

September 2023

willow.

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The Next Generation of Nature

[willowbio.com](http://willowbio.com)

TSX: WLLW  
OTCQB: CANSF

# Disclaimer

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 CBG; 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 CBG or other consumer products; the expected growth in the biosynthetic CBG market, including demand for cultured CBG from the pharmaceutical, cosmetics and consumer packaged goods industries; expectations regarding the regulatory framework for cultured cannabinoids; changes in prices and costs of inputs; the medical benefits, viability, safety, efficacy, dosing and social acceptance of CBG, a cannabinoid; the capital markets and the general economy; changes to laws and regulations in Canada, the United States and Europe; the legalization of the use of cannabinoids for medical and/or adult use in jurisdictions outside of Canada; and applicable laws not changing in a manner that is unfavorable to the Company.

Although the Company believes that the expectations and assumptions on which the forward looking statements are based are reasonable, undue reliance should not be placed on the forward-looking statements because the Company can give no assurance that they will prove to be correct. Since forward-looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. Actual results could differ materially from those currently anticipated due to a number of factors and risks. These include, but are not limited to, permits, licenses and regulatory and third party approvals not being obtained in the manner or timing anticipated by the Company; failure of counter-parties to perform contractual obligations; the state of domestic and international capital markets; risks associated with the cannabinoid industry in general; infringement on intellectual property; failure to benefit from partnerships or successfully integrate acquisitions; actions and initiatives of federal and provincial governments and changes to government policies and the execution and impact of these actions, initiatives and policies; import/export and research restrictions for cannabinoid-based operations; the size of the medical-use and adult-use cannabis market; competition from other industry participants; the Company's competitive advantages; adverse U.S., Canadian, and global economic conditions (including due to the COVID-19 outbreak); the Company's ability to successfully negotiate new manufacturing agreements and to successfully tech transfer to its manufacturing partners; the departure of personnel or inability to attract and retain talent; and other factors more fully described from time to time in the reports and filings made by the Company with securities regulatory authorities. Please refer to the Company's Annual Information Form and the Management's Discussion and Analysis for additional risk factors relating to the Company, which can be accessed either on the Company's website at [www.willowbio.com](http://www.willowbio.com) or under the Company's profile on [www.sedar.com](http://www.sedar.com).

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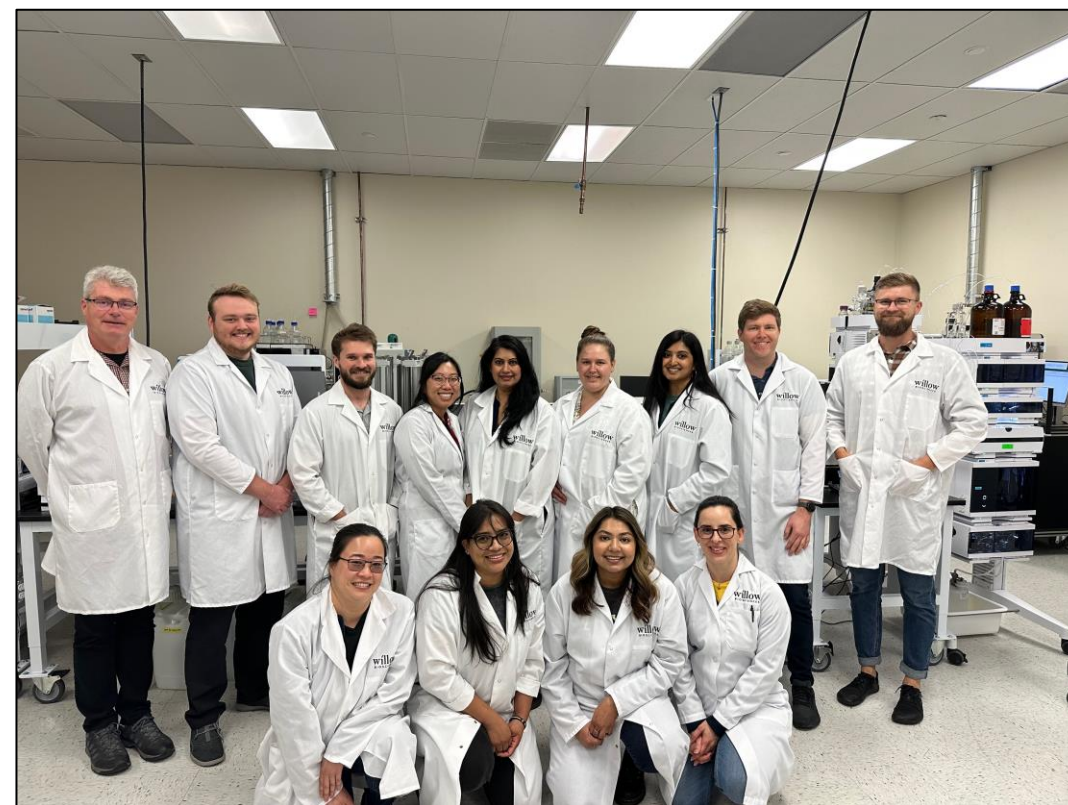
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# Sustainable Products And Ingredients For a Better Future

- ❑ Willow is an enzyme / strain development company that offers a complete technology-to-manufacturing solution
- ❑ Willow has developed breakthrough technology for production of high value ingredients
- ❑ Key technology, **BioOxi™**, can remove multiple chemical steps from a traditional production process, **reducing manufacturing costs by up to 75%**
- ❑ Willow's current pipeline:
  - Ursodeoxycholic acid (partnered)
  - Corticosteroids
  - Large volume food ingredient (partnered)
  - Pharmaceutical intermediate (partnered)
  - Enzymes for food and pharma (multiple)
- ❑ R&D and Milestone revenues in 2022/23 with multiple commercial revenue streams starting in 2024



San Francisco Bay Area R&D Team

# Experienced And Accomplished Management Team



**Chris Savile, Ph.D.**  
President and CEO



**Travis Doupe, CPA, CA**  
CFO



**Trish Choudhary, Ph.D.**  
SVP – Research and Development

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

CODEXIS®

intrexon

SYNTHETIC GENOMICS®

DU PONT®

bp  
BP Biofuels

Willow's team has previously executed commercial deals with world-leading partners:

Pfizer

TATE & LYLE

JM Johnson Matthey  
Inspiring science, enhancing life

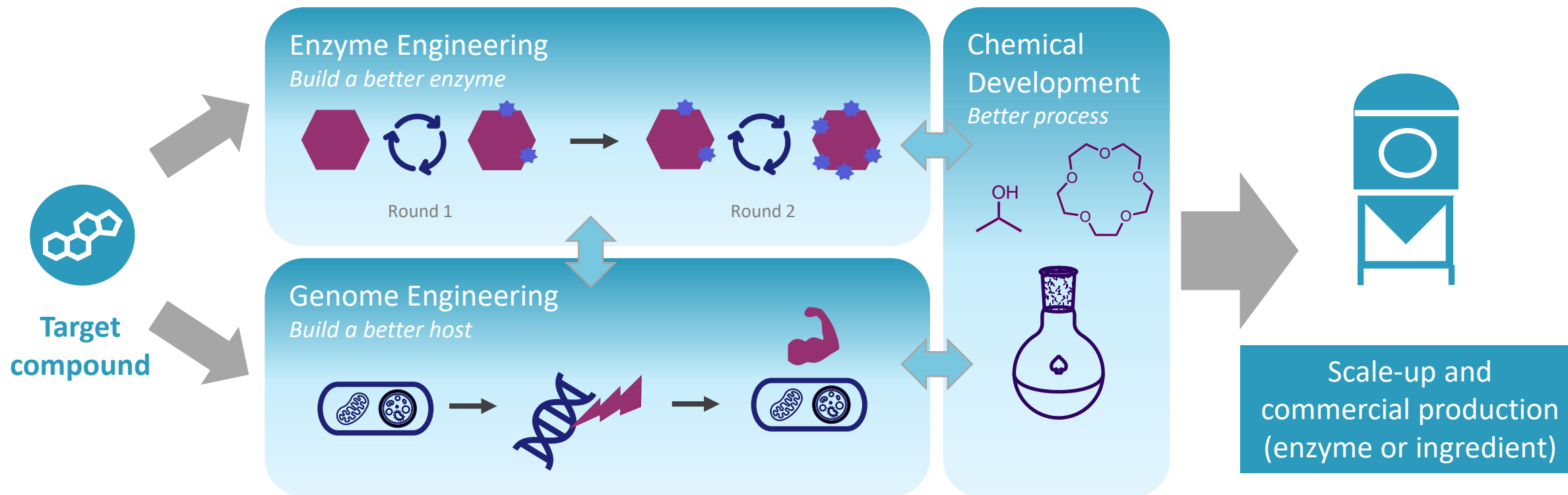
MERCK

Sumitomo Dainippon  
Pharma

Lilly

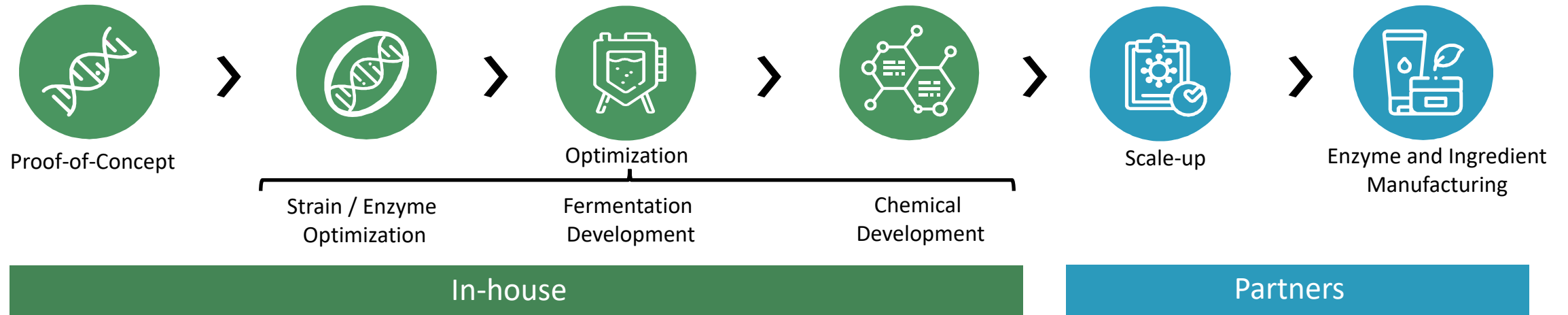
kalsec®

Fully integrated, proven technology for rapid development



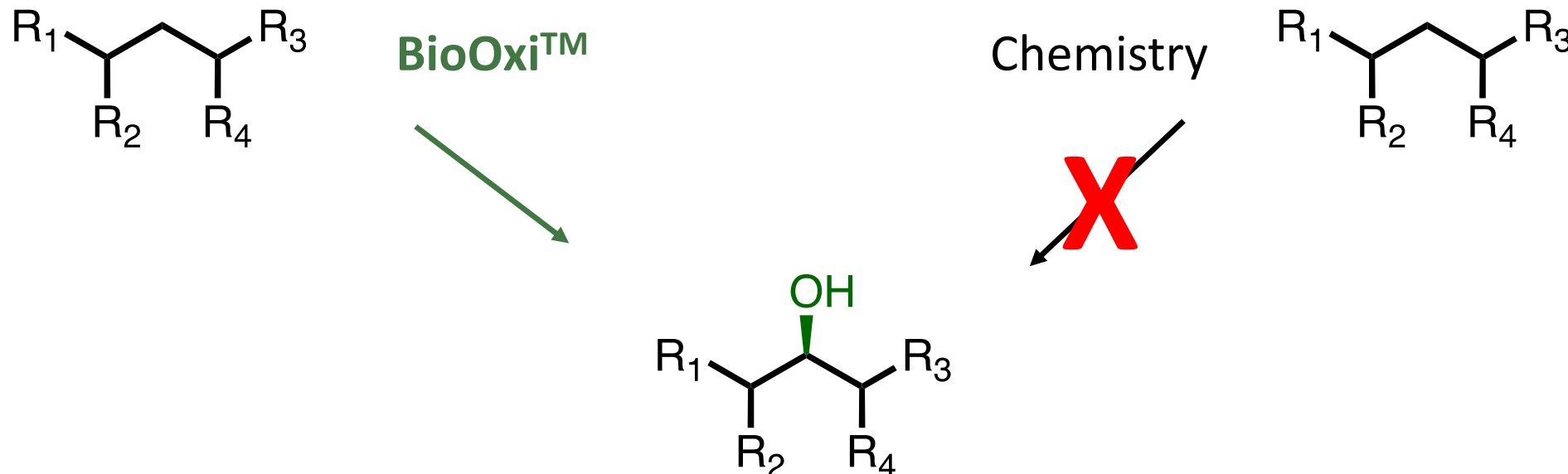
Willow's technology platform can deliver improved enzymes / strains for manufacturing

# Fully Integrated Capabilities For Delivering Enzymes and Ingredients



- Integrated technologies and manufacturing network delivers processes at commercial scale
- Willow can generate revenue from both partnerships and sales of its own ingredients
- Key Intellectual Property (IP) generated belongs to Willow, providing foundation to accelerate future programs
- Suite of technologies for rapid enzyme and strain engineering and process development
- **Key platform:** BioOxi™ for cost effective biomanufacturing

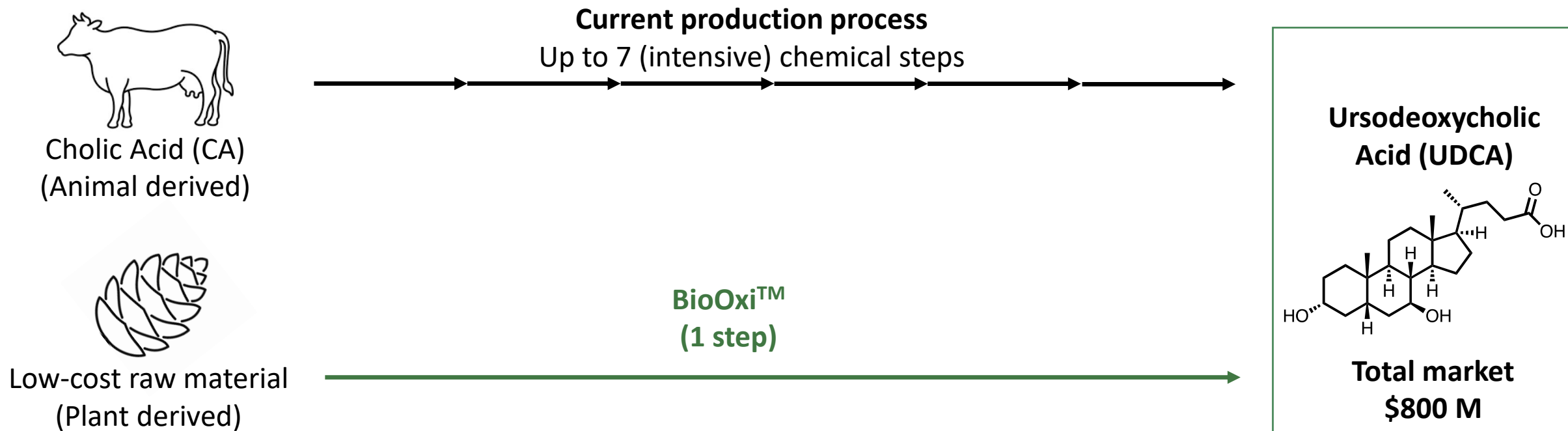
# BioOxi™: Proprietary Technology Delivers “Impossible” Chemistry



Novel, IP-protected platform providing solutions and driving value:

- Selective C-H hydroxylation one of the “Holy Grails” of chemistry<sup>1</sup>
- Reduces the number of chemical production steps (by 4 or more)
- Reduces waste
- **Reduces cost! (by up to 75%)**

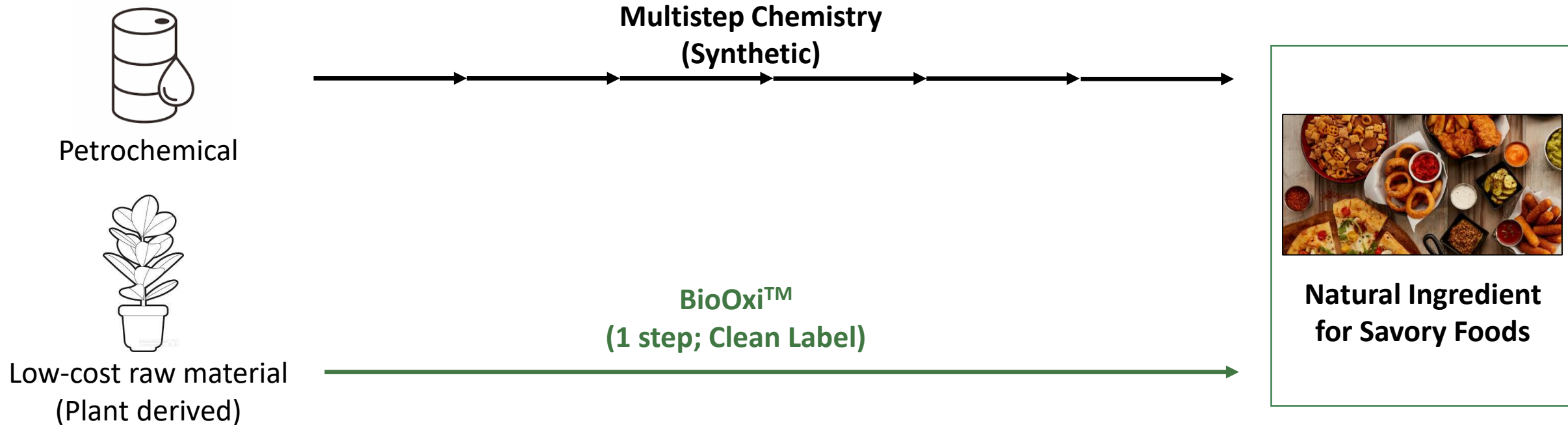
# BioOxi™ Proof Point: Ursodeoxycholic Acid (UDCA)



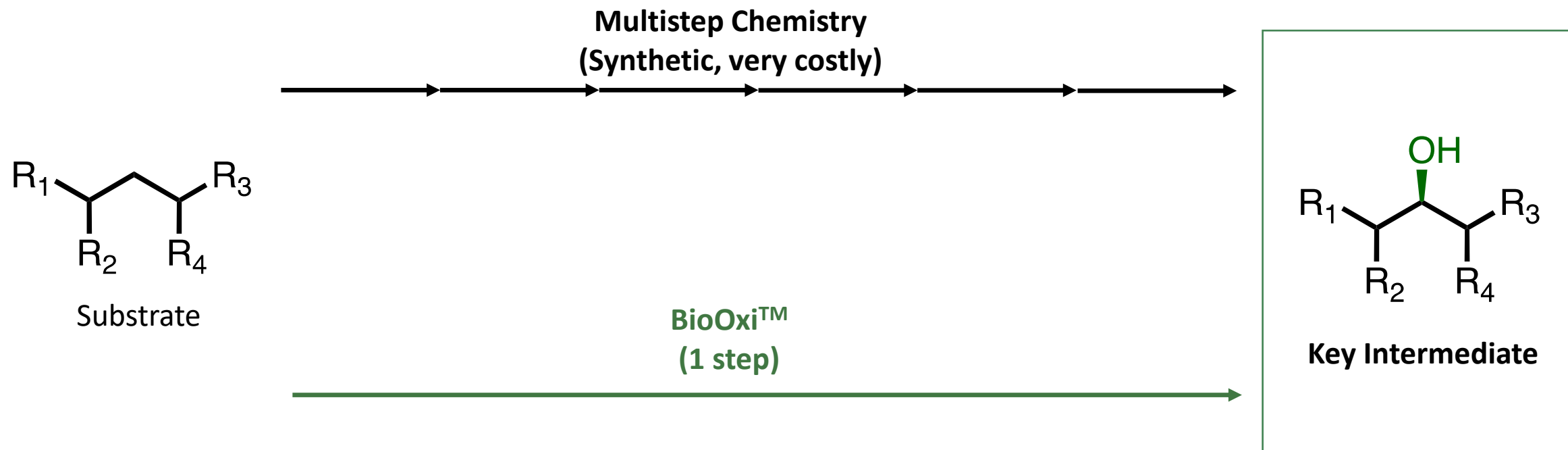
- Large volume API for treatment of cholestatic liver disease and gallstone conditions
- BioOxi reduces manufacturing costs by up to 40% and eliminates animal-derived raw material
- **Achieved commercial targets in August 2023**; scaling in progress for **commercial launch in 2024**
- Patent applications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



# Natural Food Ingredient

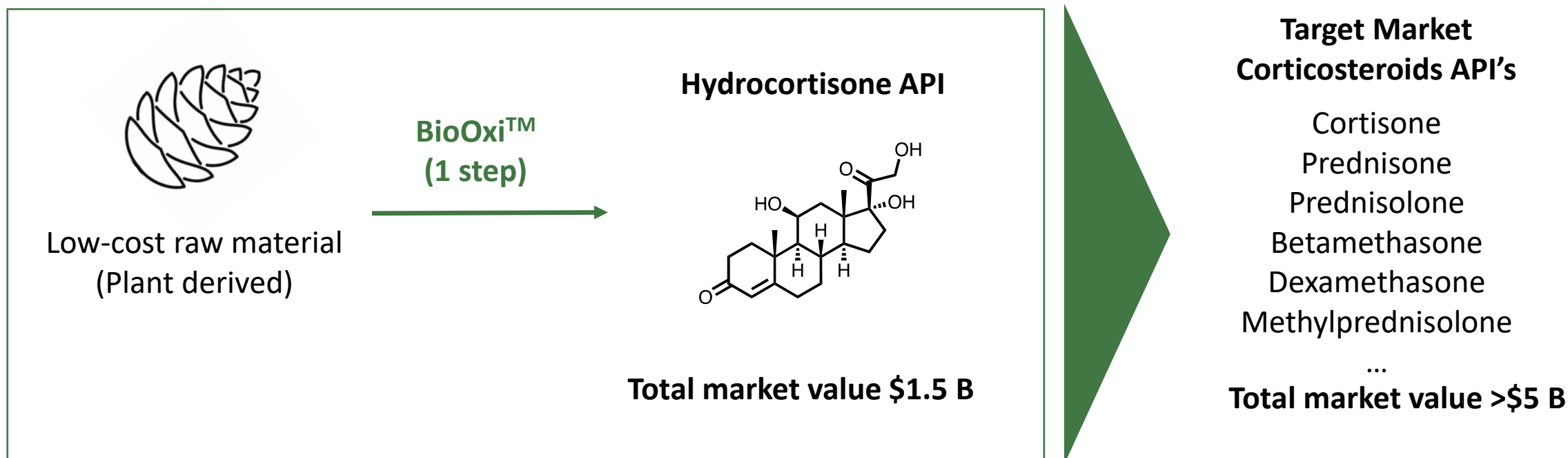


- Bulk ingredient for use in savory food applications, currently chemically synthesized
- Brings a **natural, sustainable product to an existing, accessible market**
- Replaced chemical synthesis with bioconversion approach
- **Key upcoming milestones:** Sample production (Winter 2023) and Commercial Agreement (negotiations in progress)



- Key intermediate for therapeutic under development
- Current synthetic route prohibitively expensive and unsustainable for even clinical supply
- BioOxi approach can achieve in 1 step, **reducing the cost by >90%**
- **Key upcoming milestones:** Successful Proof of Concept (Fall 2023) and Commercial Supply (Summer 2024)

# The Big Prize: Corticosteroid APIs



- Corticosteroids are large volume APIs prescribed for a wide variety of conditions
- **BioOxi can lower COGS by 75%** by reducing 8 chemistry steps to 1 bio step
- Demonstrated hydrocortisone proof of concept and filed patent application
- Wholly owned by Willow
- **Key upcoming milestones:** Lab scale process (Winter 2023) and Commercial Partnership (negotiations in progress)

## Cannabinoid Program Paused Pending Global Regulation Reform and Market Adoption

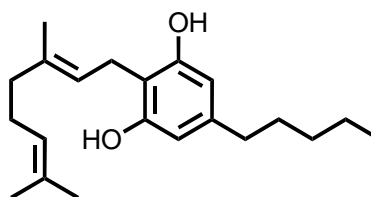


Precision  
Fermentation

**FutureGrown™**  
Biosynthesis



### Cannabigerol (CBG)



**Market Potential >\$1 B\***

### Target Market Rare Cannabinoids

Cannabigerolic acid **CBGA**  
Cannabidivarin **CBDV**  
Cannabichromene **CBC**  
Cannabidiolic acid **CBDA**

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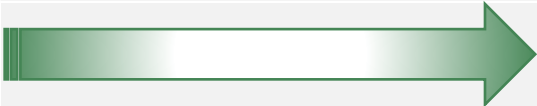

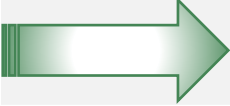
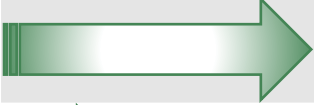
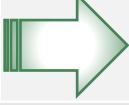
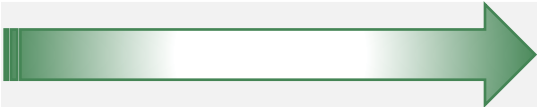
**Total market potential >\$10 B\***

\*With US and global regulation reform

- Willow has industry-leading IP portfolio (15 patents pending), experience, and manufacturing network to quickly launch biosynthesized CBG and other rare cannabinoids once global regulations and market conditions allow
- Cost-competitive, manufacturing ready CBG process that has already been scaled to 15,000 L
- Willow's CBG has been tested and shown to be safe for cosmetics, food, and dietary (i.e., GRAS and NDIN ready)
- With most companies having exited the space, Willow is the go-to partner for production of rare cannabinoids once US and global regulations permit



# Willow's Pipeline of Commercial Opportunities

Opportunity	R&D	Pilot	Anticipated First Commercial Sale
<b>Ingredients</b>			
<b>UDCA (w/Sandhill One)</b> - \$800 M TAM		◆ ◆	<b>2024</b>
<b>Corticosteroids</b> - \$5 B TAM			<b>2025</b>
<b>API (w/Innovator Pharma)</b> - Commercial supply in 2024			<b>2024</b>
<b>Food ingredient (w/Kalsec)</b> - Large volume natural ingredient			<b>2024</b>
<b>API (w/Generics Pharma)</b> - \$300 M TAM			<b>2025</b>
<b>Enzymes</b>			
<b>Beverage ingredient (w/Kalsec)</b> - Commercial supply in 2024			<b>2024</b>
<b>Food ingredients (w/undisclosed)</b> - Negotiation in progress			

◆ Milestone payment

# Capital Market Summary

- ▶ 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 Main Board in 2019 (TSX: WLLW) and trade on the OTCQB® Venture Market (OTCQB: CANSF)
- ▶ \$6.5 million and no debt as of June 30, 2023
- ▶ Strong insider ownership at just under 30%



Willow share capitalization (TSX: WLLW) - As of August 8, 2023	
Basic shares outstanding	124.2
Employee options, PSU's and RSU's <sup>1</sup>	8.4
Performance warrants <sup>2</sup>	15.0
Incentive performance warrants <sup>3</sup>	12.1
Fully diluted shares outstanding	159.7

1. Weighted average strike price of \$0.90 for options.

2. 15.0mm issued in the April 2019 financing to strategic investors, management and board with a 5 year term. These warrants have a strike price of \$0.88 per share. 1.0mm broker warrants issued in connection with the February 2021 financing with a 2 year term, strike price of \$2.15 per warrant and the ability for Willow to force convert at a 20 day VWAP of \$3.05. Remaining warrants have a weighted average strike price of \$4.00 per share.

3. Additional warrants issued if the 20 day VWAP exceeds a share price of \$3.50 per share and Willow is listed on the TSX (or equivalent exchange).

- ❑ 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
- ❑ UDCA and Hydrocortisone are high value, large volume APIs where even a small reduction in cost is valued by pharmaceutical manufacturers, and we are targeting up to a 75% reduction
- ❑ Additional pipeline of enzyme and ingredient opportunities for food and pharma sectors that bring both near-term revenue and long-term upside
- ❑ Generating R&D and milestone revenue now with multiple commercial revenue streams coming in 2024
- ❑ We are looking to bring our current pipeline to commercial scale, enable new partnering opportunities, and advance our corticosteroid program

# Contacts

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