

July 2024

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The Next Generation of Nature

willowbio.com

TSX: WLLW

OTCQB: CANSF

Certain information included in this presentation constitutes forward-looking information under applicable securities legislation. Forward looking information typically contains statements with words such as "will", "may", "anticipate", "believe", "expect", "plan", "intend", "estimate", "propose", "could", "potential", "positioned for", "becoming", "likely", or similar words suggesting future outcomes or statements regarding an outlook. Forward-looking information in this presentation includes, but is not limited to, statements relating to: the business, strategies, expectations, planned operations and future actions of Willow Biosciences Inc. ("Willow" or the "Company"), including research and development programs at the facility located in California; the Company's ability to commercially biosynthesize and create proprietary genomes; the Company's milestone projections, including the timing of commercialization of the various products in its portfolio; the sustainability of traditional manufacturing processes and benefits/impacts of Biosynthesis; expected therapeutic benefits of the Company's portfolio, expected benefits and cost-savings resulting from commercial-scale production via the Company's fermentation manufacturing platform, including manufacturing performance estimates and forecasts; the development of the Company's intellectual property portfolio; the arrangements under, and potential benefits of, the Company's strategic partnerships; discussions with cosmetics and consumer-packaged goods entities, manufacturing partners and other key stakeholders; the performance of the Company's business and operations; the financial strength of the Company; the ability of the Company to fund its business plan using cash on hand and existing resources; the availability of future R&D funding; the size of the biosynthetic cannabinoid market, including potential demand for the Company's cannabinoids from the pharmaceutical, cosmetics and consumer packaged goods industries; forecasted or potential revenue; statements made by other companies indicating their commitments to bio-based products; the Company's expected customer-base and potential addressable markets; the competitive conditions of the industry in which the Company operates and the competitive advantages of the Company; the performance of the current science team, management and board and the ability to find other qualified personnel with operational experience; the Company's ESG efforts and objectives; and the Company's future product offerings, including the development of other cannabinoids in the Company's product portfolio and the future production levels, quality, consistency and costs thereof.

The forward-looking statements contained in this presentation are based on certain key expectations and assumptions made by the Company, including, but not limited to, expectations and assumptions concerning: the future operations of, and transactions completed by, the Company; the Company's ability to implement corporate strategies; the potential for strategic partnerships to open new and larger markets (including nonpharmaceutical markets); the Company's ability to generate higher quality cannabinoids at lower costs; cost synergies created by its strategic partnerships and the successful implementation thereof; the adequacy of current capital; the availability of and access to qualified personnel;

the results of scientific research; the Company's ability to protect its intellectual property; the Company's ability to successfully create and launch brands and further create, launch, and scale products; the expected growth in the biosynthetic market.

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To be a global leader in developing and commercializing biomanufacturing processes for producing high value ingredients

Need

- Chemical methods for producing many high-value compounds can be expensive, toxic, and unsustainable
- Extraction from nature can be exploitive and often rely on animal-derived ingredients

Solution

- Willow has developed an AI-driven bioengineering platform that combines the best of chemistry and natural extraction with biology
- The result can lower manufacturing costs by 90% and enable production of rare ingredients with higher purity

Team

- Willow's experienced leadership team has long history of developing biobased solutions
- Supported by a seasoned Board of Directors and advisors who provide unparalleled access into top tier pharma and food ingredients companies across the globe

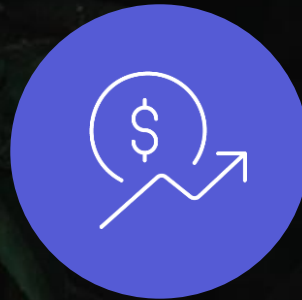
To be a global leader in developing and commercializing biomanufacturing processes for producing high value ingredients



Full pipeline of partnerships for existing and new markets



First mover advantage with proprietary BioOxi™ platform and multiple patents filed to date



Near term R&D and milestone revenue with high upside from royalty and supply revenue



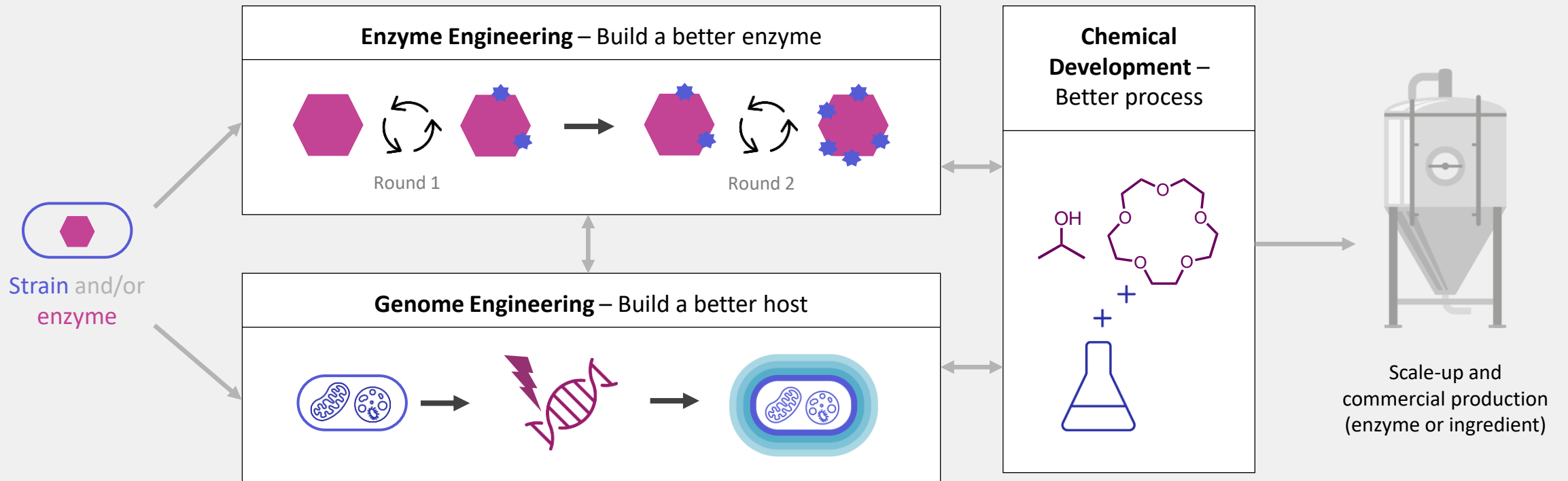
Low regulatory risk due to focus on established markets



Large universe of targets with highly transferable platform

Ingredients for pharmaceutical, food & beverage, consumer care markets and other markets

Fully integrated AI-driven technology platform rapidly delivers biomanufacturing processes at scale



Willow's AI-Driven Multivariate Engineering Accelerates Biomanufacturing



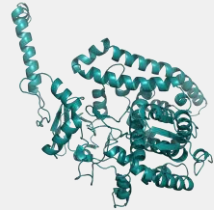
Best-in-Class
Tools for Engineering
Industrial Enzymes & Strains



Accelerated Development
& Time to Market
(1/2 the time)

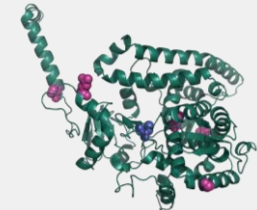


Smaller Teams Executing on
Multiple Programs Lowers Costs
(1/4 the cost)



Starting Enzyme

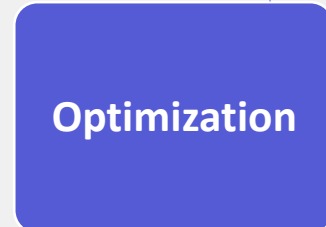
AI-Enabled Technology Platform Accelerates Discovery and Reduces Cycles



Industrial Enzyme



AI-driven algorithms to
identify top gene
candidates



ML-guided models for rapid
diversity generation and
recombination



HTP assays designed to
mimic commercial
processes



Automated platform for
pooled, parallel
sequencing and analysis



Large sets of representative data
further enhances AI models and
accelerates development



- Hypothesis driven modification
- AI-driven modification

Case Study: Engineering a highly challenging enzyme, Cytochrome P450, for commercial manufacturing of an Active Pharmaceutical Ingredient (API)

Identified 6 Key Mutations




- 1 mutation > Hypothesis-driven
- 5 mutations > Willow's AI-driven platform

1,800-fold improvement in performance from combined enzyme, strain, and process engineering

- Turnover improved from 10 mg to 20 g
- From concept to commercial in
 - 3 cycles (versus 9 industry std.)
 - 6 months (versus >12 industry std.) with 3 FTEs

Willow technology delivers where others have failed!

Willow continues to build out its pipeline with partnerships that bring in near-term R&D and milestone revenue and long-term royalty or supply revenue

 R&D Revenue	 Milestone Revenue	 Royalty or Supply Revenue
<ul style="list-style-type: none">• Lower-risk, near-term R&D revenue earned to offset costs• Designed to cover direct costs of R&D and to ensure partners have “skin in the game”	<ul style="list-style-type: none">• Medium-risk, medium-term revenue as programs achieve agreed performance targets• Designed to cover indirect costs associated with program	<ul style="list-style-type: none">• Multi-year, success-based commercial revenue• Allows for capital recycling to finance next stage of growth

R&D, milestone, and commercial revenue anticipated from multiple partnerships in 2024

Existing Ingredient Markets

Large volume ingredient opportunities that can be improved with biology

- Ursodeoxycholic acid (UDCA)
- Hydrocortisone
- Prednisolone
- Food ingredients
- Large volume generic APIs

Innovator Driven Ingredients

Novel ingredient opportunities that can be enabled with biology

- Kalsec natural food ingredient
- Enterin
- Biopharma development candidates
- Large pharma APIs

Large Volume Natural Food Ingredient Partnership With Kalsec

- Bulk ingredient for use in savory food applications, currently chemically synthesized
- R&D expected to finish mid-2024 with commercial scale up and safety work starting in late-2024
- Commercial agreement under negotiation that includes milestone and royalty payments starting as early as 2024
- As a leader in sustainable technologies, Kalsec has also invested in Willow to further drive our innovation



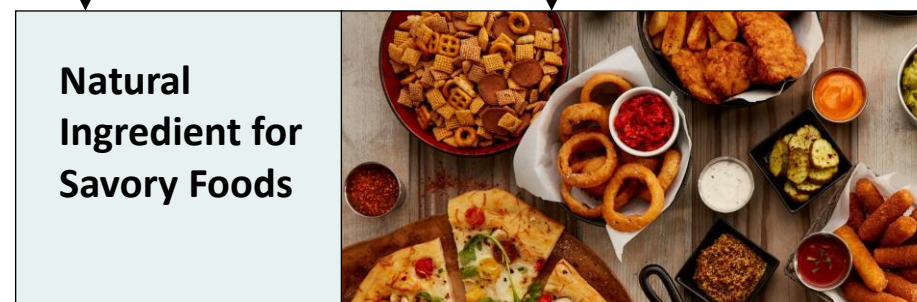
Petrochemical

Multistep Chemistry
(Synthetic)



Low-cost raw material
(Plant derived)

BioOxi™
(1 step; Clean Label)

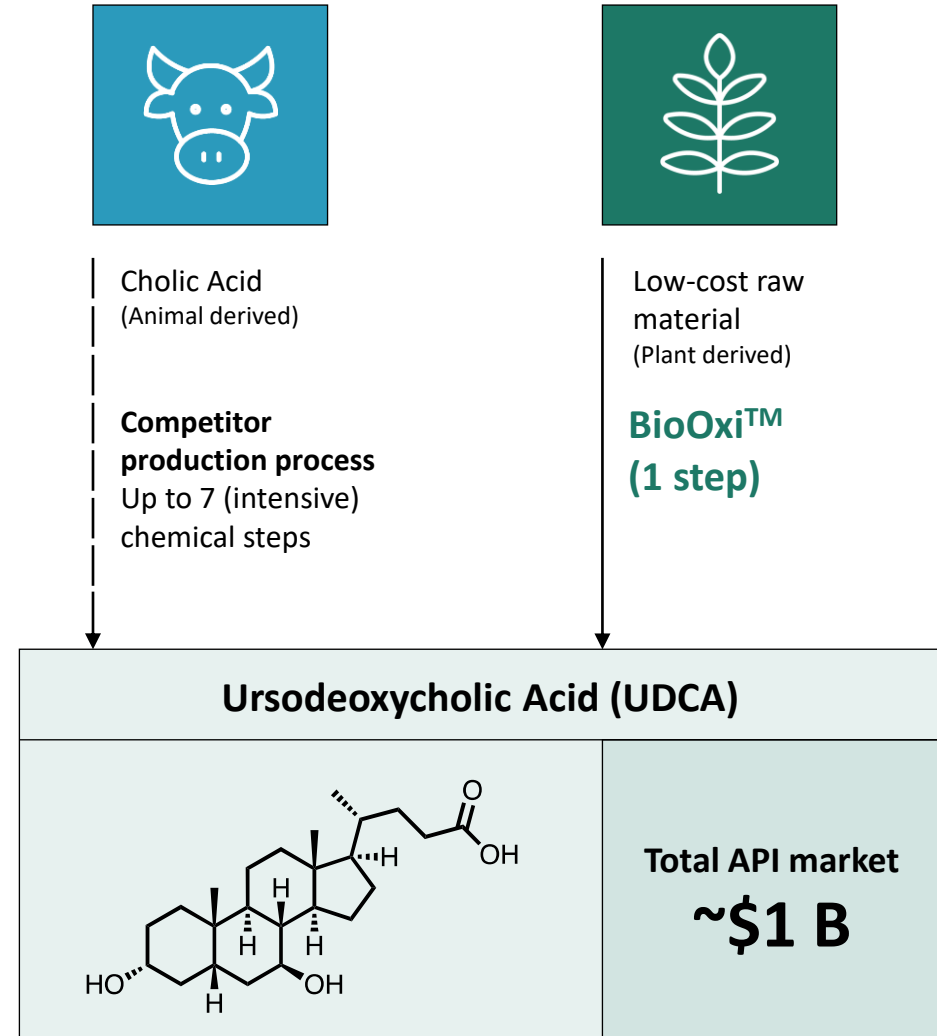


k a l s e c®

Ursodeoxycholic Acid (UDCA) Partnership with Global API Producer

- Large volume API (>1,000 tons) for treatment of cholestatic liver disease and gallstone conditions
- BioOxi process replaces multiple chemistry steps and eliminates reliance on animal-derived raw materials
- In collaboration with Sandhill One, R&D completed in 2023 with commercial scale up in progress
- Multi-year deal with global API producer that includes milestones and profit split payments starting in 2024

Partnership with a Confidential Global API Manufacturer

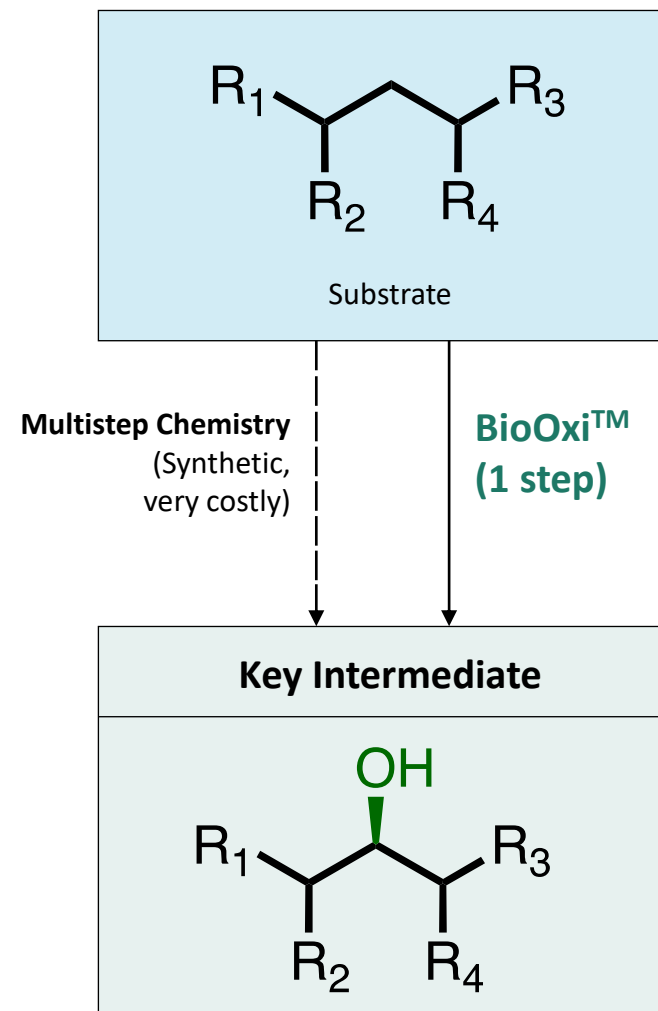


Building the Pipeline of Innovator Partnerships

- Key intermediates for therapeutic candidates under development
- Current synthetic routes prohibitively expensive and unsustainable for manufacturing
- BioOxi approach can achieve in 1 step, enabling secure supply at significantly reduced cost
- Nasdaq-listed Biopharma: Successful feasibility in Fall 2023 with optimization ongoing
- Enterin: Successful feasibility in Spring 2024 with continued optimization expected in 2024-25
- Key milestones: Commercial ingredient supply in 2024 and 2025



**Confidential Nasdaq-listed
Biopharma**



Multi-Million-Dollar Steroid API Manufacturing Deal With Laurus Labs

Who is Laurus Labs?



Laurus Labs is a research-driven pharmaceutical and biotechnology company with an aim to improve the quality of life for millions of people around the world. Laurus has a global leadership position in select Active Pharmaceutical Ingredients (APIs) including anti-retroviral, oncology drugs (incl High Potent APIs), Cardiovascular, and Gastro therapeutics.

- ✓ **Market Cap:** market capitalization of \$3 billion¹
- ✓ **Global presence:** Collaborates with top generic pharma, distributing APIs in 56 countries
- ✓ **Strong workforce:** Employs 6500+ people, including 1250+ scientists across 11 approved facilities
- ✓ **Patent strength:** Holds 322 filings, owning 203 patents.
- ✓ **Strong Financial performance:** Reported C\$982 million in revenue for FY2023²
- ✓ **Stock exchange listings:** Listed on BSE and NSE as LAURUSLABS.

1. Data Source: Tradingview on 5/22/2024

2. Data Source: LaurusLabsFinancialResultsQ4FY2024InvestorPresentation

3. Data Source: Precedence Research

willow + LAURUS Labs



Why Willow?

- Advanced AI bioengineering tech (BioOxi platform).
 - ✓ **Benefits:** Estimated savings between 50% and 90% in the cost of goods on API manufacturing.
 - ✓ Willow is the first to achieve large-scale bio-based hydroxylation.

Willow's Development for Laurus Labs:

- Innovating bio-based manufacturing for 7 pharmaceutical ingredients.
 - ✓ **Result:** Replace the traditional chemistry-based manufacturing processes.

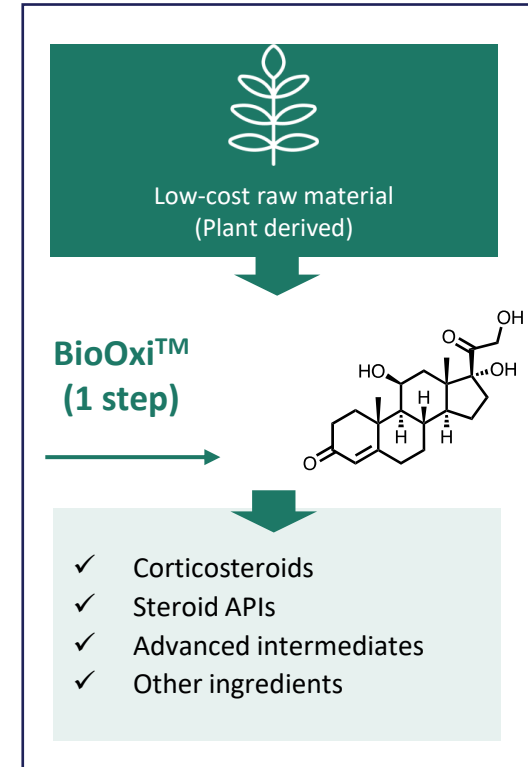
How Willow Receives Royalties:

- Based on API net sales; Laurus has a strong market share.
 - ✓ Market size for corticosteroids: \$4.7 billion.
 - ✓ Total market size for undisclosed APIs: \$1.5 billion.³

Key APIs:

- ✓ **Corticosteroids:** Anti-inflammatory and immune treatments.
- ✓ **Confidential APIs:** Two APIs remain undisclosed at this time.
- ✓ **Confidential ingredients:** One ingredient remains undisclosed at this time.

Multi-Product Royalty Stream



Willow's Full Pipeline of Commercial Opportunities

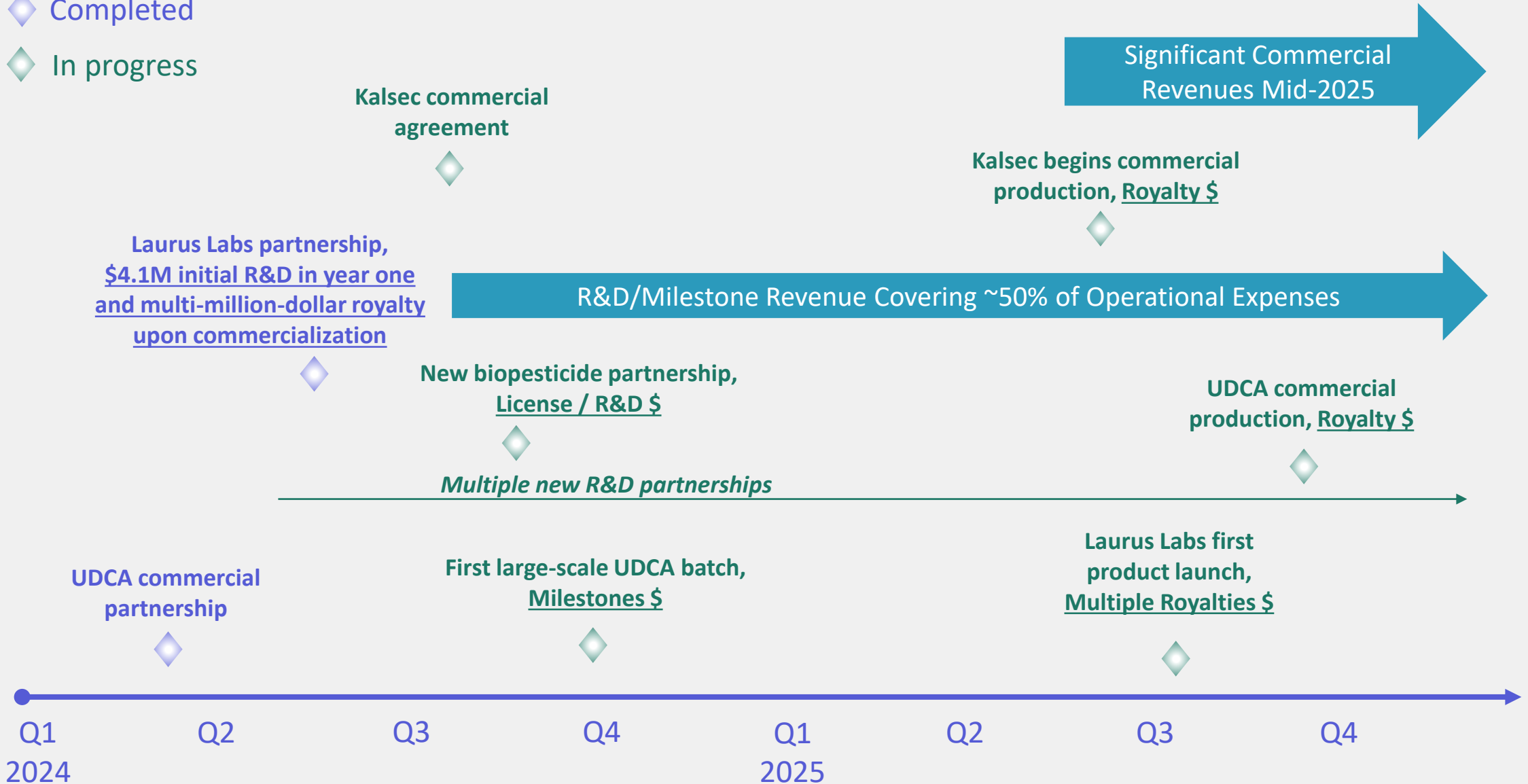
Opportunity	R&D	Commercial Scale-up	Anticipated First Commercial Sale
Ingredients			
API Manufacturing Deal (Laurus Labs) \$4.1M R&D in year one plus multi-million-dollar royalties upon commercialization			2025
UDCA (Sandhill & Confidential) Multi-million-dollar milestones and profit split			2024
API (Confidential Nasdaq-listed pharma) Ingredient supply in early 2025			2025
Food ingredient (Kalsec) Multi-million-dollar milestones & royalty			2024
API (Suanfarma) License payment(s) (negotiating)			2025
API (Enterin) Royalty payments (negotiating)			2025
API (Confidential) Commercial license payments			2025
Biopesticides Multi-million-dollar R&D/milestones (negotiating)			2025
Multiple existing and innovator deals in progress Fill the funnel of opportunities			

Milestone payment

Anticipated Key 2024 & 2025 Milestones

◆ Completed

◆ In progress



Experienced and Accomplished Leadership



Chris Savile, Ph.D.
President and CEO

20 years of experience in scientific and business roles focused on commercialization of biobased processes



Travis Doupe, CPA, CA
CFO

20+ years of experience in financial, corporate, and investment leadership roles



Trish Choudhary, Ph.D.
SVP – R&D

20 years of experience in various technical roles focused on rapid engineering of biological systems



James Lalonde, Ph.D.
Chairman

30+ years of experience leading R&D teams that have commercialized more than 25 biobased processes

Willow's team draws its experience from top bioengineering companies:



- Over CAD\$66.0 million raised to date with Management and Board investing more than \$8.0 million personally into Willow
- Up-listed to the TSX in 2019 (TSX: WLLW) and trade on the OTCQB[®] Venture Market (OTCQB: CANSF)
- Strong insider ownership at just under 25%
- Convertible debentures of \$800,000 due October 10, 2027; 64% held by Directors and Officers of the Company
- Most recent financing was \$1.6 million in July 2024

Willow Share Capitalization (TSX: WLLW) as of July 18, 2024

Basic shares outstanding	144,204,193
Employee options ⁽¹⁾ , RSUs and PSUs	10,166,271
Warrants ⁽²⁾	3,809,600
Warrants ⁽³⁾	679,928
Warrants ⁽⁴⁾	576,565
Warrants ⁽⁵⁾	8,198,682
Warrants ⁽⁶⁾	869,921
Convertible debentures ⁽⁷⁾	7,619,048
Fully diluted shares outstanding	176,124,208

1. Weighted average strike price of \$0.34 for options

2. Exercise price of \$0.105/share, October 10, 2025, with early acceleration provisions if common shares trade at a premium of > \$0.15/share

3. Exercise price of \$0.14/share, expire Feb 20, 2025, with early acceleration provisions if common shares trade at a premium of > \$0.18/share

4. Exercise price of \$0.16/share, expire March 1, 2025, with early acceleration provisions if common shares trade at a premium of > \$0.21/share

5. Exercise price of \$0.13/share, expire July 18, 2027, with early acceleration provisions if common shares trade at a premium of > \$0.17/share

6. Exercise price of \$0.10/share, expire July 18, 2027

7. Convertible at \$0.105/share until October 10, 2027

- ❑ Our technology platform rapidly delivers enzymes and strains for biomanufacturing
- ❑ Our key technology, BioOxi™, can significantly reduce the cost of manufacturing valuable ingredients; and we have already demonstrated this with multiple programs
- ❑ Diverse pipeline includes generic APIs, innovator pharma-sponsored targets, food & beverage ingredients, supplements, and now biopesticides
- ❑ Focused on bringing current programs to commercial reality and identifying strategic partners to further expand the pipeline



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Contacts

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Chris Savile, Ph.D.
Chief Executive Officer

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