JUne 2025

Investor Presentation

Nasdaq: ASBP

Aspire™ BIOPHARMA

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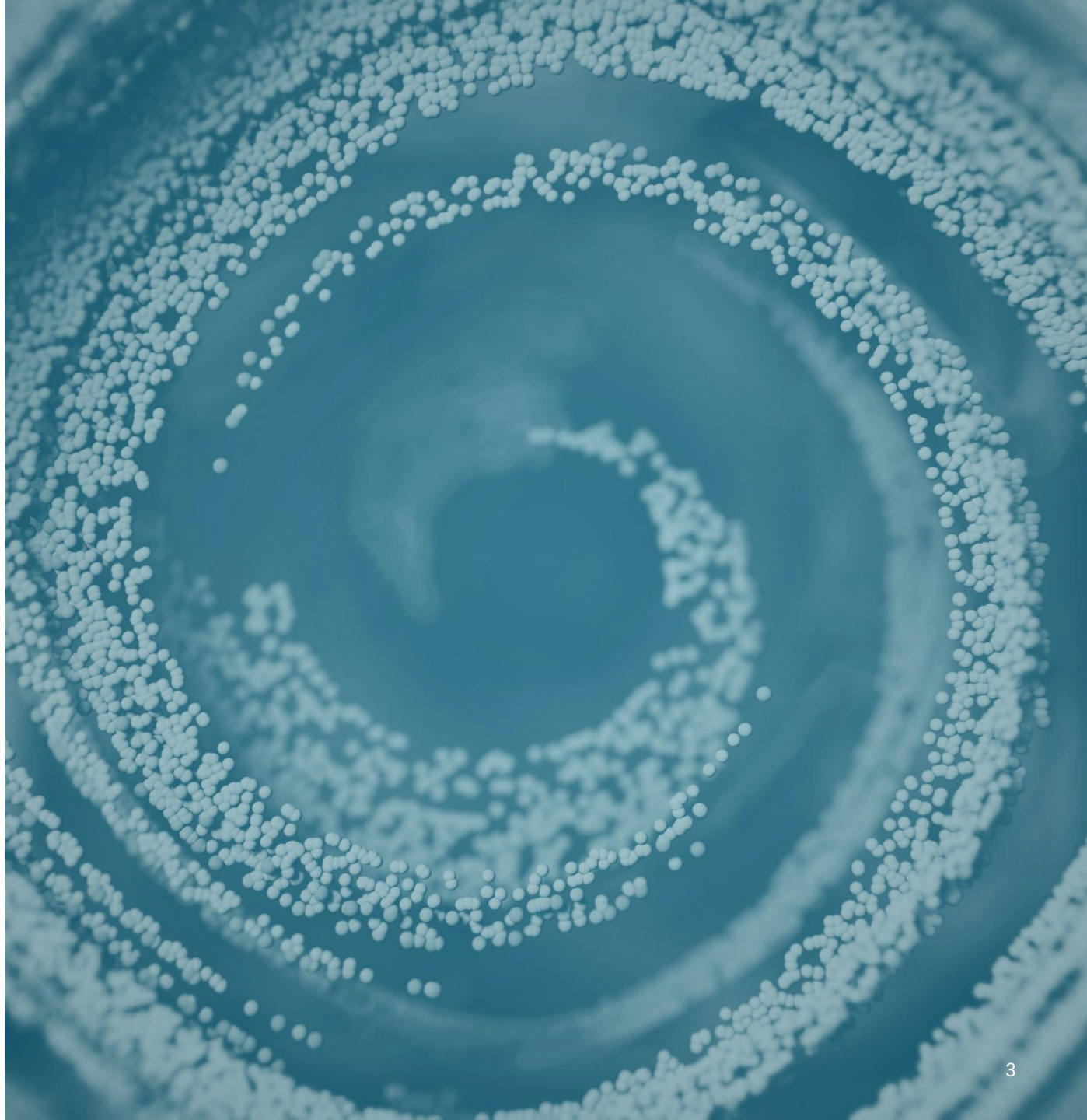
Overview

Patent-pending drug delivery technology for rapid sublingual absorption and entry into the bloodstream of supplements and other substances

- Science Team-Disruptive Technology
- Market Opportunity: >$100 billion
- Contract Manufacturing
- Lead Rx Product: Sublingual Aspirin
- Lead Consumer Product: BUZZ BOMB™
- Investment Considerations:
  > *Mid-Stage Biotech Company*
  > *Several Products in Development*
  > *First Revenues Expected in late 2025*



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Overview – The Technology

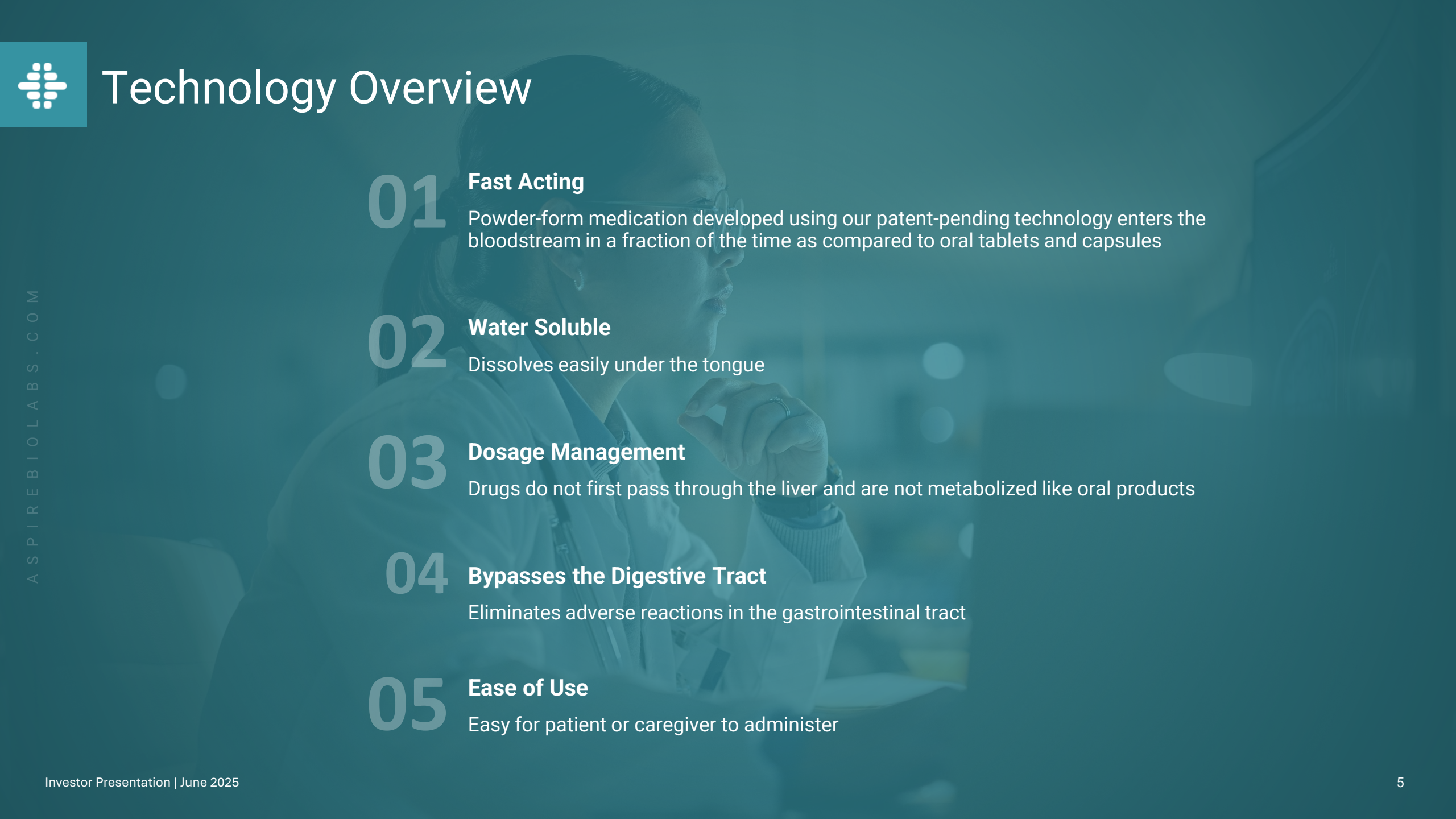
Aspire Biopharma has developed disruptive technologies for delivering drugs and other products sublingually(1).

Technology delivers a fast acting drug formulations using our patent-pending methodology, and proprietary process.

New mechanism of delivery (absorption pathway) allows rapid sublingual absorption directly into the bloodstream.

(1) Aspire filed a patent application (No. PCT/US2024/022318) on March 29, 2024 for its low-dose aspirin. Aspirin filed a second patent on October 2, 2024 (No. 63/702,381) for its high-dose aspirin.

Technology Overview



01 Fast Acting

Powder-form medication developed using our patent-pending technology enters the bloodstream in a fraction of the time as compared to oral tablets and capsules

02 Water Soluble

Dissolves easily under the tongue

03 Dosage Management

Drugs do not first pass through the liver and are not metabolized like oral products

04 Bypasses the Digestive Tract

Eliminates adverse reactions in the gastrointestinal tract

05 Ease of Use

Easy for patient or caregiver to administer

Delivery Method

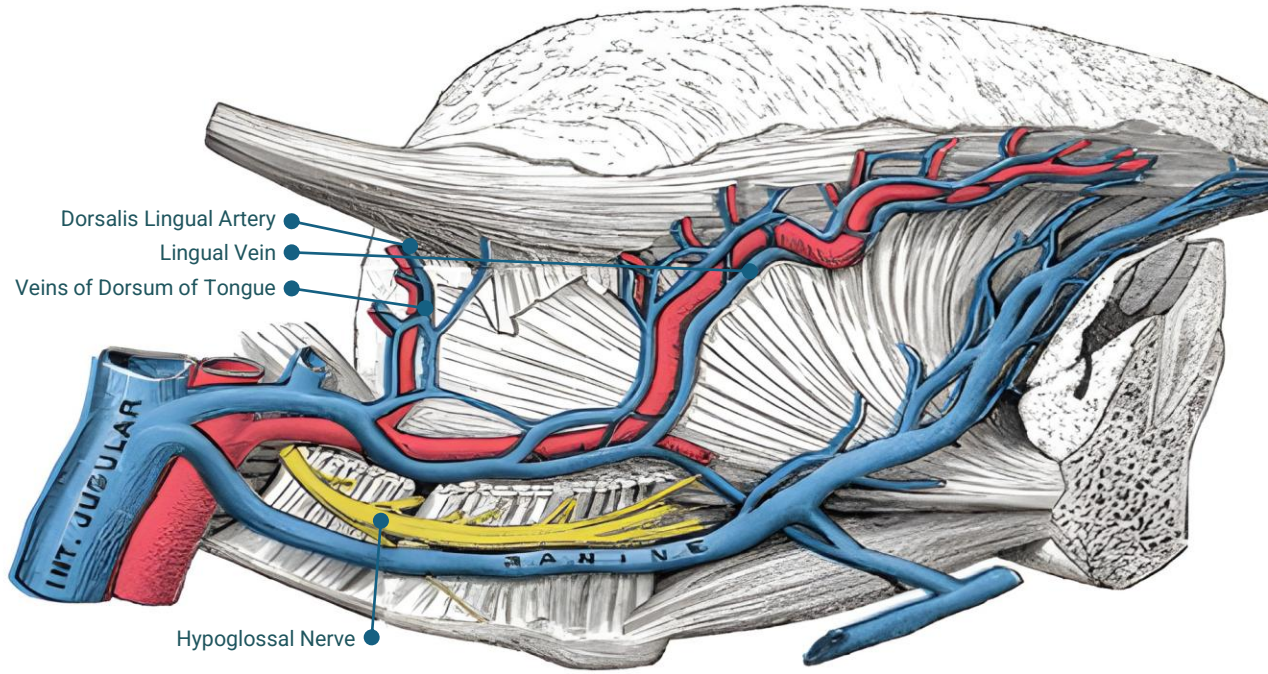
Nature Provides the mouth with Direct Access to Blood Stream

Aspire's sublingual delivery system avoids the side effect drugs delivered in pills or tables orally

- Avoid damage to GI tract
- Avoid damage to the Liver

The most common set of side effects for drugs that work inside your body involves the gastrointestinal system

Mouth to Blood Stream Pathways



1. The main artery is the lingual artery
2. Tonsillar branch of the facial artery
3. Ascending pharyngeal artery

*The veins drain into the **internal jugular vein***

Aspire Product Pipeline & Planned 2025 Milestones

Aspirin Products

High Dose

✓ **Commenced clinical trial to evaluate the pharmacodynamic effect of a single dose of our aspirin product on platelet inhibition compared to that of standard oral aspirin in May 2025.**

- Plan to file 505(b)(2) application with the FDA end of Q3 2025
- Request "fast track" approval on its NDA for the high dose aspirin product to the FDA.
- High dose sublingually administered aspirin for pain relief (rheumatological and other pain). Building on previous clinical trial as set forth above, we anticipate seeking FDA approval in the latter part of 2025.

Low Dose

- Clinical trials in Fall 2025 of low dose sublingually administered aspirin for preventative care.

Non-Aspirin Prescription Drug Products

- Testosterone formulation for sublingually administration.
- Phase 1 clinical test planned for 3Q 2025.
- Sublingual semiglutide formulation.
- Early studies of migraine relief product second half 2025.
- Erectile dysfunction (sildenafil/tadalafil) formulation development in Q4 2025.

Non-Prescription Products

✓ **Commenced initial production of single dose pre workout supplement utilizing sublingual delivery technology.**

- **Conducting consumer and safety testing during Q2 2025**
- **Pre-workout supplement features 50mg of caffeine and is designed to support sustained energy and mental focus, helping athletes and fitness enthusiasts maximize performance.**
- **Pre-workout product expected to launch in Q3 2025.**
- Sublingually administered vitamins D, E and K 2H 2025.

Market Opportunity

Aspire believes its disruptive technology can be applied to a number of approved drugs and supplements

Global Analgesics Market
Valued at **$47.32B** in 2023 and projected to reach **$75.73B** by 2032, growing at a compound annual growth rate (CAGR) of 5.39% over the forecast period 2024-2032. (Source: SNS Insider)

Global Opioid Analgesics Market
Opioid analgesics market is experiencing significant growth, with estimated projections of **$26.78B** by 2034. The market is expected to grow at a CAGR of 1.5% from 2024 to 2034. (Source: Biospace)

Global Erectile Dysfunction (ED) Market
Expected to reach $3.9B by 2034, growing at a CAGR of 6.53% during the forecast period from 2024 to 2034 (Source: Biospace)

Global Pre-Workout Market
Supplements market valued at $19.90B in 2023. Estimated to reach **$29.77B** by 2032, growing at a CAGR of 4.58% during the forecast period (2024–2032). (Source: Straits Research)

Manufacturing Strategy

A contract manufacturing strategy is being pursued with the potential for multiple supplier relationships to reduce risk and capex investments

Glatt Air Techniques

- Technical Manufacturing Development Partner
- Pharmaceutical Development Agreement signed June 2022
- Produced low-dose aspirin product and performed studies in 2023
- Produced feasibility/testing batch of high-dose aspirin in December 2024
- Performed testing on high-dose aspiring product to meet FDA requirements for human trials in Q2 2025
- Completed production of GMP batches of high-dose aspirin product for clinical trials in April 2025

Sublingual Aspirin Product: Overview

- Addresses cardiology emergencies and pain management
- Granular or powder formulation of a soluble, fast-acting aspirin
- Developed using patent-pending formulation, and "trade secret" process

Benefits of "rapid absorption" aspirin

- Address and limit heart attack and stroke
- Allow high dose absorption for pain management including quick headache relief, post surgery, cancer pain management, and general pain relief

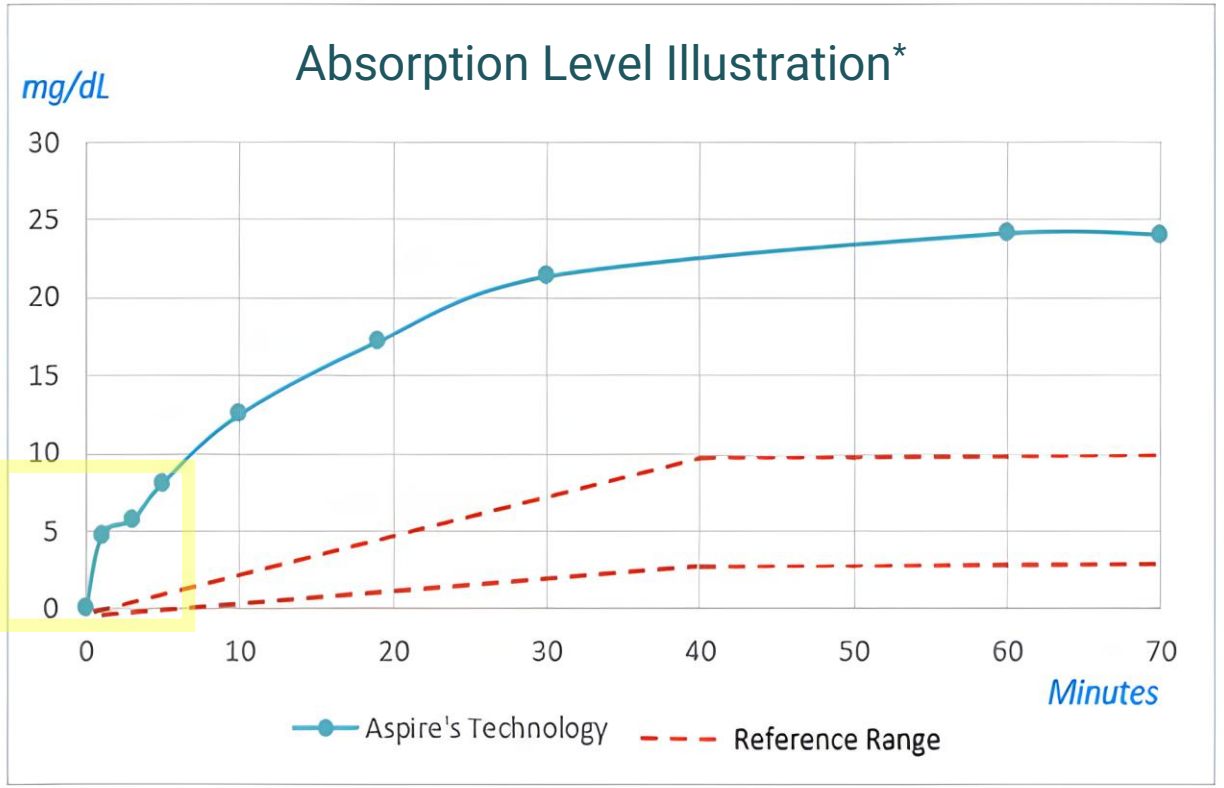


*Illustration based on actual test data generated in proof-of-concept study

Sublingual Aspirin Product: Background

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01 **Oral aspirin (ASA) with it's anti-inflammatory properties has been used world-wide for over 100 years**

02 **Aspirin is one of the most-studied and understood drugs, and universally approved for use.**

03 **In the past Aspirin-induced GI bleeding has limited the long-term oral use and is severely diluted by first pass metabolism by the liver**

Aspire's sublingual aspirin is expected to provide fast absorption, eliminate the GI tract side effects, and avoid first pass liver metabolism

Sublingual Aspirin Product: Proof of Concept

The Proof-of-Concept study verifies and validates that our formula enters the bloodstream with a therapeutic cardiac dose of aspirin in less than one minute

There is no oral form of aspirin on the market today that

- can be absorbed into the bloodstream in less than 8-12 minutes, and
- will get to a maximum absorption above 12 mg/dl blood to relieve pain by using a 1000mg dose.

Anecdotal study demonstrates the significant absorption level of 27mg/dl blood for pain relief, with

- A formula which meets the FDA's stability requirement, and
- PH neutral product (non-acidic) and has no known negative effect on the stomach or entire gastrointestinal tract

Current Study Comparison in Mg/dL

Salicylate Level	0-2 Minutes	2-10 Minutes	10-30 Minutes	60 Minutes
Bayer AG	0	0	4	6
Aspire High-Dose Aspirin	2	7.7	20	27

The speed and level of absorption into the blood due to our new delivery system is significantly higher and represents a disruptive new technology

Sublingual Aspirin Product: Clinical Trials

Strategy

Aspire uses existing, approved generic-drug dosages. Generic drugs do not need to repeat the clinical trials related to active ingredients but must demonstrate sublingual route of administration

- effectiveness
- amount of drug that gets to the bloodstream and
- time it takes to get there

Glatt (Contract Manufacturer) has created a GMP batch of the aspirin product for human trials

Clinical Phase 1 Trial Timeline
First patient dosed: May 19, 2025
Trial completion expected by mid-June

Budget
Clinical trials fully funded

Sublingual Aspirin Product Commercialization and Go-to-Market Strategy

01 Launch product initially in the Rx market, followed by an OTC version

02 Partner with an experienced end-to-end marketing and distribution firms

03 Significant potential licensing opportunity with leading drug manufacturers (cited in the recent McKinsey study)

Sublingual Aspirin Product: Analgesics Market Opportunity

Non-opioid analgesic and opioid markets combined currently estimated at $80+B and projected to grow to nearly $100B in five years

	2022	2023	2024	2025	2026	2027
Market Data ($-Bil)						
Opioids	$32.5	$33.6	$34.6	$35.7	$36.8	$37.9
Analgesics	$48.0	$50.3	$52.7	$55.2	$58.0	$61.0
Analgesics Market Total (incl. Opioids)	**$80.4**	**$83.8**	**$87.3**	**$90.9**	**$94.8**	**$98.9**
RX $	$68.4	$71.3	$75.1	$79.0	$83.4	$88.0

BUZZ BOMB™ New Sublingual Pre-Workout Supplement

Single serving pre-workout caffeine supplement utilizing Aspire's patent-pending and proprietary sublingual delivery technology

- Sublingual nano technology delivers caffeine rapidly to the blood stream, bringing its unique disruptive benefits to the Pre-workout market
- Initial production has commenced with six flavor options
- Expanded pre-launch consumer testing planned for Q2 2025
- Aspire to launch BUZZ BOMB™ at two major upcoming fitness conventions
- Marketing plan focused on cost-effective multi-channel digital strategy targeting primary influencers, direct response sales and traditional retail sales channels
- Global pre-workout supplements market size is expected to reach $27.97 billion by 2030, registering a CAGR of 5.9% from 2025 to 2030

Pre-Workout Supplement Market

- Global pre-workout supplements market size is expected to reach $27.97 billion by 2030, registering a CAGR of 5.9% from 2025 to 2030
  - ❖ Rising fitness culture and gym memberships
  - ❖ Consumer focus on performance and recovery
  - ❖ Expanding demographics (women, Gen Z, casual exercisers)
  - ❖ Growth of RTD ("Ready To Drink"- no mixing) formats & natural formulations
  - ❖ Digital fitness and influencer-led marketing

- Segment is flooded with many options for energy boosting and hydration products
- Most of these products today are based on a powdered "mix + water" combination that take 20-30 minutes to digest and begin to provide performance benefits.
- Complicates use, response management, caffeine control, and effectiveness.
- Market research shows that immediacy, ease of use and time management (take as needed, when needed) ranks highest in consumer preferences.
- Buzz Bomb™ offers potentially disruptive benefits and product characteristics that is expected to drive market penetration with significant differentiation, leading to rapid customer conversion, acquisition, and brand identity in this market.

BUZZ BOMB™ Disruptive Characteristics

- Speed - works nearly immediately vs. 20-30 minutes
- Convenience - easy to use small packets vs. mix beverages
- Energy management - use as needed, when needed to manage energy
- Single Safe Ingredients - well known benefits and use of caffeine
- Low manufacturing & packaging costs - competitive pricing with high margin potential
- Easy powerful product demonstration - enabling low-cost sample kits

Aspire's Investment Considerations

Opportunity:

- **Large Addressable Market:** $80B combined analgesics and opioid market
- **Prescription:** Expect to file in late 2025 to meet FDA 505 (b)(2) Fast Track drug approval process
- **OTC**: OTC version for FDA compliance in accordance with the existing monograph
- **First to market:** Prescription strength version to be followed by OTC
- **BUZZ BOMB(TM), New Sublingual Pre-Workout Supplement Expected to Launch in Q3 2025**
- **Proprietary Technology**: Enables ability to pursue broadened applications, using our solubility process, which can be used with other drug and supplement compounds

Thank You.

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