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willow.

— 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 biobased processes for manufacturing high value ingredients

Need

- Chemistry-based technology used for producing many high-value compounds is expensive, toxic and based on processes that were developed in the last century
- Many generic APIs are using extracted, including animal-based, ingredients that are unsustainable and pose supply chain challenges

Solution

- Willow has developed disruptive technology that combines the best of chemistry and natural extraction with engineered biology to lower manufacturing costs of existing ingredients by 90% and enable production of novel ingredients

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

Willow develops practical biobased processes for manufacturing ingredients in the pharmaceutical, food & beverage, and personal care markets, and has a proven track record of commercialization

FutureGrown™

At Willow, we use our proprietary AI-enabled technology platform to identify, optimize, and commercialize enzymes and strains for industrial processes

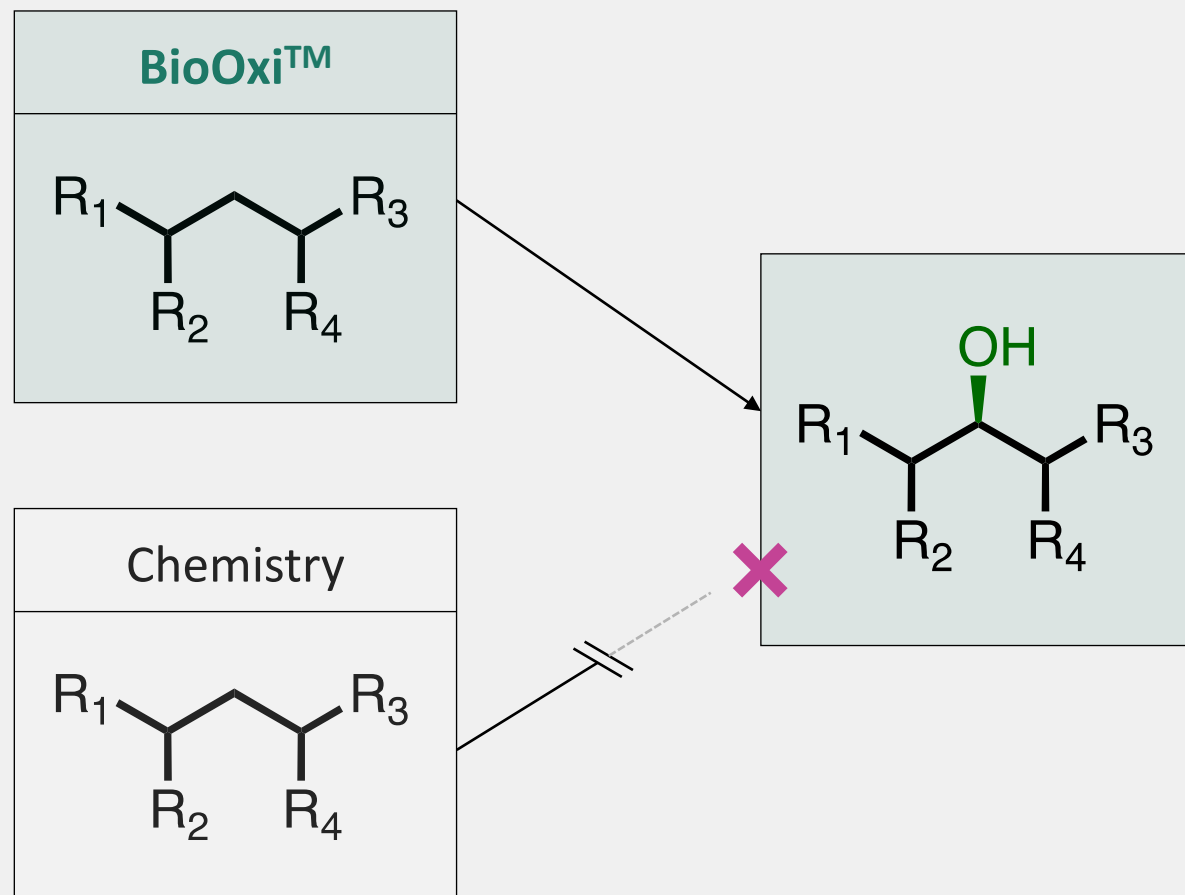
BioOxi™

Proprietary biobased selective hydroxylation platform that can reduce manufacturing costs by up to 90% for many high-value ingredients

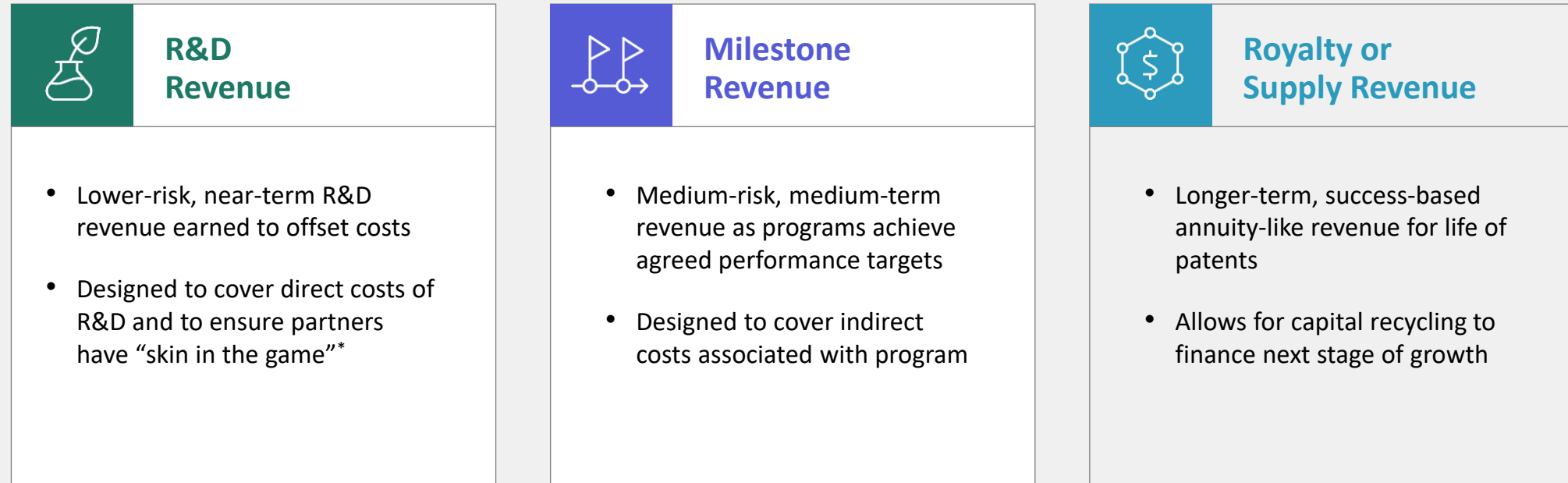
BioOxi™: Proprietary Tech Delivers “Impossible” Chemistry

AI-Enabled, IP-protected platform providing solutions and driving value:

- Selective C-H hydroxylation one of the “Holy Grails” of chemistry¹
- Reduces the number of chemical production steps (by 4 or more)
- Reduces waste
- Reduces cost! (by up to 90%)



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



Existing Ingredient Markets

Large volume ingredient opportunities that can be improved with biology

- Ursodeoxycholic acid (UDCA)
- Hydrocortisone
- Prednisolone
- Estetrol
- Budesonide

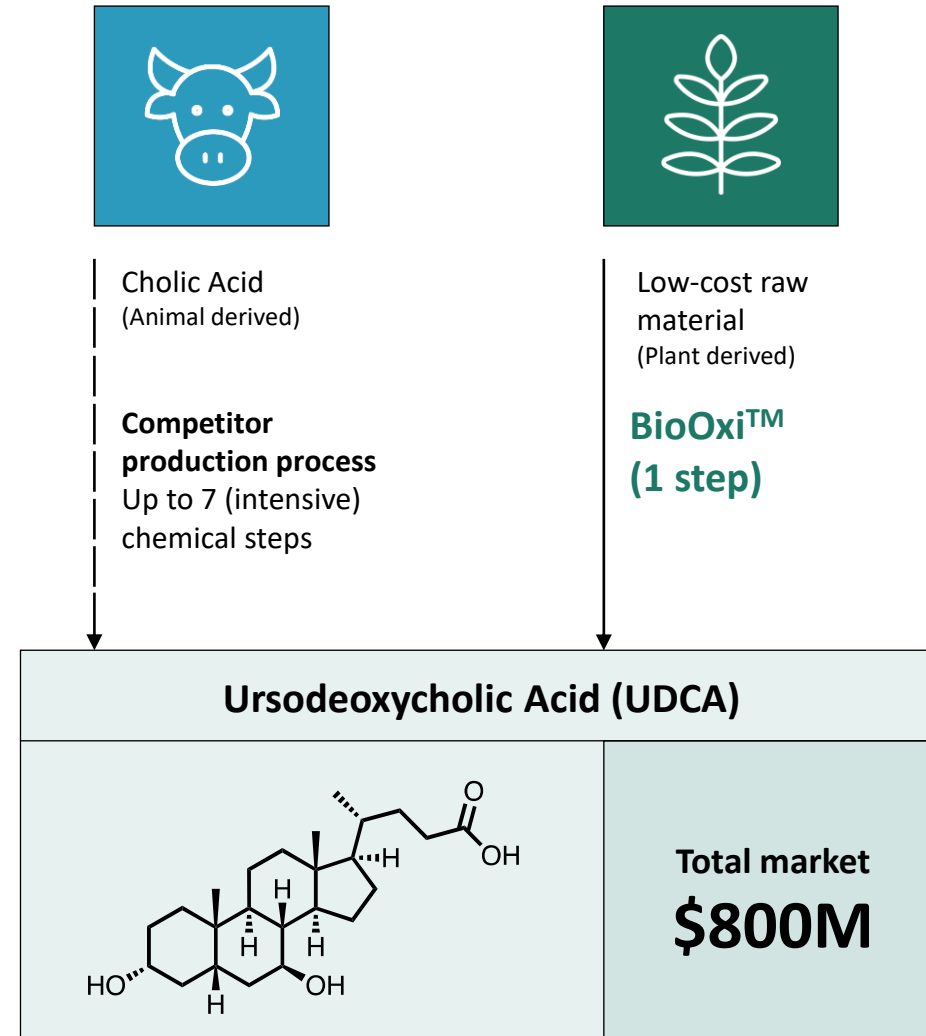
Innovator Driven Ingredients

Novel ingredient opportunities that can be enabled with biology

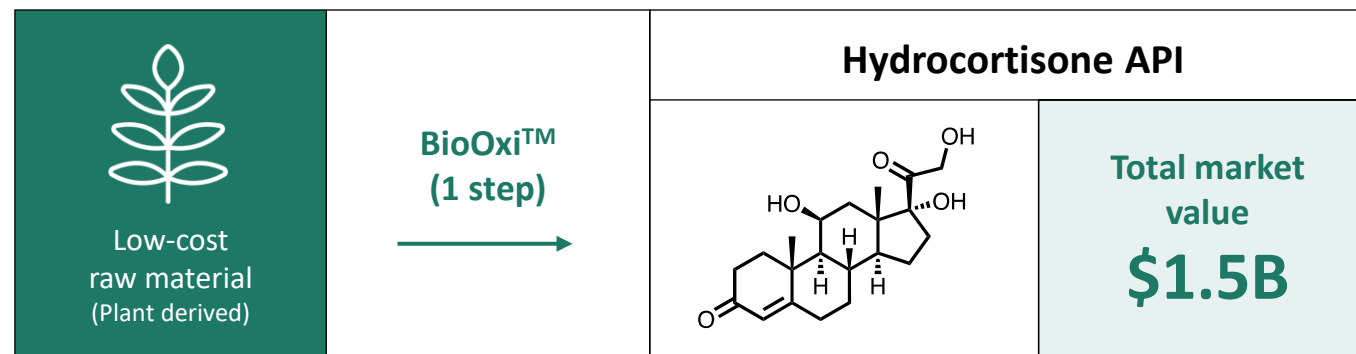
- Kalsec natural food ingredient
- Enterin
- Biopharma development candidates
- Large pharma APIs

BioOxi™ Proof Point: Ursodeoxycholic Acid (UDCA)

- Large volume API for treatment of cholestatic liver disease and gallstone conditions
- BioOxi reduces manufacturing costs by up to 40% and eliminates animal-derived raw material
- Revenue generation via R&D fees, milestones, and revenue share with partner
- Multiple patent applications filed
- Achieved commercial targets in August 2023; scaling in progress for commercial launch in 2024
- Key milestones: Successful pilot production (completed Winter 2023) and commercial partnership (negotiations in progress)



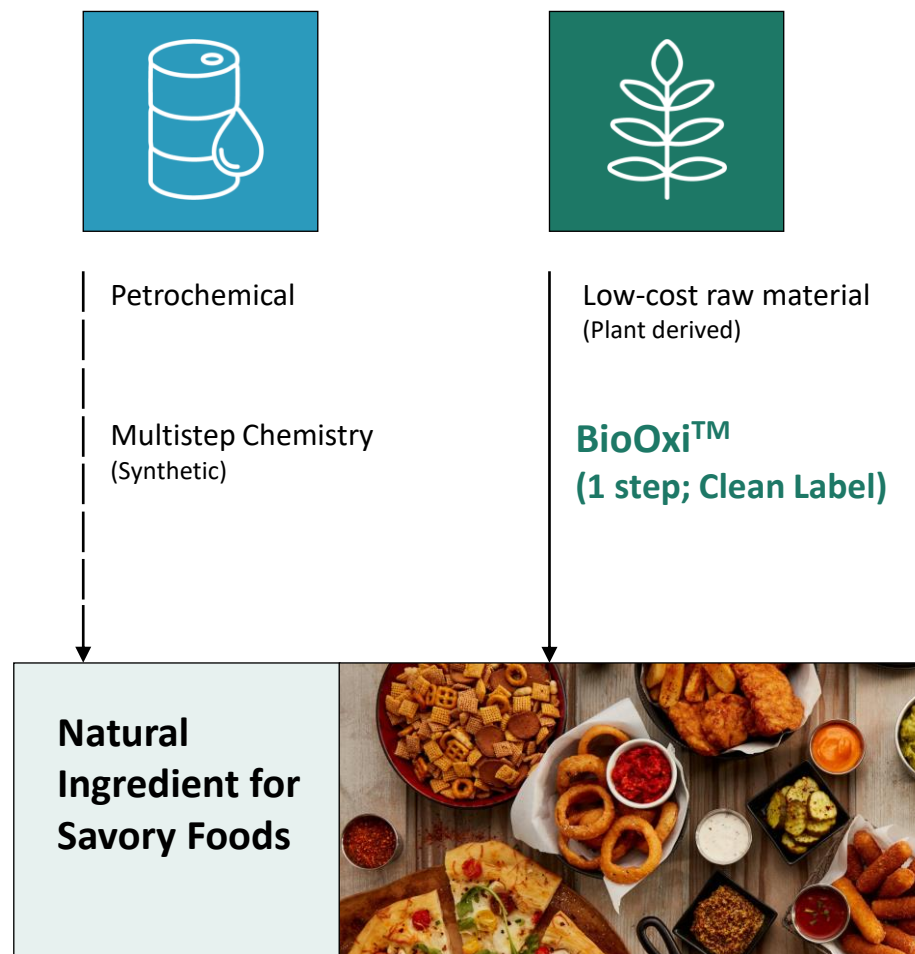
- Corticosteroids are large volume APIs prescribed for a wide variety of conditions
- BioOxi can lower COGS by 90% by reducing 8 or more chemical steps to 1 biobased step
- Demonstrated proof of concept for hydrocortisone, prednisolone, and budesonide
- Wholly owned by Willow with patent applications filed
- Key milestones: Lab scale process (completed Winter 2023) and commercial partnership (negotiations in progress)



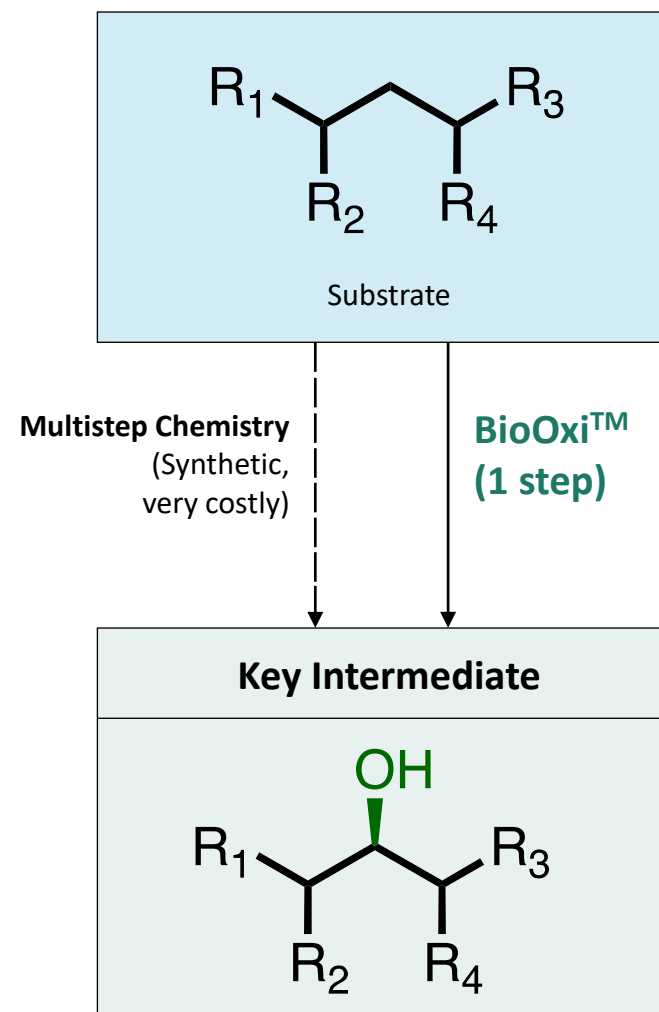
Target Market Corticosteroids API's		
<div>Cortisone</div> <div>Prednisone</div> <div>Prednisolone</div> <div>Betamethasone</div> <div>Budesonide</div> <div>Methylprednisolone</div> <div>And more...</div>		Total market value >\$5B

Natural Food Ingredient

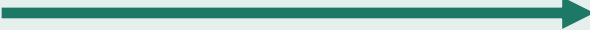













- Bulk ingredient for use in savory food applications, currently chemically synthesized
- Brings a natural, sustainable product to an existing, accessible market
- Replaced chemical synthesis with biobased approach
- Revenue generation via R&D fees and to-be-negotiated commercial agreement
- Key milestones: Bench scale process (early 2024) and commercial agreement (negotiations in progress)

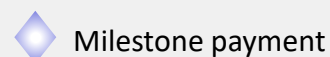


- Key intermediates for therapeutic candidates under development
- Current synthetic route prohibitively expensive and unsustainable for manufacturing
- BioOxi approach can achieve in 1 step, enabling secure supply at significantly reduced cost
- Nasdaq-listed Biopharma: Achieved successful Proof of Concept in Fall 2023 with optimization ongoing
- Enterin: Initiated discovery January 2024
- Key milestones: Commercial ingredient supply in 2024 and 2025



Willow's Pipeline of Commercial Opportunities

Opportunity	R&D	Pilot	Anticipated First Commercial Sale
Ingredients			
UDCA (with Sandhill One) \$800 M TAM	  		2024
Corticosteroids \$5 B TAM	 	 	2025
API (with Undisclosed Biopharma) Commercial supply in 2024			2024
Food ingredient (with Kalsec) Large volume natural ingredient	 		2024
API (with Suanfarma) \$300 M TAM	 		2025
Beverage ingredient (with Kalsec) Commercial supply in 2024			2024
API (with Enterin) Commercial supply in 2025			2025
Platform (with Top 10 Pharma) Negotiation in progress			2024



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



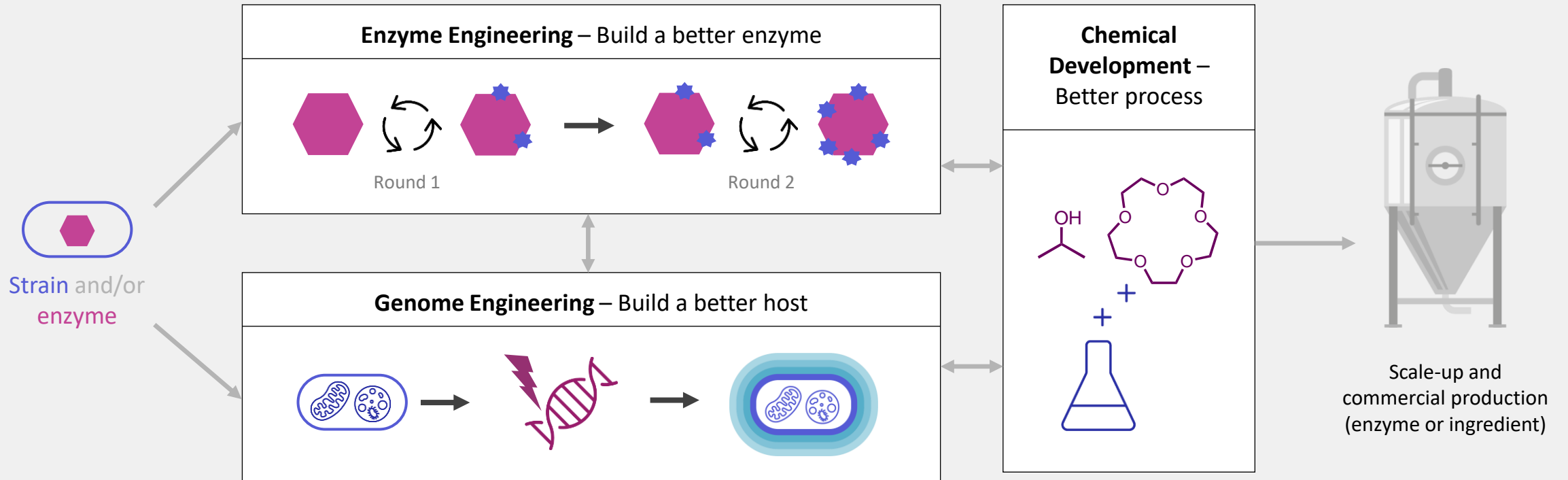
James Lalonde, Ph.D.
Chairman

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:



Fully integrated, proven technology for rapid development



Willow's technology platform can deliver improved enzymes / strains for manufacturing

- Over CAD\$65.0 million raised to date with Management and Board investing more than \$8.0 million personally into Willow
- Uplisted to the TSX in 2019 (TSX: WLLW) and trade on the OTCQB[®] Venture Market (OTCQB: CANSF)
- \$4.0 million and no debt as of September 30, 2023
- Strong insider ownership at just under 25%

Willow share capitalization (TSX: WLLW) as of September 30, 2023

Basic shares outstanding	124,242,381
Employee options ⁽¹⁾ , RSUs and PSUs	5,226,008
Performance warrants ⁽²⁾	14,963,789
Incentive performance warrants ⁽³⁾	12,091,589
Fully diluted shares outstanding	156,523,767

1. Weighted average strike price of \$0.87 for options.

2. Expire April 12, 2024, with a strike price of \$0.875/share

3. Additional warrants issued if the 20-day VWAP exceeds a share price of \$3.50 per share

To be a global leader in developing and commercializing biobased processes for manufacturing high value ingredients



Full pipeline of partnered and proprietary programs



Low risk regulatory processes due to concentration on compounds that have existing markets



Near term R&D and milestone revenue to reduce cash burn with high upside in royalty and supply revenue



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



Large universe of potential programs with highly transferable platform over multiple compound families

Contacts

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Chief Executive Officer

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