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Corporate Presentation

August 16, 2011

Forward-Looking Statements

This presentation contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. All remarks and information that are not historical facts are hereby identified as forward-looking statements for this purpose and include, among others, remarks and information relating to: receipt and timing of marketing approval for, and launch of, Zelrix; sufficiency of the Company's capital through approval and into launch of Zelrix; commercialization and partnering plans for Zelrix and the Company's other product candidates; therapeutic benefits, market potential, pricing and reimbursement for Zelrix and the Company's other product candidates; and all other remarks and information relating to the Company's projections, expectations, beliefs, future performance or plans or objectives for future operations (including assumptions underlying or relating to any of the foregoing).

Forward-looking statements are based on the Company's current expectations and beliefs and are subject to risks and uncertainties that could cause actual results to differ materially from those indicated by the forward-looking statements contained herein including, among others: the timing and ability to obtain marketing approval for and commercialize Zelrix; physician and patient acceptance of Zelrix and other the Company's other product candidates; adverse events or other safety risks that could require the Company to abandon or delay development of, or preclude or limit approval of, Zelrix or the Company's other product candidates; varying interpretation of clinical and market data; the costs to prepare for and commercialize Zelrix; and the risks, uncertainties and other factors discussed in the Company's Annual Report on Form 10-K for the year ended December 31, 2010 and Quarterly Report on Form 10-Q for quarter ended June 30, 2011 under the caption "Risk Factors" and elsewhere in such reports, which are available on the Company's website at www.nupathe.com in the "Investor Relations – SEC Filings" section. As a result, you are cautioned not to place undue reliance on any forward-looking statements. While the Company may update certain forward-looking statements from time to time, it specifically disclaims any obligation to do so, whether as a result of new information, future developments or otherwise.

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NuPathe Highlights

- **Migraine patch poised to capitalize on market dynamics**
  - Migraine related nausea (MRN) emerging as key market driver
  - Overcomes limitations of oral medications
  - Setting the stage for strong launch in first half of 2012
- **Building momentum**
  - Nausea is a predictor of reduced response to orals (Cephalalgia, Neurology)
  - Nausea is a driver of disability and treatment dissatisfaction (AMPP)
- **August 29th PDUFA**

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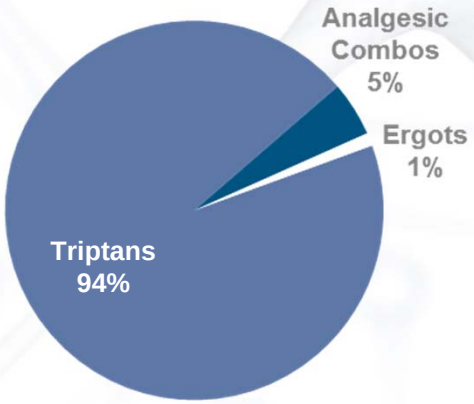
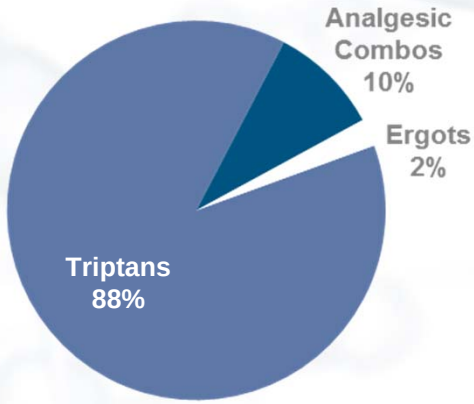
Triptans Dominate Large Market

Total U.S. Migraine Rxs = 13 MM



Total U.S. Migraine Units = 146 MM



- **Triptans - clear market leader**
  - 129 MM units in the U.S.
  - 88% of units and 97% of sales

Data: MAT June 2011. Triptans include Treximet. Analgesic combos = analgesic combos + Cambia

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Harnessing the Power of Sumatriptan

Patch applied during migraine attack

- Powered by SmartRelief™
- Controlled delivery for four hours
- Applied to upper arm or thigh
- Single use, disposable

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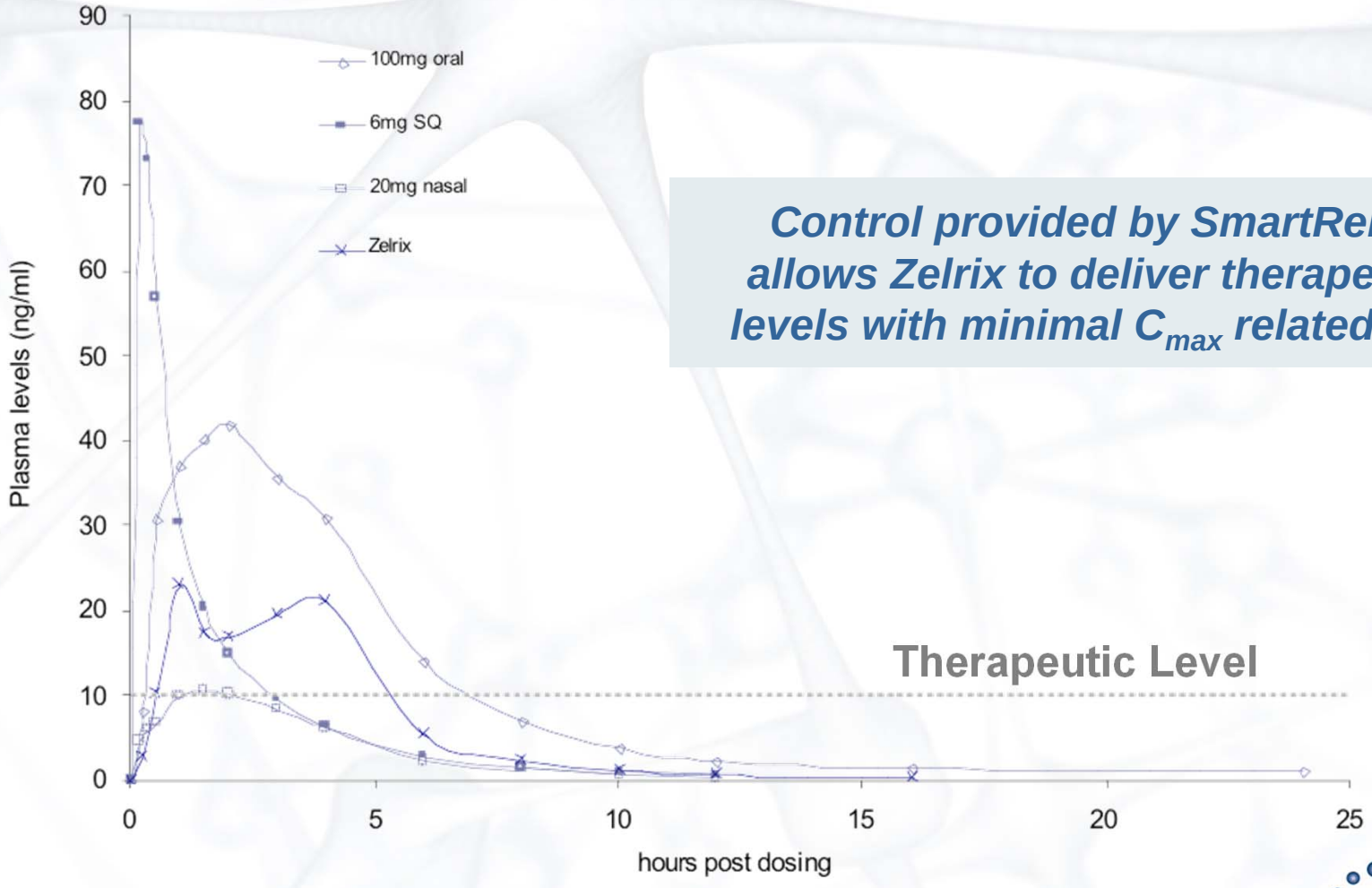
Zelrix: Designed to Address Limitations of Current Therapies



Control provided by SmartRelief allows Zelrix to deliver therapeutic levels with minimal C_{max} related AEs

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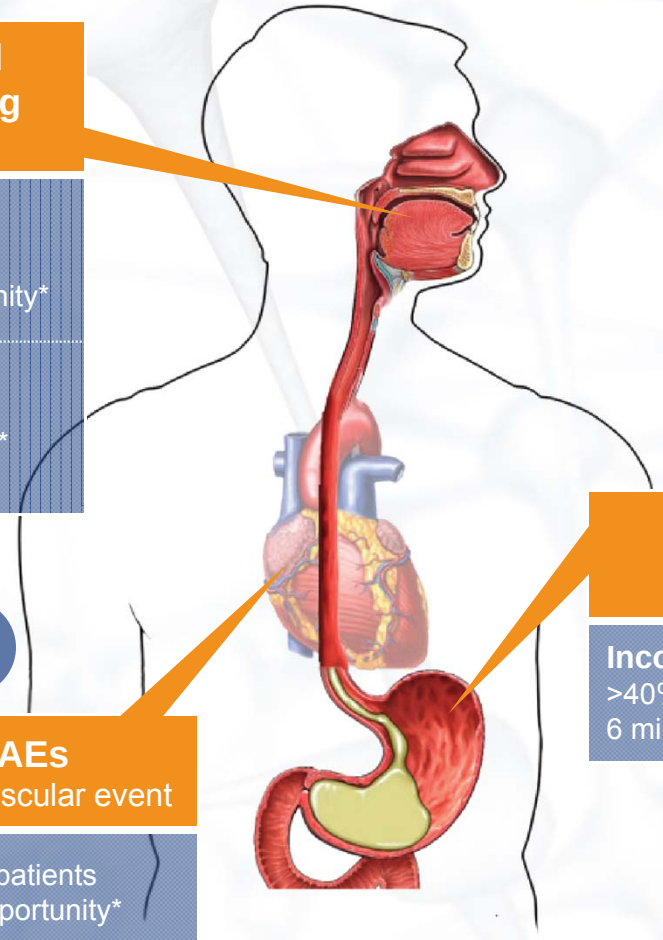
Why a Patch for Migraine?

1

Migraine-Related Nausea & Vomiting
"MRN"

Nausea
90% of treated patients
12.5 million patient opportunity*

Vomiting
59% of treated patients
8 million patient opportunity*



2

Gastroparesis
Unreliable absorption

Inconsistent Efficacy
>40% of treated patients
6 million patient opportunity*

3

Triptan AEs
Mimic a cardiovascular event

10-15% of treated patients
1 million patient opportunity*

* Overlap amongst patient types

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Pivotal Phase 3 Data Confirms Value

Endpoints (Data at 2 hours)	*P*-Value
Pain free – Primary	= 0.0092
Pain relief	< 0.0001
Nausea free	< 0.0001
Photophobia free	= 0.0028
Phonophobia free	= 0.0002

- **Rapid & sustained pain relief**
  - 39% more Zelrix patients than placebo at 30 minutes[√]
  - Sustained pain relief from 2 to 24 hours (*P*=0.0015)

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[√] *Not statistically significant*

Favorable Adverse Event Profile

Application site events were typical of patches

- Majority were mild in intensity and transient

	Zelrix	Placebo
Application site pain	23%	15%
Application site tingling	12%	19%
Application site itching	8%	7%
Application site reaction	7%	6%

Minimal incidence of triptan-related adverse events

- Compared to product labeling for oral (12 – 14%) and injection (47%)

	Zelrix	Placebo
Atypical sensations	1.7%	0.0%
Pain and other pressure sensations	1.7%	0.4%

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Long Term Data Confirms Patient Benefit

- **Consistent response over 12 months**
  - Consistent efficacy on all parameters
  - No increased skin irritation with repeat use
  - Very low incidence of triptan-related adverse events
    - ✓ 1.6% in month 1
    - ✓ 0.0% in months 2 – 12
  - No drug-related serious adverse events

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Analysis of Landmark Migraine Study (AMPP)

Better Treatment of MRN will Reduce Migraine Burden[1]

- **50% of patients experienced frequent MRN (nausea in ≥ 50% of migraines)**
- **Those with frequent MRN were significantly less satisfied with their migraine medications**
  - Greater dissatisfaction with medication effectiveness
  - More medication side effects
  - More medication-related interference in work, family, and social life

> *"These data suggest that there are millions of people who, because of migraine-related nausea as well as pain, are having a hard time finding relief from medication."*
> Dr. Richard B. Lipton*

[1] Lipton, Buse. Data presented at the 53rd Annual Scientific Meeting of the American Headache Society (AHS), June 2011. Analysis funded through an unrestricted grant provided by NuPathe Inc.

* Dr. Lipton was the lead study investigator of AMPP and is professor/vice chair of The Saul R. Korey Department of Neurology at the Albert Einstein College of Medicine, and director of the Montefiore Headache Unit in New York.

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MRN Predicts Reduced Response to Oral Triptans

- **Strong evidence demonstrates MRN compromises oral efficacy**
  - SNAP Database: 128 clinical trials (28,407 migraine patients)[1]
    - ✓ Oral sumatriptan or naratriptan less likely to achieve headache relief ($P<0.001$)
  - Eletriptan Database: 10 clinical trials (8,473 migraine patients)[2]
    - ✓ Eletriptan or sumatriptan less likely to achieve headache pain-freedom ($P=0.0004$)

[1] Diener HC et al, *Neurology*. 2004;63:520-524.
[2] Diener HC et al, *Cephalalgia.* 2008;28:35-40.

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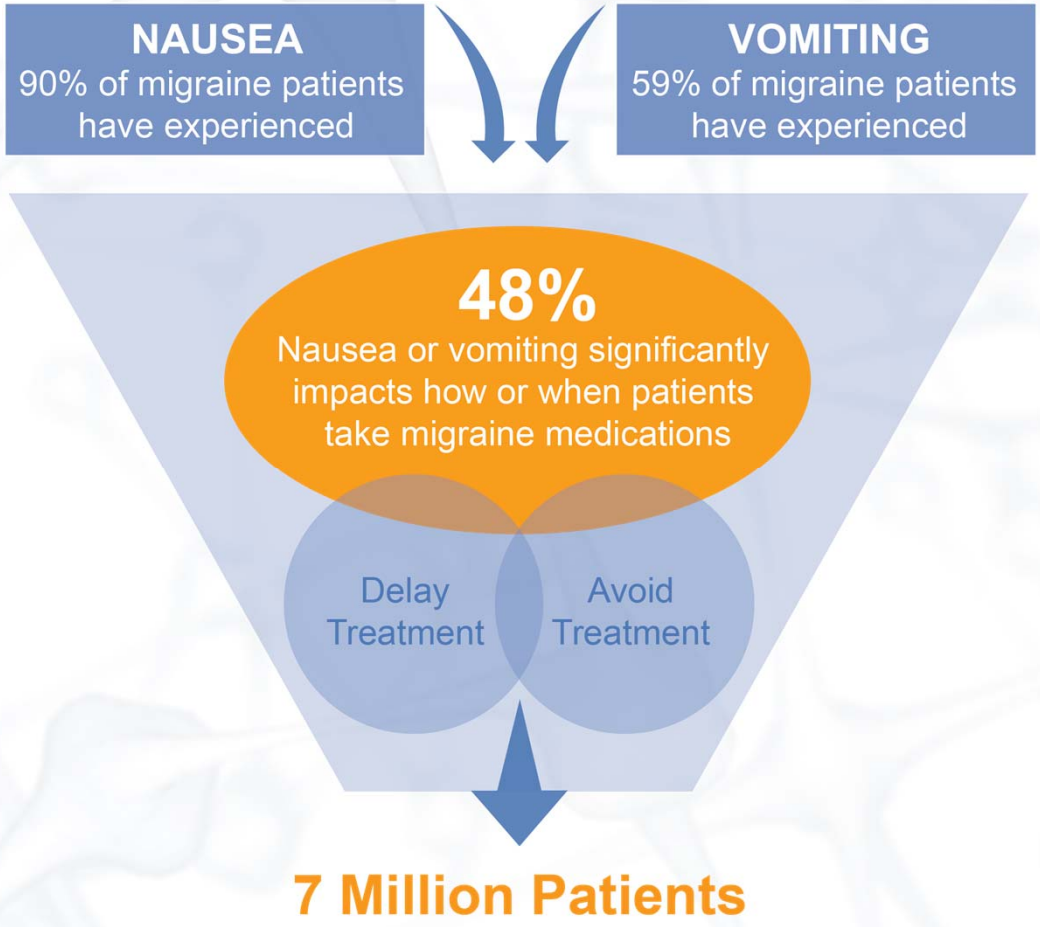
MRN Impacts Millions

31 million adults with migraine

16 million are diagnosed and treated



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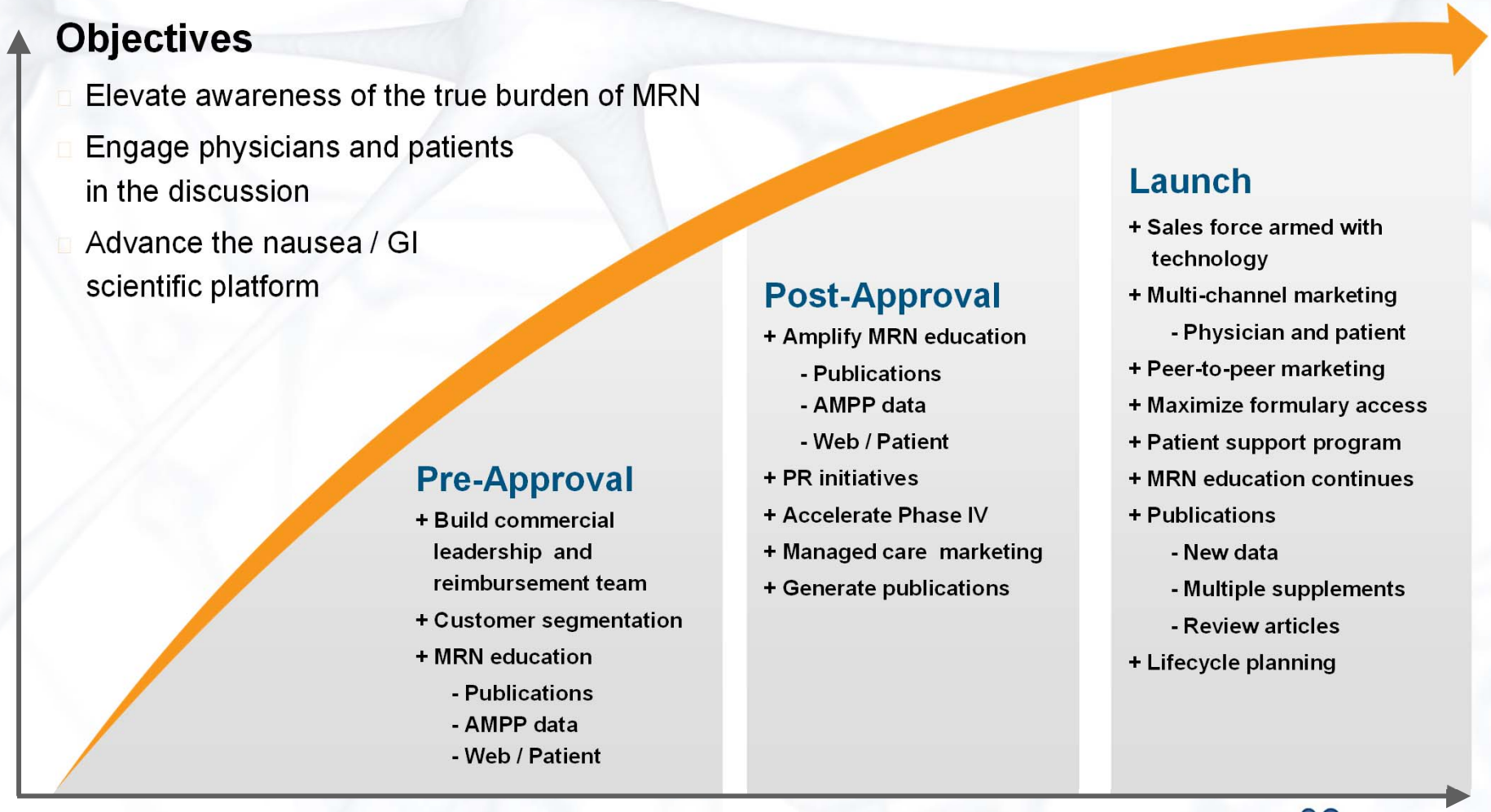
Plan to Maximize Launch



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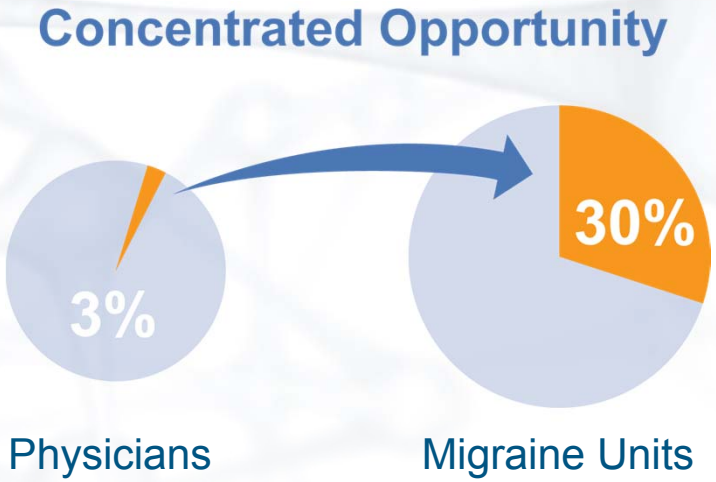
Specialist Focus with PCP Opportunity

- **NuPathe (~100 Sales Reps)**
  - Neurologists, headache specialists
- **Partnership / Expansion**
  - Primary care



	Deciles	Physicians	Migraine Units
Launch 100 Sales Reps	10 - 8	10,500	53 million
Expansion Opportunity	7 - 5	31,000	53 million

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Broad Formulary Coverage Expected for Patch

- **Payers see value in the patch**
  - Market research with payers covering >120 million lives
  - Unmet needs
    - ✓ GI issues acknowledged
    - ✓ Poorly controlled patients are costly
  - Patch addresses need for acceptable non-oral
  - Indicate broad formulary access
    - ✓ Parity formulary position to other brands
    - ✓ Mix of Tier 2 & 3
- **Non-orals priced up to $87 per unit (WAC)**
  - Broad formulary acceptance

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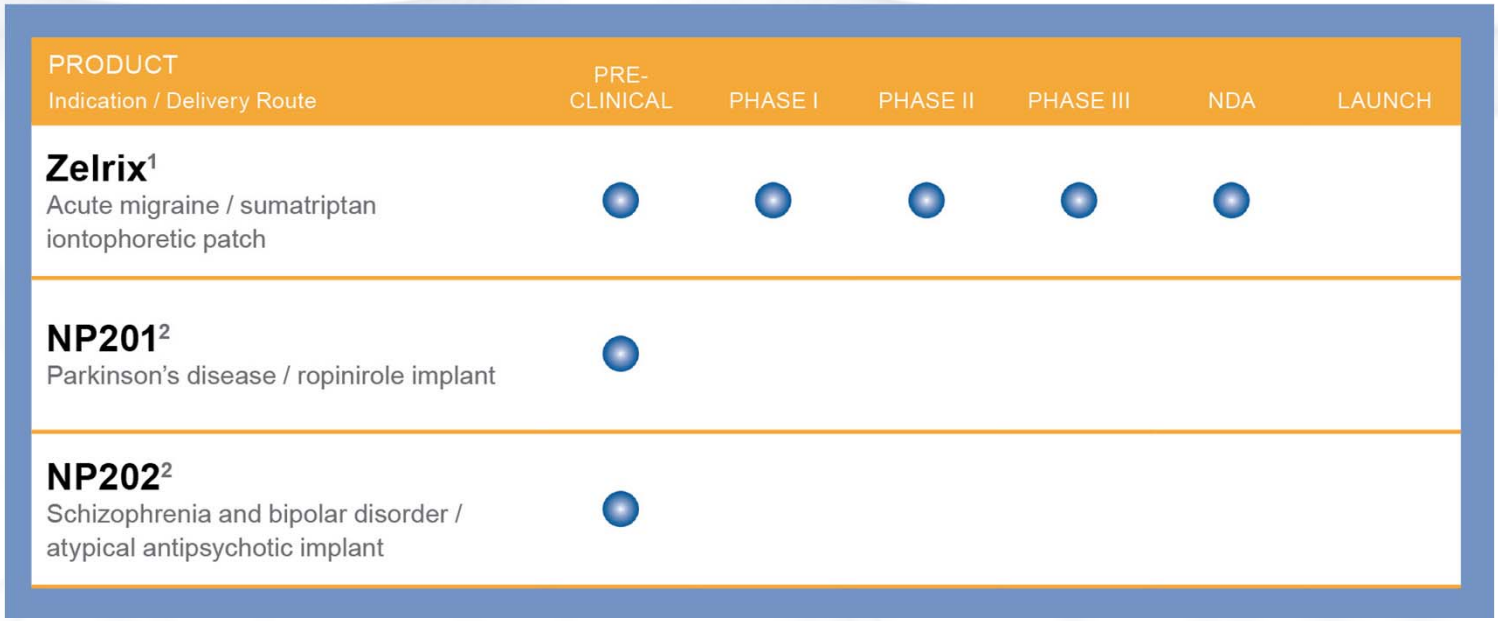
Pipeline Addresses Unmet Needs in CNS



1. 505(b)(2) NDA submitted October 29, 2010 *2. 505(b)(2)*

Pipeline powered by proprietary technology platforms

- SmartRelief – Transdermal Patch
- LAD™ – NP201 and NP202

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LAD: Improved Treatment Through Continuous Delivery

- **NP201: Long term delivery of ropinirole to treat the signs and symptoms of Parkinson's disease**
  - Designed to address tolerability and need for consistent long-term efficacy
  - Current status:
    - ✓ Preclinical POC study complete - return to normal function
    - ✓ Seeking partner for continued development
- **NP202: Long term delivery of an atypical antipsychotic to treat schizophrenia and bipolar disorder**
  - Designed to address significant compliance issues
  - Current status:
    - ✓ Preclinical POC studies complete
    - ✓ Prototype development ongoing

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Financial Strength to Execute

- **Strong cash position**
  - $36.2 million on balance sheet at June 30, 2011
  - $30 million common stock purchase agreement in place with Aspire Capital Fund
    - ✓ NuPathe controls timing and amount of any stock sales to Aspire
    - ✓ Does not limit ability to raise capital through our methods
  - Sufficient through approval and into launch
- **Near-term revenues with launch in 2012**

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Demonstrated Execution…
…with Upcoming Catalysts to Drive Value

Consistent Execution

- ✓ Zelrix PK study in young & elderly
- ✓ Zelrix PK bioavailability study
- ✓ Zelrix cumulative skin irritation study
- ✓ Zelrix NDA filing & acceptance
- ✓ Completion of 12-month open label trial
- ✓ Zelrix data presentations at AHS & IHS

Near-Term Milestones

- Completion of 2nd 12-month open label trial
- Zelrix NDA approval
- Zelrix partnership
- Zelrix launch

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