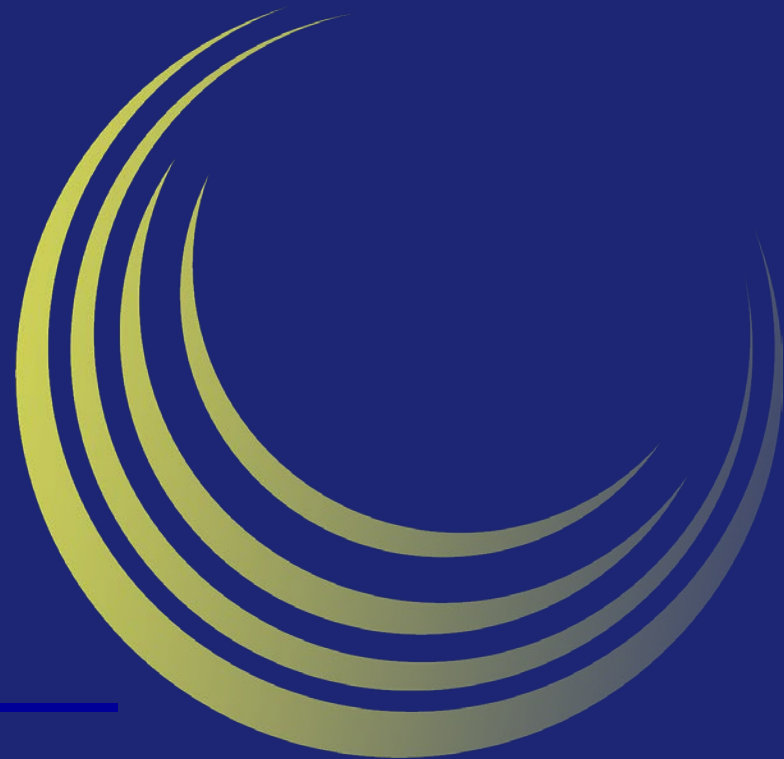


Supernus Pharmaceuticals



Investor Presentation

May 2019

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

Ten Marketed Products Using Our Technologies



Carbatrol®

Adderall XR®

Equetro®

Intuniv®

Mydayis®



Oracea®



Sanctura XR®



Orenitram®



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*Prophylaxis of migraine in adolescents and adults

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Robust Portfolio of CNS Products

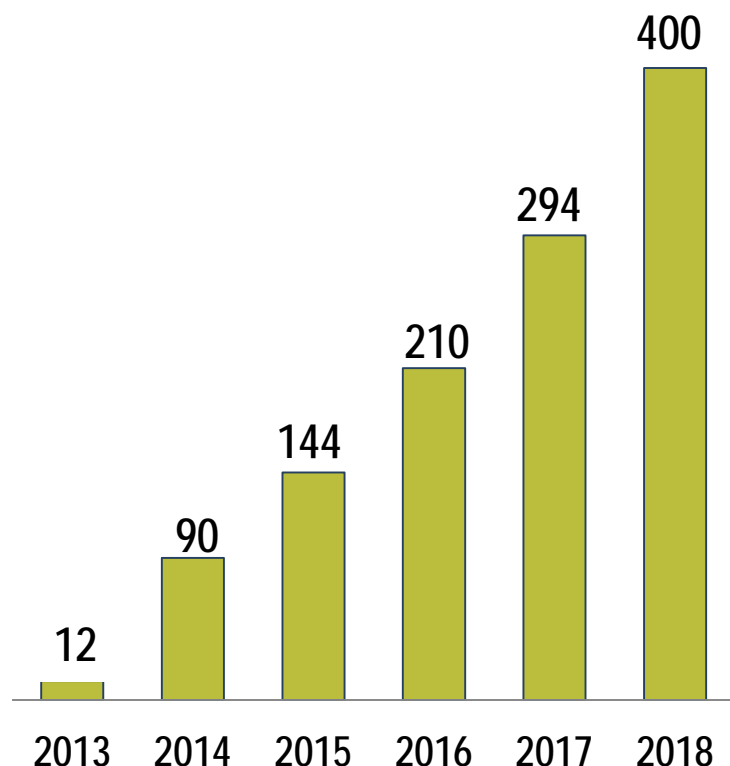
| Marketed |  Trokendi XR. (topiramate) extended-release capsules | Epilepsy / Migraine* | | |
|----------|---|----------------------|---------------------|---------|
| |  Oxtellar XR. (oxcarbazepine) extended-release tablets | Epilepsy | | |
| Product | | Indication | Development | NDA |
| Pipeline | SPN-812 | ADHD | Phase III | 2H 2019 |
| | SPN-810 | Impulsive Aggression | Phase III | 2H 2020 |
| | SPN-604 | Bipolar | Phase III (2H 2019) | |
| | SPN-809 | Depression | IND/Phase II Ready | |
| | SPN-817 | Severe Epilepsy | Phase I | |

*Prophylaxis of migraine in adolescents and adults

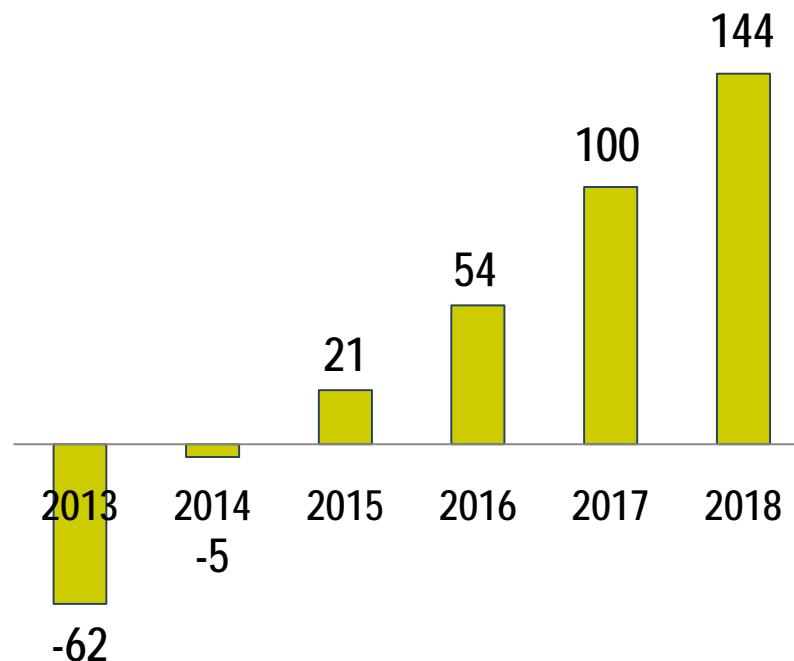
Profitable CNS Company

Strong Sales and Operating Earnings Growth

Total Net Product Sales (\$ Millions)

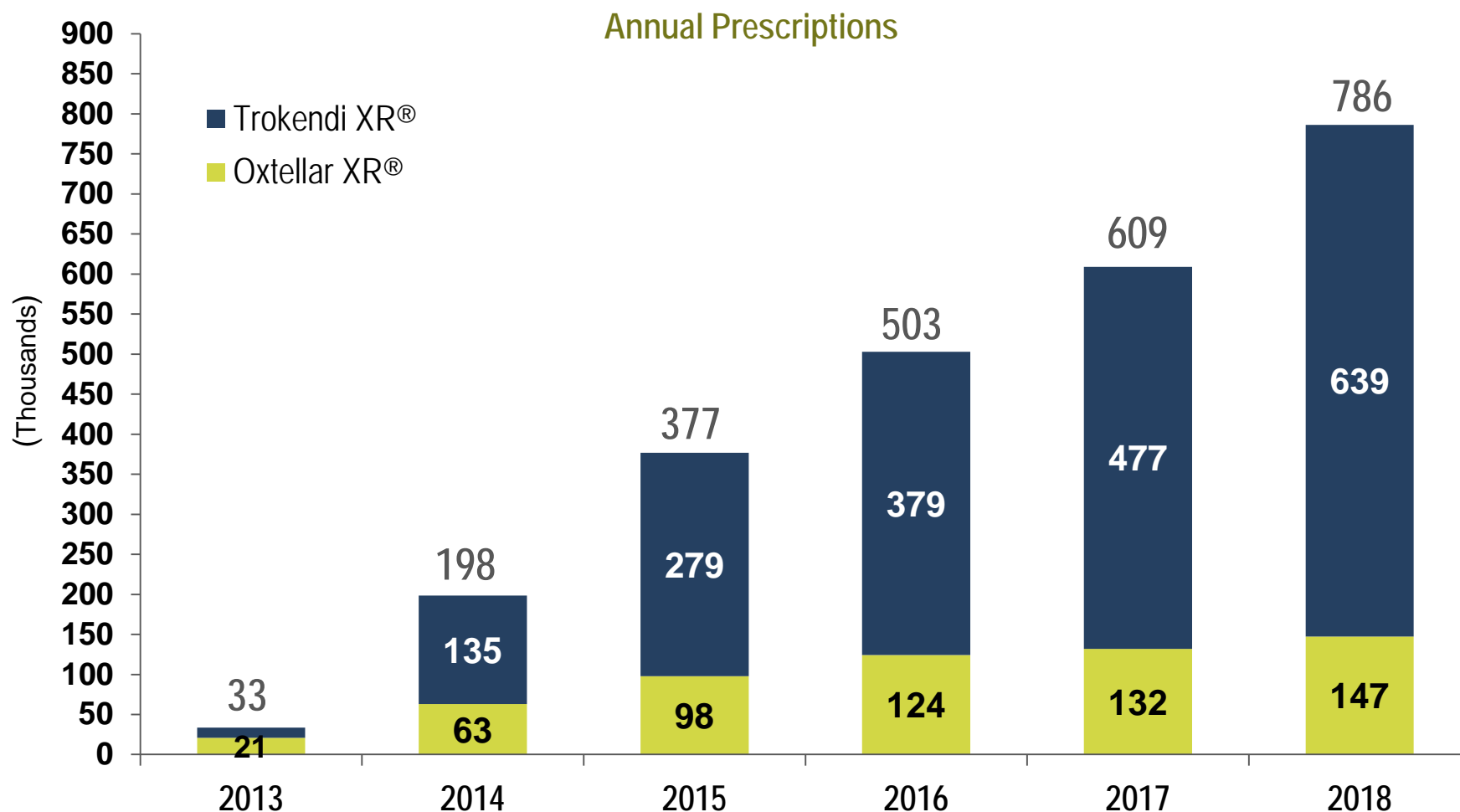


Total Operating Earnings (\$ Millions)



Trokendi XR and Oxtellar XR

Solid Prescription Growth Since Launch



Source: IQVIA Monthly Prescriptions - Include recent restatement for 2017 and 2018 by IQVIA

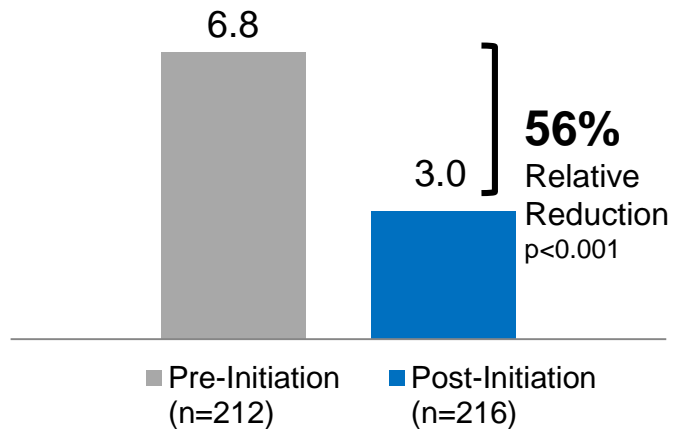
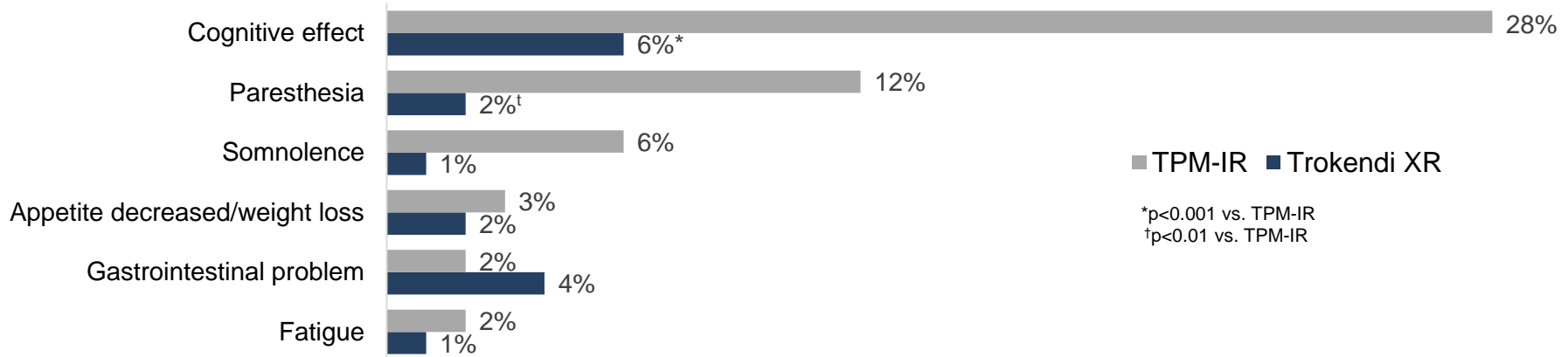
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Trokendi XR

More Favorable Clinical Outcomes Compared to TPM-IR¹

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



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

Trokendi XR

Use in Clinical Practice – A Pragmatic Assessment¹

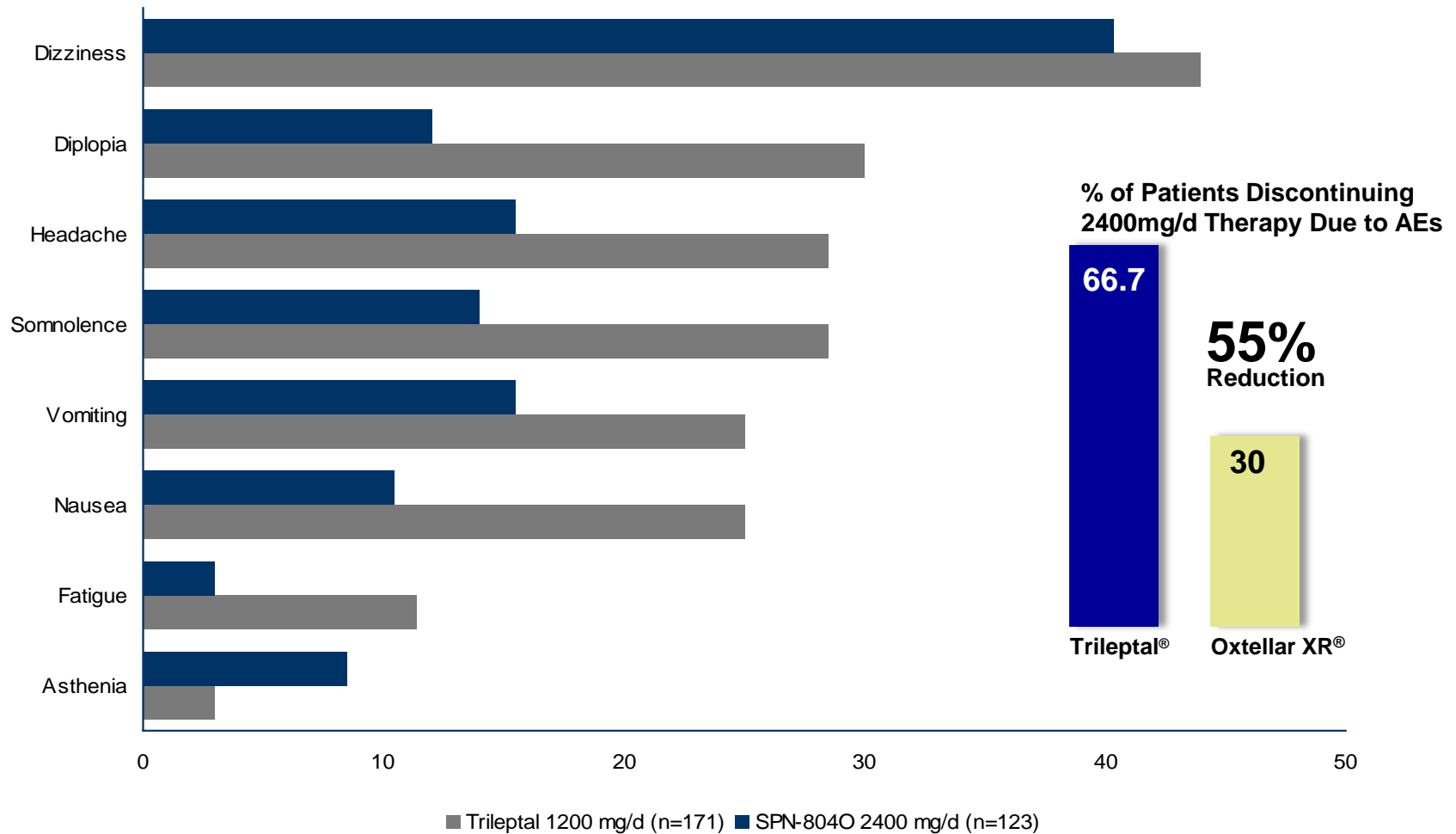
| Responder Rate | % of Patients |
|-----------------|---------------|
| ≥ 50% Reduction | 55 |
| ≥ 75% Reduction | 41 |
| 100% Reduction | 24 |

* 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

Oxtellar XR

Improved Adverse Event Profile at Double the Dose of Trileptal®



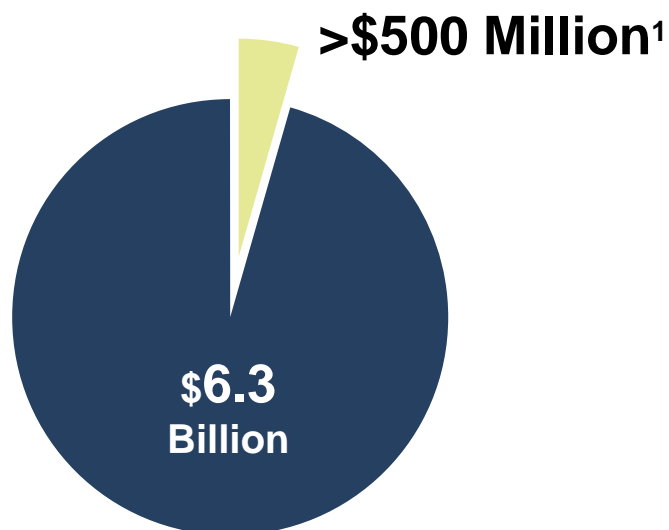
Based on comparison of Oxtellar XR (SPN-804O) Phase III vs. Trileptal PI (adjunctive therapy study in adults); differences in trial design exist between the two studies. Dizziness includes vertigo in Trileptal group because of change in the MedDRA system



Trokendi XR and Oxtellar XR

Combined Target Markets Opportunity in Neurology of \$6.3 Billion

Potential Peak Sales - Oxtellar XR and Trokendi XR >\$500 Million



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

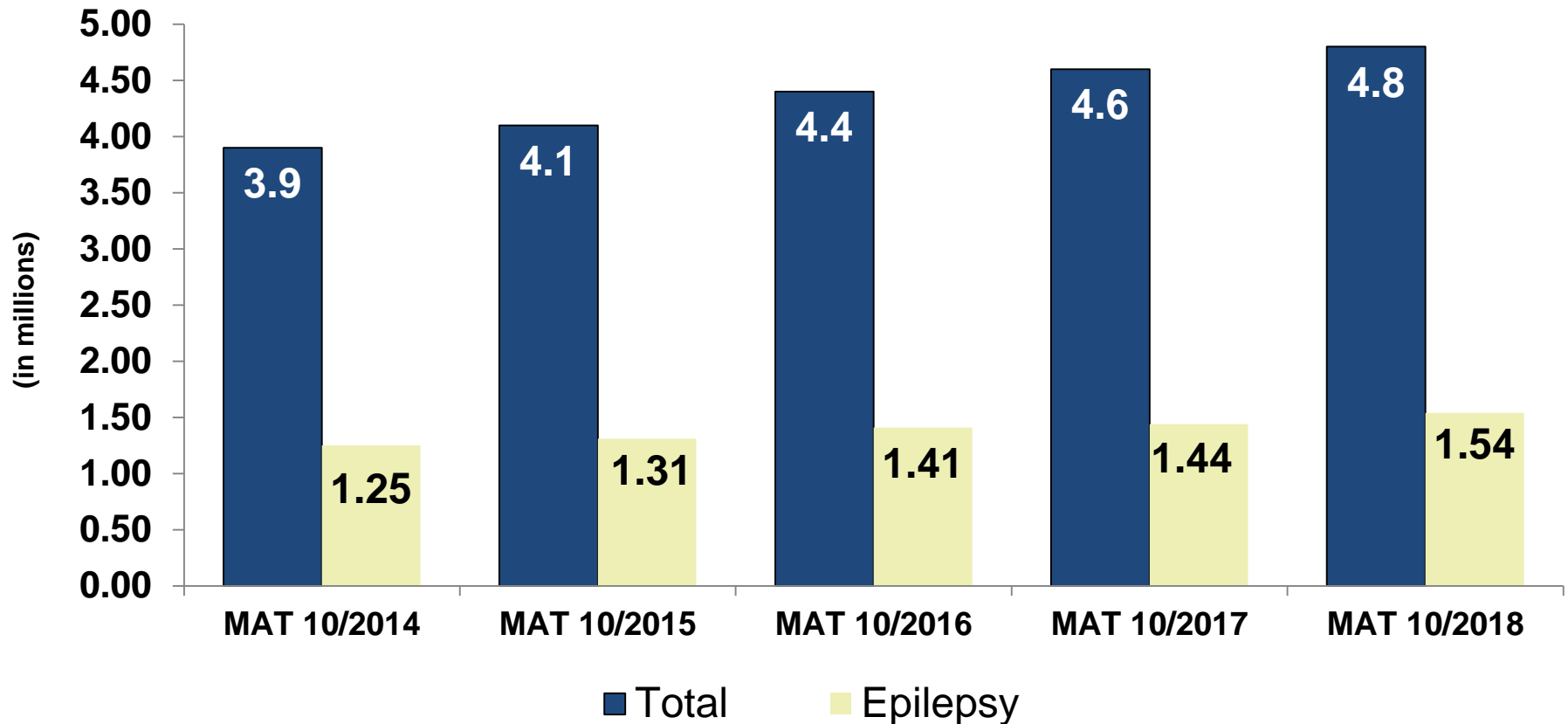
1- Combined annual prescriptions of topiramate and oxcarbazepine of 14 million excluding psychiatry. Average net price per prescription of \$450. Peak share of ~8%. Above figures represent management's estimates that are subject to several factors that are beyond our control and actual results may be significantly different from our estimates

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Monotherapy Epilepsy Market Opportunity

Oxcarbazepine Prescriptions By Disease Area



Source - IMS NPA

MAT=Moving Annual Total

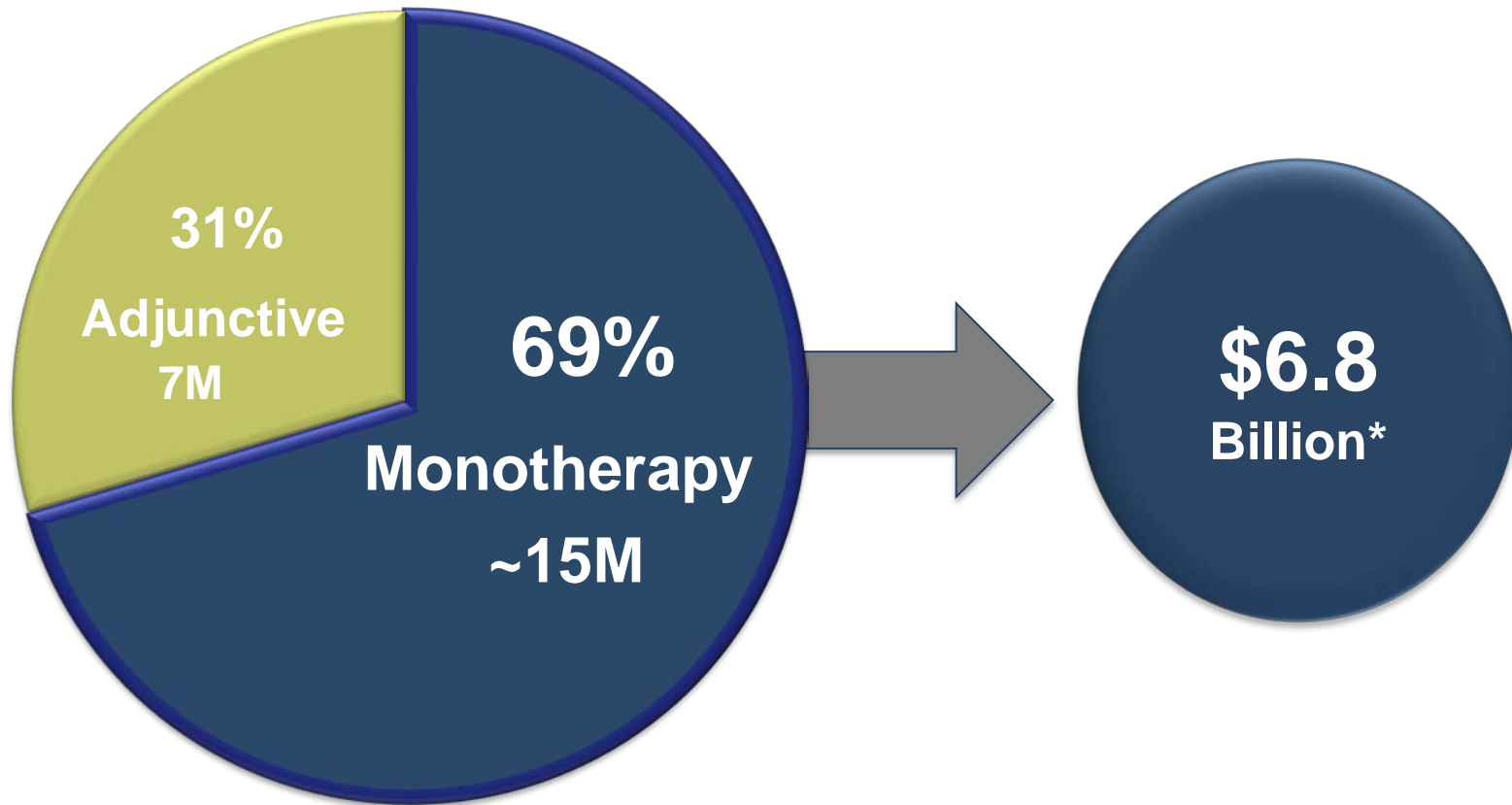
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Monotherapy Epilepsy Market Opportunity

69% of Partial Seizure TRx's Are For Monotherapy

Partial Seizure TRx's 22M Annually



IMS NDTI MAT12 months

* Using a branded TRx at \$450 Net

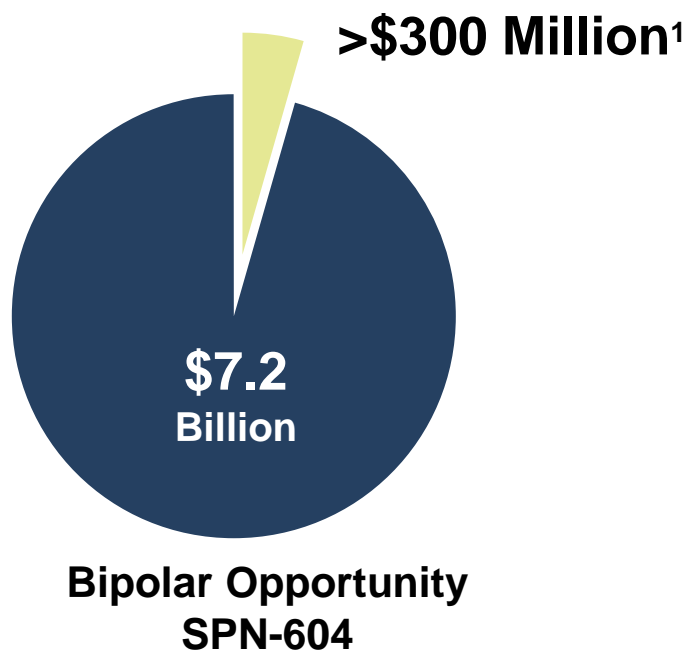
Oxcarbazepine – Studied in Monotherapy with 8 Positive Clinical Trials

| Oxcarbazepine (Trileptal®) | |
|--|----------|
| Comparative (new onset partial seizures) | 4 |
| Low-dose vs high-dose (refractory partial seizures) | 2 |
| Placebo-controlled (recent onset) | 1 |
| Placebo-controlled (presurgical) | 1 |
| Total Number of Studies | 8 |

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

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 Trials Planned
2H 2019



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-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 Filing targeted for 2H 2019
- Robust Phase III data showing a well-differentiated novel non-stimulant ADHD product

SPN-812

Phase III Studies Status

| | 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 |

SPN-812 Phase III Study Design

- Randomized, double-blind, placebo-controlled, multicenter, parallel group, monotherapy for ADHD
- Primary Endpoint
 - Change from baseline on ADHD-RS-5 scale compared to placebo
- Secondary Endpoints
 - Clinical Global Impression - Improvement (CGI-I) scale
 - Conners 3rd edition - parent, composite T-score
 - Weiss Functional Impairment Rating Scale - parent report (WFIRS-P)
- Evaluate safety & tolerability

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



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



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 | | | | |
|--------------------------------------|------------|--------------------|-------------------|-------------------|
| Visit | Statistics | Placebo (N=452) | 200 mg (N=359) | 400 mg (N=299) |
| Baseline | Mean | 41.8 | 42.9 | 41.8 |
| | | | | |
| Week 1 | p-value | | 0.0003 | 0.0016 |
| Week 2 | p-value | | <.0001 | <.0001 |
| Week 3 | p-value | | <.0001 | <.0001 |
| Week 4 | p-value | | <.0001 | <.0001 |
| Week 5 | p-value | | <.0001 | <.0001 |
| | | | | |
| Week 6 | LS Mean | -11.7 | -17.1 | -17.7 |
| | p-value | | <.0001 | <.0001 |

| P301 | |
|--------------------|-------------------|
| Placebo (N=155) | 100 mg (N=147) |
| 43.6 | 45.0 |
| | |
| | 0.0004 |
| | <.0001 |
| | <.0001 |
| | <.0001 |
| | 0.0006 |
| | |
| -10.9 | -16.6 |
| | 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

SPN-812 Phase III Data: Fast Onset of Action

Efficacy Starting in Week 1 - Inattention Subscale

| Pooled Data – P301, P302, P303, P304 | | | | |
|--------------------------------------|------------|--------------------|-------------------|-------------------|
| Visit | Statistics | Placebo (N=452) | 200 mg (N=359) | 400 mg (N=299) |
| Baseline | Mean | 22.4 | 22.6 | 22.3 |
| Week 1 | p-value | | 0.0086 | 0.0162 |
| Week 2 | p-value | | 0.0001 | <.0001 |
| Week 3 | p-value | | <.0001 | <.0001 |
| Week 4 | p-value | | <.0001 | <.0001 |
| Week 5 | p-value | | <.0001 | <.0001 |
| Week 6 | LS Mean | -11.7 | -8.9 | -9.2 |
| | p-value | | <.0001 | <.0001 |

| P301 | |
|--------------------|-------------------|
| Placebo (N=155) | 100 mg (N=147) |
| 22.5 | 22.8 |
| | 0.0016 |
| | 0.0016 |
| | 0.0002 |
| | <0.0001 |
| | 0.0018 |
| -5.6 | -8.6 |
| | 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

SPN-812 Phase III Data: Fast Onset of Action

Efficacy Starting in Week 1 - Hyperactivity/Impulsivity Subscale

| Pooled Data – P301, P302, P303, P304 | | | | |
|--------------------------------------|------------|--------------------|-------------------|-------------------|
| Visit | Statistics | Placebo (N=452) | 200 mg (N=359) | 400 mg (N=299) |
| Baseline | Mean | 19.4 | 20.3 | 19.5 |
| Week 1 | p-value | | <.0001 | 0.0010 |
| Week 2 | p-value | | <.0001 | <.0001 |
| Week 3 | p-value | | <.0001 | <.0001 |
| Week 4 | p-value | | <.0001 | <.0001 |
| Week 5 | p-value | | <.0001 | <.0001 |
| Week 6 | LS Mean | -5.4 | -8.2 | -8.5 |
| | p-value | | <.0001 | <.0001 |

| P301 | |
|--------------------|-------------------|
| Placebo (N=155) | 100 mg (N=147) |
| 21.1 | 22.2 |
| | 0.0023 |
| | <0.0001 |
| | <0.0001 |
| | 0.0004 |
| | 0.0010 |
| | |
| -5.3 | -8.0 |
| | 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



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 $\geq 5\%$ 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

SPN-812 Phase III Program

Novel Non-Stimulant ADHD Product Candidate

- Final Phase III data package for the NDA is robust on 100 mg, 200 mg and 400 mg doses in more than 1,000 children and adolescent patients
- P304 fourth Phase III trial
 - Consistent with and confirms results from three successful Phase III trials (P301, P302 and P303) in children and adolescents
- Clinical data point to a well-differentiated ADHD product
 - Unique mechanism of action
 - Strong efficacy with robust statistical significance
 - Efficacy on both Hyperactivity/Impulsivity and Inattention
 - Fast onset of action
 - Well tolerated
- Targeted NDA submission 2H 2019, and if approved, launch 2H 2020

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

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

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

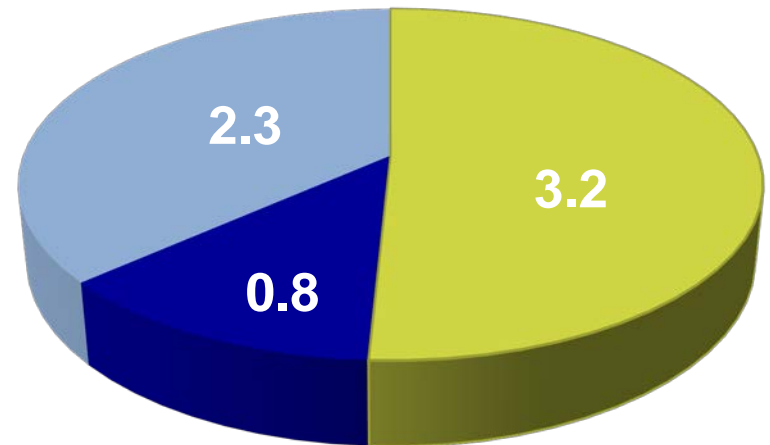


**Building Strong IP with
Expirations 2029-2033**

2019 **Three Ongoing Phase III Trials**



**Market Opportunity¹
+\$6.3B**



■ ADHD ■ Autism ■ PTSD/Bipolar

¹ Initial indication in ADHD population with potential to expand into areas such as Autism and 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

SPN-810

Phase III Studies

| Study | Population | Primary Objective* | Study Duration | Treatment Duration | Dose | No. of Subjects | Data Expected |
|-------------|------------------------------|--------------------|----------------|--------------------|-------------------------|-----------------|----------------|
| P301 | Pediatric (6-12 years) | Efficacy | 10 weeks | 6 weeks | Placebo 36mg | 300+ | 2H 2019 |
| P302 | Pediatric (6-12 years) | Efficacy | 10 weeks | 6 weeks | Placebo 36mg | 300 | 2H 2019 |
| P503 | Adolescents (12–17 years) | Efficacy | 10 weeks | 6 weeks | Placebo 36mg 54mg | 300 | 2020 |

*Primary Endpoint : Change in IA behavior frequency

Financial Summary and Guidance

1Q 2019 Financial Results

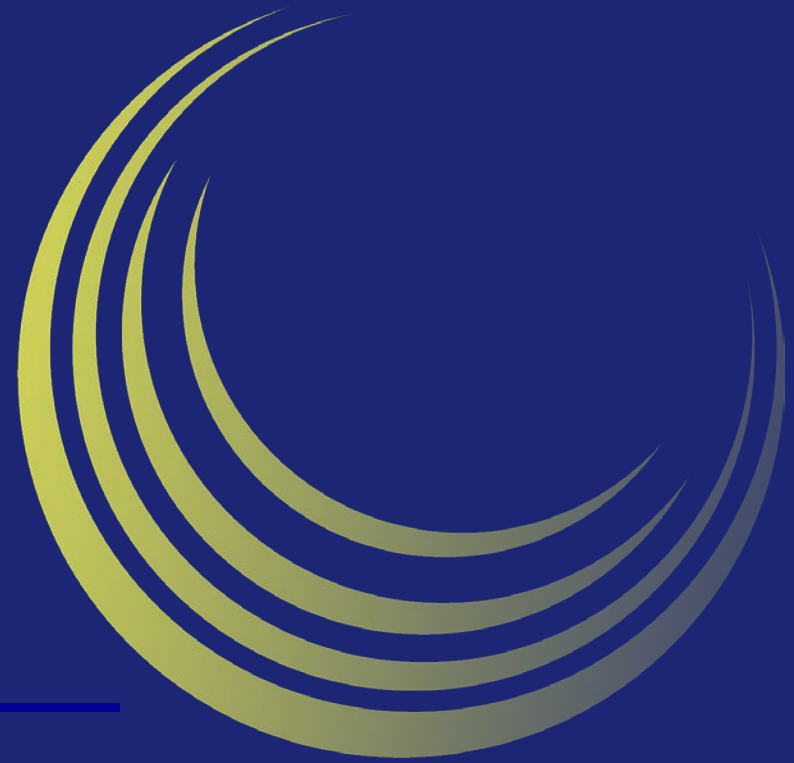
- Net sales of \$83 million and operating earnings of \$25 million, compared to \$89 million and \$31 million, respectively, in 1Q 2018
 - Impact of \$10 million in channel inventory reduction, coupled with seasonal insurance plan dynamics
- Prescription growth of 11% for both Trokendi XR and Oxtellar XR
- Cash, cash equivalents, & investments at \$816 million as of March 31, 2019

Full Year 2019 Financial Guidance¹

- Net sales: \$435 million - \$455 million
- Operating earnings: \$160 million - \$180 million
 - R&D expenses: \$70 million - \$80 million

¹ Guidance as provided on May 8, 2019, and which has not been updated.

Positioned For Continued Strong Growth



Growth Potential for Existing Products

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

Innovative Late Stage Portfolio in Psychiatry

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