



Executive Summary

United States drug shortage has risen to its highest levels since 2001 - including drugs used in hospital emergency rooms and to treat cancer, prescription medications, and even common over-the-counter treatments like children's cold and flu medicine

Drug shortages are caused by a number of factors, including economic drivers, insufficient supply chain visibility, and a continued U.S. overreliance on both foreign and geographically concentrated sources for medications and their raw materials

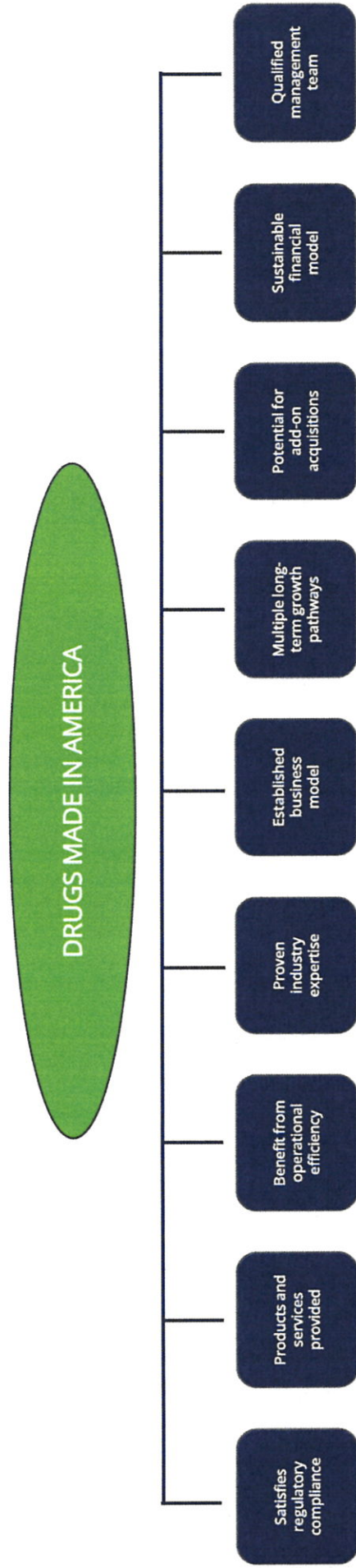
These shortages have cascading effects on patient care, causing delays in treatment, increasing the risk of medication errors, and requiring the use of less effective alternative treatments

DMAA can use its expertise in the pharmaceuticals space to create a solution for the shortages in vital drugs in America through the below verticals

DMAA will invest in fully integrated domestic end-to-end active pharmaceutical ingredients (APIs) and drug manufacturing companies to reduce U.S. drug shortages

By investing in domestic API and drug manufacturing companies, DMAA is addressing: (i). The overreliance on importation and (ii) Derisking National security

DMAA's total addressable market is projected to exceed USD 133 Bn by 2031



America's Historic Drug Shortage Crisis

United States drug shortage has risen to its highest levels since 2001

Drug shortages compromise or delay medical care, result in medication errors, and increase patient mortality and morbidity

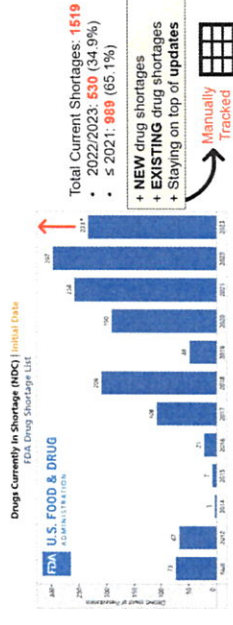
The shortage has extended to the plant-based pain management medication morphine¹



- The slow-release oral morphine shortages led to significant treatment disruptions¹
- People with opioid use disorder experienced sustained periods of discontinuation¹
- People with pain experienced more temporary periods of discontinuation¹
- Potential risk of relapse and a return to opioid use if the necessary medications are unavailable²

1: Ledlie, S., et. al., International Journal of Drug Policy, Volume 118, August 2023, 104119

2: <https://www.pharmacytimes.com/view/opioid-drug-shortages-affect-patients-health-systems>

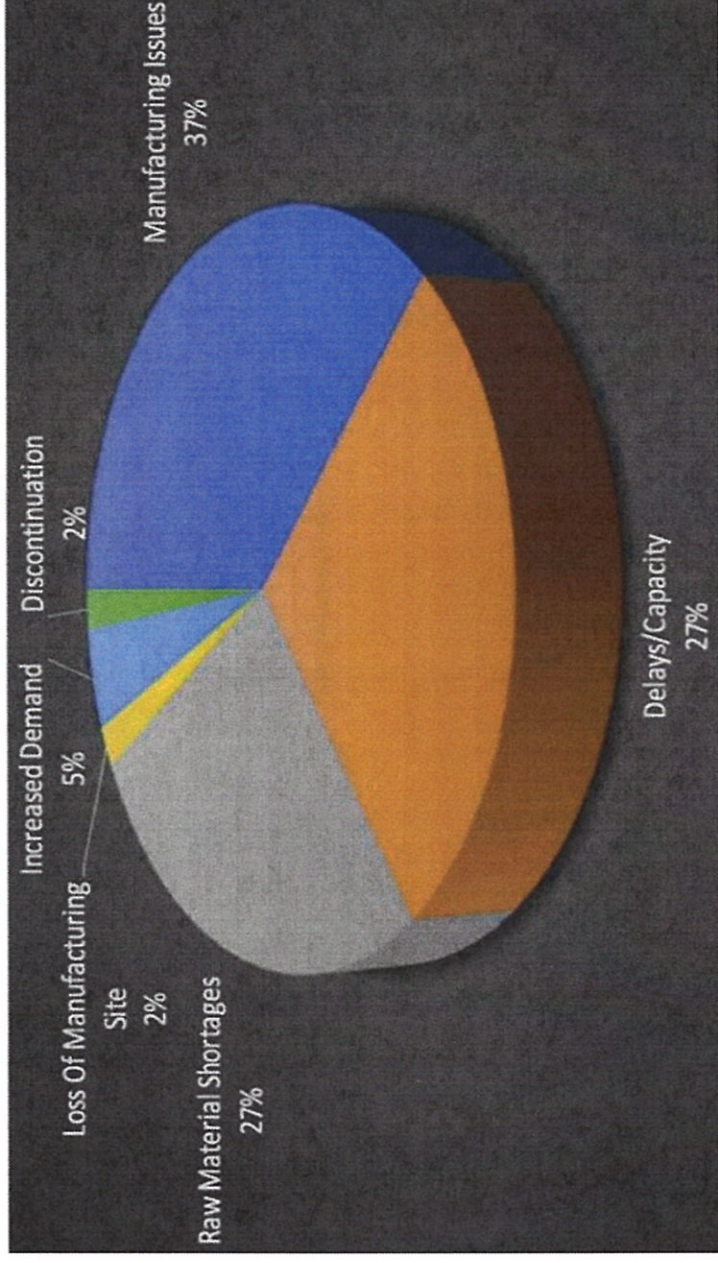


* Current as of 06/28/2023 @ 3:30PM ET

Causes of U.S. Drug Shortages

Globalization has created interdependencies and increased supply chain vulnerabilities contributing to U.S. drug shortages

Factors inbuilt into globalization related U.S. drug shortages

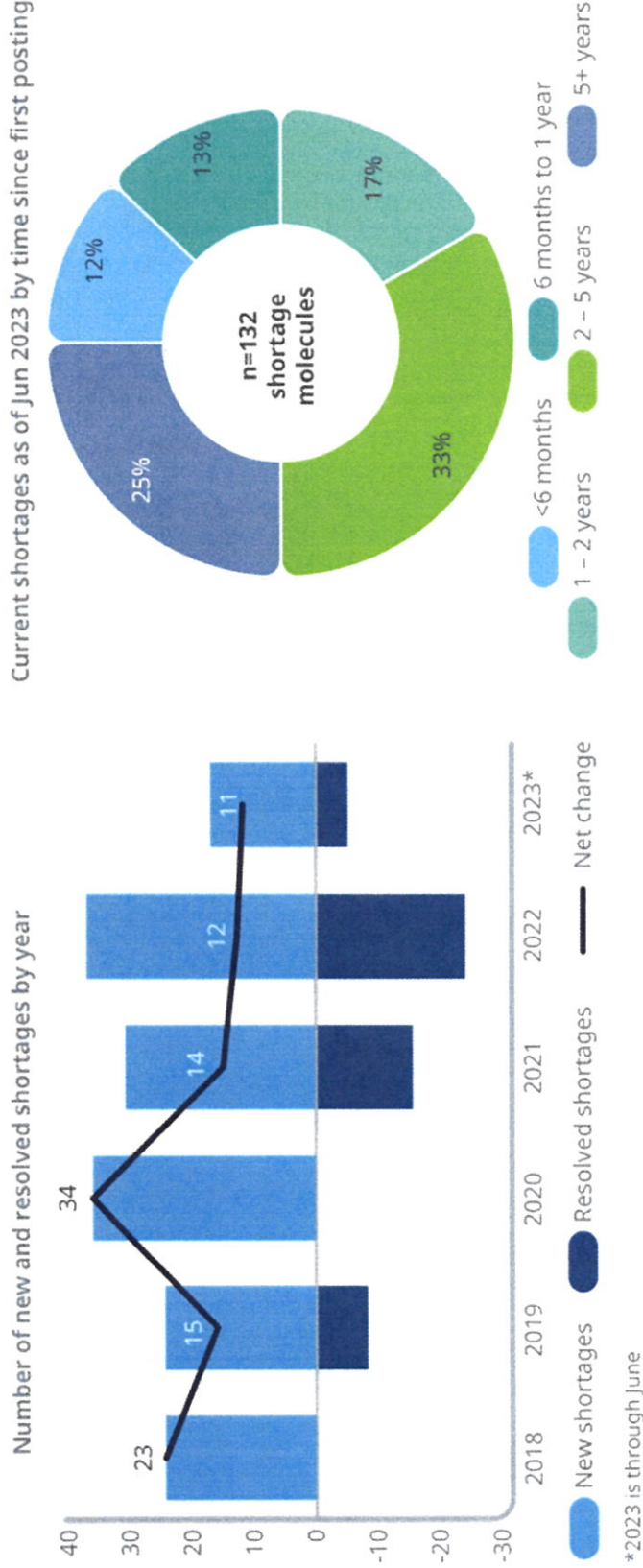


Source: U.S. FOOD AND DRUG ADMINISTRATION: Drug Shortages, Mar 2, 2019

Drug Shortage – A Crisis in Making

“Drug shortages are increasing, lasting longer...,” SW Schondelmeyer

A Resilient U.S. Drug Supply: Current & Emerging Vulnerabilities at the House Hearing on Chronic Drug Shortages in the United States (February 6, 2024)



Source: FDA Drug Shortages Database, IQVIA National Sales Perspective, Jun 2023; IQVIA Institute, Oct 2023.

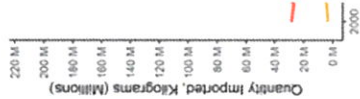
Notes: Molecules are included as new in the year the shortage was initially posted to the FDA Drug Shortages Database. Molecules are included as resolved when the shortage has resolved and included in the year of the date of update for the shortage. Molecules where a shortage occurred and was resolved and a subsequent shortage occurred in the following years would be represented more than once.

Report: Drug Shortages in the U.S. 2023: A Closer Look at Volume and Price Dynamics. IQVIA Institute for Human Data Science, November 2023.

Over-reliance on China and India Contributing to Drug Shortage

The United States is overly reliant on China, India and other countries for crucial pharmaceutical drugs, which has contributed to shortages over the last two years - Senate report led by Michigan Sen. Gary Peters (03.22.2023)

Quantity of US Pharmaceutical Imports from China and India (2000-2021)



Value of US Pharmaceutical Imports from China and India (2000-2021)



Foreign Dependence of U.S. Drug Market by Therapeutic Category



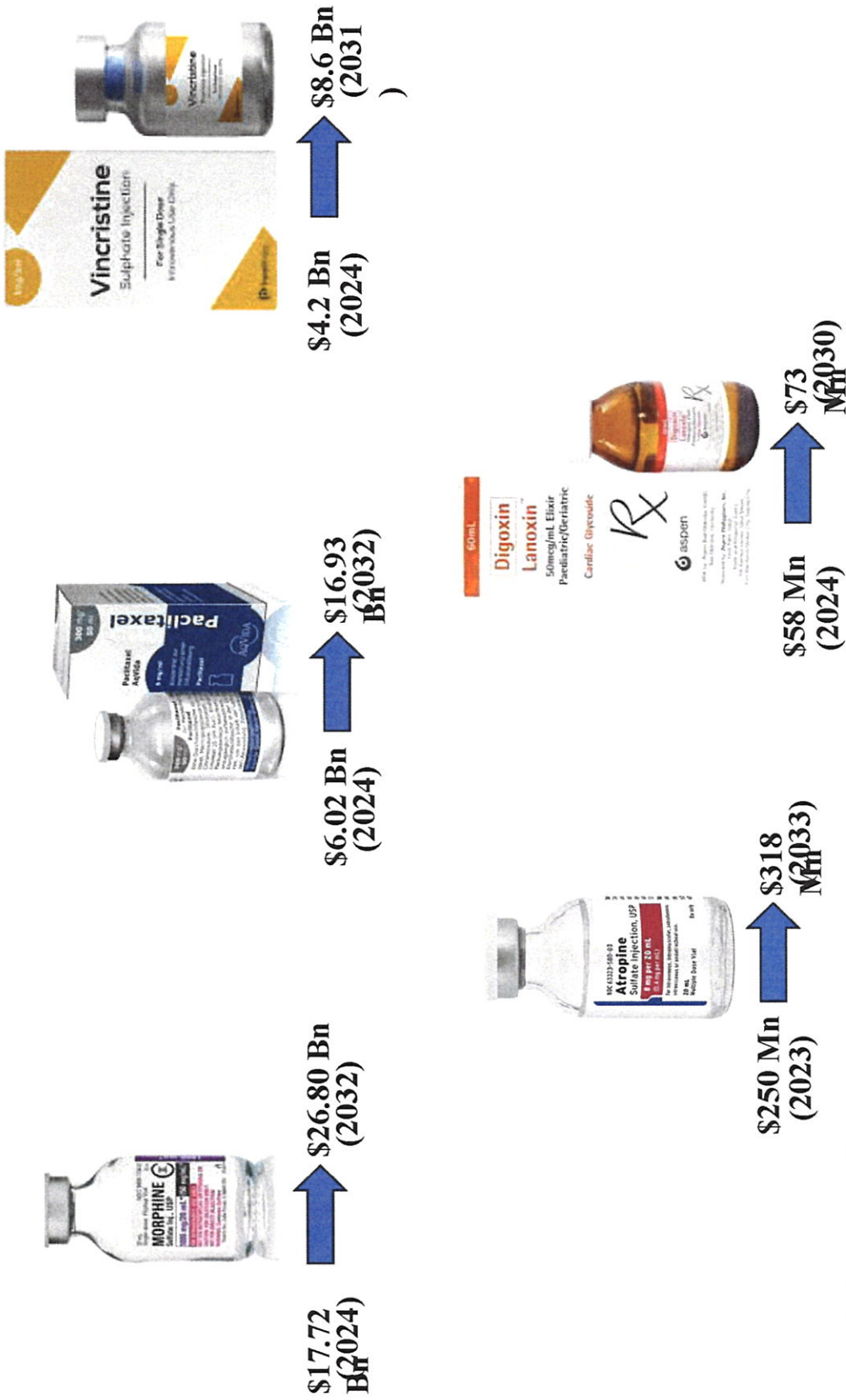
India and China are leading U.S. source for generic pharmaceuticals, accounting for 90% of all prescriptions

a public health concern due to lack of quality control standards

Growing U.S. dependence on China and India for widely-used generic pharmaceuticals creates serious risks to national security

Geopolitical conflict and degradation of international trade relations could prove catastrophic for the health of all Americans including military personnel

Crucial Plant-Based Drug Shortages and Their Global Market Share



Source: MI report - Global Plant-based API Market 2024

Solutions to Address U.S. Drug Shortages

Federal Government

1. Invest in domestic advanced manufacturing capabilities for critical generic drug products regularly in shortage
2. Conduct regular interagency medical supply chain risk assessments
3.  Manufacturers of life-supporting and life-sustaining drug products to report increased demand and export restrictions to the FDA
4. The FDA should take steps to ensure its supply chain data can be used to monitor supply chain vulnerabilities and conduct predictive modeling
5. Streamline private and public efforts to predict and mitigate potential supply chain vulnerabilities
6. Provide the FDA with mandatory recall authority for all drug products

Recommendations

Industry

1. Identifying a set of priority generic drugs
2. Build national inventories of priority generics
3. Establish large-scale nonprofit public-private partnerships to contract for reliable supply of priority generics
4. Limit geographic risks to the supply of active pharmaceutical ingredients and final form drugs
5. Diversify the manufacturing base
6. Improve transparency into manufacturer quality
7. Enforce existing shortage prevention requirements
8. Encourage long-term, guaranteed-volume contracts

- 1: The Health and National Security Risks of Drug Shortages, HSGAC Majority Staff Report, March 2023
- 2: Recommendations from ASHP: Policy solutions to address the drug shortage crisis, 2023 American Society of Health-System Pharmacists
- 3: Industry policy to reduce prescription generic drug shortages CAP20 Report July 23, 2024

Drugs Made in America Acquisition Corp (DMAA) – On the Forefront of Addressing Drug Shortages and Overreliance on Importation

Invest in domestic companies to reduce America's overreliance from concentrated geographic regions through strategic investments and on-shoring and incorporating state of the art artificial intelligence (AI) and machine learning (ML)-based capabilities for domestic production and manufacturing of:

- Active pharmaceutical ingredients (APIs)**
- Key starting material (KSM)**
- Critical drugs**
- Generic and non-generic drugs medicines**



DMAA's investment strategy is in line with the Federal and industry recommendations to address U.S. drug shortages

DMAA Investment Thesis

- ▶ DMAA intends to have fully integrated end-to-end capability for production of a spectrum of Active Pharmaceutical Ingredients (APIs), comprising of plant-based and synthetic origin including controlled substances for replenishing the national stockpile, drug manufacturing, and prescriptions filled by pharmacies or directly to the patients
- ▶ To achieve these goals, DMAA will consider completing initial business combination with one or more target companies that can deliver a solution to:

The lack of supply chain visibility into where and by whom critical drug products are manufactured

The inability to accurately predict and proactively relieve ongoing and future drug shortages

Ensuring United States Strategic National Stockpile reserves are replenished

- ▶ The result of a series of target acquisitions will be a fully integrated competitive cost-effective business with vast expertise

Pub-Co Addressable Market

USD 96 Billion

Acquisition Strategy

DMAA will leverage a team from the pharmaceutical and medical field who possess reputational expertise and an industry network to source prime public targets from across a broad spectrum of related verticals



Combine vertical business entities
delivering **production-to-pharmacy**
capability



DMAA Post IPO and Acquisition Strategy - Forward Looking Forward Thinking



Reducing U.S. drug shortages by de-globalization

Onboarding the production back to the USA creates jobs, mitigates national security risks and will ensure the American people will have clean, pure, cost-efficient medications through a resilient supply chain made in America



Enhancing domestic API and drug manufacturing capabilities

Risks in the U.S. medical supply chain will be mitigated by investing in companies that will reduce America's overreliance on production of pharmaceuticals from concentrated geographic regions through investments in strategic on-shoring of advanced domestic manufacturing technologies for critical drugs



Operational and governance excellence

1. Grow revenues building on an addressable market of \$96 Bn APIs, pharmaceuticals and generic medications
2. Building operational and governance excellence to ensure U.S. remains a global leader in API and drug manufacturing with capabilities to overcome and combat drug shortages

DMAA Value Creation

National presence in addressing the growing drug shortages

90% for USD addressable market

AFM activity in hydrolysis and state of the art infrastructure

Accelerated growth to meet increasing patient's pharmaceutical needs, and reducing overreliance on China and India

Building a fast-paced CDMO activity (High-yielding crops, extraction, complex chemistry, scaleup, large-scale selective isotopic labelling)

Well-established and deeply connected executive team with strong governance

Strong and ambitious ESG commitments

The Value we Create



Ensuring United States healthcare is strong and self-reliant
Onshoring API manufacturing
Building end-to-end drug manufacturing capabilities
Reducing overreliance on importation



We commit to the healthcare needs of the people
Critical life savings drugs are produced at lower costs
Drug are manufactured that meet the highest regulatory and quality standards



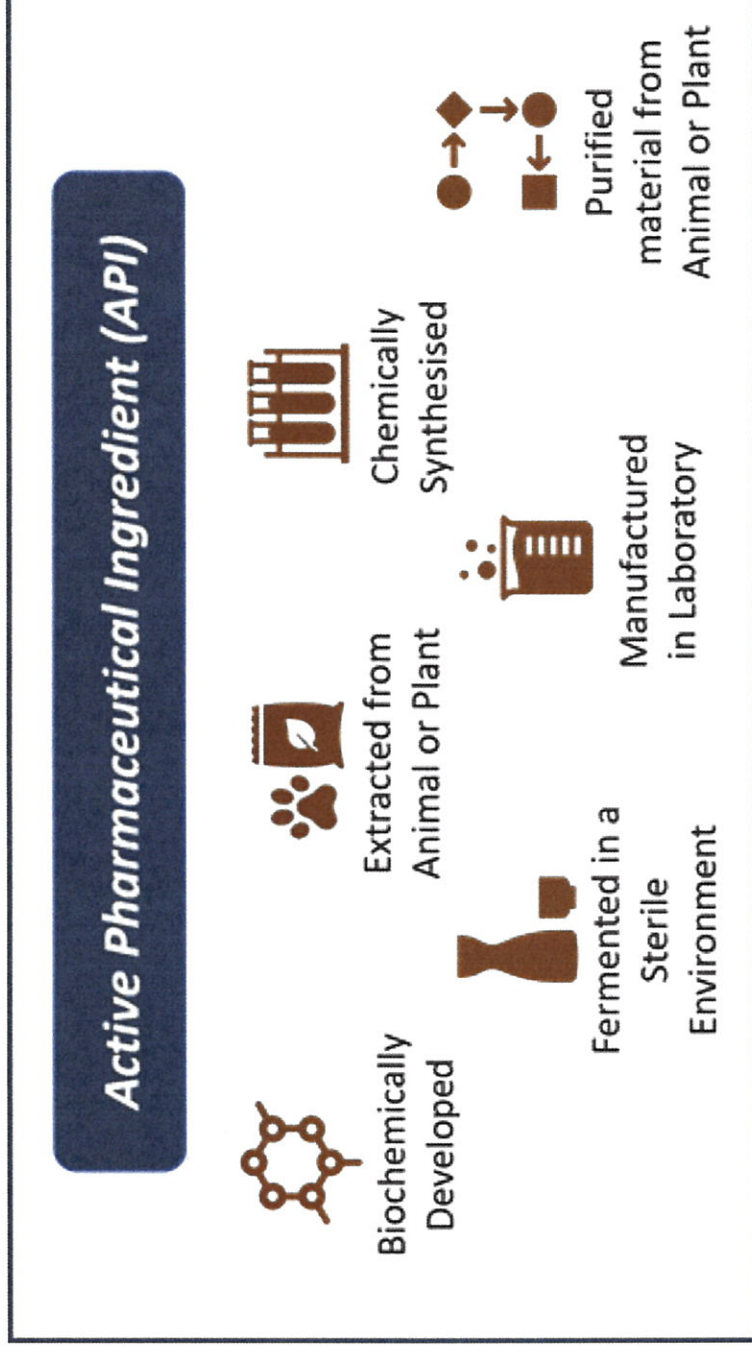
Our team is the pillar of our success
We put our people above profits
Build a lasting culture with values and respect for everyone
Passion to serve and make the world just and equitable



We care, value and respect the planet we live on
Ensure starting materials are sourced environmental friendly
Manufacturing plants meeting highest pollution control standards
Minimize, recycle and reuse by-products

Onshoring Active Pharmaceutical Ingredient (API) Production and Manufacturing

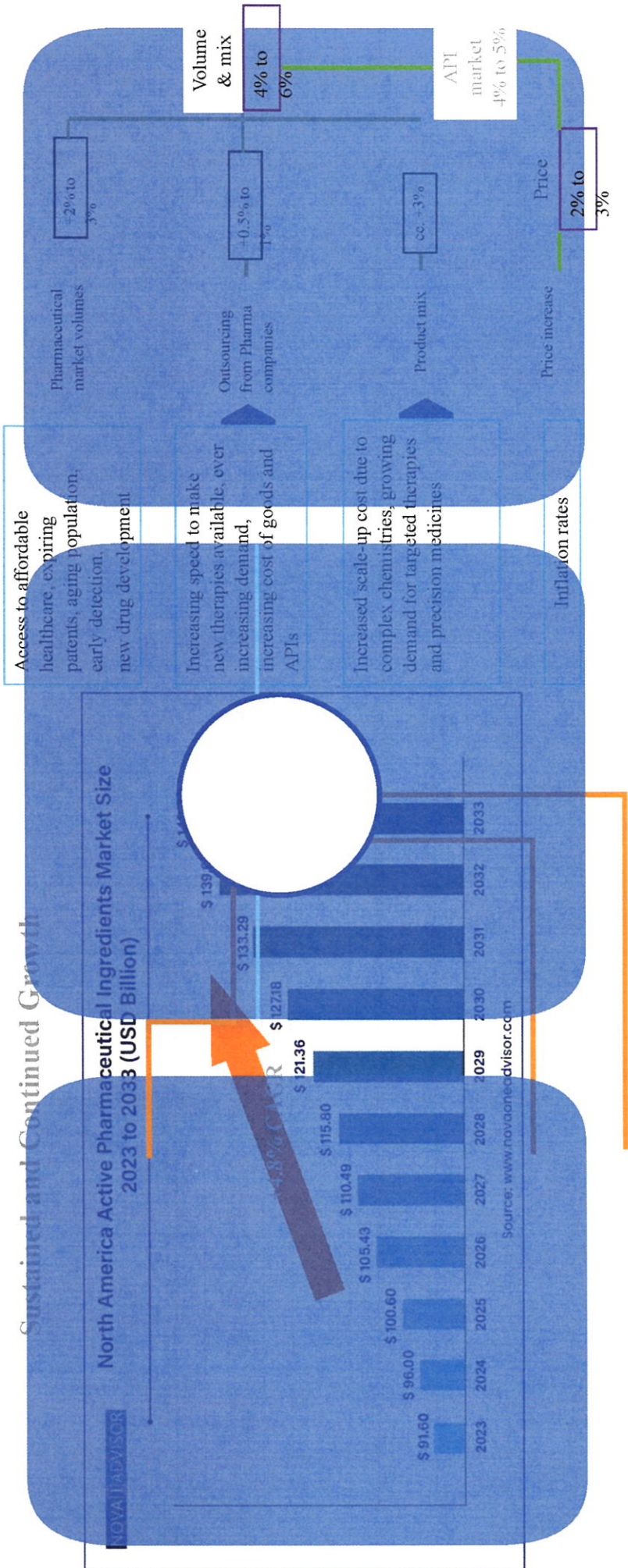
API is active agent in the medicine that creates the desired therapeutic effect to prevent The progression, treat or eliminate the disease altogether



Kalkine Group Image

DMAA total addressable market to exceed 90+ Bn USD

Growth Drivers

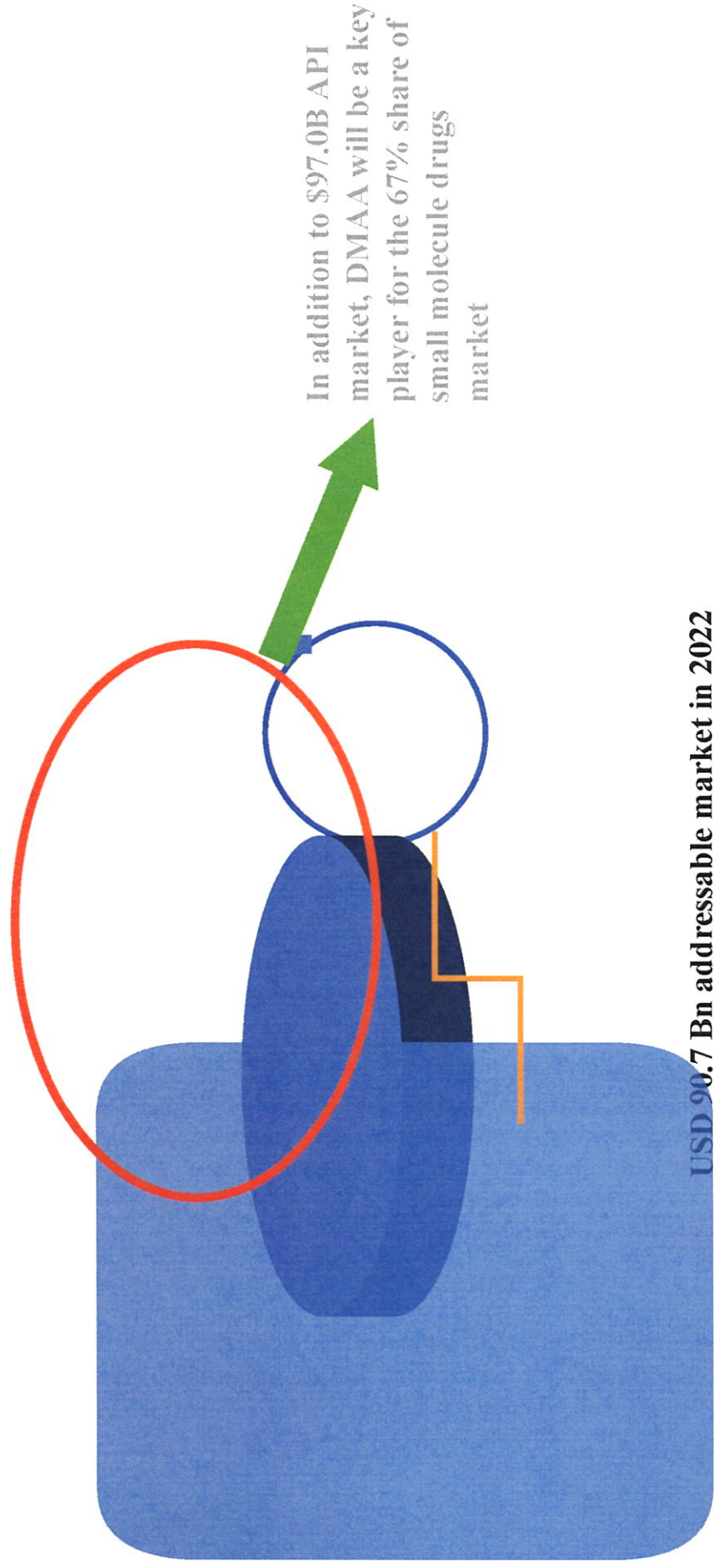


DMAA Investment to Capture a Combination of OTC and Prescription Drugs Market Exceeding USD 97 Bn



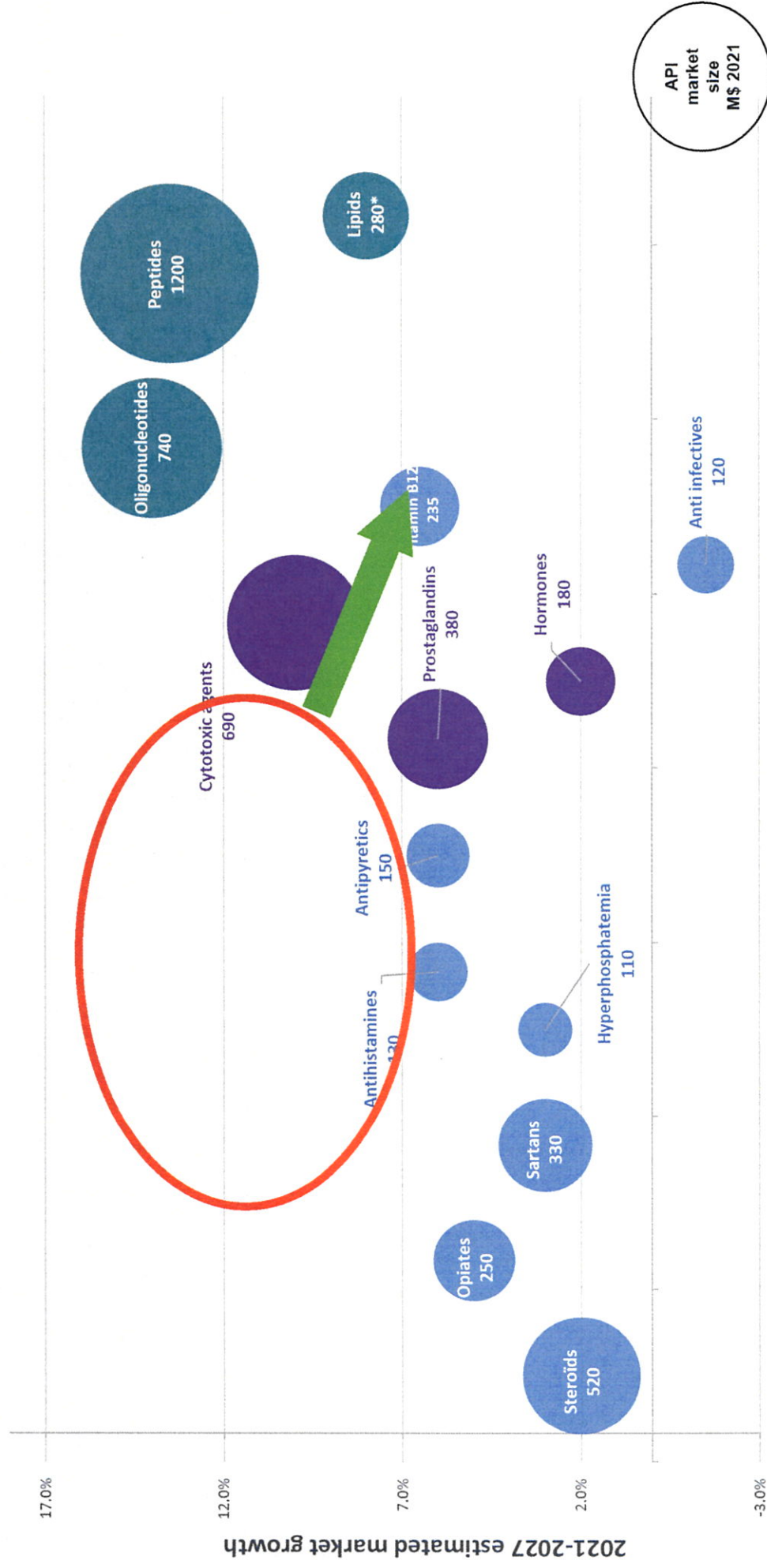
Source: Grandview Research, North America API Market Size & Trends 2020-2030

350 Molecules Approved by FDA Between 2016 and 2022



Sources: FDA extraction; C&En - The Years in New Drugs 2016, 2017, 2018, 2019, 2020, 2021 & 2022

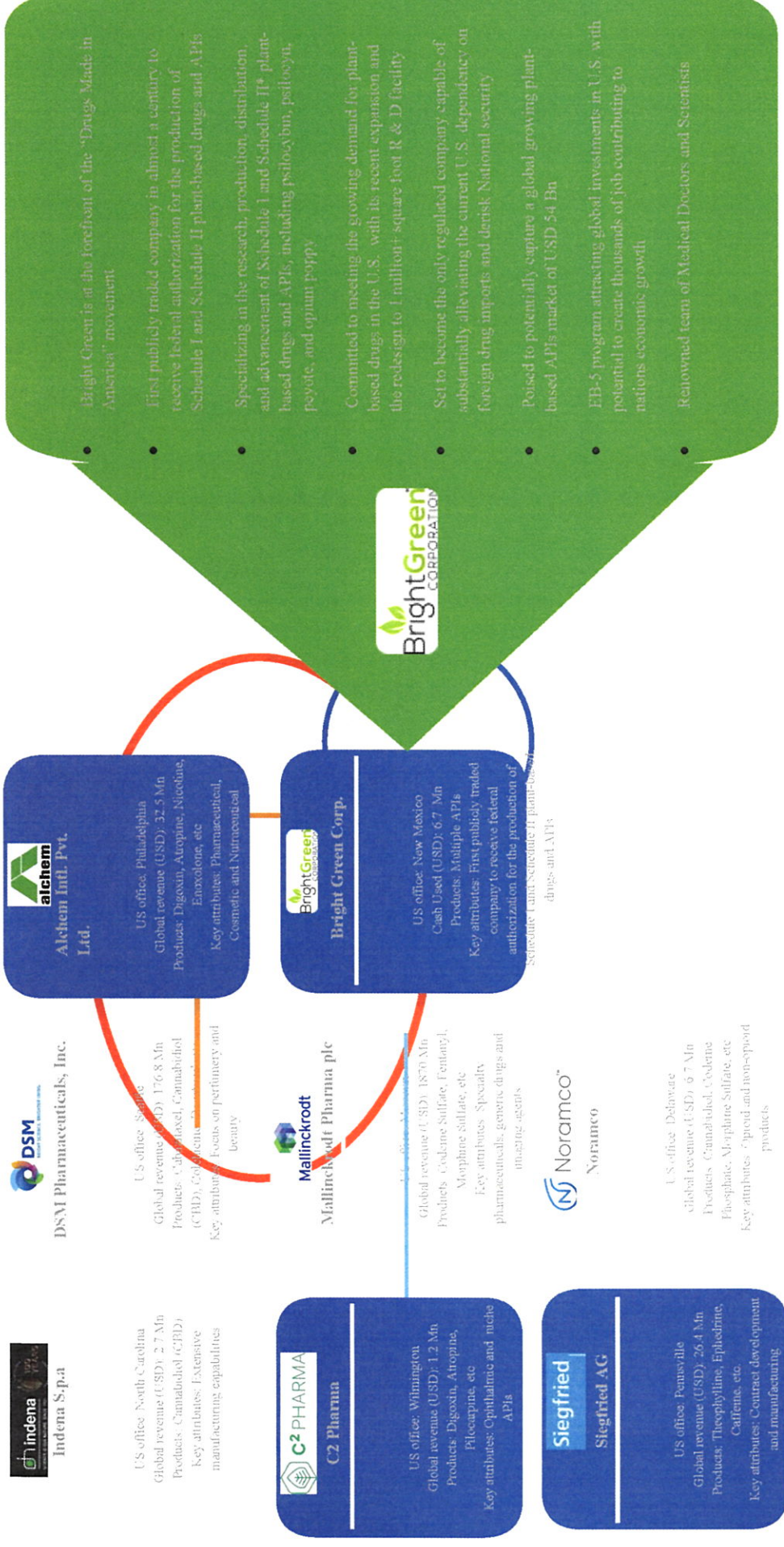
API Segments Market Size and Estimated Growth



*. excluding lipid encapsulation market for LNP liposomes

Sources: BCC - Active Pharmaceutical Ingredients: Global Markets, January 2021; Technavio - Global Active Pharmaceutical Ingredients (API) market CPA 2022; Mordor Intelligence - Global Active Pharmaceutical Ingredients (API) market (2019 - 2024), 2018.

North America Key Plant-based API Players



Sources: www.brightgreen.us, Independent report Mordor Intelligence -OPPORTUNITY ANALYSIS FOR United States plant-based prescription PRODUCTS Market (2024-2030), 2024

North America Key Synthetic API Players, Products, Technologies and Differentiator

Company	US Office	Global Revenue Mn (USD)	Key APIs	Pipeline	Technology	USP and Differentiator
Teva API	New Jersey	15,846.0	Fluticasone Furoate, Clascoterone, Tadalafil etc.	Emtrusolmin, TEV-278, TEV-6000	Fermentation, Oligonucleotide, etc.	Teva API has a diverse range of synthetic APIs across various therapeutic areas, which allows it to cater to different customer needs and market demands. Teva API's strategy often includes vertical integration, which allows for better control over the supply chain, including sourcing raw materials and managing production processes.
Merck KGaA	Missouri	22,565.1	Doxylamine Succinate, Brompheniramine Maleate, Bifrocethol etc.	Pimicotinib, Ompenacilid, Tucusetrib	Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR), Antibody Cytokine Traps, etc.	Merck KGaA invests heavily in research and development, which allows it to innovate and bring new synthetic API offerings to market. Targeting emerging markets with high growth potential can be a significant part of their strategy, allowing Merck KGaA to tap into new revenue streams.
Sun Pharma Industries Ltd.	New Jersey	5,418.6	Dalfampridine, Brivaracetam, Droxidopa etc.	N/A	Chemical Synthesis, Crystallization and Purification	Sun Pharmaceutical Industries Ltd adopts a vertically integrated approach, allowing it to control the entire supply chain from raw material sourcing to final API production. This strategy can lead to cost efficiencies and enhanced product quality.
Lupin Ltd.	Baltimore	2,025.1	Levetiracetam, Dapagliflozin, Rilampicin, Rifampicin, Rifabutin, Idelalisib etc.	N/A	Fermentation	Sun Pharma frequently offers competitive pricing for its APIs by optimizing manufacturing processes and capitalizing on economies of scale, positioning it as a preferred choice for both generic and branded pharmaceutical products.
Dr. Reddy's Laboratories Ltd	New Jersey	2,992.6	Acalabrutinib, Ciprofloxacin, Metoprolol	N/A	N/A	Lupin Ltd's extensive product portfolio spans various therapeutic categories, including cardiovascular, anti-infectives, diabetes, respiratory, and more, catering to a broader market segment.
Aurobindo Pharma Limited	New Jersey	302,523.0	All synthetic penicillin, cephalosporin, anti-infective, and other non-beta lactams.	N/A	Continuous Flow Synthesis and Automation	Lupin has shifted its focus towards specialty and complex generics, positioning itself in high-growth segments that require specialized knowledge and a deep understanding of market dynamics.
BASF SE	Texas	74,015.7	Ibuprofen	N/A	Chemical Synthesis	Dr. Reddy's Laboratories Ltd emphasizes sustainable practices in its manufacturing processes, which can appeal to environmentally conscious clients and help in compliance with environmental regulations.
EUROAPI	New Jersey		Erlotinib, Ciprofloxacin, Simvastatin etc.	N/A	Fermentation and Particle Engineering	Dr. Reddy's Laboratories Ltd is strategically focused on developing specialty APIs in high-demand therapeutic areas, differentiating itself from competitors who may focus more heavily on generic products.
Eli Lilly and Company	Indiana	32,124.1	Tirzepatide	Imlunestrant, Elordintide	N/A	Aurobindo Pharma Limited leverages economies of scale and advanced manufacturing processes, which enable it to produce high-quality APIs at competitive prices. This cost advantage allows it to compete effectively in both regulated and emerging markets.
Cerata Pharma LLP	Canada	1.48	Tucrolimus, Capacetidine, Carbamazepine etc	N/A	Cryogenic, High-temperature, and High-vacuum	Aurobindo employs cutting-edge technologies in its manufacturing processes, such as continuous flow synthesis and automation. These technologies enhance efficiency, reduce waste, and improve safety in production.

Source: Independent report Mordor Intelligence -OPPORTUNITY ANALYSIS FOR United States plant-based prescription PRODUCTS Market (2024 -2030), 2024

Federal Investment Opportunities and Incentives for U.S. Based API and Drug Manufacturers

Proposed Incentives to Secure the US Pharmaceutical Supply Chain

Long-Term Price and Volume Guaranteed Contracts	Grants	Tax Incentives	Regulatory Efficiencies
Guaranteed volume and price agreements for US-based generic manufacturing for "high priority" medicines.	- US gov't grants to support construction, alteration or renovation of facilities for the US-based manufacture of high-priority medicines. - US gov't grants to pharmaceutical manufacturers to relocate production facilities from outside of the US back to the US to cover moving expenses and offset costs for building new plants and research centers.	- New tax incentives to encourage US pharmaceutical companies to produce high-priority medicines by: - relocating foreign manufacturing sites back to the US; - building new greenfield sites; - refurbishing already existing manufacturing facilities and/or transforming existing production lines.	- To expedite the approval of onshored facilities and all the products to be produced in them, the FDA will streamline its regulatory review and approval processes of such facilities. - The FDA to create an internal, intra-agency working group to expedite reviews and approvals to onshore pharmaceutical manufacturing.

Source: Association for Accessible Medicines

DNMAA, post IPO will work closely with the state and Federal agencies to assist stockpiling key pharmaceutical ingredients

Rationale for U.S. Stockpiling of Key Pharmaceutical Ingredients

Critical commodity which could undermine the nation's healthcare system and national defense mobilization and sustainment capabilities during geopolitical tensions

Depending on the nation's pacing military threat and largest economic competitor for these materials is a significant security threat

Key Starting Materials (KSM) and Active Pharmaceutical Ingredients (API) stockpiles in the US would provide strategic flexibility and agility and can be stored for many more years than finished pharmaceutical products. They also can cover a broad spectrum of finished products further up the supply chain

The US government has a long history of stockpiling materials deemed essential for national security

Pharmaceutical ingredient stockpiles can provide a solid foundation to stabilize the economy, advance the continuity of high-quality patient care and long-term health outcomes, and provide essential predictability to patients, government and first responder actors, and the pharmaceutical and healthcare industries

Management Team

WELL-ESTABLISHED AND DEEPLY CONNECTED EXECUTIVE TEAM

DMAAA will leverage a team with industry expertise in pharmaceutical and medical fields. Sponsor team has a network of prime public targets from a broad spectrum of related sectors designed to ensure success of the SPAC and continued growth of the business. Experience in expertly managing business, industry, and medical research relationships. Global thinkers with thorough understanding of the intricacies of the medical and pharmaceutical space and the resulting opportunities.

Lynn Stockwell
Chief Executive Officer

Ms. Stockwell expertly managed business, industry, and medical research relationships. Ms. Stockwell has also served as a director at a hospital, where she spearheaded fundraising initiatives advocating for the use of natural additives as a safer alternative to opioids. Her dedication extends to her sponsorship of biomedical research and clinical trials, particularly in the area of plant-based bio-identical hormone replacement. Ms. Stockwell's commitment to healthcare innovation is further demonstrated by her membership in the Association for Healthcare Philanthropy (AHP).

Glenn Worman
Chief Financial Officer

With nearly four decades of experience notably Mr. Worman has served as Chief Financial Officer of Insight Acquisition Corp., a special purpose acquisition company, since April 2024. Mr. Worman has been a Partner in the New York office of SeatonHill Partners, L.P. since November 2022. Between 2015 and 2022, Mr. Worman served as the CFO and President of National Holdings Corporation. From 2011 to 2015, he served as the Chief Financial Officer for the Americas for ICAP, plc. Prior to ICAP, plc, Mr. Worman held senior positions at, among other companies, Deutsche Bank, Morgan Stanley, and Merrill Lynch. Mr. Worman is an accomplished and diverse financial services executive with a history of providing strong, effective leadership and developing and executing strategy across a spectrum of businesses.

Catherine Do
Member of the Board

Dr. Do was trained as a medical doctor specializing in Public Health and Epidemiology in France, with a keen interest in molecular epidemiology. After spending a year at the French Drug Agency (ANSM) as a pharmaco-epidemiologist, Dr. Do pursued her interest in molecular research, undertaking a post-doctoral fellowship in genetics and epigenetics at Columbia University. From 2017 to 2022, she served as an assistant scientist at the Center for Discovery and Innovation at Hackensack University Medical Center. In 2022, to further her expertise in chromatin architecture, she joined NYU Langone Health as an Assistant Professor in Pathology focusing on chromatin architecture, underscoring her central role in the field of drug discovery.

Stridhar Prasad
Member of the Board

Dr. Prasad joined Syrx, Inc., a drug discovery company, in 2001, leading crystallography efforts that led to the discovery of Nesina®, a drug to treat type 2 diabetes. At Merck & Co. Inc., he was a lead crystallographer on key drug discovery programs, including those for schizophrenia, oncology and HIV-1 AIDS. Dr. Prasad co-founded Plex Pharmaceuticals in 2009, which was acquired by Collidion, Inc. in 2017, and served as its Chief Scientific Officer from 2009 to 2022. Dr. Prasad is the cofounder and CEO of EyeVision Pharma, a startup focused on developing treatment for myopia. Prior to EyeVision, he was the Director and Head of Protein Science at Ventus Therapeutics, Waltham, MA, a clinical-stage biopharmaceutical company deploying leading-edge structural biology and unique computational chemistry tools to develop a robust pipeline of novel medicines in immunology, inflammation, and neurology.

Myron Shulgan
Member of the Board

Mr. Shulgan is a lawyer who has over 40 years of trial experience. He was a partner at Strosberg Sasso Suttis LLP from 2015 to 2024. Early in his career he worked as a federally appointed drug prosecutor for three years where he prosecuted individuals charged with drug related offences. Since then he has developed a trial practice during which he has represented corporations and individuals involved in complex commercial litigation, construction claims, banking disputes and other business-related matters in trials and appeals in all levels of Courts in Canada including the Supreme Court of Canada.



Thank You!