



SCIENCE ELEVATED BY INGENUITY

WHERE PASSION MEETS PURPOSE

Corporate Presentation

Nasdaq: PLXP

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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 maintain regulatory approval of VAZALORE 325 mg or VAZALORE 81 mg and obtain regulatory approval for any future product candidates; (ii) the benefits of the use of VAZALORE; (iii) our ability to successfully further commercialize our VAZALORE products, or any future product candidates; (iv) the rate and degree of market acceptance of our VAZALORE products or any future product candidates; (v) our ability to successfully build and maintain a sales force and commercial infrastructure or collaborate with a firm that has these capabilities; (vi) our ability to compete with companies currently producing NSAIDs and other products; (vii) our reliance on third parties to conduct our clinical studies; (ix) 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.

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PLx Pharma Management Team



Natasha Giordano, RN

President & CEO



Rita O'Connor, CPA

CFO, Head of Manufacturing & Supply Chain



Steve Valentino

Vice President Trade Sales



Joanne Cotignola

Vice President Marketing



Janet Barth

Vice President IR & Corporate Communications



Mayme Lou Roettig, RN, MSN

Executive Medical Director



Nicole Godino

National Sales Director, Professional



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OUR MISSION

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

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

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PLx Pharma Investment Highlights

Unique Drug Delivery Platform

PLxGuard for multiple APIs may have the potential to:

- Enhance delivery with optimized absorption, reducing risk of local stomach injury; extended patent life through 2032
- Utilize the often faster and lower cost 505(b)(2) NDA regulatory path

Commercial-Stage Lead Product VAZALORE®

VAZALORE, the first and only FDA-approved liquid-filled aspirin capsule:

- Delivers fast, reliable absorption for pain relief plus the life-saving benefits of aspirin
- Special complex inside the capsule allows for targeted release of aspirin, limiting its direct contact with the stomach

Large Addressable Market Opportunity

\$10 billion retail market opportunity for VAZALORE:

- Over 40 million patients at risk for vascular disease
- Available in over 30,000 drug, grocery, mass retail and e-commerce sites in U.S.

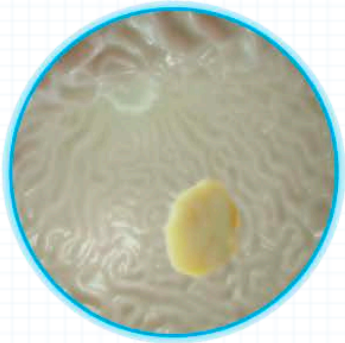
Financial Position & Key Catalysts

Positioned for growth:

- \$69M in cash, sufficient to support VAZALORE into 2023; \$8.2 million of VAZALORE sales for the last 5 months of 2021
- Identify screened compounds where PLxGuard is commercially viable - 2022

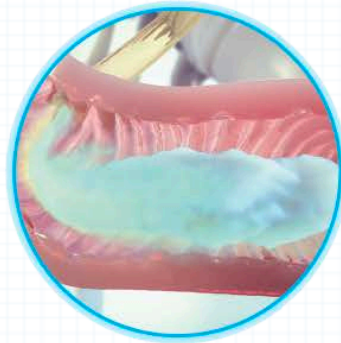
PLxGuard™ – Innovative Drug Delivery Platform

The innovative PLxGuard drug delivery platform utilizes a pH-dependent release mechanism that relies on chemical association of lipidic excipients with APIs to selectively release them to targeted portions of the GI tract.



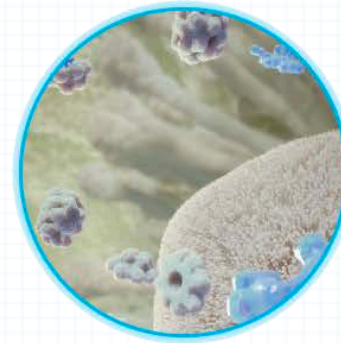
LIMITS DIRECT CONTACT

This complex remains stable in the low pH of the stomach, limiting direct contact of the API with the gastric mucosa.



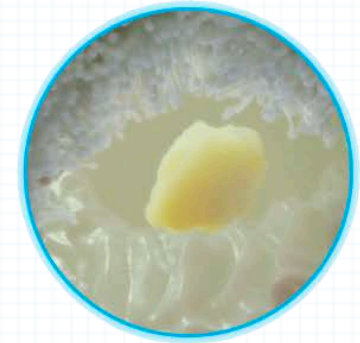
TARGETED DELIVERY

Once the complex arrives in the duodenum, it dissociates in the higher-pH environment and the API is free to be absorbed.



FAST, PREDICTABLE ABSORPTION

This drug delivery system is intended to predictably release the API in the duodenum to optimize absorption.



REASSEMBLES DURING REFLUX

Even if reflux occurs and the API and lipidic excipients return to the stomach, they reassemble into the complex, limiting direct stomach contact, helping to reduce local GI injury.

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Lead Product Is FDA-approved VAZALORE®



First and only FDA-approved liquid-filled aspirin capsule for over 40 million patients at risk for another vascular event and for temporary pain relief and fever reduction with strong patent life

Fast and reliable platelet inhibition addressing the limitations of the current standard of care enteric-coated (EC) aspirin*

Fewer gastric erosions and ulcers than immediate release (IR) aspirin as seen in a 7-day study of 325 mg

Large OTC opportunity with a \$10 billion retail market

World-renowned Scientific Advisory Board chaired by Drs. Deepak Bhatt & Dominick Angiolillo

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VAZALORE® Unique Aspirin Delivery System



Bioequivalence to immediate release aspirin with fast, predictable antiplatelet activity¹

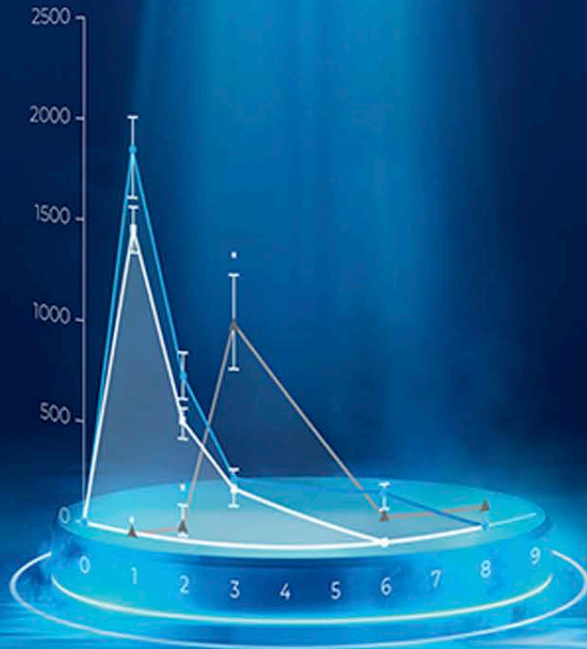


A unique, lipid-based delivery system designed to **help protect the stomach**



Targeted release in the duodenum to optimize absorption

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VAZALORE® CLINICAL TRIALS

325 mg Clinical Study—PK/PD Comparison: Plain Aspirin, VAZALORE[®], Enteric Coated Aspirin¹

In a single-center PK/PD study of antiplatelet activity over 3 days, in obese patients with type 2 diabetes¹

Objectives:

- Determine whether formulation dependent bioavailability mediates aspirin non-responsiveness

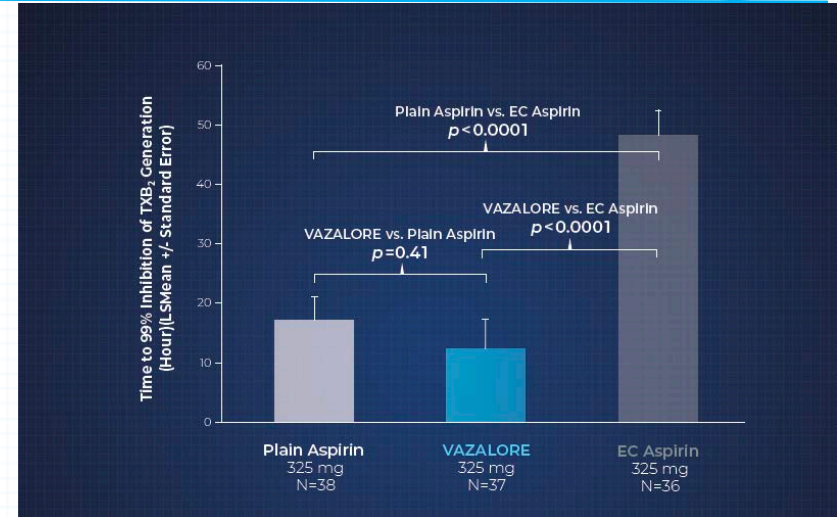
Methods:

- Randomized, blinded, triple crossover study of 40 obese patients with type 2 diabetes receiving three daily doses of:
 - Plain aspirin 325 mg
 - VAZALORE 325 mg
 - EC aspirin 325 mg

Primary Endpoint:

- Time to >99% Thromboxane B₂ (TXB₂) inhibition

This study design cannot provide data on cardiovascular outcomes.



Time to complete antiplatelet effect:

Plain Aspirin 16.7h **VAZALORE 12.5h** EC aspirin 48.2h

Plain Aspirin= Immediate Release Aspirin Tablets

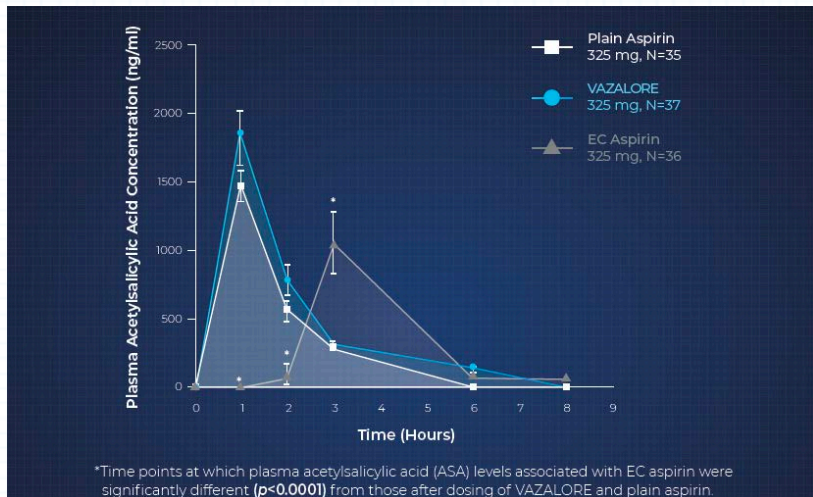
Figure adapted with permission from Elsevier

VAZALORE 325 mg achieved 99% TXB₂ inhibition significantly faster (12.5 hours) than EC aspirin 325 mg (48.2 hours) (p<0.0001)¹

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325 mg Clinical Study—PK/PD Comparison: Plain Aspirin, VAZALORE[®], Enteric Coated Aspirin¹ (cont.)

In a single-center PK/PD study of antiplatelet activity over 3 days, in obese patients with type 2 diabetes¹



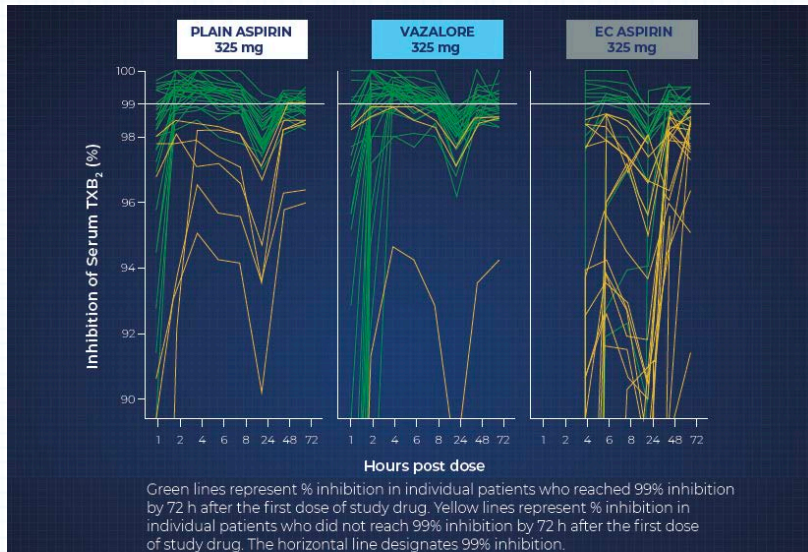
Acetylsalicylic acid AUC (ng x hr/ml):

Plain Aspirin 1964 **VAZALORE 2523** **EC Aspirin 456**

Plain Aspirin= Immediate Release Aspirin Tablets

Figure adapted with permission from Elsevier

Absorption with VAZALORE 325 mg was **5X as high** as that of EC aspirin 325 mg ($p<0.0001$)¹



Patients with complete antiplatelet response by 72 hours:

Plain aspirin 84% **VAZALORE 92%** **EC aspirin 47%**

Plain Aspirin= Immediate Release Aspirin Tablets

Figure adapted with permission from Elsevier

By 72 hours, VAZALORE 325 mg provided complete antiplatelet effect ($\geq 99\%$ inhibition of TXB₂ generation) for **almost twice as many patients** as EC aspirin 325 mg¹

This study design cannot provide data on cardiovascular outcomes.

325 mg Clinical Study — Upper GI Injury: Plain Aspirin vs VAZALORE®¹

In an active-controlled study of upper GI damage of aspirin in healthy subjects in a 7-day study of oral 325 mg once daily¹

Objectives:

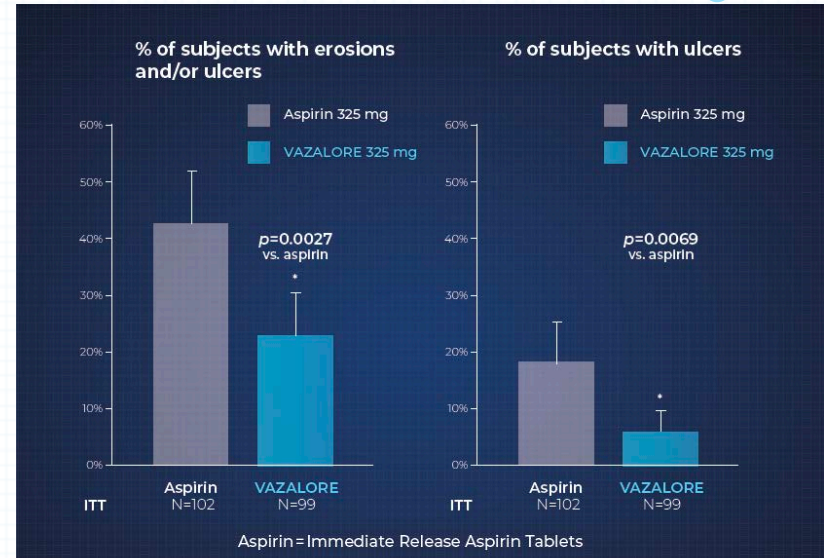
- Determine whether a novel, lipid-based aspirin formulation can reduce gastric erosions and ulcers

Methods:

- Randomized, blinded, multi-center study in 204 healthy volunteers:
 - 7 days of either aspirin or VAZALORE 325 mg
 - Endoscopy performed at Baseline and Day 7
 - Centralized, blinded endoscopic adjudication

Primary Endpoint:

- Incidence of gastroduodenal erosions or ulcers at 7 days



Gastroduodenal mucosal damage at 7 days:

(a) % of subjects with erosions and/or ulcers (b) % of subjects with ulcers

VAZALORE caused significantly fewer erosions and ulcers than IR aspirin 325 mg after 7 days of therapy¹

47% lower risk of erosions or ulcers (NNT=5)
71% lower risk of ulcers (NNT=8)

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VAZALORE[®] 325 mg Clinical Summary



FDA
APPROVED!

VAZALORE achieved 99% thromboxane B₂ inhibition **significantly faster** than enteric coated aspirin*

Absorption with VAZALORE was **5X as high** as enteric coated aspirin*

VAZALORE provided complete antiplatelet effect (99% TXB₂) for **almost twice** as many patients as enteric coated aspirin*

VAZALORE caused significantly **fewer erosions and ulcers** than immediate release aspirin as seen in a 7-day study of 325 mg in healthy subjects

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VAZALORE[®] Commercial Strategy

Healthcare Professionals (HCPs)
Top Heart/Stroke Hospitals & Affiliated
Clinical Practices

Retailers
Extensive distribution in over
30,000 retail stores



Consumers
#1 influencer is their Cardiologist/HCP
#2 influencer is BRAND familiarity



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Opportunity for Innovation in Aspirin Delivery

Plain aspirin is associated with local GI injury, which can be asymptomatic¹

In patients using aspirin for secondary prevention, discontinuation led to a 46% higher rate of cardiovascular events²

According to aspirin professional class labeling, enteric coated aspirin products are erratically absorbed from the GI tract³

There hasn't been innovation in the mechanism of aspirin delivery in over 50 years.



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Cornerstone for Healthcare Professional Plan

- **Dedicated cardiovascular care specialist field force**
 - Clinical Cardiologists | Top Heart & Stroke Hospitals
- **World-Class Scientific Advisory Board**
 - Trials | Publications | Education | Influencers
- **Thought leader focus**
 - Cardiovascular | Stroke | Peripheral Arterial Disease
- **Medical conferences and education**
 - CME Programming | Scientific Sessions | Expert Panels

**Our Core
Belief:**

**Central to
everything we
do is the
patient!**

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Scientific Advisory Board



**Deepak L. Bhatt, MD,
MPH, FACC, FAHA,
FSCAI, FESC**



**Dominick J. Angiolillo, MD,
PhD, FACC, FESC, FSCAI**



**P. Gabriel Steg, MD,
FESC, FACC**



**Roxana Mehran, MD,
FACC, FACP, FCCP,
FESC, FAHA, FSCAI**



Byron Cryer, MD



James M. Scheiman, MD



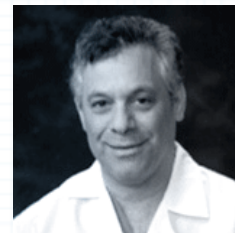
Mark J. Alberts, MD



Jayne Prats, PhD



**Efthymios Deliargyris,
MD, FACC, FESC,
FSCAI**



**Carey Kimmelstiel,
MD, FACC, FACP,
FSCAI**



Todd K. Rosengart, MD

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Support Pieces Keep VAZALORE® Top of Mind

VAZALORE® 325 mg Clinical Data

VAZALORE® 325 mg Clinical Data

Clinical Study—PK/PD Comparison: Plain Aspirin, VAZALORE, Enteric Coated Aspirin

In a single-center, randomized, active-controlled, single-blind, triple crossover pharmacokinetic (PK) and pharmacodynamic (PD) study of enterolysis activity over 3 days, in obese patients with type 2 diabetes.

Time to Complete Antiplasmodial Effect

In this study, VAZALORE 325 mg activated 99% inhibition of thromboxane B₂ generation significantly faster (0.5 hours) than enteric coated aspirin 325 mg (4.2 hours) (p<0.0001).

Plasma ASA Concentration Versus Time

In this study, the AUC_{0-12h} of plasma concentrations were VAZALORE 325 mg (273 ng·h/mL), immediate release aspirin (264 ng·h/mL), and enteric coated aspirin (256 ng·h/mL). Thus, absorption with VAZALORE 325 mg was 3x as high as that of enteric coated aspirin 325 mg (p<0.0001).

325 mg Clinical Data

Professional Labeling

Professional labeling for VAZALORE 325 mg capsules, including detailed clinical data, safety information, and usage instructions.

Professional Labeling

Publications

A collection of scientific publications and clinical trial results related to VAZALORE, including studies on enteric coating, clinical publications, and randomized trials.

Publications



Features and Benefits

Samples

DISCOVER VAZALORE™—THE FIRST AND ONLY LIQUID-FILLED ASPIRIN CAPSULET™

VAZALORE's unique delivery system is intended to predictably release aspirin in the duodenum and decrease exposure to the stomach, which is the most susceptible part of the GI tract to NSAID-induced local gastric injury.

VAZALORE is specially designed to help protect the stomach

Phacoemulsifying the aspirin in VAZALORE to our pharmacological lipid limits the aspirin from interacting with similar naturally occurring phospholipids in the stomach lining, helping to prevent local gastric injury.

VAZALORE is available in 81 mg and 325 mg doses

- LIMITS DIRECT CONTACT:** VAZALORE's unique delivery system is designed to predictably release aspirin in the duodenum, which is the most susceptible part of the GI tract to NSAID-induced local gastric injury.
- TARGETED DELIVERY:** Phacoemulsifying the aspirin in VAZALORE to our pharmacological lipid limits the aspirin from interacting with similar naturally occurring phospholipids in the stomach lining, helping to prevent local gastric injury.
- FAST, PREDICTABLE ABSORPTION:** This drug delivery system is designed to predictably release aspirin in the duodenum, which is the most susceptible part of the GI tract to NSAID-induced local gastric injury.
- REDUCES GASTRIC INJURY:** This drug delivery system is designed to predictably release aspirin in the duodenum, which is the most susceptible part of the GI tract to NSAID-induced local gastric injury.

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VAZALORE[®] U.S. Market Opportunity

	Vascular Patients	Diabetic Patients	TOTAL
Target Population ¹ (millions)	27.2	15.6	42.8
Retail Market Size (billions)	\$6.4	\$3.6	\$10.0



Market Share	Factory (millions)	Retail (millions)
1%	\$70	\$100
5%	\$350	\$500
10%	\$700	\$1,000

- Vascular Patients: Patients with Atherosclerotic Cardiovascular Disease (ASCVD) defined by having a previous event such as heart attack or stroke or a previous procedure such as cardiac stent, bypass operation, carotid operation or who have imaging evidence of significant vascular disease such as ultrasound, angiogram, etc.
- Diabetic Patients: Patients with diabetes but without evidence of ASCVD who are candidates for aspirin therapy.
- Pricing around \$0.80/day to the patient, around \$25/month.



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Conversation Between HCP & Consumer

The VAZALORE consumer:

- Most influenced by **doctor** and **brand familiarity**
- **Concerned** about impact of aspirin on one's stomach
- **Fearful** of having another event

Reaching the consumer:

- **Generate awareness** of VAZALORE as breakthrough delivery designed to help protect the stomach
- **Drive trial**, motivate consumers to **ask doctor** about VAZALORE



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Consumer Messaging



HEART protection with your **STOMACH** in mind™

DISCOVER the first and only liquid-filled **ASPIRIN** capsules™

Consult your healthcare provider before using this product to help prevent another heart attack or clot-related stroke. Use as directed.



HEART protection with your **STOMACH** in mind™

- All the benefits of aspirin therapy
- Designed to help protect your stomach

Consult your healthcare provider before using this product to help prevent another heart attack or clot-related stroke. Use as directed.



DISCOVER the first and only liquid-filled **ASPIRIN** capsules™

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Content for Digital/E-commerce Efforts



Aspirin can **REDUCE** your **RISK** of another **HEART ATTACK** by **31%**.

VAZALORE® can help prevent another heart attack.

Consult your healthcare provider before using this product to help prevent another heart attack or clot-related stroke. Use as directed.



Aspirin can help **PREVENT** another clot-related **STROKE** by **22%**.

VAZALORE® can help prevent another clot-related stroke.

Consult your healthcare provider before using this product to help prevent another heart attack or clot-related stroke. Use as directed.



ACHES and **PAIN** slowing you down?

VAZALORE® works fast to keep you going.

Consult your healthcare provider before using this product to help prevent another heart attack or clot-related stroke. Use as directed.



81mg
LOW DOSE

FIRST **LIQUID-FILLED**
ASPIRIN CAPSULES™
EASY TO SWALLOW

Consult your healthcare provider before using this product to help prevent another heart attack or clot-related stroke. Use as directed.

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VAZALORE® Support

Driving Breakthrough Creative Through Strong Television Plan

- **National plan supports distribution**

- Base Cable with enhanced Prime Time, Sports
- Focus on maximizing reach to build business



- **“Pinball” creative celebrates VAZALORE innovation**

- The campaign visually brings to life the unique delivery mechanism of VAZALORE using a pinball machine metaphor to convey the innovative technology of a liquid-filled aspirin capsule, and the life-saving benefits of aspirin.



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Where to Buy VAZALORE®

VAZALORE 81 mg 30 ct

Dosage: 81MG Count: 30 CT

ASPIRIN THERAPY VAZALORE

Sparta, NJ

Walmart In Stock BUY NOW

RITE AID In Stock BUY NOW

Walgreens In Stock BUY NOW

CVS pharmacy In Stock BUY

CVS at 11 Theatre Ctr, Sparta, NJ 07871
CVS Pharmacy SPARTA, NJ 07871
973-726-3422

0.2 mi Updating

View Online Get Directions Open Today 12:00am - 12:00am

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Available in over 30,000 retail stores & e-commerce sites in US



Walgreens



amazon



meijer Winn-Dixie.

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Retailer Merchandising & Education Tools

Set the Shelf



Coming Soon Shelf Placeholders

Shelf Trays

Create In-Store Visibility



Displays

HCP Education that Drives Store Traffic



Retail Pharmacy Education Kits

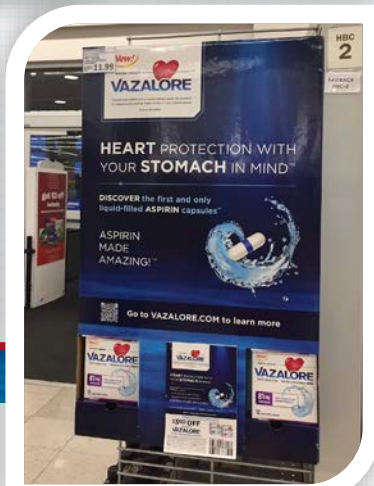
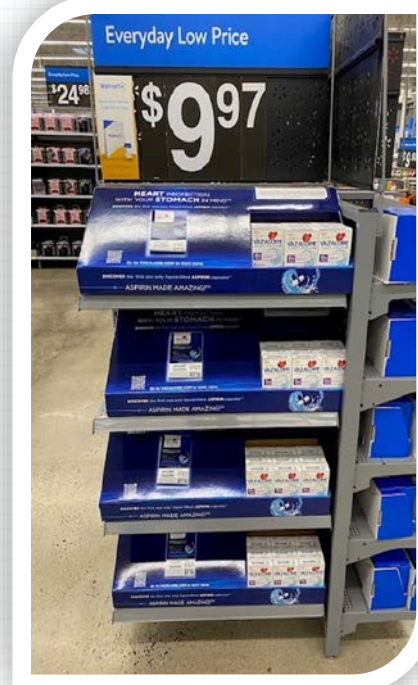
Doctor Detailing Patient Education Pieces

Ready to Sell



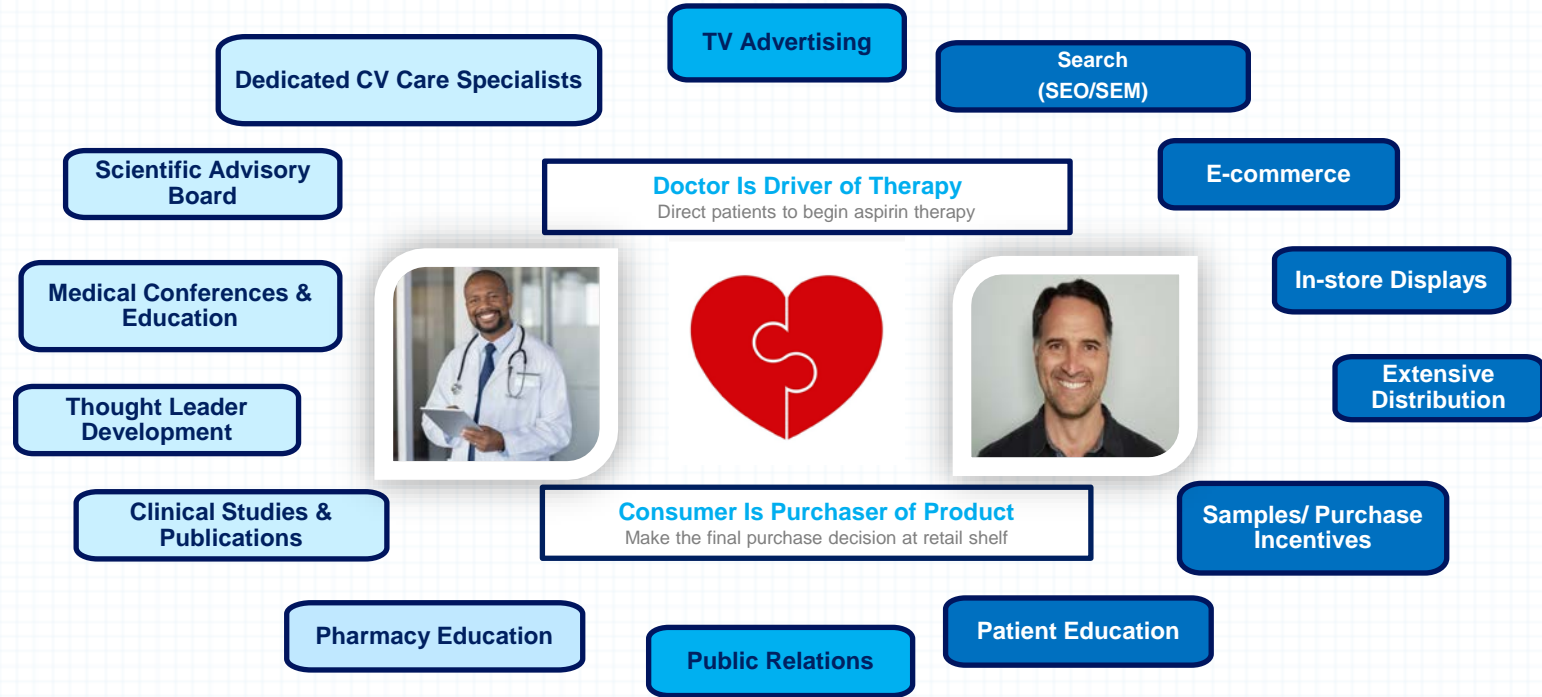
Open stock units

VAZALORE® On-Shelf & Displays



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VAZALORE® Commercial Plan Focused on HCPs, Consumer and Retail



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VAZALORE® Revenue & Manufacturing



- **Revenue recognized** when the product is received by the retailer; \$8.2 million recognized in the last 5 months of 2021
- Reductions to gross revenue include provisions for retailer programs, product returns, prompt pay discounts and coupon redemptions by consumers
- **Extensive distribution in over 30,000 retail stores** across the U.S., many stocking all 3 SKUs as well as displays elsewhere in the store
- Product manufactured by **Thermo Fisher Scientific** in the U.S.

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Financial Overview as of 12/31/21

\$69.4 million

Cash & Cash
Equivalents
(Debt free)

\$8.2 million

Net Sales
VAZALORE
FY2021
(Last 5 months)

27.5 million common
shares
(44.1 million fully diluted)

Common Shares
Outstanding

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Follow Us

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- **VAZALORE®**

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- **PLxGuard™ Drug Delivery Platform**

- www.plxpharma.com/our-technology/

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Thank
you

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