AJNA BIOSCIENCES

Transforming the $678B pharma industry with plant medicine, leading with psilocybin and cannabinoids

ajnabiosciences.com Denver, CO VC-Backed Science & R&D Repeat Founder

Highlights

VC-Backed
Raised $250K or more from a venture firm

Repeat Founder
Founder has started a previous company funded with $2M+

1. Led by industry pioneers who filed first-ever cannabis patent & brought a cannabidiol company to IPO
2. Powered by world-class scientists from Harvard Medical, Johns Hopkins, and NYU
3. Leading a new frontier in the $678B pharmaceutical industry
4. Phase 1 trial for Psilocybin-based antidepressant drug planned for early 2025
5. Phase 2 trial for CBD-based Autism Spectrum Disorder drug planned for late 2024
6. 2 botanical drug candidates in pipeline for FDA approval with additional drugs in discovery
7. Green process with IP for solventless extraction methods

Our Team

Joel Stanley CEO & Co-Founder

Leader in botanical drug innovation and CBD industry trailblazer. Scaled CBD category leader Charlotte's Web from 0 to IPO with $75M in annual revenue. Former Chairman at Charlotte's Web.

Orrin Devinsky MD, Chief Medical Advisor

Distinguished neurologist specializing in epilepsy & behavioral disorders. Renowned Professor of Neurology, Neurosurgery, & Psychiatry at NYU School of Medicine. Board Director of the Epilepsy Foundation & Chairman of the Medical Advisory Board for Tilray

Board for Tilray

Scott Hansen VP, Lab Operations & Quality

Pharmaceutical operations expert. Specialist in quality systems and driving market advancement in cannabis and fungi industries. Former VP of Quality & Regulatory Affairs at Agricor/Botanacor, also Director of Quality and R&D at Charlotte's Web & Sandoz.

Bob Judge VP, Finance

Finance executive with extensive leadership experience. Former CFO & COO at Timberline Industries & CEO at Lane Industries & Lane Pursuits, overseeing private equity & venture capital investments. KPMG alumnus, CPA, MBA from the University of Connecticut.

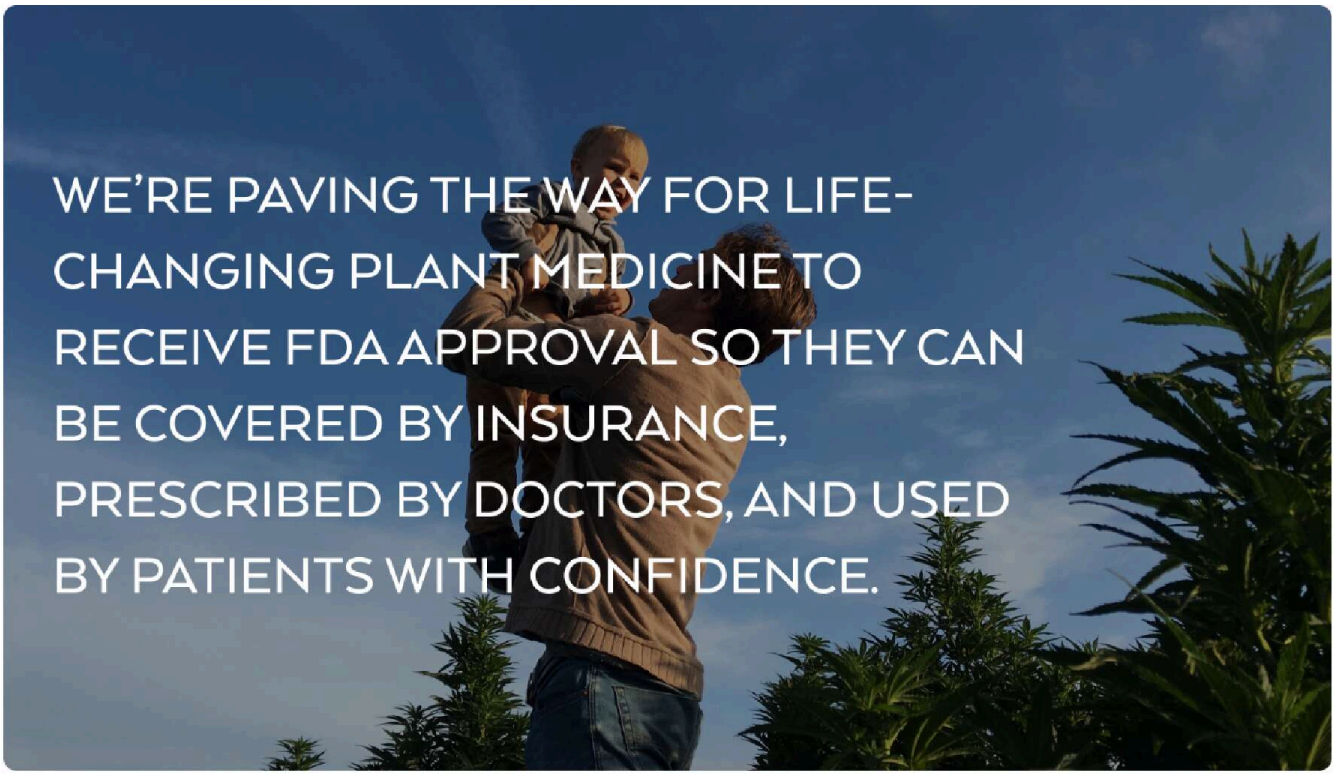
Pitch

WHY AJNA?

AJNA BioSciences is on a mission to revolutionize the $678 billion US pharmaceutical industry with botanical drugs.

Powered by leading scientists from Harvard, Johns Hopkins, and NYU, AJNA is pioneering a new regulatory pathway to develop FDA-approved drugs from plant medicine.

Leveraging proven medicinal compounds from nature, our first two drug candidates treat conditions more than 80 million people suffer from today: Autism Spectrum Disorder and Generalized Anxiety Disorder.



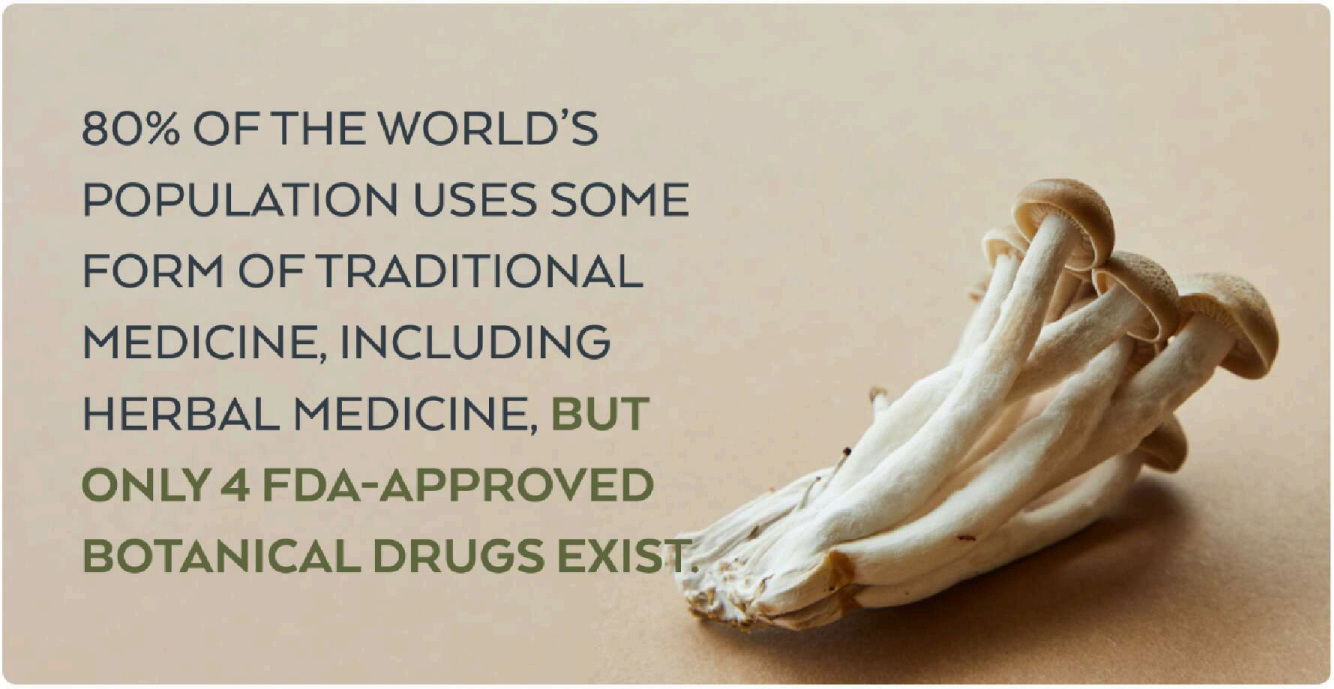
PEOPLE WANT NATURAL OPTIONS, BUT FEW EXIST

Until recently, strict regulatory policy blocked the development of prescription drugs made from plants. Even as the federal government considers rescheduling marijuana, patients in need cannot access their

medicine of choice.

Consumer demand for natural, more holistic treatment options has never been higher. Demand for psychedelic-assisted therapy is on the rise, and microdosing psilocybin is increasingly popular as a therapeutic treatment option.

Changing regulations have opened the doors for recreational and therapeutic marijuana usage, leading to a thriving cottage industry. Yet the pharmaceutical industry has yet to catch up with these trends.



Plant medicine, with centuries of traditional use, offers great efficacy and fewer side effects. Plants leverage the synergy of multiple compounds to enhance effectiveness and bioavailability, resulting in a more holistic approach to treatments.

In contrast, synthetic drugs typically target individual symptoms instead of looking at the drug's impact on the whole system, which can lead to unwanted side effects. For example, antipsychotics like Risperdal® and Abilify® are effective at treating irritability in people with autism, but they can cause significant weight gain, sedation, and other health complications.

There is an urgent need for safer, more natural treatments that leverage the synergy of plant compounds, providing effective alternatives and bringing the pharmaceutical industry back to its natural roots.

INTRODUCING A NEW CLASS OF DRUGS, MADE BY NATURE

AJNA transforms plants into safer and greener prescription drugs. This new class of drugs is called botanical drugs.

Botanical drugs are FDA-approved pharmaceuticals made with plant medicine.

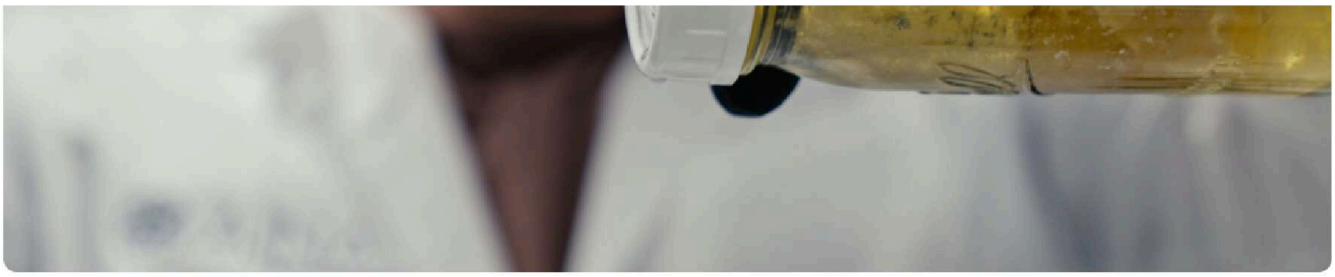
AJNA is tapping into the abundance of unexplored plant and fungi species that hold tremendous potential to be developed into potent therapeutic compounds. Our current focus is on specific compounds within cannabis and psilocybin, both of which have a well-established history of therapeutic use.

WHERE CUTTING-EDGE SCIENCE

AMPLIFIES THE POWER OF NATURE

AJNA's state-of-the-art 13,500 sq. ft. lab has clearance to process United States Drug Enforcement Agency (DEA) Schedule 1 substances. Situated near Denver, Colorado, our facility goes beyond conventional labs.

Our team uses modern Chemistry, Manufacturing, and Controls (CMC) protocols along with specialized instrumentation, to characterize and standardize botanical raw materials to FDA standards. This approach, combined with our expertise in cutting-edge cultivation, extraction, and FDA-regulated CGMP production, positions us as leaders in the evolving field of botanical drug development.

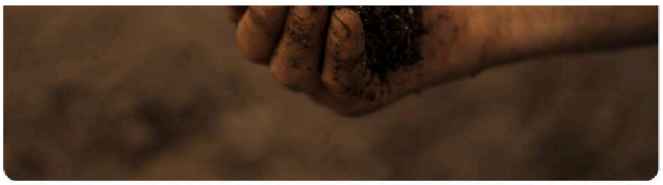


We've integrated the highest standard of sustainable methods into our research and development processes, reducing our ecological footprint by using only water and plant material with no added agents or chemicals. We are implementing a process whereby our waste stream, composed of pure organic mushroom compost, goes directly into the land around Denver, resulting in a beautiful circular impact.

AJNA IS AN EARLY MOVER IN A LUCRATIVE BLUE OCEAN MARKET

In 2016, the FDA issued revised guidance on botanical drug development, paving the way for AJNA to pursue regulatory viability for therapeutic products made with plant medicine. AJNA is one of the first companies to pursue this new pathway.

AJNA has established a significant defensible moat in this infant market category. Rigorous CMC protocols and regulatory requirements present substantial barriers to entry. At the same time, the abundance of molecules in nature that can be turned into botanical drugs means there is plenty of work to be done by us and our peers.



TWO POTENTIAL BLOCKBUSTER DRUGS ADVANCING TO PHASE 2 CLINICAL TRIALS

We've developed two prescription drug candidates with several more in the discovery phase. These drug candidates are at or near Phase 2 clinical trials, an important milestone on the path to FDA approval.

AJA001

Autism Spectrum Disorder, Full-Spectrum Cannabis Derived Drug

> This drug is serving an unmet need for the 75 million people with Autism globally because there are only two FDA-approved drugs for the indication, both of which have intense side effect profiles.

> We developed this drug to alleviate symptoms of irritability and aggression in patients with Autism Spectrum Disorder.

> Our unique formulation utilizes patented hemp genetics from Charlotte's Web's CBD products optimized bioavailability.

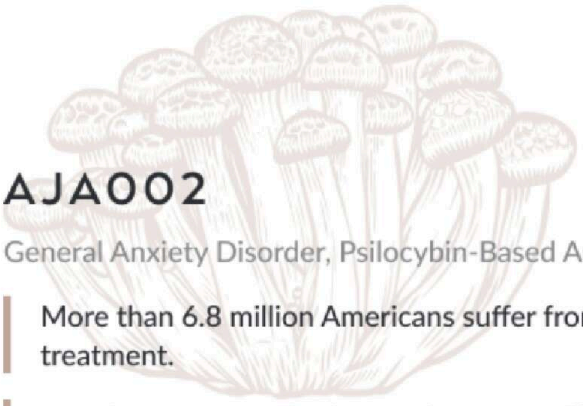
> The Phase 1 trial, which affirms that the drug is effective and safe, is complete, and we are targeting to enter Phase 2 in late 2024.

MILESTONES & VALUE TRAJECTORY

(ENTERING) DEVELOPMENT STAGE	YEAR	TIMELINE	rNPV*
Phase 1	1	2023	$162M
Phase 2	2	2024	$306M

Phase 2	2	2024	$366M
Phase 3	4	2026	$869M
FDA Review	7	2029	$2.08B
FDA Approval	8	2030	$2.86B
Peak	13	2035	$4.19B

**rNPV model based on combined pediatric and adult market for irritability associated with ASD, designed in conjunction with Sweeting & Associates and data inputs from Life Sci Consulting and other sources.*



AJA002

General Anxiety Disorder, Psilocybin-Based Antidepressant

> More than 6.8 million Americans suffer from General Anxiety Disorder, and only 43% are receiving treatment.

> U.S. doctors prescribed more than 238 million daily use antidepressants in 2020, generating an estimated $18.8B in revenue.

> SSRIs don't work for everyone, and several have been found to have adverse long-term side effects such as sexual dysfunction, weight gain, sleep disturbances, and even suicidal thoughts.

> We developed this drug to be a natural alternative to antidepressants.

> Targeting Phase 1 entrance in 2025.

MILESTONES & VALUE TRAJECTORY

(ENTERING) DEVELOPMENT STAGE	YEAR	TIMELINE	rNPV*
Preclinical	1	2024	$166M
Phase 1	2	2025	$265M
Phase 2	3	2026	$476M
Phase 3	5	2027	$1.29B

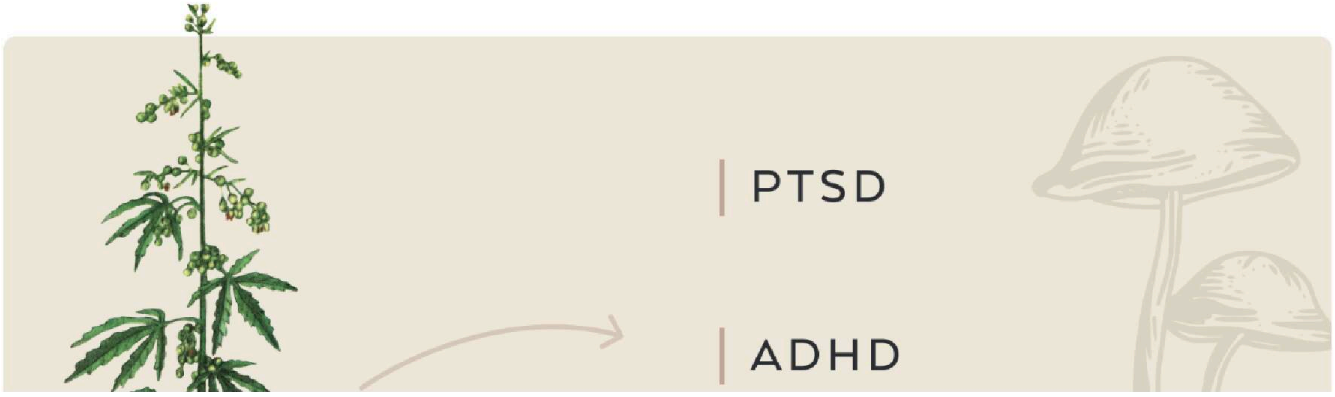
Phase 3	5	2027	$1.29B
FDA Review	8	2030	$2.92B
FDA Approval	9	2031	$4.02B
Peak	13	2035	$5.57B

**rNPV model based on total anti-depressant market designed in conjunction with Sweeting & Associates.*

> "MEDICATIONS RESEARCH FOR PSYCHIATRIC DISORDERS HAS BEEN STAGNANT, PSYCHEDELICS REPRESENT A REALLY NOVEL MECHANISM OF ACTION FOR PSYCHIATRIC DRUG DEVELOPMENT, HAVING NEW CLASS OF DRUGS IS AN EXCITING AVENUE FOR RESEARCH."

DR. RYAN VANDREY
Johns Hopkins University

Based on consumer trends, a standardized botanical daily microdose of psilocybin will be in high demand. AJNA's drug candidate represents one of the only natural psychedelics currently moving through the FDA.



CHRONIC PAIN

AJA001 and 002 are just the beginning of AJNA's mission to create new and natural options in the massive $678 billion pharmaceutical market. Additional conditions we are looking to treat include PTSD, sleep disorders, ADHD, and chronic pain. Our focus is on selecting plant, fungi, and other botanical species with a well-established history of therapeutic use to streamline the drug discovery process and mitigate late-stage clinical trial risk.

INVESTORS BENEFIT FROM UNIQUE IP PARADIGM

AJNA'S 20-YEAR PATENTS: 4X THE INDUSTRY NORM

20-year patent protection for botanical medicines, compared to the pharmaceutical industry standard of 5-7 years.

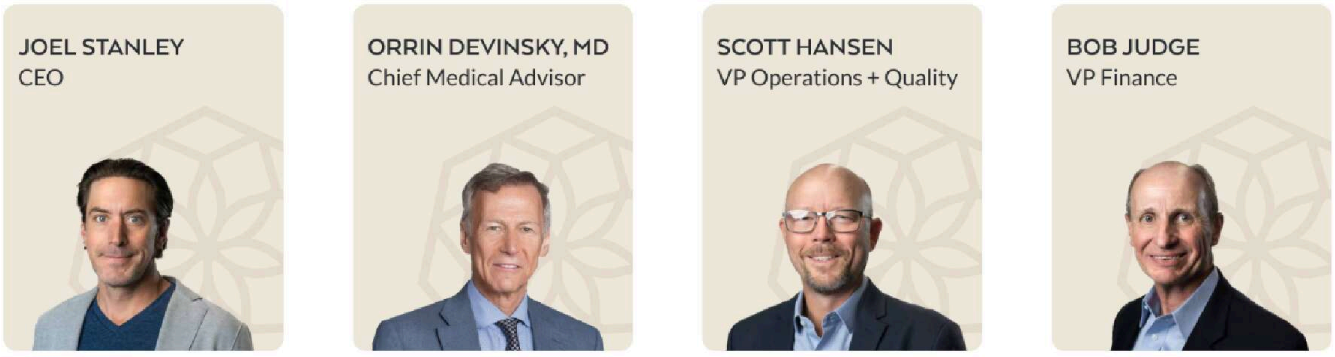
Plant variety patents offer 20 years of protection

Synthetic: 5-7 years

AJNA and our investors benefit from a unique IP paradigm that protects botanical drug developers from the profitability threat posed by

generics, which traditional pharmaceutical companies often face. The intricate composition of AJNA's botanical mixtures makes them nearly impossible to replicate. In addition, plant variety patents offer 20 years of protection, versus the 5-7 year exclusivity period typically granted to synthetic drugs.

LEADERSHIP HAS TAKEN A CBD COMPANY TO IPO



CHARLOTTE'S WEB
STANLEY BROTHERS

NEW YORK UNIVERSITY

SANDOZ
Biopharmaceuticals

agricor

KPMG

Our leadership team has a deep family legacy of increasing access to the powerful medicinal effects of plants. CEO Joel Stanley and his 6 brothers started a business growing medical marijuana for cancer patients in 2009.

After discovering optimal genetics in wild hemp that grew across middle America, and witnessing the powerful therapeutic effect of these extracts, they founded the CBD company Charlotte's Web in 2014. Joel scaled Charlotte's Web into one of the world's most trusted hemp extract companies and ultimately led the company to a successful IPO within four years.

Through AJNA, Joel is expanding his legacy by pursuing full medical and FDA validation of hemp and fungi-based medicines backed by a powerhouse team of plant medicine experts, FDA veterans, and elite medical researchers.

With decades of collective expertise, our scientists excel in drug development, botanical standardization, and substance characterization.

Our regulatory team has reviewed 500+ drug applications at the FDA and led authorship of the Botanical Guidance. On the clinical side, AJNA's team specializes in neurology, autism, epilepsy, and psychiatry.

AJNA Chief Medical Advisor Dr. Orrin Devinsky led the principal investigation for Epidiolex™,

the sole FDA-approved cannabis drug with $845M in sales in 2023.

REVOLUTIONIZING THE MASSIVE $678B PHARMACEUTICAL MARKET

AJNA is leveraging modern technology, new regulatory pathways, and consumer trends to trailblaze a new frontier in the $678B U.S. pharmaceutical market. This market is predicted to grow by 6% in the next four years, driven by increasing demand for personalized medicine and targeted therapies, as well as growing interest in natural and alternative remedies (Statista).

AJNA is also at the helm of the rapidly growing psychedelics and cannabis markets. The evolving regulatory environment for psychedelics and cannabis is bringing these substances into the mainstream of modern medicine, with countries like the U.S. making significant steps towards legalization for therapeutic use.

M&A IN THE PLANT MEDICINE SPACE IS HEATING UP

As the regulatory environment for medicinal plants becomes more favorable, we foresee a surge in M&A activity. Major pharmaceutical and biotech companies are increasingly recognizing the immense potential of cannabinoids and psychedelics

potential of cannabinoids and psychedelics.

For example, GW Pharmaceuticals, whose multiple sclerosis treatment product nabiximols was the first natural cannabis plant derivative to gain market approval, was acquired by Jazz Pharmaceuticals (NAS: JAZZ) for $7.2 billion in 2021.

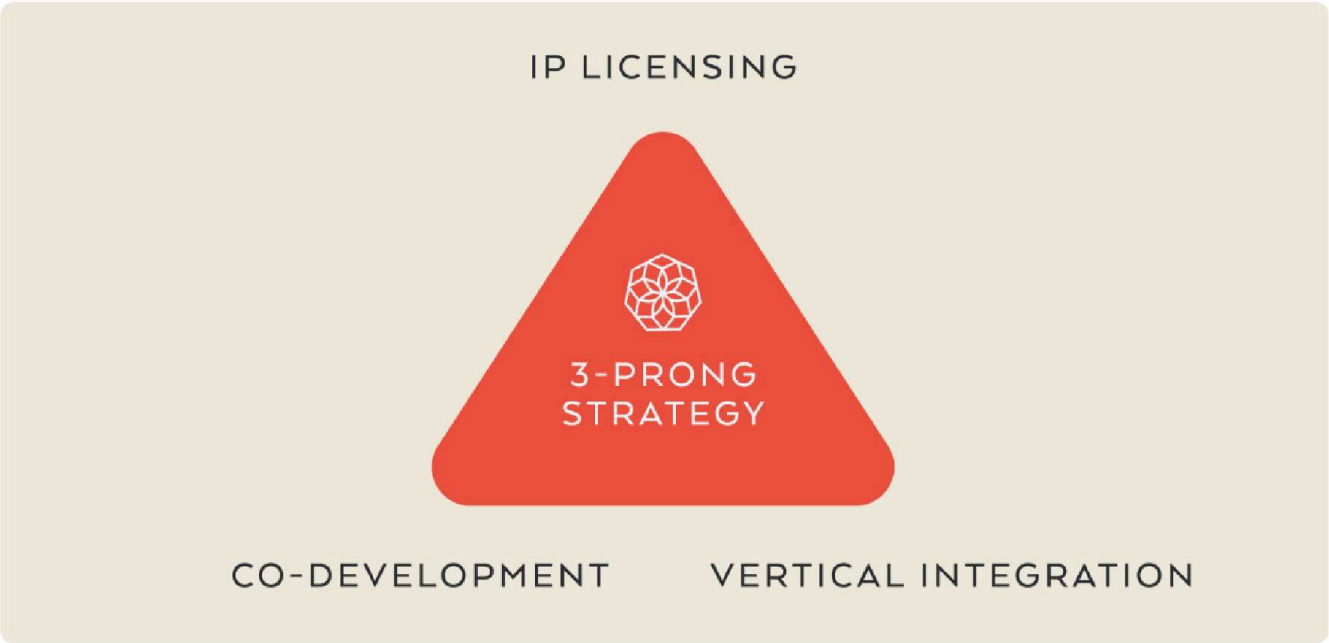
Another major deal was struck in May 2024 between AbbVie and Gilgamesh Pharmaceuticals to develop novel compounds that treat the root causes of psychiatric diseases. Gilgamesh will receive an upfront payment of $65 million, up to $1.95 billion in potential option fees and milestones, and tiered royalties on net sales.

YEAR	DEAL SIZE	TARGET	ACQUIRER
2021	$7.2B	GW pharmaceuticals	Jazz Pharmaceuticals
2024	$2B	GILGAMESH	abbvie

DIVERSE COMMERCIALIZATION PARTNERS WILL DRIVE GROWTH

AJNA's commercialization strategy includes co-development partnerships, IP licensing, and the development of vertically integrated drug products in a broad range of botanical species and clinical indications. We are following a proven playbook in the biotech industry to realize value in our drug development platform through a liquidity event such as an acquisition of one of our drug candidates, company

IPO, or a strategic roll-up prior to any revenue being generated.



PIONEERING A NEW ERA OF BOTANICAL DRUG DEVELOPMENT

We're raising capital to fund upcoming clinical trials. Our mission at AJNA has always been to harness the power of botanicals to develop safe, natural, and effective therapies. By investing in AJNA, you can help make the natural medicines you believe in a reality for patients everywhere.

We have an exciting opportunity to lead a new era in botanical drug development, creating transformative therapies that could revolutionize medicine and improve millions of lives worldwide. Join us in advancing botanical medicine and building a greener future for healthcare.

* These statements have not been evaluated by the Food and Drug Administration.