147)	200 mg (N=158)
Hyperactivity/Impulsivity	p-value	0.0026	<.0001
Inattention	p-value	0.0006	<.0001

P302 Week 6 (EOS)	Statistics	200 mg (N=94)	400 mg (N=103)
Hyperactivity/Impulsivity	p-value	0.0069	0.0005
Inattention	p-value	0.0424	0.0390

P303 Week 8 (EOS)	Statistics	200 mg (N=107)	400 mg (N=97)
Hyperactivity/Impulsivity	p-value	0.0020	0.0039
Inattention	p-value	0.0087	0.0248

P304 Week 7 (EOS)	Statistics	400 mg (N=99)	600 mg (N=97)
Hyperactivity/Impulsivity	p-value	0.0484	0.2084
Inattention	p-value	0.0042	0.1392

EOS = End of Study

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SPN-812 Phase III Data: Fast Onset of Action

Efficacy Starting in Week 1 - ADHD-RS-5 Total Score

Pooled Data – P301, P302, P303, P304					P301	
Visit	**Statistics**	Placebo (N=452)	200 mg (N=359)	400 mg (N=299)	Placebo (N=155)	100 mg (N=147)
Baseline	Mean	41.8	42.9	41.8	43.6	45.0
Week 1	p-value		0.0003	0.0016		0.0004
Week 2	p-value		<.0001	<.0001		<.0001
Week 3	p-value		<.0001	<.0001		<.0001
Week 4	p-value		<.0001	<.0001		<.0001
Week 5	p-value		<.0001	<.0001		0.0006
Week 6	LS Mean	-11.7	-17.1	-17.7	-10.9	-16.6
	p-value		<.0001	<.0001		0.0004

- Common endpoint visit for all four studies is Week 6
- Pooled Data exclude 100 mg and 600 mg that were tested in one study only
- Primary Analysis of ADHD-RS-5 in Intent to Treat Population

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SPN-812 Phase III Data: Fast Onset of Action

Efficacy Starting in Week 1 - Inattention Subscale

Pooled Data – P301, P302, P303, P304					P301	
Visit	**Statistics**	Placebo (N=452)	200 mg (N=359)	400 mg (N=299)	Placebo (N=155)	100 mg (N=147)
Baseline	Mean	22.4	22.6	22.3	22.5	22.8
Week 1	p-value		0.0086	0.0162		0.0016
Week 2	p-value		0.0001	<.0001		0.0016
Week 3	p-value		<.0001	<.0001		0.0002
Week 4	p-value		<.0001	<.0001		<0.0001
Week 5	p-value		<.0001	<.0001		0.0018
Week 6	LS Mean	-6.4	-8.9	-9.2	-5.6	-8.6
	p-value		<.0001	<.0001		0.0006

- Common endpoint visit for all four studies is Week 6
- Pooled Data exclude 100 mg and 600 mg that were tested in one study only
- Primary Analysis of ADHD-RS-5 in Intent to Treat Population

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SPN-812 Phase III Data: Fast Onset of Action

Efficacy Starting in Week 1 - Hyperactivity/Impulsivity Subscale

Pooled Data – P301, P302, P303, P304					P301	
Visit	**Statistics**	Placebo (N=452)	200 mg (N=359)	400 mg (N=299)	Placebo (N=155)	100 mg (N=147)
Baseline	Mean	19.4	20.3	19.5	21.1	22.2
Week 1	p-value		<.0001	0.0010		0.0023
Week 2	p-value		<.0001	<.0001		<0.0001
Week 3	p-value		<.0001	<.0001		<0.0001
Week 4	p-value		<.0001	<.0001		0.0004
Week 5	p-value		<.0001	<.0001		0.0010
Week 6	LS Mean	-5.4	-8.2	-8.5	-5.3	-8.0
	p-value		<.0001	<.0001		0.0014

- Common endpoint visit for all four studies is Week 6
- Pooled Data exclude 100 mg and 600 mg that were tested in one study only
- Primary Analysis of ADHD-RS-5 in Intent to Treat Population

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SPN-812 Phase III Data: Secondary Endpoint

Analysis of Observed Global Improvement Score (CGI-I) at EOS

P301	Statistics	Placebo (N=155)	100 mg (N=147)	200 mg (N=158)
Week 6 (EOS)	LS Mean	3.1	2.7	2.6
	p-value		0.0020	<.0001
P302	**Statistics**	**Placebo (N=104)**	**200 mg (N=94)**	**400 mg (N=103)**
Week 6 (EOS)	LS Mean	3.0	2.5	2.4
	p-value		0.0042	0.0003
P303	**Statistics**	**Placebo (N=97)**	**200 mg (N=107)**	**400 mg (N=97)**
Week 8 (EOS)	LS Mean	3.1	2.6	2.6
	p-value		0.0028	0.0099
P304	**Statistics**	**Placebo (N=96)**	**400 mg (N=99)**	**600 mg (N=97)**
Week 7 (EOS)	LS Mean	2.9	2.4	2.6
	p-value		0.0051	0.0995

EOS = End of Study

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SPN-812

Summary of Treatment Related Adverse Events

Number (%) of Patients - Treatment Related AEs with ≥ 5% Incidence
All Four Phase III Trials

	Placebo (N=463)	SPN-812 (N=925)
Somnolence	14 (3.0)	115 (12.4)
Decreased appetite	2 (0.4)	61 (6.6)
Headache	14 (3.0)	57 (6.2)
Fatigue	10 (2.2)	56 (6.1)
Discontinuation due to AEs	**6 (1.3)**	**32 (3.5)**

AEs = Adverse Events

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SPN-812
Significant Market Opportunity

	Percent	Estimated Prescriptions in Peak Year
ADHD Market Prescriptions		**89 - 100 Million**
	Peak Market Share	**SPN-812 Potential Prescriptions**
SPN-812 Peak Demand	**5 - 10%**	**4.5 - 10.0 Million**

Source: IMS NPA, Company Research and Estimates – Assumes peak at 3-7 years post launch
Figures in the table above represent management's estimates that are subject to several factors that are beyond our control and actual results may be significantly different from our estimates

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SPN-810
Novel Product Candidate for Impulsive Aggression (IA)

IA occurs across multiple disorders including ADHD, autism, bipolar disorder, PTSD

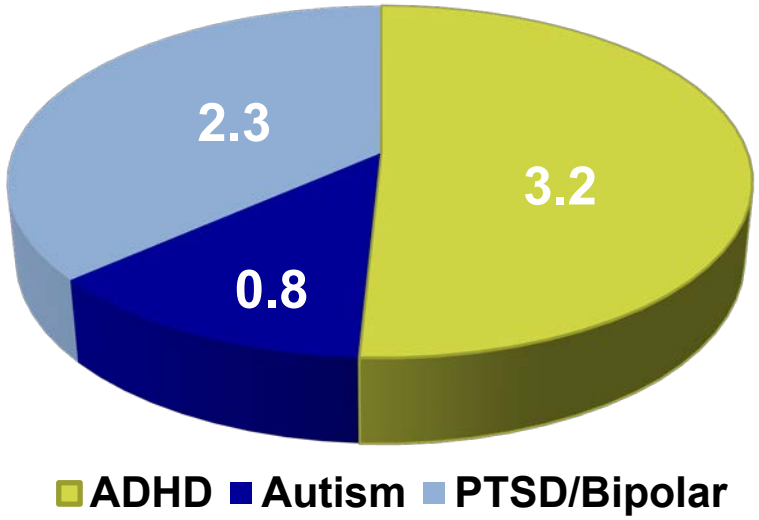
Granted Fast Track Designation

1st **First Product to be developed for IA**

Building Strong IP with Expirations 2029-2033

2020 **Second P302 Phase III Data in 1Q**

Market Opportunity[1]
+$6.3B



[1] Initial indication in ADHD population with potential to expand into other areas such as PTSD.
CDC/US Census; IMS; Qualitative Opportunity Assessment Research 2014; * Assumes 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
Above figures represent management's estimates that are subject to several factors that are beyond our control and actual results may be significantly different from our estimates

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SPN-810 P301 Phase III Topline Results

Impacted by High Variability in Treatment Arm – Primary Analysis (ITT Popn.)

Primary Endpoint % CFB	Original Analysis		Excluding Patients with Baseline Score of 6 or less Episodes/Week*	
	Placebo	SPN-810 36mg	Placebo	SPN-810 36mg
Stage 1 (n)	52	45	50	44
Mean (SD)	-42.9 (35.9)	-56.6 (34.1)	-44.8 (29.9)	-55.6 (33.8)
Median	-48.6	-60.0	-48.6	-57.8
p-value		**0.029**		**0.039**
Stage 2 (n)	73	90	68	85
Mean (SD)	-43.8 (36.3)	-44.0 (43.5)	-42.0 (35.3)	-49.1 (36.6)
Median	-47.2	-58.5	-46.2	-59.2
p-value		**0.537**		**0.119**
Stage 1 + 2 (n)	125	135	118	129
Mean (SD)	-43.4 (36.0)	-48.2 (40.9)	-43.2 (33.0)	-51.3 (35.7)
Median	-48.2	-58.6	-47.2	-59.2
p-value		**0.092**		**0.017**

CFB (Change from Baseline) in Frequency of IA Behaviors in Treatment Period.

*6 out of 135 subjects had a baseline score of 6 or less episodes per week

SPN-604

Novel Product Candidate for Bipolar

50% Use of Oxcarbazepine in Psychiatry

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

2019 Phase 3 Program Initiated

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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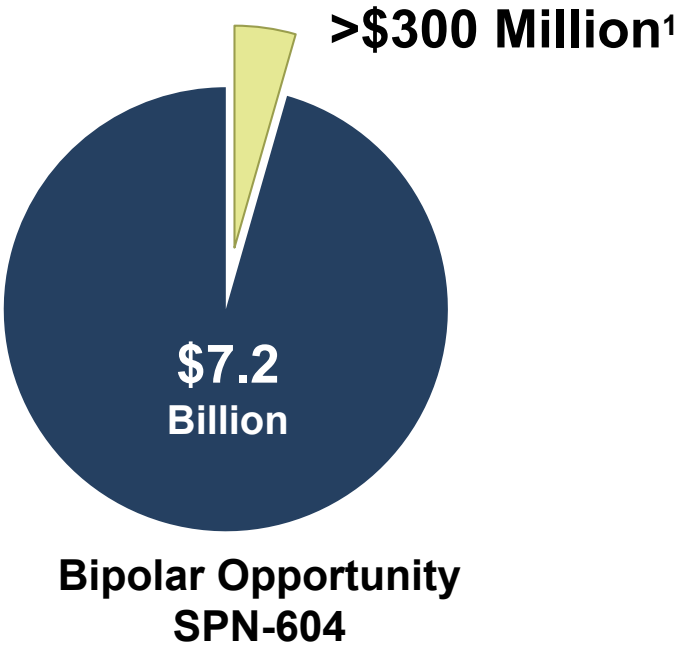
SPN-604

Target Market Opportunity in Psychiatry of $7.2 Billion

Potential Peak Sales - SPN-604 >$300 Million



1- Anti-epileptic drugs represent 34% of 53 million prescriptions for bipolar (IQVIA). Average net price per prescription of $400. Peak share of ~5%. Above figures represent management's estimates that are subject to several factors that are beyond our control and actual results may be significantly different from our estimates

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Financial Summary and Guidance

3Q 2019 Financial Results

- Net sales of $100.0 million
- Operating earnings of $39.7 million
- Cash, cash equivalents, & investments at $893 million as of Sept 30, 2019

Full Year 2019 Financial Guidance[1]

- Net sales: $390 million - $395 million
- Operating earnings: $150 million - $155 million
  - R&D expenses: ~$70 million

[1] Guidance as provided on November 5, 2019, and which has not been updated.

Supernus® Pharmaceuticals

Positioned For Continued Growth in CNS

Strong Presence in Neurology with Existing Products

Oxtellar XR® and Trokendi XR®

Innovative Late Stage Portfolio in Psychiatry

SPN-812	Well Differentiated Novel Non-Stimulant
SPN-604	Novel Product for Bipolar Disorder
SPN-810	First Product to be Developed for Impulsive Aggression

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