CAPNIA

Targeting unmet needs.

Creating solutions.

Improving healthcare.



Rodman & Renshaw 18th Annual Global Investment Conference

September 12, 2016

NASDAQ: **CAPN**

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Highlights

Multiple Commercial Products

Revenue Generating

CoSense® ETCO Monitor

Serenz® Allergy Relief

Infant pulmonary resuscitation solutions

World-class Partners

Direct Sales plus Global Distributors

Active partnerships in place in the U.S., China, India, Turkey, Italy, Canada & Saudi Arabia

Planning to engage in further geographies in 2016

Clinical Stage Pipeline

Portfolio of Therapeutic and Diagnostic Candidates

Two Phase 2 trials ongoing in cluster headache and trigeminal neuralgia

Top-line data readouts expected in 2016

Novel Platform Technology

Cutting edge device for detecting breath analytes

Patent portfolio (issued and pending) with expirations out to 2030s

Applicable across a broad range of therapeutic areas

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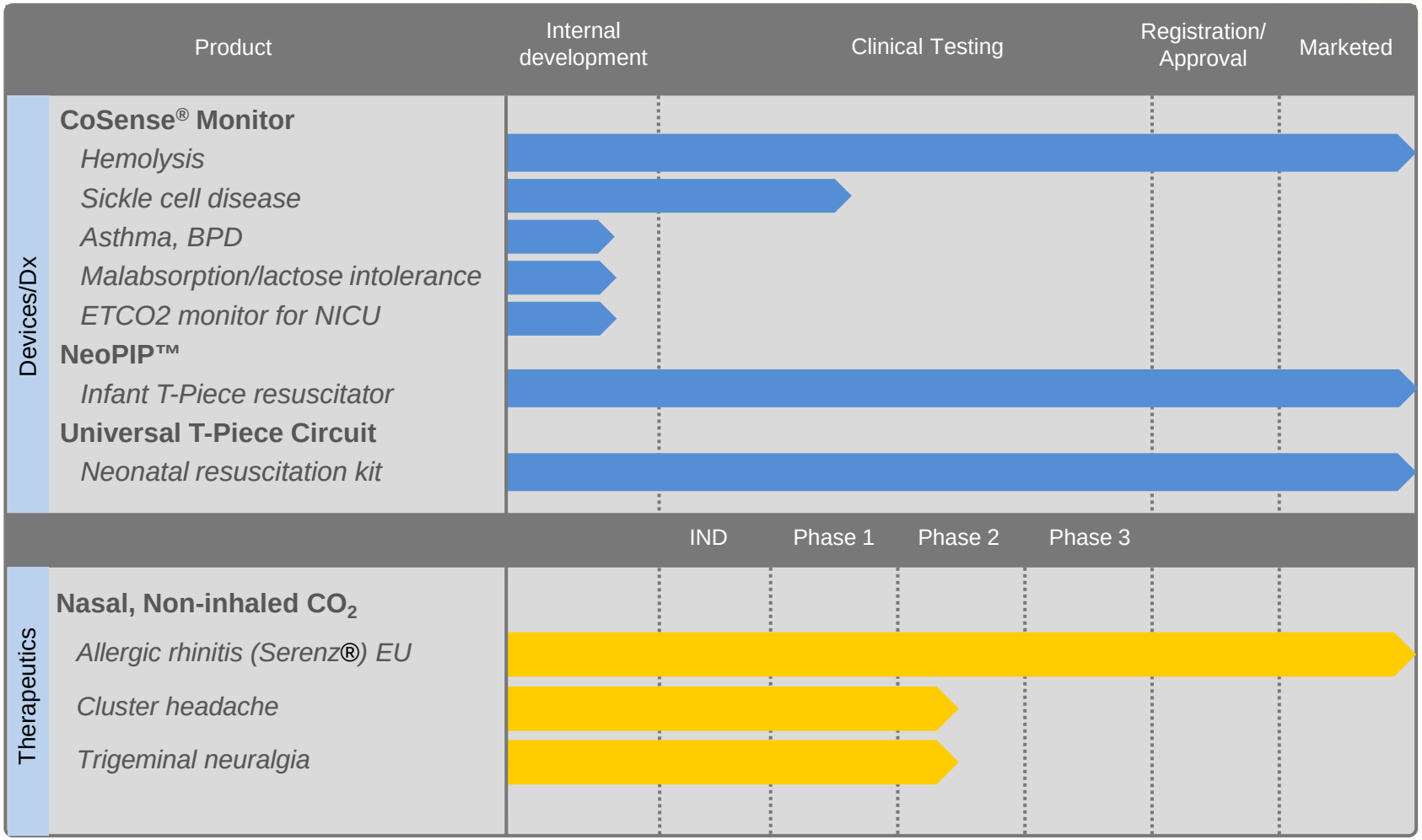
Pipeline



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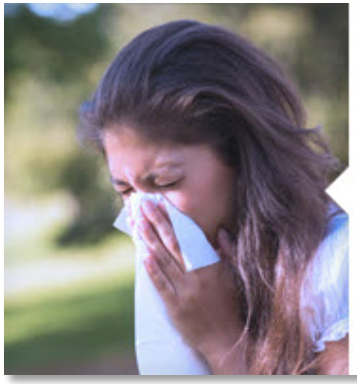
Diversified, Revenue Generating Product Portfolio



Serenz® Allergy Relief

Serenz is a hand-held device that is designed to provide rapid relief from the symptoms related to allergies.

CoSense® ETCO Monitor

The *CoSense* ETCO Monitor measures carbon monoxide levels in exhaled breath, which may be used to detect the rate of hemolysis.

Infant Solutions

NeoForce is a portfolio of innovative pulmonary resuscitation solutions in the neonatal market.

Serenz®

ALLERGY RELIEF

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Serenz®
Allergy Relief

Serenz is the first allergy treatment to use carbon dioxide to relieve nasal allergy symptoms

- *Fast acting*
- *Small, portable, disposable*
- *Gentle cleansing of nasal mucosa*
- *Use as needed*
- *Contains 20 cleanses*

Clinically proven to work quickly without causing drowsiness[1]

[1]*While cleansing with Serenz, a temporary nasal discomfort may be felt or eyes may water; these will go away when cleansing is done.*

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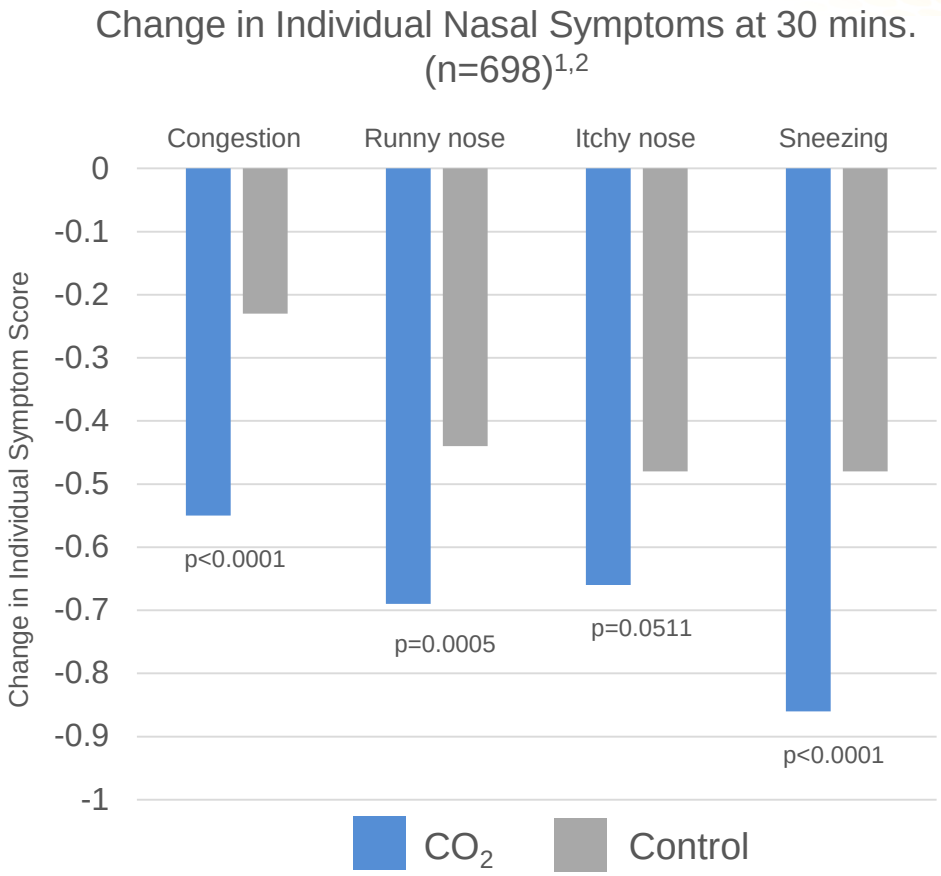
Clinically Proven for Rapid Relief

- Supported by robust clinical data
- Studied in a total of 975 patients across six randomized, controlled clinical trials
- Well-tolerated and statistically significant improvements in standard Total Nasal Symptom Score (TNSS) endpoints



[1]*Episodes with pre-Use TNSS ≥ 8*
[2]*Casale TB et al., Congress of EAACI, 2010; Allergy 65 (S92): 35.*

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Global Pilot Launches

- European pilot launch coincided with 2016 allergy season
- Now available OTC at 150+ retail pharmacy locations and online in the UK and Ireland
- Full European commercial launch planned for 2017

WELDRICK'S PHARMACY

MEDINUTRIX FOR LIFE LIVED WELL

paydens

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Addressing Unmet Needs: Validated by Physician and Customer Feedback

"It's really reassuring that the clinical trials and the patient feedback in day-to-day practice have been so overwhelmingly positive for Serenz."

-- Dr. Mariette Grant, General Practitioner

"I've tried every single nasal spray, tablet, and there's not really much of an effect from any of them. Serenz has definitely made a big difference in my life. I'd highly recommend it."

-- Jordana Wallis, Allergy sufferer

"It's been massively helpful compared to the other products I've used in the past."

-- Ifetkhar Hussain, Allergy sufferer

www.serenz.co.uk

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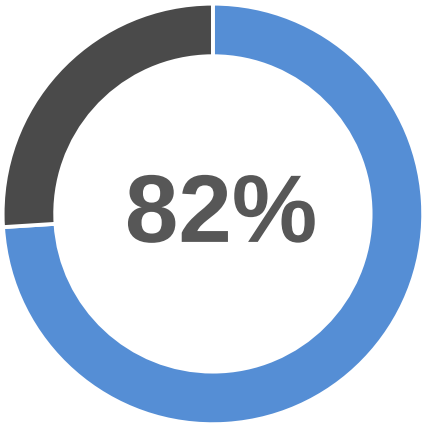
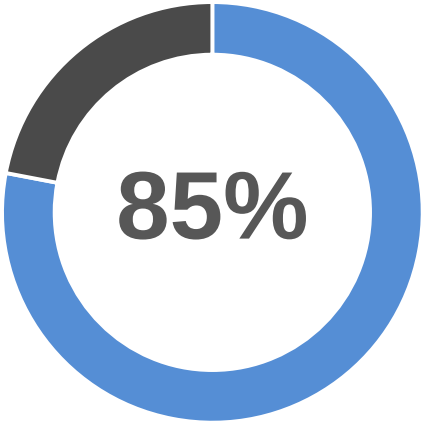
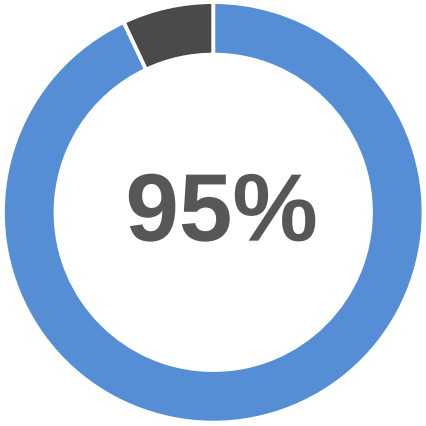
Early Commercial Traction[1,2]



Very likely or likely to purchase again



Very likely or likely to recommend to family/friend



Serenz® met or exceeded expectations

"Rapid relief" most important purchase consideration

Average reported use:
2.1x / day
6.3x / week

[1] Feedback tracked via online survey and follow-up phone calls
[2] Serenz market research surveys (May-August 2016)

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EU Market Opportunity

EU Market Potential[1,2]

$621M

	Allergic rhinitis prevalence (M)	# of patients on treatment (M)	Estimated market potential (M; $USD)[3,4]
UK	14.1	7.5	$133
Germany	15.1	9.0	160
Spain	9.0	3.7	89
France	13.3	6.2	110
Italy	9.3	5.0	120
Ireland[5]	1.0	0.5	9
Total	**60.8**	**31.4**	**$621**

[1]Charles River Associates (CRA) Market Research and Financial Model 2012
[2]Capnia has only initiated a pilot launch in the UK and Ireland. This is a competitive market and accomplishing any meaningful market share will be difficult.
[3]Assumes an average of 27% of patients on treatment across these territories are willing to pay Serenz price point
[4]Assumes an average seasonal revenue value across these territories of $72
[5]Distributor estimates

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Commercial Strategy

- Pursue additional pilot sales launches in select geographies
- Select leading local and regional distributors/retailers
- Engage new consumers with geography-focused, direct-to-consumer marketing efforts utilizing digital and traditional media
- Establish brand as first CO_2 allergy treatment
- Patent protection to 2020 or beyond

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CoSense®
ETCO Monitor

The *CoSense* ETCO Monitor is indicated for the monitoring of carbon monoxide from endogenous sources (including hemolysis) and exogenous sources (including CO poisoning and smoke inhalation) in exhaled breath. The end-tidal carbon monoxide level can be used for the monitoring of carbon monoxide in medical conditions in which the rate of hemolysis may be relevant. It is also for use in smoking cessation programs and can be used for the screening of CO poisoning and smoke inhalation.

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Clinical Management of Jaundiced Infants: A Significant Unmet Need

140 million births worldwide

9 million births in US + Europe

60-80%

develop JAUNDICE

Condition caused by elevated levels of bilirubin or hyperbilirubinemia

In some cases
Hyperbilirubinemia + JAUNDICE
are caused by a hemolytic condition
(red blood cells degrade rapidly)

Increased risk of neurological damage

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Hemolysis: A Key Risk Factor for Neurological Damage

- CO and Bilirubin are produced **1:1** during hemolysis
- CO is elevated in the newborn with a hemolytic condition
- CO is eliminated through lungs (ETCO)

CoSense® ETCO Monitor

- Measures ETCO
- May improve treatment decisions

*"ETCOc levels can confirm the presence or absence of hemolysis, and measurement of ETCOc is the **only clinical test** that provides a direct measurement of the rate of bilirubin production…"*[1]

The *CoSense* End Tidal Carbon Monoxide Monitor is not a diagnostic or treatment device for any specific disease or condition. Rather, it is a detection tool to be used for the monitoring of carbon monoxide from endogenous sources (including hemolysis) and exogenous sources (including CO poisoning and smoke inhalation) in exhaled breath.

[1] Management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation. Pediatrics 2004;114:297-316.

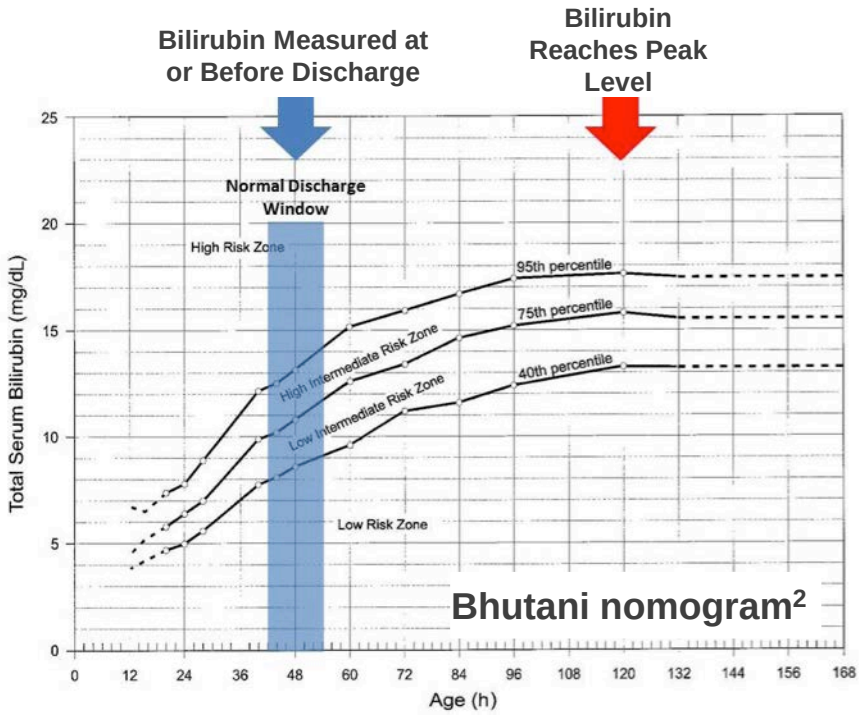
Current Standard of Care:
Adverse Outcomes and Higher Costs

CHALLENGES

- Bilirubin typically peaks after discharge
- Current diagnosis of hemolysis is invasive and inadequate

CONSEQUENCES

- **Hemolysis is under-diagnosed**
- **Treatment is delayed**
- **Adverse neurological outcomes**
- **Jaundice is #1 cause of infant readmits to hospital[1]**



AAP guidelines recommend ETCO for identification of hemolysis but no tool exists

[1] Agency for Healthcare Research and Quality (AHRQ) Healthcare Cost and Utilization Project Fact Book 4: Care of Children and Adolescents in U.S. Hospitals. http://archive.ahrq.gov/data/hcup/factbk4/factbk4.htm . April 27, 2014.
[2] Bhutani VK, Johnson L, Sivieri EM. Predictive ability of a predischarge hour-specific serum bilirubin for subsequent significant hyperbilirubinemia in healthy term and near-term newborns. Pediatrics.1999;103: 6– 14

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Capnia Solution: *CoSense*® ETCO Monitor

- Portable, non-invasive device that measures ETCO, which detects the rate of hemolysis
- Provides physician information to
  - Assess risk of serious disability and supports early action if needed
  - Identify lower risk newborns needing less intervention, less hospital time
- FDA 510(k) clearance, CE certification
  - Reusable device + Precision Sampling Set (single use)
- Quick bedside results, no lab delays

Easy to use

Point-of-care testing

Rapid results

No calibration

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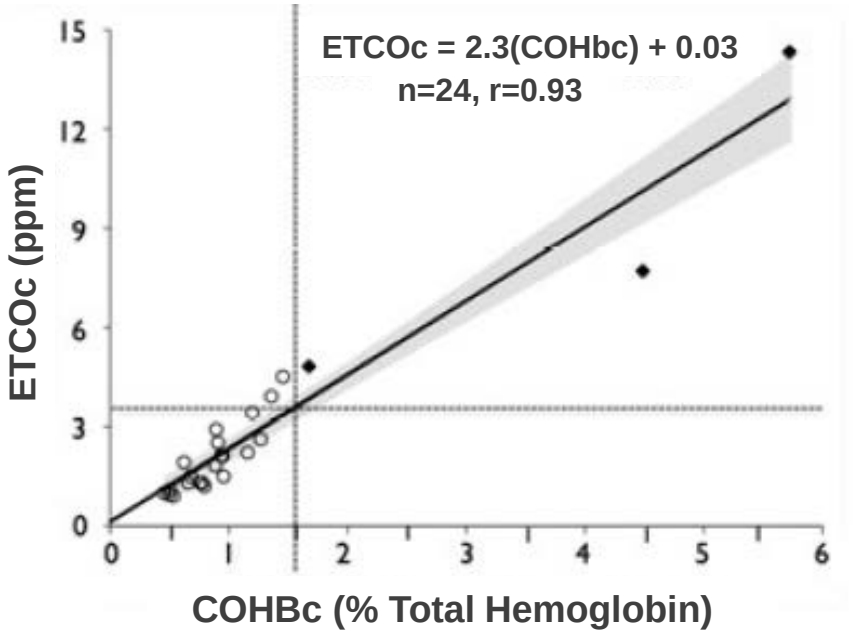
CoSense® Effectively Detects Hemolysis in Infants

- *CoSense*® ETCO values from 73 newborns (102 separate measurements) at Stanford University
- Carboxyhemoglobin (COHb) levels in blood are used for experimental measurements of hemolysis
- Linear correlation between *CoSense*® ETCO and COHb indicates accurate detection of hemolysis by *CoSense*®
- r = 0.93



Source: Cuadrado, ME et al. Acta Paediatr. 2015 Jun;104(6):e279-82.

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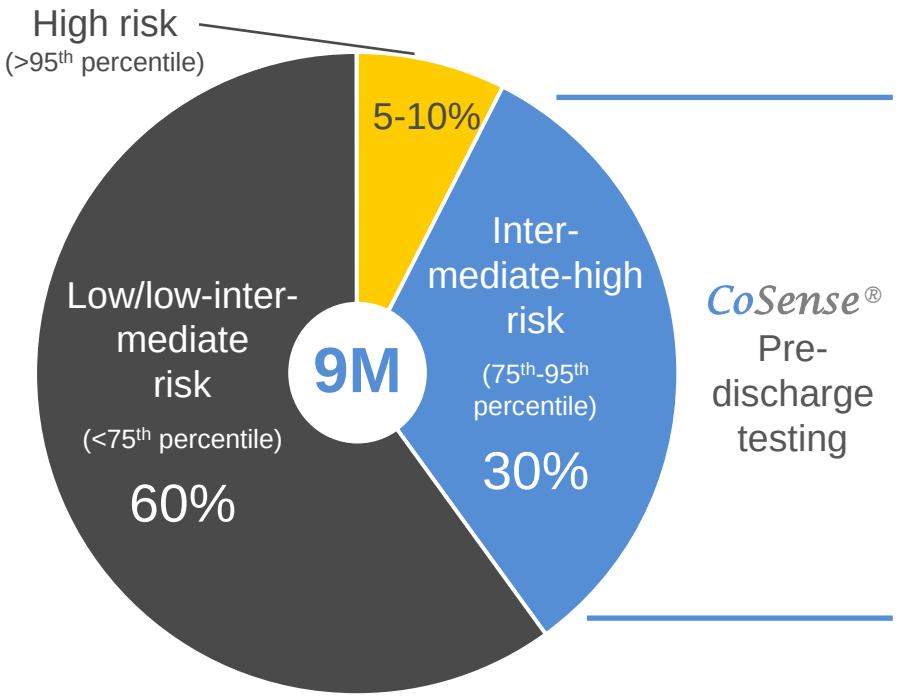
Neonatal Predischarge Management: A New Approach



9M births annually in the US and EU

CoSense® Pre-discharge testing

ETCOc	Approach	# of babies
≥ 1.5 ppm TB-ROR < 0.2	Observe	2.7 million
1.6 – 2.5 ppm TB-ROR > 0.2	Consider for phototherapy	
> 2.5 ppm TB-ROR > 0.2	Urgent phototherapy	

Earlier identification results in:

- Earlier discharge for low risk neonates[1]
- More targeted use of phototherapy[1]
- More aggressive treatment for high risk neonates[1]
- Reduced hospital re-admissions[2]

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[1] *Bhutani V, et al. Acta Paediatr. 2016 May; 105(5):e 189-194.*
[2] *Christensen R, et al. Neonatology. 2016; 109(1):1-5.*

Changing the Neonatal Care Landscape

California

Neonatal care pioneer has made *CoSense*® a routine part of newborn care with more than 25% of births being tested with CoSense

California

Moving *CoSense*® from NICU to the well-baby unit to eliminate use of the Direct Coombs Test

Colorado

During a two-week evaluation period, 2 of 18 (11%) *CoSense*®-tested newborns being discharged were found to be high-risk

Florida

Has implemented a Six Sigma quality initiative designed to reduce newborn length of stay

CoSense® is being used as an important tool to identify which newborns can be discharged with confidence

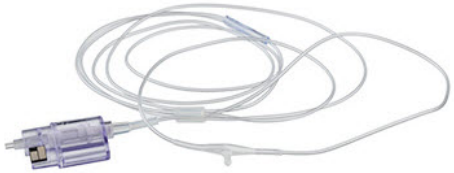
Economics for an Example Hospital

1,000 births per year

One-time initial *CoSense*® purchase

$5-20K[1]

Recurring purchase of Precision Sampling Sets (PSS)



1,000 births per year
x 30% at intermediate-high risk
300 babies
x 1.5 tests per baby
450 PSS per year
x $135 retail price
$60,750 per year

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[1] *Average price per unit x average of two units per hospital*

Commercial Strategy: US

- Nationwide distribution agreement.
  - 50 states; 44 neonatology-focused sales reps
  - Extensive network of sub-distributors

Influential early adopters

Intermountain Healthcare

Lucile Packard Children's Hospital Stanford

UHealth

University of Utah Health Care

Einstein Healthcare Network

Target Market: ~400 Hospitals

Tier 1	• >5k births per year • 91 hospitals • Northside, Sharp Memorial, University of New Mexico
Tier 2	• >3k births per year • 193 hospitals • Intermountain Healthcare, University of Cincinnati, Lucile Packard Children's Hospital, Vanderbilt
Tier 3	• <3k births per year • 113 hospitals • Dartmouth Medical Center, Swedish Covenant, UCSD

Commercial Strategy: ROW

- Active distribution partnerships
  - China
  - India
  - Turkey
  - Italy
  - Canada
  - Saudi Arabia
  - Qatar
- Regulatory submissions in process where needed
- Ongoing discussions in several geographies
- New agreements expected in 2H 2016

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NeoForce™

A subsidiary of Capnia, Inc.

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NeoForce Infant Solutions

Highlights

- Revenue-generating product line
- Significant potential for growth with Capnia resources
- Leveraging existing hospital relationships/contracts; NICU services
- Multiple new product development opportunities
- Similar call point as CoSense

NeoPIP™ Infant T-Piece Resuscitator

Consumables (e.g., resuscitator circuits, masks)

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Other Therapeutic and Diagnostic Development Programs

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Nasal, Non-Inhaled CO_2

Our nasal, non-inhaled CO_2 technology is currently undergoing clinical investigations in the U.S.

Trigeminal Neuralgia

A clinical condition characterized by debilitating pain in regions of the face innervated by one or more divisions of the trigeminal nerve.

- Designated an Orphan Drug by the FDA
- Phase 2 clinical data (n≈50) expected by year end 2016

Cluster Headaches

Characterized by recurring bouts of excruciating pain in one side of the head.

- No effective treatment currently available
- Phase 2 clinical data (n≈25) expected by year end 2016

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Sickle Cell Initiative

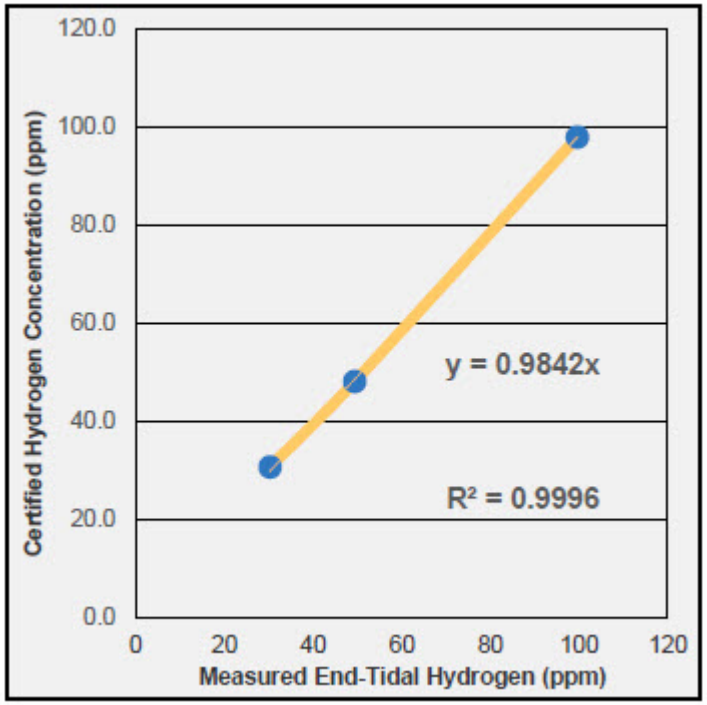
- Exploring potential of using *CoSense*® Monitor to screen for SCD
- Phase I SBIR grant received from NIH
  - Developing modified device that accurately and consistently measures ETCO in more extreme temperature conditions in developing countries (e.g., sub-Saharan Africa)
  - Where 90% of the SCD births occur
- Significant potential for use as:
  - Non-invasive screening device
  - Aid in development of new therapeutics
  - Assist in dose determination
- Ongoing conversations with governmental and other agencies

Neonatal/Pediatric Hydrogen Monitor

- Hydrogen breath tests routinely used to diagnose GI disorders, but limited to older patients
  - Lactose/fructose/sucrose intolerance
  - Irritable bowel syndrome
  - Small intestinal bacterial overgrowth
- Current tests use controlled forced exhalation through a mask or mouthpiece-not feasible for neonates

Sensalyze Hydrogen breath test feasibility data presented at PAS 2016

ETH_2 Linearity (Accuracy vs Hydrogen Level)



GR Gourley, et al. Poster Presentation 1511.499. PAS 2016

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Capnia Leadership Team

MANAGEMENT

Anish Bhatnagar, M.D., *President & CEO*

- Senior Capnia executive since 2006
- Product approval experience at Coulter (Bexxar), Capnia (Serenz, *CoSense*), management at Titan

David O'Toole, *SVP & Chief Financial Officer*

- Former CFO for Codexis (CDXS), Response Genetics (RGDX), Abraxis (ABBI)
- Partner at Deloitte focused on biotech and life science industry

Otho Boone, *VP & General Manager of Neonatology*

- 25 years of neonatology medical device sales, operations and product development experience
- Founded NeoForce, which was acquired by Capnia in September 2015

Anthony Wondka, *SVP of R&D*

- Former VP R&D, VP Technology and Clinical Affairs for Breathe Technologies
- Several approvals of devices in the respiratory space in the US and globally

Kristen Yen, *VP of Clinical and Regulatory Affairs*

- Head of Clinical Operations at Capnia since 2006
- Program management of multiple U.S. and global clinical studies

Ann Rich, *VP of Marketing*

- Former Senior Marketing Director aa Arthrocare, Apnicure and Johnson & Johnson
- Managed marketing and global development of numerous products

Key Financial Information

- Revenue being generated from three product lines
  - CoSense® ETCO Monitor w/consumable Precision Sampling Sets
  - Serenz® Allergy Relief
  - Infant Solutions (neonatal resuscitation products)
- Common stock outstanding[1]: 15.4 million
- Fully-diluted share count[1]: 29.4 million
- Market cap[1]: $ 16 million
- Cash balance[1]: $2.5 million
- No Debt

[1] As of June 30, 2016

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2016 Priorities

- Execute on commercial strategy for CoSense
- Prepare for Serenz full commercial launch in Europe
- Support recently announced distribution partnerships
- Report top-line results from Phase 2 trials in cluster headache and trigeminal neuralgia by year end

Key Achievements since IPO

Commercial Products

- ✓ Launched CoSense® globally
- ✓ Acquired NeoForce assets
- ✓ Secured distribution partnerships in key territories
- ✓ Serenz CE Mark re-activated
- ✓ Commenced Serenz® pilot launch in Europe

Product Pipeline

- ✓ Awarded NIH grant do develop device to detect sickle cell disease
- ✓ Initiated Phase 2 clinical trials in cluster headache and trigeminal neuralgia
- ✓ Received orphan designation for nasal CO_2 in TN

Corporate/Financial

- ✓ Remaining Series B warrants expired
- ✓ Secured $26M in funding through private placements and at-the-market stock purchase agreements

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