



Corporate Presentation

Nasdaq: PLXP

Confidential

Forward-Looking Statements

This presentation includes or incorporates by reference statements that constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements relate to future events or to our future financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. These statements include, but are not limited to information or assumptions about expenses, capital and other expenditures, financing plans, capital structure, cash flow, liquidity, management's plans, goals and objectives for future operations and growth. In some cases, you can identify forward-looking statements by the use of words such as "may," "could," "expect," "intend," "plan," "seek," "anticipate," "believe," "estimate," "predict," "potential," "continue," or the negative of these terms or other comparable terminology. You should not place undue reliance on forward-looking statements since they involve known and unknown risks, uncertainties and other factors which are, in some cases beyond our control and which could cause actual performance or results to differ materially from those expressed in or suggested by forward-looking statements.

Important factors that could cause such differences include, but are not limited to (i) our ability to bring both Vazalore™ 81 mg and Vazalore 325 mg to market-readiness; (ii) our ability to maintain regulatory approval of Vazalore 325 mg or obtain and maintain regulatory approval of Vazalore 81 mg and any future product candidates; (iii) the benefits of the use of Vazalore 325 mg and Vazalore 81 mg; (iv) our ability to successfully commercialize our Vazalore products, or any future product candidates; (v) the rate and degree of market acceptance of our Vazalore products or any future product candidates; (vi) our ability to scale up manufacturing of our Vazalore products to commercial scale; (vii) our ability to successfully build a specialty sales force and commercial infrastructure or collaborate with a firm that has these capabilities; (viii) our ability to compete with companies currently producing GI-safer technologies for NSAIDs and other analgesics; (ix) our reliance on third parties to conduct our clinical studies; (x) our reliance on third-party contract manufacturers to manufacture and supply our product candidates for us; (xi) our ability to retain and recruit key personnel, including development of a sales and marketing function; and (xii) our ability to obtain and maintain intellectual property protection for our Vazalore products or any future product candidates.

Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove incorrect, actual results may vary in material respects from those projected in these forward-looking statements. We do not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws.

Our Mission

PLx Pharma is focused on improving the performance of established therapeutic agents with the proprietary **PLxGuard™ targeted drug delivery platform.**

*We are driven to transform the standard of care
for hundreds of millions of patients.*

Proprietary, Targeted Drug Delivery Platform

Lead Product:
Vazalore™

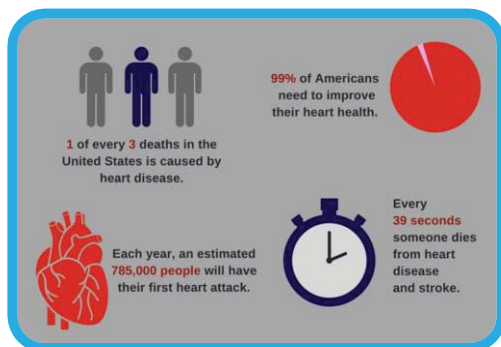
- **Better efficacy and improved GI safety** for superior benefit-risk profile
- **Novel mechanism of action** enables strong patent life for multiple APIs



- ▶ **Clinically shown to overcome the limitations** of enteric-coated aspirin with faster and more reliable antiplatelet efficacy and improved GI safety
- ▶ **Late-stage OTC product opportunity:** Next-generation aspirin with a 325mg dose (FDA approved) and an 81mg dose both expected to launch by mid-2020
- ▶ **Addresses a critical unmet need** for over 40 million high-risk cardiovascular patients creating the potential for a \$10 billion market opportunity
- ▶ **World-renowned scientific advisory board** (Co-Chairs: Drs. Deepak Bhatt & Gabriel Steg) advocating for Vazalore as the new standard of care
- ▶ **Significant physician interest:** Over 80% of specialists indicate their high intent to prescribe Vazalore for their high-risk patients

¹Weinman Schnee Morais Inc.

Current Aspirin Therapy Landscape



92 million Americans live with cardiovascular disease¹

- Most have atherosclerotic cardiovascular disease (ASCVD)
- >40 million require daily aspirin therapy



Enteric-coated (EC) aspirin is the current standard of care

- Launched many decades ago, has >90% market share
- 325 mg in acute phase and 81 mg for chronic therapy



Clinicians & patients are unaware that EC aspirin:

- Has variable and unreliable antiplatelet efficacy
- Does not have improved GI safety

¹AHA Heart Disease and Stroke Statistics 2018

Targeting an *Unmet Medical Need*

VAZALORE™

325mg

FIRST LIQUID-
FILLED ASPIRIN
CAPSULES



Coming Soon

81mg

LOW DOSE

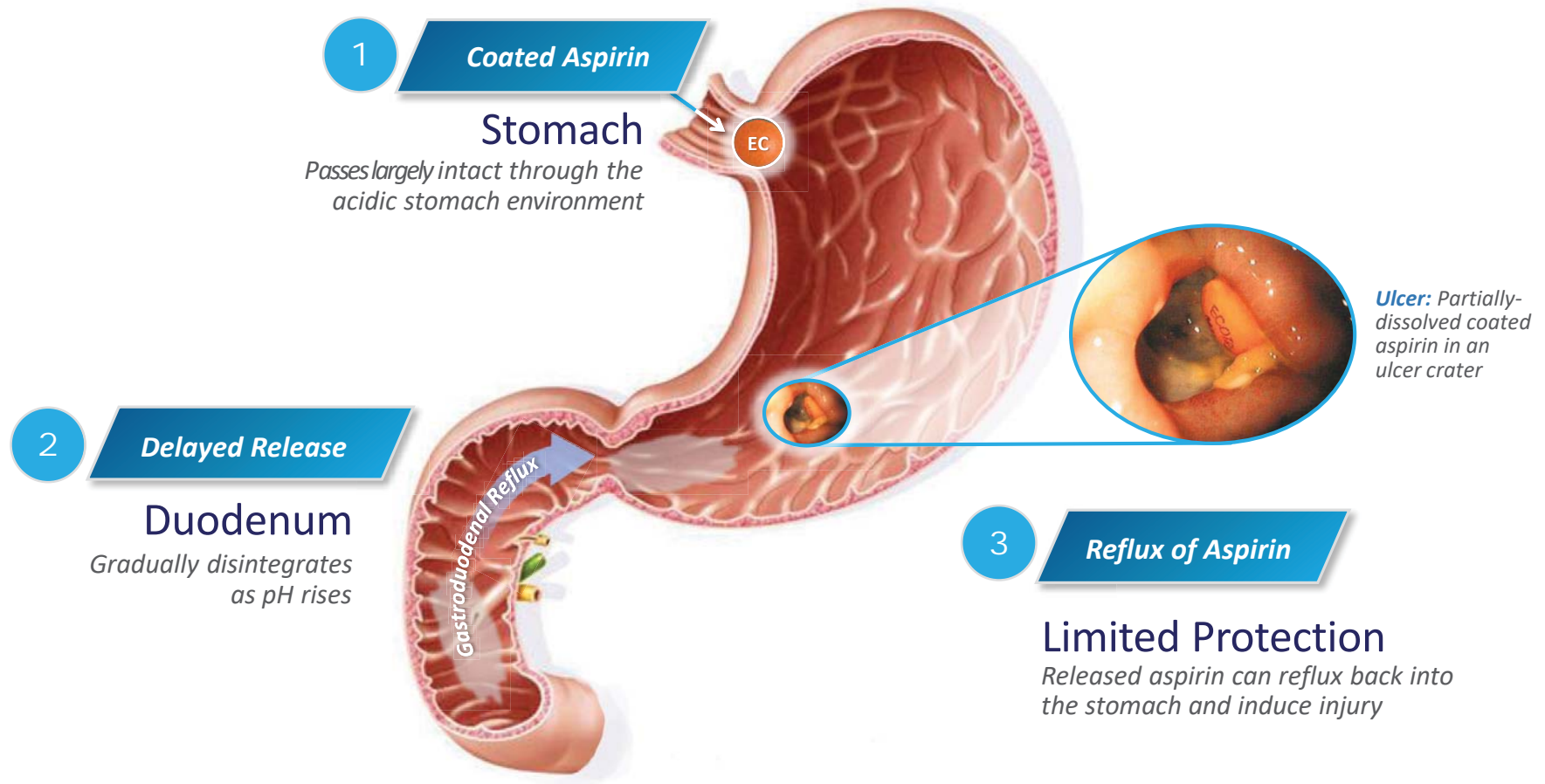
FIRST LIQUID-
FILLED ASPIRIN
CAPSULES



Advancing the Standard of Care



Delayed Release Coated Aspirin: Mechanism of Action & Clinical Implications



Targeted Release Liquid Aspirin: Mechanism of Action & Clinical Implications

1 Stomach

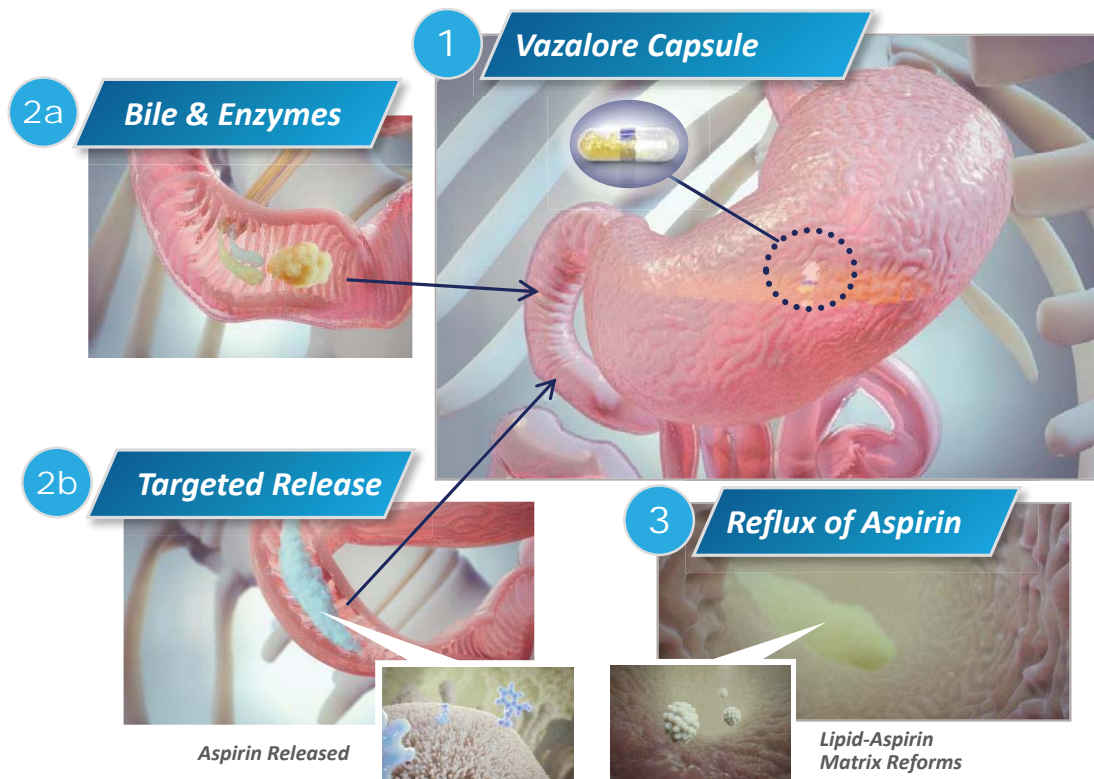
Capsule dissolves releasing the lipid-aspirin matrix

2 Duodenum

- a) Bile and digestive enzymes emulsify the lipid part of the matrix
- b) Aspirin is now free for targeted absorption

3 Complete Protection

Reassembly of the lipid matrix protects from direct aspirin contact with stomach



Comparative Efficacy of Aspirin Formulations

BACKGROUND:

The root cause of aspirin resistance remains unknown

OBJECTIVES:

Determine whether formulation dependent bioavailability mediates non-responsiveness

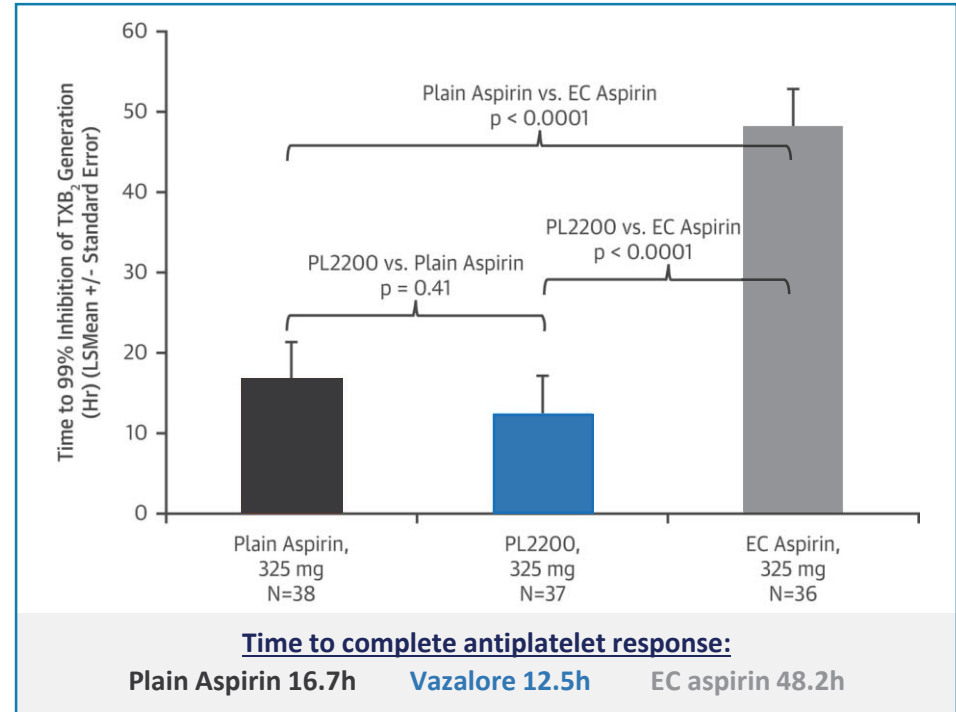
METHODS:

Randomized, blinded, triple crossover study
40 diabetic patients receiving 3 daily doses of:

- Plain aspirin 325mg
- Vazalore 325mg
- EC Aspirin 325mg

PRIMARY ENDPOINT:

Time to >99% Thromboxane B₂ inhibition



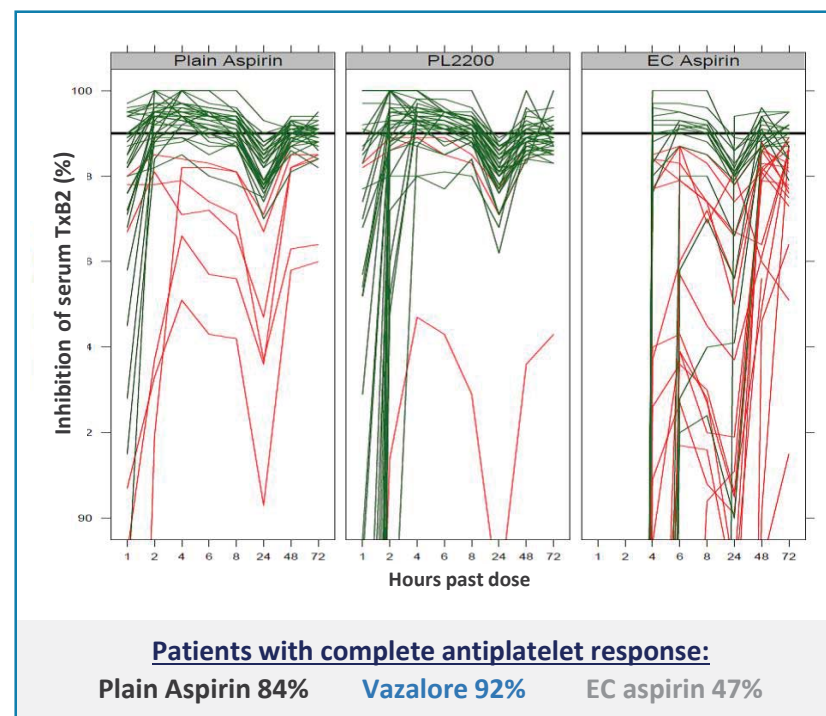
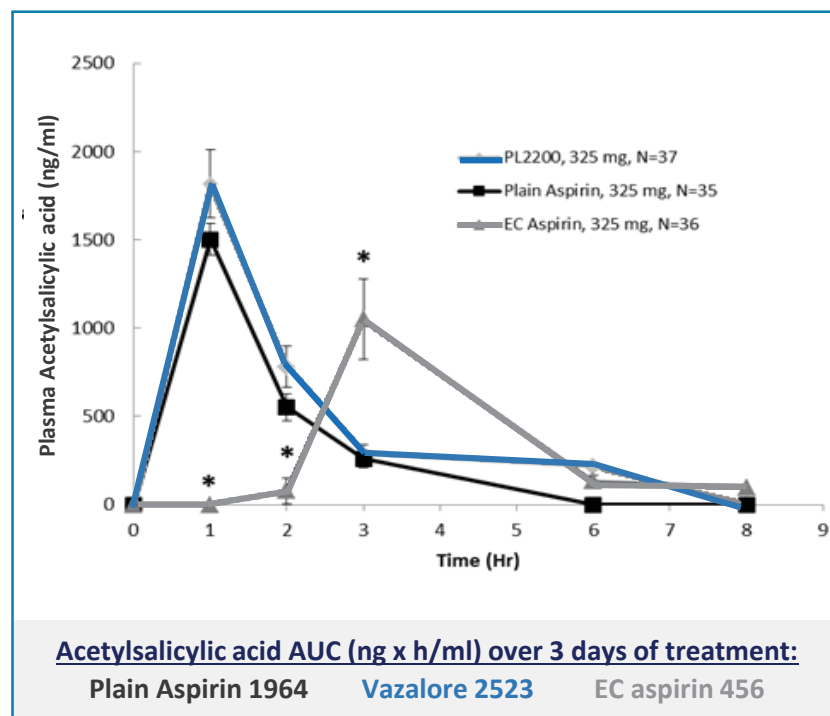
PL2200 = Vazalore™

**Vazalore achieves therapeutic efficacy
4 times faster than EC Aspirin**

Bhatt DL, et al. Enteric Coating and Aspirin Non-Responsiveness in Patients With Type 2 Diabetes Mellitus. *J Am Coll Cardiol* 2017 Feb 14;69(6):603-612

PK/PD Comparison of ASA, ECASA & Vazalore:

Implications for Aspirin Efficacy



PL2200 = Vazalore™

Bhatt DL, et al. Enteric Coating and Aspirin Non-Responsiveness in Patients With Type 2 Diabetes Mellitus. *J Am Coll Cardiol* 2017 Feb 14;69(6):603-612

Endoscopic Assessment of Aspirin Formulations: Implications for Gastric Ulcer Risk

BACKGROUND:

Aspirin is associated with significant gastric toxicity

OBJECTIVES:

Determine whether a novel, lipid-based aspirin formulation can reduce gastric erosions and ulcers

METHODS:

Randomized, blinded, multi-center study in 204 healthy volunteers:

- 7 days of either Aspirin or Vazalore 325mg
- Endoscopy performed at baseline and day 7
- Centralized, blinded endoscopic adjudication

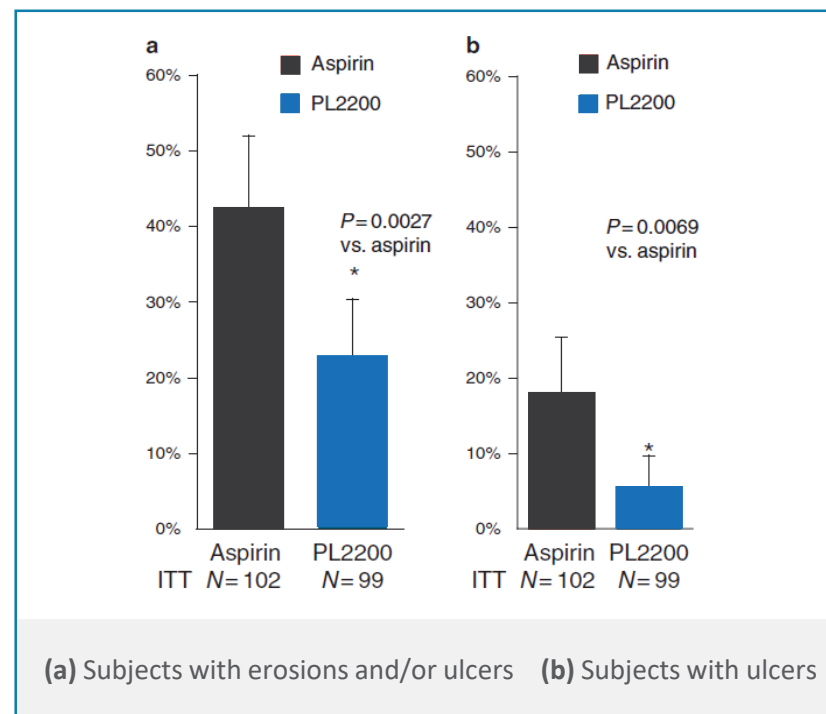
PRIMARY ENDPOINT:

Incidence of gastroduodenal erosions or ulcers at 7 days

Vazalore vs. Aspirin:

47% RRR in erosions and/or ulcers (NNT 5)

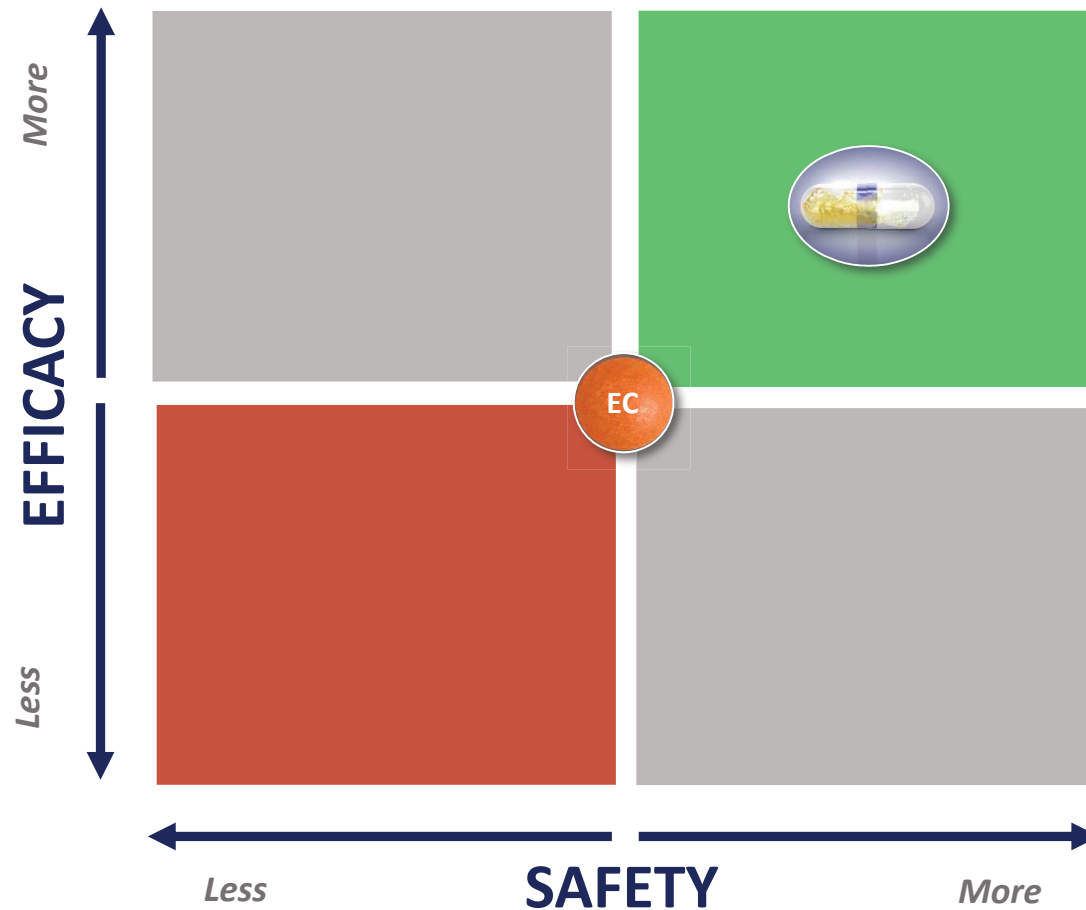
71% RRR in ulcer formation (NNT 8)



PL2200 = Vazalore™

Cryer B, et al. Low-Dose Aspirin-Induced Ulceration is Attenuated by Aspirin-Phosphatidylcholine: A Randomized Clinical Trial. *Am J Gastroenterol* 2011; 106(2):272-7

Vazalore™: The New Aspirin Standard of Care



Vazalore: Unleashing Aspirin's Full Potential

VAZALORE™

325mg

FIRST LIQUID-FILLED ASPIRIN CAPSULES



Coming Soon

81mg

LOW DOSE

FIRST LIQUID-FILLED ASPIRIN CAPSULES

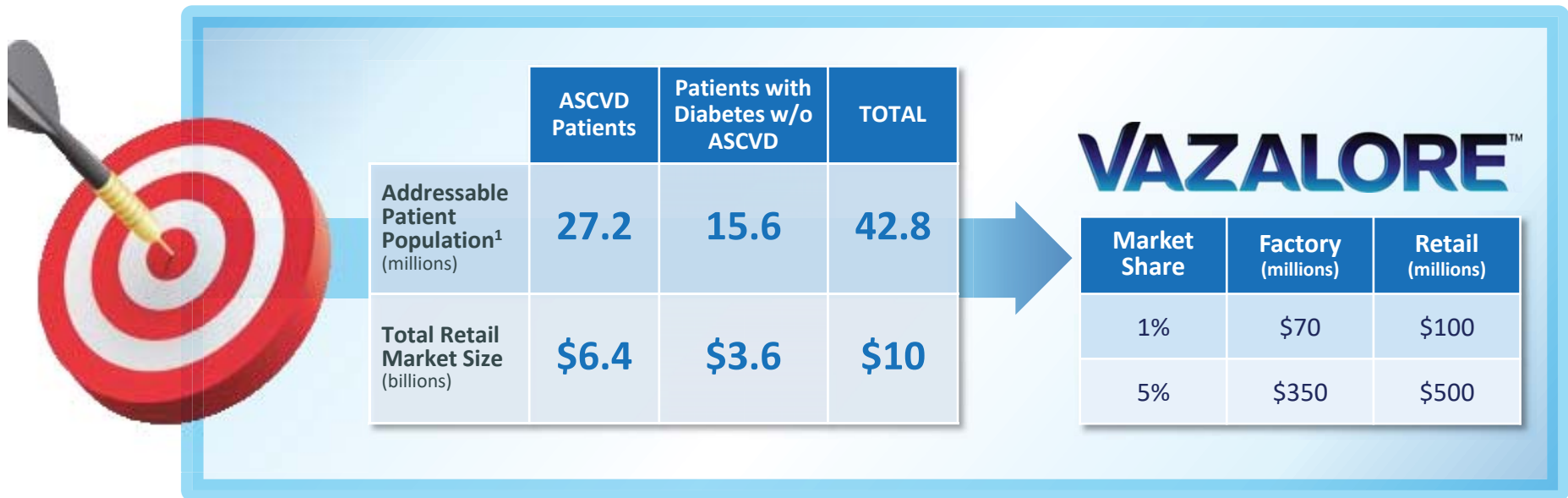


Patients with a Complete Aspirin Response:
Vazalore **92%** vs. EC aspirin **47%**

Vazalore vs. Aspirin:
71% Fewer Ulcers

Vazalore delivers **fast, predictable**
and **safe** absorption

Vazalore US Market Opportunity



ASCVD – Atherosclerotic Cardiovascular Disease: History of Coronary, Cerebrovascular, or Peripheral Artery Disease

¹AHA Heart Disease and Stroke Statistics 2018

Specialists & GPs Indicate High Intent to Prescribe Vazalore

Quantitative and Qualitative research positioned Vazalore in the **top 5% of all HCP recommended or prescribed products our research firm¹** tested in the past 20+ years (over 200 tests)



>1,000 ASPIRIN THERAPY PRESCRIBERS

	Cardiologists	Neurologists	Endocrinologists Diabetologists	GPs
Number of Physicians:	201	100	100	104
WOULD PRESCRIBE:	81%	86%	80%	77%



Consumers (2,000 surveyed) were more likely to purchase specific OTC products **when prescribed by a physician**

¹Weinman Schnee Morais Inc.

Vazalore Commercial Strategy



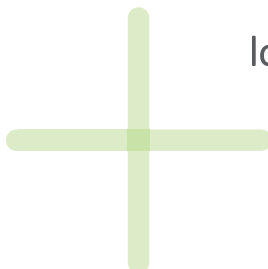
Key Messages to HCPs



Technologically
advanced aspirin



Better safety with
lower risk for ulcers



Faster, predictable and
reliable antiplatelet efficacy



Vazalore will transform
the standard of care



Path Forward



VAZALORE™

Future Pipeline

VAZALORE™

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Pipeline Leverages PLxGuard Platform Technology





PLxGuard applicable to a <i>variety of APIs</i>			Pre-Clinical	Phase 1	Phase 2	Phase 3
Product Candidate	Type	Size				
Vazalore Brand Extensions Chronic Pain & Other Vascular Indications*	OTC	42.8MM High-Risk CVD Patients	325 mg Approved			
PL1200 Ibuprofen, 200 mg* Pain, Inflammation and Fever	OTC	25.3MM Suffer Daily Chronic Pain				
Other NSAIDs e.g. Indomethacin**, Diclofenac**	OTC & Rx	25.3MM Suffer Daily Chronic Pain				
National Cancer Institute Grant PLx Formula in test with Colorectal Cancer Patients	OTC & Rx	1.3MM Sufferers of Colorectal Cancer				

In **clinical** (*) and **pre-clinical** (**) proof-of-concept studies, these product candidates demonstrated improved GI safety vs. the in-market drug

PLx Management Team

Name	Experience	
Michael (Mike) J. Valentino <i>Executive Chairman of the Board</i>	35+ years CEO and senior management with successful OTC and Rx brands [OTC brand, Mucinex® (\$2.3 billion exit in 4.5 years)]	    
Natasha Giordano <i>President and CEO</i>	20+ years CEO and senior management commercialization experience	      
Rita M. O'Connor, CPA <i>Chief Financial Officer</i>	25+ years pharma and finance leadership at private & public companies	  
Efthymios N. Deliargyris, MD FACC, FESC, FSCAI <i>Chief Medical Officer</i>	Internationally-recognized expert in cardiovascular disease and thrombosis	    
Steven Valentino <i>VP, Trade Sales</i>	25+ years in OTC and consumer healthcare including Rx-to-OTC switches, brand management, trade sales	   
Mike Dillon <i>VP, Sales & Marketing</i>	Strong track record building high-performing specialty sales teams, launching/promoting blockbuster products	 

Independent Board of Directors & Advisors

Board of Directors		Scientific Advisory Board				
Director	Experience					
Gary S. Balkema	<ul style="list-style-type: none">Former global head of Bayer Healthcare LLC and Worldwide Consumer Care DivisionPrior VP and General Manager for American Cyanamid Co.'s Lederle Consumer Health Division	 <p>Efthymios N. Deliargyris, MD, FACC, FESC, FSCAI Chief Medical Officer PLX Pharma Inc. Sparta, NJ, USA</p>	 <p>Deepak L. Bhatt, MD, MPH, FACC, FAHA, FSCAI, FESC Executive Director of Interventional CV Programs Brigham and Women's Hospital Heart & Vascular Center Professor of Medicine, Harvard Medical School Boston, MA, USA</p>	 <p>P. Gabriel Steg, MD, FESC, FACC Director of the Coronary Care Unit, Hôpital Bichat-Claude Professor of Cardiology, Univ. Paris VII - Denis Diderot Professor at the National Heart and Lung Institute, Imperial College, London, UK Paris, FRANCE</p>	 <p>Roxana Mehran, MD, FACC, FACP, FCCP, FESC, FAHA, FSCAI Professor of Medicine and Director of Interventional Cardiovascular Research and Clinical Trials at the Zena and Michael A. Wiener Cardiovascular Institute at Mount Sinai School of Medicine</p>	 <p>Dominick J. Angiolillo, MD, PhD, FACC, FESC, FSCAI Program Director, Interventional Cardiology Fellowship Professor of Medicine, Director, Cardiovascular Research University of Florida College of Medicine-Jacksonville Jacksonville, FL, USA</p>
Kirk Calhoun	<ul style="list-style-type: none">Former audit committee chair, Adams RespiratoryFormer Partner, Ernst & Young LLP					
Robert (Bob) Casale	<ul style="list-style-type: none">Former Adams Respiratory COO (Mucinex® launch, Adams' IPO and \$2.3 billion sale)Former senior manager at Pfizer, Warner Lambert and CEO of Scerene Healthcare	 <p>Byron Cryer, MD Associate Dean for Faculty Diversity and Development Professor of Medicine, UT Southwestern Medical School Dallas, TX, USA</p>	 <p>Todd K. Rosengart, MD Professor and Chairman, DeBakey-Bard Chair of Surgery Michael E. DeBakey Department of Surgery Baylor College of Medicine Houston, TX, USA</p>	 <p>Jayne Prats, PhD Elysis Medical Scientific Solutions Boston, MA, USA</p>	 <p>Carey Kimmelstiel, MD, FACC, FACP, FSCAI Director, Catheterization Laboratory and Interventional Cardiology, Tufts Medical Center Professor of Medicine, Tufts University School of Medicine Boston, MA, USA</p>	
John W. Hadden II	<ul style="list-style-type: none">Former CEO of IRX Therapeutics (private)Former healthcare investment banker at JP Morgan & Co.					

Proprietary, Targeted Drug Delivery Platform

Lead Product:
Vazalore™

- **Better efficacy and improved GI safety** for superior benefit-risk profile
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Thank You!