



WILLOW BIOSCIENCES INC.

**MANAGEMENT'S DISCUSSION AND
ANALYSIS OF FINANCIAL CONDITIONS
AND RESULTS OF OPERATIONS FOR
THE YEAR ENDED DECEMBER 31, 2022**

(in thousands of Canadian dollars)

TSX: WLLW
OTCQB: CANSF
www.willowbio.com

This Management's Discussion and Analysis ("MD&A") of Willow Biosciences Inc. ("Willow" or the "Company") has been prepared by management as of March 21, 2023.

This MD&A should be read in conjunction with the audited consolidated financial statements as at and for the year ended December 31, 2022. Unless otherwise stated, financial information in this MD&A is expressed in Canadian dollars. Certain dollar amounts have been rounded to the nearest million dollars, hundred thousand dollars or thousand dollars, as noted. This MD&A contains certain specified measures consisting of capital management measures, which do not have standardized meanings prescribed by generally accepted accounting policies ("GAAP") and therefore may not be comparable to similar measures presented by other companies utilizing similar terminology. Refer to "Non-GAAP and Other Financial Measures" for further information on the definition, calculation, and reconciliation of these measures.

Additional information relating to Willow can be found at www.willowbio.com. The Company's continuous disclosure materials, including its annual and quarterly MD&A, audited annual and unaudited interim financial statements, Information Circulars, Annual Information Form and various reports issued by the Company are also available through SEDAR at www.sedar.com.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This MD&A may include forward-looking statements including opinions, assumptions, estimates, the Company's assessment of future plans and operations, and, more particularly, statements concerning: Willow's milestone projections and timeline to commercialization, including the timing, costs and quantity thereof; the effects of COVID-19 on the Company and its operations; the market size potential of the synthetic cannabinoid industry; Willow's entry into new global markets; the development of a yeast-based cannabinoid production platform; improved productivity and yield; the performance of the science team, management and board of the Company; the strategic partnerships with Noramco and Curia (as defined below) and other future strategic relationships; and the business plan of the Company, generally, including cannabinoid research and production at the facilities located in British Columbia and California.

When used in this document, the words "will", "anticipate", "believe", "estimate", "expect", "intent", "may", "project", "should", and similar expressions are intended to be among the statements that identify forward-looking statements.

The forward-looking statements are founded on the basis of expectations and assumptions made by the Company which include, but are not limited to:

- the success of Willow's strategic partnerships, including the development of future strategic partnerships;
- the financial strength of the Company;
- the market for Willow's products;
- the ability of the Company to obtain and retain applicable licences; and
- the successful implementation of Willow's commercialization strategy, generally.

Forward-looking statements are subject to a wide range of risks and uncertainties, and although the Company believes that the expectations represented by such forward-looking statements are reasonable, there can be no assurance that such expectations will be realized. Any number of important factors could cause actual results to differ materially from those in the forward-looking statements including, but not limited to:

- the grant, renewal and impact of any license or supplemental license to conduct activities with cannabis or any amendments thereof;
- the Company's international activities, including required regulatory approvals and licensing, anticipated costs and timing, and expected impact;
- the Company's ability to successfully create and launch brands and further create, launch and scale cannabinoid or other consumer products;
- the benefits, viability, safety, efficacy, dosing and social acceptance of cannabis, including individual cannabinoids;
- expectations regarding the use of proceeds of equity financings;
- the legalization of the use of cannabis including cannabinoids for medical or adult-use in jurisdictions outside of Canada, the related timing and impact thereof and the Company's intentions to participate in such markets, if and when such use is legalized;
- the Company's ability to execute on its strategy and the anticipated benefits of such strategy;
- expectations of the amount or frequency of impairment losses;
- the future performance of the Company's business and operations;
- the Company's competitive advantages and business strategies;
- the Company's ability or plans to identify, develop, commercialize or expand its technology and research and development ("R&D") initiatives in cannabinoids or other biosynthesized molecules, or the success thereof;
- expectations regarding revenues, expenses and anticipated cash needs;
- expectations regarding cash flow, liquidity and sources of funding;
- expectations regarding capital expenditures;
- expectations regarding the resolution of litigation and other legal and regulatory proceedings, reviews and investigations;
- expectations with respect to future production costs;
- expectation with respect to future sales and distribution channels and networks;
- the anticipated future gross margins of the Company's operations;
- accounting standards and estimates;
- expectations regarding the costs and benefits associated with the Company's contracts and agreements with third parties, including third party manufacturing agreements;
- 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 or laws and the execution and impact of these actions, initiatives and policies or laws, regulatory developments;
- import/export and research restrictions for cannabinoid-based operations;
- the size of the cannabinoid market;
- competition from other industry participants;
- adverse U.S., Canadian and global economic conditions (including due to the COVID-19 outbreak);
- failure to comply with certain regulations;
- departure of key management personnel or inability to attract and retain talent;
- regulatory and other factors more fully described from time to time in the reports and filings made by the Company with securities regulatory authorities; and
- the Company's ability to successfully negotiate new manufacturing agreements and to successfully tech transfer to its manufacturing partners.

Except as required by applicable laws, the Company does not undertake any obligation to publicly update or revise any forward-looking statements.

Any financial outlook and future-oriented financial information contained in this document regarding prospective financial performance, financial position or cash flows is based on assumptions about future events, including economic conditions and proposed courses of action based on management's assessment of the relevant information that is currently available. Projected operational information contains forward-looking information and is based on a number of material assumptions and factors, as are set out above. These projections may also be considered to contain future-oriented financial information or a financial outlook. The actual results of the Company's operations for any period will likely vary from the amounts set forth in these projections and such variations may be material. Actual results will vary from projected results. Readers are cautioned that any such financial outlook and future-oriented financial information contained herein should not be used for purposes other than those for which it is disclosed herein.

Overview of the Company

The Company's common shares (the "**Common Shares**") are listed on the Toronto Stock Exchange ("**TSX**") under the trading symbol "WLLW", and under the trading symbol "CANSF" on the OTCQB®. The Company's head office and registered office is located at 202, 1201-5th Street SW, Calgary Alberta, T2R 0Y6 with R&D operations in Mountain View, California.

Willow is a synthetic biology company focused on the development of biobased processes for production of ingredients, including those for consumer care, food & beverage, and pharmaceuticals. The Company engineers organisms such as yeast to produce plant, animal, and petrochemical-derived ingredients through precision fermentation. These processes are more sustainable, secure, and cost-effective than traditional extraction or chemical synthesis routes and typically provide final product in higher purity.

In Willow's R&D laboratory in Mountain View, California, the team exploits a wide variety of high throughput screening technologies to identify and combine beneficial genetic elements that enhance production of its strains. This facility includes state-of-the-art automation equipment, analytical instrumentation, and bench-scale fermentation and downstream development capabilities combined with large scale bioinformatics and data handling systems to rapidly evaluate high volumes of data and results. The research team includes several key personnel focused on strain engineering, high throughput screening, fermentation and chemical process development.

Technology Platform

Development of synthetic biology enabled commercial fermentation processes requires a combination of multiple technologies and capabilities for efficient and successful execution. Willow combines three key development pillars: state-of-the-art rapid strain engineering technologies, fermentation & downstream process development, and an established manufacturing network. Willow's strain engineering technologies include propriety genomic databases for novel gene discovery, an enzyme evolution platform within the proper genomic context, and machine-learning guided genome engineering. These technologies provide the performance strains for additional fermentation process optimization and efficient product recovery and purification for scaling and implementation at commercial scale within the Company's production network. The Company's end-to-end platform can provide processes that are more sustainable, secure, and cost-effective within a reasonable development timeframe.

Operational Update

During 2022, Willow continued development on its first partnered program with Sandhill One to develop an enzyme for manufacturing the large volume Active Pharmaceutical Ingredient ("API"), Ursodeoxycholic acid (UDCA), initiated a new partner-funded program with Kalsec to develop a biobased

process for an undisclosed food preservative, expanded and diversified its own product portfolio, and continued optimization of its cannabigerol (“CBG”) process for large scale production.

New Partnered Programs

Willow continued development of its first partnered program with Sandhill One, where it is optimizing an enzyme and process for production of UDCA, an API used in nutraceutical and pharmaceutical products. The project consists of research and development and commercialization phases, with near-term revenue coming from research fees and milestone payments, and long-term revenue coming from royalties or a profit share model. The Company anticipates initiating technology transfer to a production partner in 2023.

During 2022, Willow initiated development on a second partnered program with Kalsec to develop an enzyme for production of an undisclosed natural preservative for use in a large volume food opportunity. The project consists of research and development and commercialization phases, with near-term revenue coming from research fees and milestone payments.

New Internal Product Portfolio

Willow continued its internal portfolio development to demonstrate proof-of-concept for biobased production of two different classes of molecules for food and nutrition applications. One opportunity was recently disclosed as astaxanthin, a carotenoid, where the Company successfully demonstrated production in its yeast platform. The Company intends to provide updates as key milestones are met, which may include partnership for continued development. The second program, which has yet to be disclosed, is progressing well toward proof of concept. Willow is in active discussions with potential partners on both programs.

The Company also continues to evaluate related ingredient opportunities, both independently and with prospective partners, that leverage the technology platform and operational capabilities Willow has built as part of its past biosynthesis work. Multiple partner-sponsored program discussions are in progress.

CBG Production – Milestones and Costs

The Company’s first commercial product is CBG, which is a promising cannabinoid with early research suggesting it has anti-microbial, anti-inflammatory, and antioxidant properties. Willow’s proprietary yeast production process produces commercial quantities in high purity. During 2022, the Company focused on development of a more efficient downstream process (“DSP”) and technical transfer to a new Contract Manufacturing Organization (“CMO”) with larger fermentation assets. Development costs of approximately \$0.8 million are anticipated in 2023 as the Company scales the developed process at its new CMO. Our first commercial large-scale batch at our new CMO is currently planned for Q3-2023. The combination of the more efficient DSP with larger fermentation assets can potentially lead to substantially lower cost of goods for CBG and future products. The Company has a quality assurance group and quality control capabilities for testing and release of product into multiple jurisdictions and sectors.

CBG Product Development

During 2022, the Company continued to work with its regulatory consulting group, AIBMR Life Sciences, Inc., and a toxicology contract research organization to attain an independent Generally Recognized as Safe (“GRAS”) conclusion for CBG that is required for use in food and beverage applications. During the third quarter, the Company initiated the pivotal 90-day repeated oral toxicity study necessary for an independent conclusion of GRAS status. The Company anticipates completion of the lab-based safety and toxicology work in the first half of 2023 at an estimated cost of \$0.1 million.

Other Cannabinoids

Willow has paused all development on other cannabinoids in favor of new partnered programs and diversification of its internal portfolio. The Company may continue limited development in 2023 to ensure readiness depending on the changes to laws and regulations, particularly in the United States.

Intellectual Property Portfolio

Since its formation, Willow has placed significant focus on the development of its core strain engineering technology platform that enables the generation of key intellectual property, such as proprietary genes, proteins, microorganisms and processes for the biosynthesis and purification of cannabinoids and other ingredients. Willow has filed 12 patent applications to-date and will continue to file patent applications relating to its proprietary genes, proteins, and microorganisms and their use for the biosynthetic production of cannabinoids and other ingredients. Willow is confident in its ability to produce and sell its products in relevant global markets.

Outlook

The Company will continue to extend its technology platform to the biobased production of new ingredients, including both partnered and internally funded programs. Willow will continue to focus on scaling of its precision fermentation process for its first product, CBG, and expand its portfolio of functional ingredient opportunities. Willow will initiate large scale commercial production at its new CMO in 2023 to meet demand for its CBG and future products. The Company also anticipates adding a new CMO to its network in 2023 with technology transfer of the UDCA program.

With approximately \$15 million in cash and cash equivalents and short-term investments as of December 31, 2022, Willow is well capitalized to fund its ongoing operations.

The Company believes the market for ultra-pure, consistent, cannabinoids for consumer products is continuing to mature and grow. Willow continues to evaluate strategic relationships with various entities in the consumer-packaged goods and pharmaceutical industries with a view towards defining its market participation and potentially entering new global markets.

The Company also continues to evaluate related ingredient opportunities, both independently and with prospective partners, that leverage Willow's technology platform and operational capabilities.

For further information on the Company's various milestones and the anticipated timing and costs associated thereof, please refer to "*Operational Update*" above, and the section titled "*Description of the Business of the Corporation – Business Objectives and Strategy*" of the Company's Annual Information Form for the year ended December 31, 2022, dated March 21, 2023, a copy of which is available under the Company's SEDAR profile at www.sedar.com.

RESULTS OF OPERATIONS FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

Financial Results	2022	2021	Change
Revenue	\$ (821)	\$ (133)	\$ (688)
General and administrative	7,641	6,901	740
Research and development	7,473	11,511	(4,038)
Share based compensation	1,461	1,703	(242)
Depreciation and amortization	2,646	3,192	(546)
Loss on disposal of equipment	-	88	(88)
Inventory and accounts receivable impairment	-	22	(22)
Gain on right of use asset	(15)	-	(15)
Foreign exchange loss	8	46	(38)
Gain on fair value warrant liability	(3,742)	(16,803)	13,061
Restructuring costs	384	-	384
Net finance income	(274)	(387)	113
Loss before income taxes	(14,761)	(6,140)	(8,621)
Current income tax expense	(53)	-	(53)
Net loss	(14,814)	(6,140)	(8,674)
Foreign exchange gain (loss) on translation of foreign operations	45	(95)	140
Net comprehensive loss	\$ (14,769)	\$ (6,235)	\$ (8,534)
Basic and diluted loss per share	\$ (0.12)	\$ (0.05)	\$ (0.07)

Statement of Financial Position:	2022	As at December 31, 2021	Change
Cash and cash equivalents	\$ 11,007	\$ 30,119	\$ (19,112)
Total assets	18,148	35,016	(16,868)
Shareholders' equity	16,374	29,682	(13,308)

Revenue

	Year Ended December 31, 2022	2021	Change
Product revenue	\$ 187	\$ 130	\$ 57
Research and development	634	3	631
Total	\$ 821	\$ 133	\$ 688

During the year ended December 31, 2022, revenue totaled \$0.8 million (2021 - \$0.1 million).

	Quarter Ended Q4 2022	Q4 2021	Change
Product revenue	-	\$ 6	\$ (6)
Research and development	510	3	507
Total	\$ 510	\$ 9	\$ 501

Revenue increased in Q4 2022 to \$0.5 million compared to \$9 thousand in Q4 2021. In Q4 2022, the Company completed the performance obligations for one of the research and development contracts signed in 2022.

Product revenue consists of shipments of CBG produced using its proprietary yeast-strains. Research and development revenue consists of services performed to optimize an enzyme utilized in nutraceutical and pharmaceutical products. During 2022, Willow signed two new R&D contracts and recognition is based on completion of contractual milestones.

General & Administrative Expenses

	Year Ended December 31,		
	2022	2021	Change
Consulting and technical services	\$ 300	\$ 375	\$ (75)
Salaries, wages and benefits	2,568	2,521	47
Legal, audit and accounting	990	843	147
Investor relations	424	596	(172)
Corporate and office	2,551	1,749	802
Sales and marketing	808	817	(9)
Total	\$ 7,641	\$ 6,901	\$ 740

General and administrative expenses increased 11% to \$7.6 million for the year ended December 31, 2022 in comparison to prior year of \$6.9 million.

	Quarter Ended		
	Q4 2022	Q4 2021	Change
Consulting and technical services	\$ 76	\$ 78	\$ (2)
Salaries, wages and benefits	750	865	(115)
Legal, audit and accounting	392	413	(21)
Investor relations	158	171	(13)
Corporate and office	788	532	256
Sales and marketing	398	174	224
Total	\$ 2,562	\$ 2,233	329

General and administrative expenses increased 15% to \$2.6 million in Q4 2022 in comparison to Q4 2021 of \$2.2 million. The increase is due to an increase in sales and marketing costs. In Q4 2022, Sales and Marketing includes salaries of a Senior Marketing Manager. Additionally, at the end of Q4 2022, both the Senior VP of Marketing and the Senior Manager were terminated and a severance was paid which is included in sales and marketing.

General and administrative expenses include corporate consulting services, non-research and development salaries, legal, audit and accounting, travel, public company costs and general corporate expenses. The increase in the year is attributable to the relocation of assets and personnel to the Company's Mountain View, California location. Additionally, within corporate and office expenditures are expenditures pertaining to information technology (IT) and this increased in the year as Willow continues to invest in improved software and IT security services.

Research and Development Expenses

	Year Ended December 31,		
	2022	2021	Change
Salaries, wages and benefits	\$ 4,303	\$ 4,701	\$ (398)
Scale up, DNA Sequencing and others	3,170	6,966	(3,796)
R&D recoveries	-	(156)	156

Total	\$ 7,473	\$ 11,511	\$ (4,038)
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Research and development expenditures decreased 35% to \$7.5 million for the year ended December 31, 2022 in comparison to prior year of \$11.5 million.

	Q4 2022	Q4 2021	Quarter Ended Change
Salaries, wages and benefits	\$ 1,187	\$ 1,391	\$ (204)
Scale up, DNA Sequencing and others	955	1,566	(611)
R&D recoveries	-	(22)	22
Total	\$ 2,142	\$ 2,935	\$ (793)

Research and development expenses decreased 27% to \$2.1 million in Q4 2022 in comparison to Q4 2021 of \$2.9 million. The decrease is due to the Burnaby lab still being open and incurring expenses at Q4 2021 and has now been closed since Q2 2021.

Research and development includes costs associated directly with in-house research and development, as well as third party consulting costs and other technical services. The decrease during the year is attributable to reduced expenditures with the Company's CMO partner.

Share-based Compensation

	2022	2021	Year Ended December 31, Change
Stock options	\$ 829	\$ 1,326	\$ (497)
Restricted share awards	465	280	185
Performance share awards	167	97	70
	\$ 1,461	\$ 1,703	\$ (242)

During the year ended December 31, 2022, the Company recognized share-based compensation of \$1.5 million in comparison to prior year of \$1.7 million.

	Q4 2022	Q4 2021	Quarter Ended Change
Stock options	\$ 29	\$ 378	\$ (349)
Restricted share awards	119	111	8
Performance share awards	53	39	14
	\$ 201	\$ 528	\$ (327)

Share-based compensation decreased 62% to \$0.2 million in Q4 2022 in comparison to Q4 2021 of \$0.5 million.

Stock options are granted to all new employees and restricted share awards and performance share awards granted to management, officers and key employees. The expense recognized in a given period reflects the fair value of past and newly granted outstanding options during the period and is also impacted by factors such as vesting and volatility in share price.

Overall, share-based compensation has decreased from prior year due to the forfeitures of stock options associated with the restructuring of the Burnaby lab and executive team. Share-based compensation is a non-cash expense which does not impact operating cash flows.

Depreciation and Amortization

	Year Ended December 31,		
	2022	2021	Change
Depreciation on property, plant and equipment	\$ 1,942	\$ 2,634	\$ (692)
Amortization on right-of-use assets	704	558	146
Total depreciation and amortization	\$ 2,646	\$ 3,192	\$ (546)

During the year ended December 31, 2022, depreciation and amortization decreased 17% to 2.6 million in comparison to prior year of \$3.2 million.

	Quarter Ended		
	Q4 2022	Q4 2021	Change
Depreciation on property, plant and equipment	\$ 320	\$ 719	\$ (399)
Amortization on right-of-use assets	168	103	65
Total depreciation and amortization	\$ 488	\$ 822	\$ (334)

Depreciation and amortization expenses decreased 41% to \$0.5 million in comparison to \$0.8 million in Q4 2021. Depreciation and amortization costs relate to depreciation on property, plant and equipment as well as amortization of the right-of-use assets associated with leases. The overall decrease is due to many equipment pieces being entirely depreciated.

In line with the Company's long-term strategy of focusing its research and development in the Mountain View, California lab, on May 2022, Willow closed its lab in Burnaby. As the company expected to vacate the space prior to the lease tenure of March 2023, the entire right-of-use asset of \$0.1 million has been impaired. Additionally, the Company impaired \$0.2 million of property, plant and equipment from the Burnaby lab.

Gain (Loss) on Change in Fair Value of Warrant Liability

As part of the Private Placement which closed on April 12, 2019, the Company issued 24,169,722 Units. The Units were issued to the management team, employees, directors and certain strategic investors as identified by the management team. Each Performance Warrant issued under the Units entitles the holder to purchase one Common Share at a price of \$0.875 for a period of 5 years, after certain vesting requirements. The Performance Warrants vest and become exercisable as to one-third upon the 20-day volume weighted average trading price of the Common Shares (the "**Market Price**") equalling or exceeding \$1.31, an additional one-third upon the Market Price equalling or exceeding \$1.75 and a final one-third upon the Market Price equalling or exceeding \$2.19. In addition, in the event the Market Price equals or exceeds \$3.50, each Performance Warrant shall be exercisable for 1.5 Common Shares, provided that, at the time of exercise in respect of the additional 0.5 of a Common Share per Performance Warrant (the "**Performance Incentive**"), the Common Shares are listed on the facilities of a recognized stock exchange (other than the CSE or the TSX Venture Exchange) or the Common Shares are acquired for cash or for the securities of a company listed on a recognized stock exchange (other than the CSE or the TSX Venture Exchange). As of September 30, 2020, the requirement of listing the Common Shares onto a senior stock exchange has been met.

Performance warrants are initially accounted for as a derivative liability and measured at fair value with subsequent changes in fair value at each reporting period accounted for through profit and loss. The Performance Warrants require the derivative liability classification on the date of issuance, as the number of Common Shares to be issued per Performance Warrant is dependent on market price conditions.

At December 31, 2022, the warrants have been fair valued at \$23 thousand and (December 31, 2021- \$3.8 million), using the Black-Scholes Option Pricing Model with the following updated assumptions: risk-free interest rate of 4.06%; volatility of 87.47%; dividend yield of 0% and approximate expected lives of 1.28 years, inclusive of incremental Performance Incentive. The difference of \$3.7 million has been recorded as a gain on fair value adjustments on the consolidated statement of comprehensive loss. The decrease is due to the decrease in share price.

FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES

Liquidity

As at December 31, 2022, the Company had working capital of \$14.5 million including cash and cash equivalents of approximately \$11 million. For “working capital” definition, refer to Non-GAAP and Other Financial Measures section.

As a development stage company, the Company’s primary capital requirements relate to funding research and development activities and for general working capital purposes. The Company’s operations have been financed primarily through the sale of common shares or units (consisting of common shares and warrants) and the Company intends to finance future research and development activities by the issuance of equity. The Company’s primary objective when managing capital is to ensure it has sufficient funds available to carry out its research, development and commercialization programs based, in part, on continuous monitoring. In addition to issuing equity, the Company intends to finance at least a portion of its commercialization programs by finding partners, whereby the Company completes the majority of the early stage research and development and the partner completes the majority of the commercialization portion of the project.

Cash Flows Used in Operating Activities

Cash flows used in operating activities for the year ended December 31, 2022 total \$13.9 million (2021 - \$18.2 million) reflecting the non-cash working capital changes during the period. The decrease is due to the Burnaby lab being closed on May 2022 which decreased the operating activities for the year.

Cash Flows from Financing Activities

During the year ended December 31, 2022, the Company issued a total of \$nil (2021 - \$26.7 million) of common shares and \$nil (2021 - \$7.9 million) of warrants and compensation warrants were exercised. During the year, lease payments of \$0.7 million (2021- \$0.6 million) were made.

Cash Flows Used in Investing Activities

During the year ended December 31, 2022, additions to property, plant and equipment amounted to \$0.7 million (2021 – \$1.8 million), the majority of which was spent on lab equipment. Due to the closure of the Burnaby lab, the Company disposed of \$0.2 million in property, plant and equipment. The Company was able to sell some of the lab equipment to third parties, proceeds from it were \$0.1million.

CONTRACTUAL OBLIGATIONS

The table below summarizes the Company's contractual obligations related to operating leases for office and laboratory premises, as at December 31, 2022:

2023	\$ 632
2024	32
Thereafter	-
	<u>\$ 664</u>

From time to time, the Company may be subject to various legal proceedings and claims related to matters arising in the ordinary course of business. The Company does not believe it is currently subject to any material matters where there is at least a reasonable possibility that a material loss may be incurred.

On September 16, 2021, Willow was served with a claim commenced in the Federal Court of Canada by Aurora Cannabis Inc and the University of Saskatchewan alleging infringement of Canadian Patent No. 2770774. Willow filed a defence and counterclaim on October 18, 2021. The plaintiffs filed an amended claim on December 13, 2021, which added allegations that Canadian Patent Nos. 2796465 and No. 2851316 are also infringed. Willow filed an amended defence and counterclaim on February 14, 2022. Willow's counterclaim alleges invalidity with respect to all three patents in issue. The matter is ongoing. Willow disputes the allegations and intends to continue to vigorously defend the claim and advance its counterclaim. While Willow believes that the claim is without merit it cannot predict the final outcome or timing of the action due to the inherent risks and uncertainties of litigation.

SIGNIFICANT ACCOUNTING POLICIES AND ESTIMATES

Note 3 to the annual Financial Statements as at and for the year ended December 31, 2022 includes a summary of the Company's significant accounting policies.

The preparation of the consolidated financial statements in conformity with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the amounts reported in these consolidated financial statements and notes. Accordingly, actual results may differ from estimated amounts as future confirming events occur. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

These estimates include impairment indicators and amortization period for property, plant and equipment, compensation costs accrued for the share-based compensation plan and warrant valuation. The warrant valuation is subject to estimation of what the ultimate payout will be using the Black-Scholes pricing model which is based on significant assumptions such as the future volatility of the market price of the Company's shares and the expected term of the warrants.

Off-Statement of Financial Position Arrangements

As of December 31, 2022 and March 21, 2023, the Company has not entered into any off-statement of financial position arrangements.

SUMMARY OF QUARTERLY FINANCIAL RESULTS

	Q4 2022	Q3 2022	Q2 2022	Q1 2022
Revenues	\$ 510	\$ 49	\$ 262	-
Net loss	(4,708)	(3,986)	(3,151)	(2,969)
Net comprehensive loss	(4,717)	(3,950)	(3,137)	(2,965)
Net loss per share	\$ (0.04)	\$ (0.03)	\$ (0.03)	\$ (0.02)
	Q4 2021	Q3 2021	Q2 2021	Q1 2021
Revenues	\$ 9	\$ 2	\$ 116	\$ 6
Net income (loss)	(5,196)	3,839	6,523	(11,306)
Net comprehensive income (loss)	(5,192)	3,821	6,476	(11,340)
Net income (loss) per share	\$ (0.04)	\$ 0.03	\$ 0.05	\$ (0.10)

The significant changes of the Company's net income (loss) and net comprehensive income (loss) over the past eight quarters is predominantly due to the fluctuations of the warrant liability balance. The warrant liability balance is correlated with the Company's share price, which has experienced volatility over the past eight quarters.

SEGMENTED RESULTS

The Company's operations has one reportable segment engaged in the research, development, and commercialization of high purity, plant derived ingredients for consumer care, food and beverage and pharmaceutical products, which is consistent with the way the Company reports information to its chief decision makers and Board of Directors of the Company (the "Board").

The following geographic information reflects revenue, non-current assets and total assets by location.

	As at and for the Year Ended December 31,		
Revenue	2022	2021	Change
Canada, and the rest of the world	\$ 187	\$ 133	\$ 54
United states	634	-	634
	\$ 821	\$ 133	\$ 688
Non-current assets			
Canada	\$ 458	\$ 1,446	\$ (988)
United states	1,461	2,299	(838)
Total assets			
Canada	\$ 15,149	\$ 31,412	\$ (16,263)
United states	2,999	3,604	(605)

OUTSTANDING EQUITY INSTRUMENTS

The Company is authorized to issue an unlimited number of voting common shares without nominal or par value.

As at December 31, 2022 and March 21, 2023, Willow has the following securities outstanding:

	As at December 31, 2022	As at March 21, 2023
Common shares	123,719,667	123,719,667
Incentive performance warrants	1,045,488	-
Employee stock options	7,581,188	7,526,188
Performance warrants	14,963,789	14,963,789
Performance share awards	965,110	804,955
Restricted share awards	1,998,224	1,878,797
Incentive performance warrants	12,095,389	12,095,389
Total	162,368,855	160,988,785

MANAGEMENT OF FINANCIAL RISKS

The Company is exposed through its operations to the following financial risks:

- Market risk
- Credit risk
- Liquidity risk

In common with all other businesses, the Company is exposed to risks that arise from its use of financial instruments. This section of the MD&A describes the Company's objectives, policies and processes for managing those risks and the methods used to measure them. Further quantitative information in respect of these risks is presented throughout the financial statements. There have been no substantive changes in the Company's exposure to financial instrument risks, its objectives, policies and processes for managing those risks or the methods used to measure them from previous years unless otherwise stated in this section of the MD&A.

General Objectives, Policies and Processes

The Board has overall responsibility for the determination of the Company's risk management objectives and policies and, while retaining ultimate responsibility for them, it has delegated the authority for designing and operating processes that ensure the effective implementation of the objectives and policies to the Company's management. The effectiveness of the processes put in place and the appropriateness of the objectives and policies it sets are reviewed periodically by the Board if and when there are any changes or updates required.

The overall objective of the Board is to set policies that seek to reduce risk as far as possible without unduly affecting the Company's competitiveness and flexibility. Further details regarding these policies are set out below.

Market Risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market. Market risk is comprised of two types of risk: foreign currency risk and interest rate risk. The Company does not currently have significant market risk exposure other than foreign currency risk, as described below.

a) Foreign Currency Risk

Foreign currency risk is the risk that the future cash flows or fair value of the Company's financial instruments that are denominated in a currency that is not the Company's functional currency will fluctuate due to changes in foreign exchange rates. Portions of the Company's cash and cash equivalents, deposits and prepaid expense, accounts payable and accrued liabilities and lease liabilities are denominated in US dollars. Accordingly, the Company is exposed to fluctuations in the US and Canadian dollar exchange rates.

As at December 31, 2022, the Company had a net excess of US dollar denominated cash and cash equivalents, deposits, accounts payable and accrued liabilities of US \$3.5 million which is equivalent to \$4.7 million CAD at the December 31, 2022 exchange rate. The US dollar financial assets generally result from holding US dollar cash to settle anticipated near-term accounts payable and accrued liabilities denominated in US dollars.

Each change of 5% in the US dollar in relation to the Canadian dollar will result in a gain or loss, with a corresponding effect on cash flows, of \$0.2 million based on the December 31, 2022 net US dollar liabilities position.

b) Interest Rate Risk

Interest rate risk is the risk that future cash flows will fluctuate as a result of changes in market interest rates. As at December 31, 2022, the Company did not hold any floating rate investments.

The Company's current policy is to invest excess cash in guaranteed investment certificates or interest-bearing accounts of major Canadian chartered banks or credit unions with comparable credit ratings.

The Company regularly monitors compliance to its cash management policy.

The Company, as at December 31, 2022, does not have any borrowings. Interest rate risk is limited to potential decreases on the interest rate offered on cash and cash equivalents held with chartered Canadian financial institutions. The Company considers this risk to be immaterial.

Credit Risk

Credit risk is the risk of financial loss to the Company if a customer or a counter party to a financial instrument fails to meet its contractual obligations. Financial instruments which are potentially subject to credit risk for the Company consist primarily of cash and cash equivalents and short-term investments.

Cash and cash equivalents and short-term investments are maintained with financial institutions of reputable credit and may be redeemed upon demand. Accounts receivable consists trade and GST receivable.

The carrying amount of financial assets represents the maximum credit exposure. Credit risk exposure is limited through maintaining cash and cash equivalents and short-term investments with high-credit quality financial institutions and management considers this risk to be minimal for all cash and cash equivalents and short-term investments assets based on changes that are reasonably possible at each reporting date.

The Company is not exposed to any externally imposed capital requirements.

Liquidity Risk and Capital Management

Liquidity risk is the risk that the Company will be unable to fulfill its obligations on a timely basis or at a reasonable cost. The Company's objective in managing liquidity risk is to maintain sufficient available resources to meet its liquidity requirements at any point. The Company achieves this by managing its capital spending and maintaining sufficient funds for anticipated short-term spending in the cash and cash equivalents account.

The expected timing of cash outflows relating to financial liabilities on the consolidated statement of financial position as at December 31, 2022 are:

	2023	2024	Thereafter	Total
Lease obligations	\$ 632	\$ 32	\$ -	\$ 664
Trade and other payables	1,087	-	-	1,087
Total liabilities at December 31, 2022	\$ 1,719	\$ 32	\$ -	\$ 1,751

As at December 31, 2022, the Company has cash and cash equivalents and of \$11 million, current liabilities of \$1.7 million and a working capital surplus of \$14.5 million. For "working capital" definition, refer to Non-GAAP and Other Financial Measures section.

As at December 31, 2022, the Company is in the development stage, is not currently generating significant revenue and expects to operate at a loss and use cash in operating activities as it conducts research and development on its biosynthesis pathways. The Company's development stage operations to date have been financed primarily through the issuance of common shares or units. The Company's ability to continue as a going concern while attempting to achieve profitable operations and generate positive cash flow from operating activities is dependent upon its existing net current assets and its ability to secure additional funding from debt or equity financings. There is no assurance that the Company will be able to secure additional funding from debt or equity financings on favourable terms, or at all, which may prevent the Company from achieving profitable operations and generating positive cash flow from operating activities and require the utilization of all remaining net current assets and financial resources resulting in the partial or complete curtailment of operations.

These conditions indicate a material uncertainty exists that may cast significant doubt as to the Company's ability to continue as a going concern. These financial statements do not reflect the adjustments that would be necessary if the going concern assumption was not appropriate. The necessary adjustments to the carrying values and classifications of assets and liabilities that would be required if the Company became unable to continue as a going concern could be material.

RISKS AND UNCERTAINTIES

An investment in the Company involves significant risks and must be considered speculative due to the nature of the Company's business. Investors should carefully consider the risks and uncertainties described below. This list of risks and uncertainties below is not exhaustive. Furthermore, additional risks and uncertainties not presently known to Willow or that Willow believes to be immaterial may also adversely affect Willow's business. In addition to the risks identified elsewhere in this MD&A, investors should carefully consider all of the risk factors associated with the Company and its business identified under the heading "Risk Factors" in the Company's Annual Information Form for the year ended December 31, 2022, dated March 21, 2023, a copy of which is available under the Company's SEDAR profile at www.sedar.com.

Internal Controls Over Financial Reporting

The CEO and the CFO have designed, or caused to be designed under their supervision, internal controls over financial reporting as defined in National Instrument 52-109 of the Canadian Securities Administrators, in order to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

There were no changes to the Company's internal controls over financial reporting during the period January 1, 2022 to December 31, 2022 that have materially affected, or are reasonably likely to materially affect the Company's internal controls over financial reporting.

Due to its inherent limitations, internal controls over financial reporting may not prevent or detect misstatements. In addition, projections of any evaluation relating to the effectiveness in future periods are subject to the risk that controls may become inadequate as a result of changes in conditions, or that the degree of compliance with policies and procedures may deteriorate.

Risks Related to the Company's Business

The Company has a history of operating losses and may never achieve profitability in the future

The Company's ability to generate future revenue or achieve profitable operations is largely dependent on its ability to attract the experienced management and know-how to develop and patent new biosynthesis methods and to partner with larger, more established companies in the industry to successfully commercialize its processes. Successfully developing biosynthesized molecules into marketable products takes several years and significant financial resources and the Company cannot assure that it can achieve these objectives.

The Company's continued development may require additional financing. The failure to raise such capital could result in the delay or indefinite postponement of the Company's current business objectives or the Company going out of business. There can be no assurance that additional capital or other types of financing will be available if needed or that, if available, the terms of such financing will be favourable to the Company.

Need to maintain and expand on CMO and customer partnerships

The Company's success depends on its ability to expand the number, size and scope of its customer collaborations and partnerships with CMOs. The Company engages in conversations with CMOs on an ongoing basis. Even if an agreement is reached, the resulting relationship may not be successful for many reasons, including the Company's inability to complete a program to regulatory or customers' specifications or within feasible time frames, or unsuccessful development or commercialization of products or processes.

Scale up, marketing and commercialization processes will be expensive and time consuming, and their outcomes uncertain

Before the Company can obtain regulatory approval for the commercial sale of any biosynthesized discoveries, it will be required to complete extensive scale-up, marketing and regulatory processes. Commercialization is expensive and can be difficult to achieve. Commercialization is also time-consuming and can often be subject to unexpected delays.

Protection of proprietary technology can be unpredictable and costly

The Company's success will depend in part on its ability to develop patents, defend patents, maintain trade secret protection and operate without infringing on the proprietary rights of others. If the Company is unable to obtain, maintain or protect its intellectual property rights, or if its intellectual property rights are inadequate, its competitive position, business, financial conditions, results of operations and prospects may be harmed.

Interpretation and evaluation of patent claims present complex and often novel legal and factual questions. Accordingly, there is some question as to the extent to which biopharmaceutical discoveries and related products and processes can be effectively protected by patents. As a result, there can be no assurance that:

- patent applications will result in the issuance of patents;
- additional proprietary products developed will be patentable;
- patents issued will provide adequate protection or any competitive advantages;
- patents issued will not be successfully challenged by third parties;
- the patents issued do not infringe the patents or intellectual property of others; or
- that the Company will be able to obtain any extensions of the patent term.

A number of pharmaceutical, biotechnology, medical device companies and research and academic institutions have developed technologies, filed patent applications or received patents on various technologies that may be related to the business of the Company. Some of these technologies, applications or patents may conflict with or adversely affect the technologies or intellectual property rights of the Company. Any conflicts with the intellectual property of others could limit the scope of the patents, if any, that the Company may be able to obtain or result in the denial of patent applications altogether. Further, there may be uncertainty as to whether the Company may be able to successfully defend any challenge to its patent portfolio.

In addition, any breach of confidentiality by a third party by premature disclosure may preclude the obtainment of appropriate patent protection, thereby affecting the development and commercial value of the Company's technology and products. The Company may also decide to acquire or in-license certain pending or issued patents but cannot guarantee their approval and/or commercial viability.

Risks related to intellectual property rights and intellectual property litigation

The Company may become party to litigation, mediation, and/or arbitration. Competitors and other third parties may infringe or otherwise violate Willow's issued patents or other intellectual property. In addition, the Company's patents may become involved in inventorship, ownership, or priority disputes. Any litigation concerning any of these issues would be expensive, time consuming and uncertain. There can be no assurances that the Company would prevail in any suit brought by it or against the Company by third parties, or successfully settle or otherwise resolve those claims. Parties making claims against Willow might be able to obtain injunctive or other relief, which could block the Company's ability to develop, commercialize and sell products or use its technologies, and could result in the award of substantial damages against Willow, including legal fees, costs and expenses if the Company was found to have infringed a third party's intellectual property. In the event of a successful claim against Willow, the Company could be required to pay damages and ongoing royalties, and obtain licenses from third parties, or be prohibited from selling certain products or using certain technologies. The Company may not be able to obtain these licenses on acceptable or commercially reasonable terms, if at all. In addition, the Company or its customers could encounter delays in product or service introductions while we attempt to develop alternative or redesign existing products or technologies to avoid or resolve these claims. The Company's loss in any lawsuit or failure to obtain a license could prevent the Company from using its platform and technologies. Such a loss

or failure could materially affect the Company's business. Any litigation pertaining to these issues would have substantial costs, even if the eventual outcome is favorable to Willow, and would divert management's attention from its business objectives.

From time to time, the Company may in the ordinary course of business be named as a defendant in lawsuits, indemnity claims and other legal proceedings. These actions may seek, among other things, compensation for alleged product liability, personal injury, employment discrimination, breach of contract, property damage and other losses or injunctive or declaratory relief.

The Company is currently defendants to proceedings in Canada. The Company believes the claim to be without merit and intends to vigorously defend against the claims, but there is no assurance that it will be successful.

Competition

The planned business to be carried out by the Company will be highly competitive and involve a high degree of risk. There can be no assurance that the licensing or other arrangements respecting the patent-pending cannabinoid-based pathway discovery platform sought to be obtained can be secured on favorable terms or otherwise, nor are there any assurances that sales or license revenues, if obtained, will be in sufficient quantities to make the business profitable. In its efforts to achieve its objectives, the Company will compete with other companies that may have greater resources, many of which will not only develop technology but also manufacture and sell similar products on a worldwide basis.

The adult-use cannabis industry is encountering price compression, which may adversely impact the Company's profitability. The continuing evolution of these market conditions represent ongoing uncertainties that may affect the Company's future results.

The Company's success in the cannabis industry will depend in part on its ability to attract and retain customers, develop and maintain commercial relationships with Canadian and international brands and develop innovative products.

Uninsured or Uninsurable Risk

The Company may become subject to risks against which it cannot insure or against which it may elect not to insure. Settling related liabilities would reduce funds available for core business activities. Settlement of uninsured liabilities could have a material adverse effect on Willow's financial position.

Conflicts of Interest

The Company's directors and officers may currently be involved, or become involved, in other business ventures that compete with Willow's platform and services. Business opportunities for the Company may create circumstances in which outside interests of Willow's directors and officers' conflict with the interests of the Company. Directors and officers are required to act in good faith and in a manner that benefits the Company.

It is possible, however, that Willow's directors and officers may owe similar consideration to another organization(s). It is possible that these and other conflicts of interest are resolved in a way that has a material adverse impact on the Company.

Dependence on Key Personnel

The Company depends on support from existing directors and officers and its ability to attract, and retain, new directors, officers and other personnel with appropriate skill sets. Inability to retain key team members or find new professionals to serve in important roles could have a material adverse effect on the Company's business. There can be no assurance that Willow will be able to attract or retain the quality of personnel required in the future.

Costs of Maintaining a Public Listing

As a result of being a publicly listed Company, the Company will incur greater legal, accounting and other expenses related to regulatory compliance than it would have had it remained a private entity. The Company may also elect to devote greater resources than it otherwise would have on communication and other investor relations activities typically considered important by publicly traded companies.

Share Price Volatility and Speculative Nature of Share Ownership

The Common Shares are listed for trading on the TSX, resulting in many legacy shareholders being able to freely trade their shares. Factors both internal and external to the Company may significantly influence the price at which the Company's shares trade, and the volatility of its share price. Annual and quarterly operating results and material developments reported by the Company can, and likely will, influence the price of its shares.

Sentiment toward biotechnology stocks, as well as toward the stock market in general, is among the many external factors that may have a significant impact on the price of the Common Shares. The Company's business is at an early stage of development and is not generating any revenue. As such, it should be considered a speculative investment. There is no guarantee that a liquid market will be developed for the Common Shares.

The Company is subject to the rules and regulations of the TSX. Any changes to rules, regulations, policies and guidelines issued by regulatory authorities may impact any such fees paid and increase the risk of non-compliance. There is no assurance that the Company will be able to comply with the continued listing standards of the TSX, as applicable, within any projected timeframes, or at all, and maintain listing status on the TSX. Any failure to comply with applicable continued listing requirements and regulations may result in the delisting of the Company's Common Shares from the TSX. Such event may have a material adverse effects on the Company's business and financial condition.

Disclosure Controls and Procedures

The Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO") have designed, or caused to be designed under their supervision, disclosure controls and procedures as defined in National Instrument 52-109 of the Canadian Securities Administrators, to provide reasonable assurance that: (i) material information relating to the Company is made known to the CEO and the CFO by others, particularly during the period in which the annual and interim filings are being prepared; and (ii) information required to be disclosed by the Company in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation.

The Chief Executive Officer and the Chief Financial Officer of Willow Biosciences Inc. have concluded that the design and operation of the Company's disclosure controls and procedures were effective as at December 31, 2022.

NON-GAAP AND OTHER FINANCIAL MEASURES

This MD&A contains certain financial measures, as described below, which do not have standardized meanings prescribed by GAAP. As these non-GAAP financial measures are commonly used, the inclusion is useful to investors, however these amounts may not be comparable to measures presented by other companies where similar terminology is used.

“Working capital” is calculated as total current assets minus total current liabilities. Management utilizes working capital to monitor its liquidity, capital management and its ability to fund current operations.

ADDITIONAL INFORMATION

Additional information relating to Willow, can also be found on SEDAR at www.sedar.com.

CORPORATE INFORMATION

BOARD OF DIRECTORS

Barbara Munroe

Lead Independent Director

Dr. Peter Seufer-Wasserthal

Director

Trevor Peters

Director

Donald Archibald

Director

Sadiq Lalani

Director

Al Foreman

Director

Dr. Fotis Kalantzis

Director

Jim Lalonde

Director

Sony Gill

Corporate Secretary

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Calgary, Alberta T2P 3C4

STOCK EXCHANGE LISTING

Toronto Stock Exchange

Common shares "WLLW"

MANAGEMENT AND OFFICERS

Dr. Peter Seufer-Wasserthal

President and Chief Executive Officer

Travis Doupe

Chief Financial Officer

Dr. Chris Savile

Chief Operating Officer

Dr. Trish Choudhary

Vice President, Research and Development

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