

Corporate Presentation
March 2023

willow.

The Next Generation
of Nature is FutureGrown™

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 facilities located in British Columbia and 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 cannabinoids in its product portfolio; the sustainability of traditional manufacturing processes and benefits/impacts of Biosynthesis; expected therapeutic benefits of the Company's portfolio cannabinoids, including 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.

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further create, launch, and scale cannabinoid or other consumer products; the expected growth in the biosynthetic cannabinoid market, including demand for cultured cannabinoids 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 cannabinoids; the capital markets and the general economy; changes to cannabis laws and regulations in Canada, the United States and Europe; the legalization of the use of cannabis 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.

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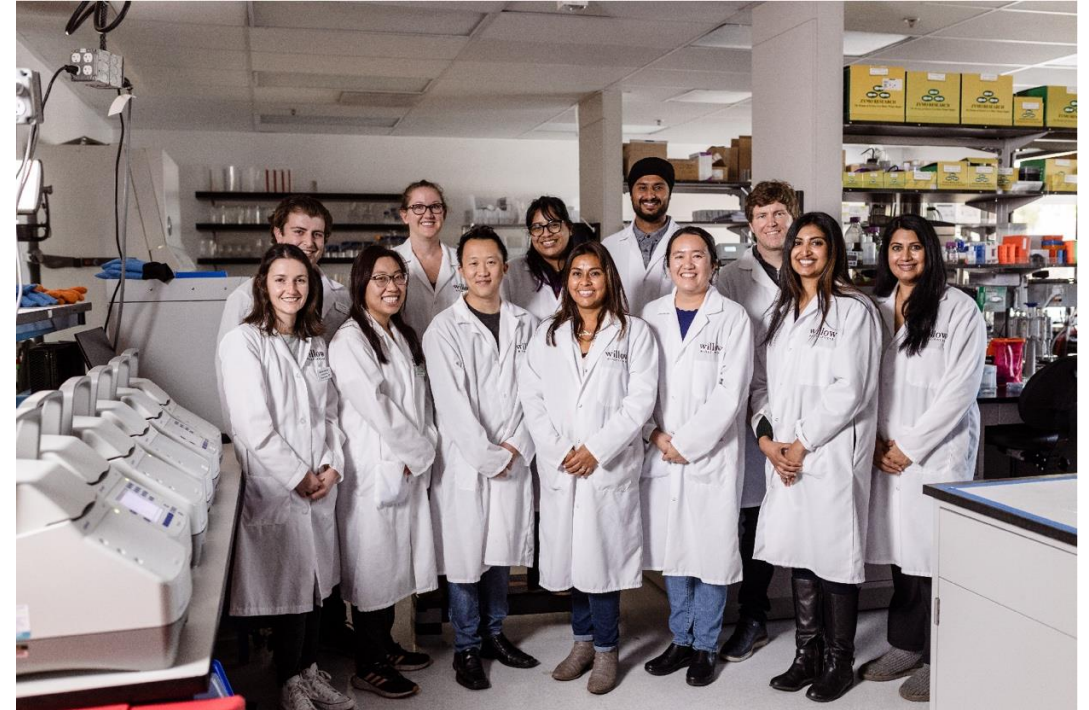
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- Natural ingredients for the health and wellness, food and beverage and personal care markets
- Precision fermentation for commercial manufacturing
- High value functional ingredients sustainably at lower cost
- Complete lab-to-customer market-scaled process solution
- Pipeline of fully owned ingredients and partnerships
- Research & Development is strategically located in Mountain View, California
- 40 staff, with over 70% in scientific and technical roles





The Product: Ursodeoxycholic acid (UDCA), multi-hundred tons per year

- Treatment of cholestatic liver disease and gallstone conditions
- Intermediate for Tauroursodeoxycholic acid (TUDCA) for treatment of amyotrophic lateral sclerosis (ALS)



The Willow Solution:

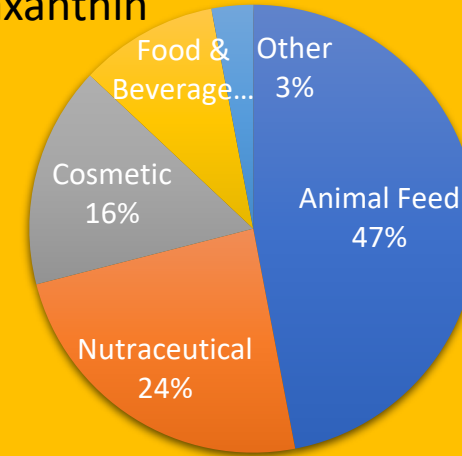
- Partnered with large, global nutraceutical and pharmaceutical company
- Replaced chemical synthesis with bioconversion approach
- Replaced animal-based starting material
- Proof-of-concept complete; fully customer funded development ongoing for commercialization in 2024
- Revenue generation via R&D fees, milestones & license payments

The Opportunity

- Powerful antioxidant belonging to the carotenoid class of compounds
- Own-product opportunity for Willow
- Large, addressable market
- \$750m in 2022, 8% CAGR (>\$1bn in 2027)
- High market price point
- >90% of market is chemically produced
- Cost competitive, “natural” astaxanthin in demand



Current Astaxanthin Market



Source – Future Market Insights market segmentation

The Market



Animal Feed

Salmon / shrimp colorant
Egg yolk colorant
General health promoter



Nutraceutical

Antioxidant
Cholesterol control
Cognitive performance



Cosmetic

Anti-aging
Reduces free radicals
UV protectant



Food & Beverage

Colorant
Antioxidant
Cognitive performance

Development Timeline



Learn, Design,
Build, Test

2023



Process
Development

2024



Pilot &
Production

2025



Product
Integration

2026



kalsec®

The Product: high volume, natural food opportunity

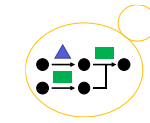
- Bulk product for use in food applications, currently chemically synthesized
- Brings a natural, sustainable product to an existing, accessible market



multistep chemistry



FutureGrown™
Process



Basic Natural
Raw Materials

The Willow Solution:

- Replaced chemical synthesis with bioconversion approach
- Finished Phase 1, optimization is ongoing for commercialization in 2024
- Revenue generation via R&D fees, milestones & license payments

“We look forward to this collaboration with Willow to introduce new, precision-fermented products to benefit our customers and the environment.”

Dr. Roger Nahas, Executive Vice President of Global R&D and Chief Innovation Officer

The Product: Cannabigerol

- Skin care and beverage applications
- Starting point for many other rare cannabinoids



The Willow Solution:

- 50,000-fold strain performance improvement in 18 months
- Commercially relevant productivity (4 g/l) at large scale proven at 10,000 L (~30 kg per batch)
- Robust, simple purification (>80% yield); exceeds norms
- Clinical study with 0.1% CBG formulation
- Currently selling to cosmetic & personal care market
- Sampled nutrition, food & beverage companies, sales pending GRAS conclusion
- Possible scaling to 100,000 L (~400 kg per batch) in H2 2023
- GRAS for food & beverage complete in Q2 2023

WILLOW'S PIPELINE

Functional Ingredients to Replace Unsustainable Production from Plant and Animal Sources

Ingredient	R&D	Pilot	Commercial
CBG	→		
THCV	→ →*		
UDCA (w/Sandhill One)	→ →		
Undisclosed (w/Kalsec)	→ →		
β-carotene	→ →		
Astaxanthin	→ →		
New proprietary program	→ →		
New partnered program	→		



Status January 2023



Plan for December 2023

*

Possible if partnered

2022

- Expanded from cannabis products to additional functional ingredients
- Booked first revenue from partnered programs
- Consolidated all R&D in Mountain View, CA

2023

- Finalize development of two partnered programs ready for scaleup
- Significantly increase revenue
- Build solid pipeline of proprietary and partnered programs
- Ensure runway to end of 2024

2024

- First commercial production for partnered product
- Growing revenue including initial royalties
- Widen pipeline equally with partnered and proprietary programs
- Growing R&D team and manufacturing network

- ▶ 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)
- ▶ Started 2023 with CAD\$14-15 million with no debt
- ▶ Strong insider ownership at 30%
- ▶ Funded to commercialize production and expand portfolio



Willow share capitalization (TSX: WLLW) - As of Sept 30, 2022

Basic shares outstanding	123.7
Employee options, PSU's and RSU's ¹	11.1
Performance warrants ²	15.0
Incentive performance warrants ³	12.1
Warrants and compensation warrants	1.6
Fully diluted shares outstanding	163.5

1. Weighted average strike price of \$1.20 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).

Willow delivers high-value functional ingredients through effective product selection, integrated technologies and capabilities, regulatory understanding, and expert manufacturing network



Proof-of-Concept



Strain Engineering



Fermentation Strain



Fermentation



Purification



Product Delivery



PARTNERED PROGRAMS

- Willow generates R&D revenue, project milestones, and back-end license payments
- Willow may supply product, or license strain for partner to manage supply chain
- IP generated belongs to Willow, enabling foundation to accelerate future programs



OWN PRODUCTS

- Willow develops product, from proof-of-concept through scale-up to delivery
- Simple \$/kg revenue model
- Options to grow distribution channels or partner post-launch

Technologies & Capabilities

Integration of strain engineering, process development, and partnerships enable rapid development

Complete suite of genetic engineering tools:

Enzyme Engineering

- Proprietary genomic databases
- Enzyme evolution (diversity + recombination)

Pathway Engineering

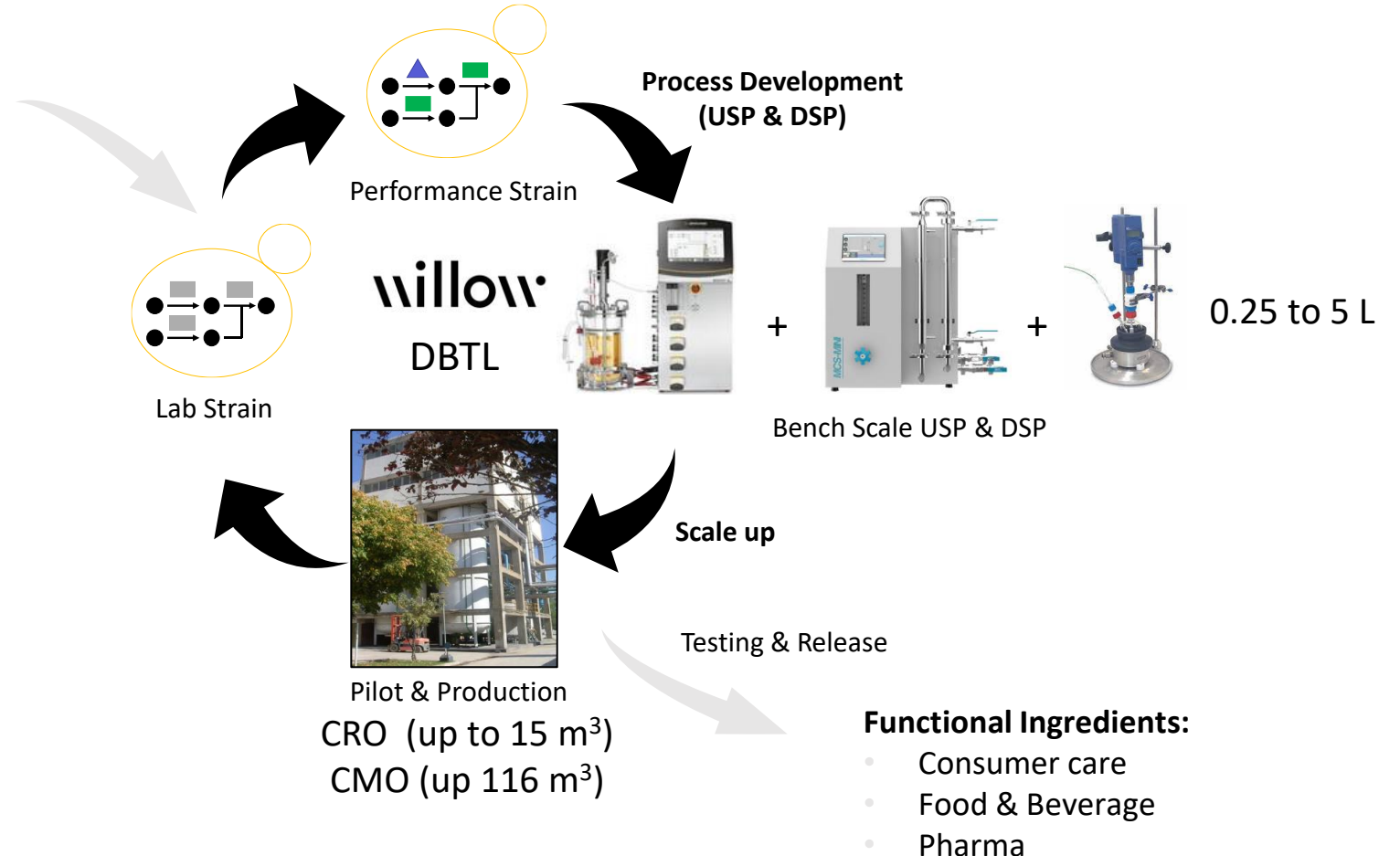
- Flux balance analysis
- Machine learning-guided pathway optimization

Genome Engineering

- Genome-wide CRISPR-based editing technologies

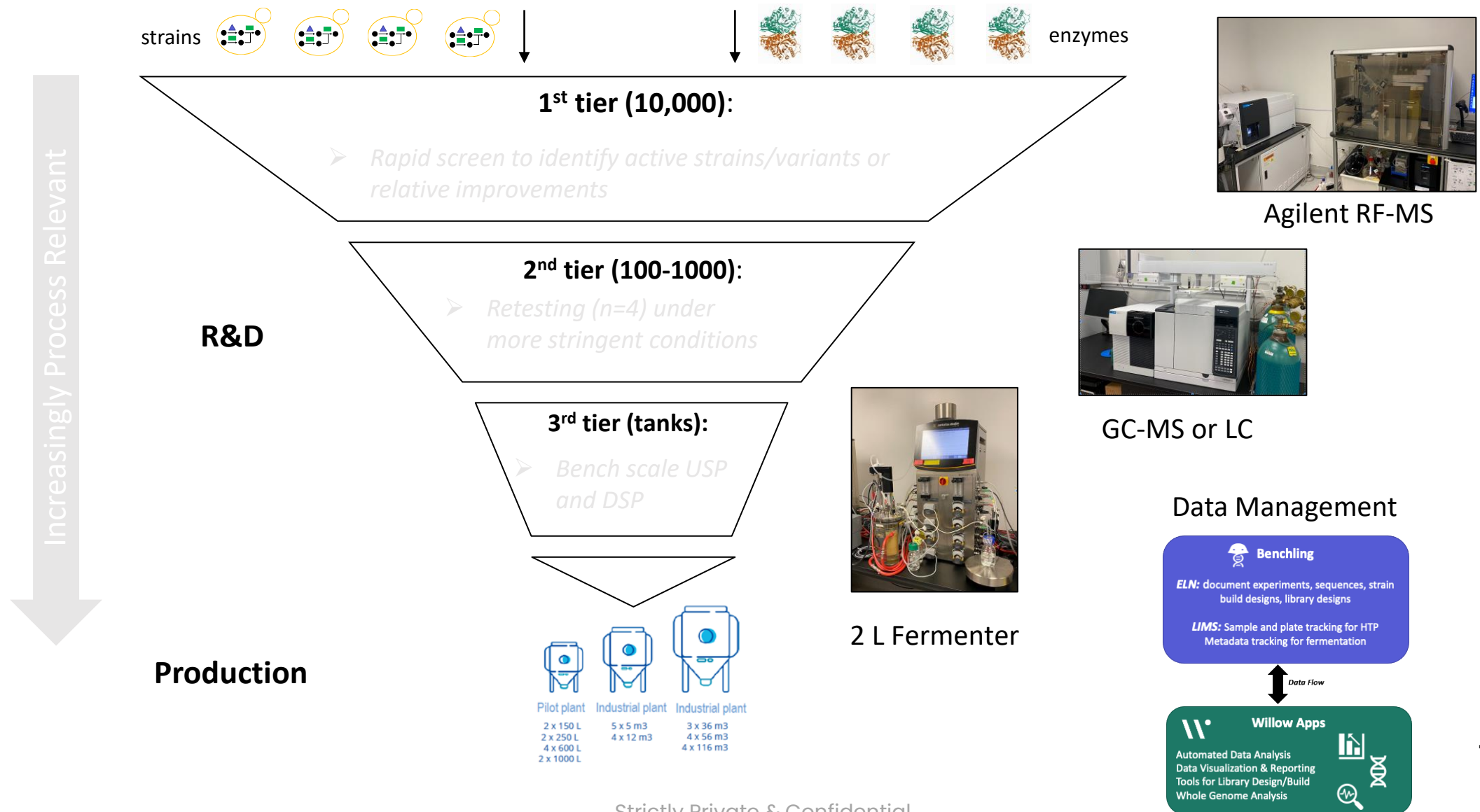
HTP screening capabilities

HTP Library-approach to all bioengineering!



Tiered Screening Strategy

Evaluation of strains/enzymes under increasingly stringent conditions





- Best in class precision fermentation technology platform
- Proven scale-up capabilities



- Technical credibility demonstrated by successful CBG product launch in 2021
- Expansion of platform into related product verticals



- Strong Willow intellectual property position
- 12 patents filed to date



- Proprietary and partnered programs
- Existing multi-channel revenue model
- Near- and long-term revenue streams



- ESG Solution – significant environmental and sustainability benefits
- Increasingly frowned upon by consumers and market participants



- Experienced and accomplished management team that's vested in the business

EXPERIENCED AND ACCOMPLISHED MANAGEMENT TEAM POSITIONED TO LEAD GROWTH INTO DIVERSE MARKETS



Chris Savile, Ph.D.
President and CEO



Travis Doupe, CPA, CA
CFO



Trish Choudhary, Ph.D.
VP – Research and Development



Pedro Jorge
VP – Quality

Willow’s scientific team draws its experience from top companies and products:



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



LARGE DIVERSE MARKETS WHERE WE CAN LEVERAGE OUR EXPERTISE TO PROVIDE FUNCTIONAL INGREDIENTS



Our core precision fermentation technology developed during the CBG program provides the foundation for other product classes

Willow's Potential Addressable Markets

Willow Technology Platform	Cannabinoids	<p>~\$1.0 billion market Functional ingredients in health & wellness</p>
	Supplements	<p>~\$1.5 billion market Provide nutrients either extracted from food sources or that are synthetic</p>
	Food Preservatives	<p>~\$0.5 billion market Food processing practices which prevent the growth of microorganisms</p>
	Flavor & Fragrance (F&F)	<p>>\$5 billion market Taste and scent compounds used in a wide variety of consumer goods</p>
	Carotenoids	<p>~\$3.0 billion market Food coloring and health & wellness potential</p>





Expanding Portfolio Into Diversified Markets

- Two external partners and functional ingredients grow Willow's portfolio
- Astaxanthin added to portfolio, a high value functional ingredient with a large addressable market
- Continue to access significant new markets (food & beverage, health & wellness) with near-term commercialization potential



Manufacturing Sustainably At Ever Larger Scale To Meet Demand

- Second, larger-scale, CDMO to manufacturing network
- 10,000s L commercial production to commence in H1 2023
- Fully integrated process (strain, fermentation, purification) expected to result in higher yields, shorter campaign times, and lower costs



Delivering Growing Revenue Across Expanding Customer Base

- Extend range of revenue-generating partners
- Revenue generated from research fees and milestone payments
- Revenue at commercialization captured by license agreements or product supply
- IP retained by Willow to further build utility of FutureGrown™ platform across other end-market applications



willow

THANK YOU

Peter Seufer-Wasserthal, PhD

CEO & President

Travis Doupe

CFO