



# 4Q and FY 2021 Earnings Results Conference Call and Webcast

MARCH 3, 2022

# Management on Today's Call



**Michael A. Carr**  
President and  
Chief Executive Officer



**Bill Koschak**  
Chief Financial Officer

# Forward Looking Statements

This presentation contains “forward-looking statements” within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. In some cases, you can identify these statements by forward-looking words such as “anticipates,” “believes,” “continue,” “estimates,” “expects,” “intends,” “may,” “might,” “plans,” “predicts,” “projects,” “should,” “targets,” “will,” or the negative of these terms and other similar terminology. Forward-looking statements in this presentation include statements about the Company’s future financial performance, including its cash runway; its product pipeline and development; its business model and strategies for the development, commercialization and sales of commercial products; commercial demand for its synthetic biology solutions; the development and deployment of its PlantSpring technology platform; its ability to deploy and leverage its artificial intelligence and machine learning (AIML) capabilities; the ability to scale production capability for its BioFactory production system; potential development agreements, partnerships, customer relationships, and licensing arrangements and their contribution to its financial results, cash usage, and growth strategies; the potential impact of the COVID-19 pandemic on its business and operating results; and anticipated trends in its business. These and other forward-looking statements are predictions and projections about future events and trends based on the Company’s current expectations, objectives, and intentions and are premised on current assumptions. The Company’s actual results, level of activity, performance, or achievements could be materially different than those expressed, implied, or anticipated by forward-looking statements due to a variety of factors, including, but not limited to: the impact of increased competition, including competition from a broader array of synthetic biology companies; competition for customers, partners, and licensees and the successful execution of development and licensing agreements; disruptions at its key facilities, including disruptions impacting its BioFactory production system; flaws in AIML algorithms, insufficiency of data inputs required by such algorithms, and human error in interacting with AIML; changes in customer preferences and market acceptance of its products; changes in market consensus as to what attributes are required for a product to be considered “sustainable”; the impact of adverse events during development, including unsuccessful pilot production of plant-based chemistries or field trials; the impact of improper handling of its product candidates during development; failures by third-party contractors; inaccurate demand forecasting or milestone and royalty payment projections; the effectiveness of commercialization efforts by commercial partners or licensees; disruptions to supply chains, including raw material inputs for its BioFactory; the impact of changes or increases in oversight and regulation; disputes or challenges regarding intellectual property; proliferation and continuous evolution of new technologies; management changes; dislocations in the capital markets; the severity and duration of the evolving COVID-19 pandemic and the resulting impact on macro-economic conditions; and other important factors discussed under the caption entitled “Risk Factors” in the Company’s Annual Report on Form 10-K. Any forward-looking statements made by management of the Company are based only on currently available information and speak only as of the date of this report. Except as otherwise required by securities and other applicable laws, the Company does not assume any obligation to publicly provide revisions or updates to any forward-looking statements, whether as a result of new information, future developments or otherwise, should circumstances change, except as otherwise required by law.

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# We Are Leading a Plant-based Revolution

We are committed to bringing the **bioproduction capabilities of plants** to innovators of today.

We leverage our proprietary (1) PlantSpring™ technology platform, (2) Plant Cell Matrix™ (PCM™) structures, and (3) BioFactory™ production system, to produce plant-based chemistries that are scarce in nature, that have unstable supply chains, or that cannot be produced through fermentation, or other similar methodologies.

# Company Overview

- Developer of **high-value, plant-based chemistries** for customers, **leveraging proprietary PlantSpring™ technology platform** – a **robust** platform built over 10 years with a **deep IP portfolio** and an **expanding set of artificial intelligence and machine learning (AI/ML) capabilities**
- **Proprietary BioFactory™ system is used for production**, it is **differentiated** from other production systems by its **plant-based foundation**, the use of our proprietary **Plant Cell Matrix™ (PCM™)**, its ability to **produce complex plant-based chemistries**, and more **sustainable means of production** including modular nature, geographic flexibility, and use of fewer inputs
- **Iterative AI/ML capabilities designed to augment both** PlantSpring development and BioFactory production
- Initially targeting the **cosmeceutical, nutraceutical, pharmaceutical** end markets, **all large/innovative** and representing **significant growth opportunities**
- **Customer demand-driven** and **selective approach** to product development, targeting **2 – 4** plant-based chemistries in development **by end of 2022**
- Business model reflects an **asset-lite approach to BioFactory**, potential for cash flow **throughout targeted 36-month development period**, with **product-related revenue** to follow

# Recent Corporate Highlights – Positioned for Growth and Scale

- Reported **additional milestones** following the **commissioning of the initial pilot BioFactory**
- Invested in **key hires**, including **Michael A. Carr** as President and Chief Executive Officer, **Gerry Nuovo** as **SVP, Business Development**, and senior hires in **AI/ML** and **technology licensing**
- Established **Scientific Advisory Board** and expanded it with appointment of Dr. Seth Dobrin, **IBM's Global Chief Artificial Intelligence Officer**
- Advanced discussions with **new potential customers** in expanded group of end markets including the **cosmeceutical**, **nutraceutical**, and **pharmaceutical** industries
- In February 2022 closed underwritten offering of common stock and prefunded warrants, generating **gross proceeds of \$10.9 million**, proceeds to be used for **investments** in the **growth and scale of the BioFactory**, **augmenting AI/ML capabilities**, and **furthering customer relationships**

# Globally, People Are Increasingly Demanding Focus on the Planet

20%  
+

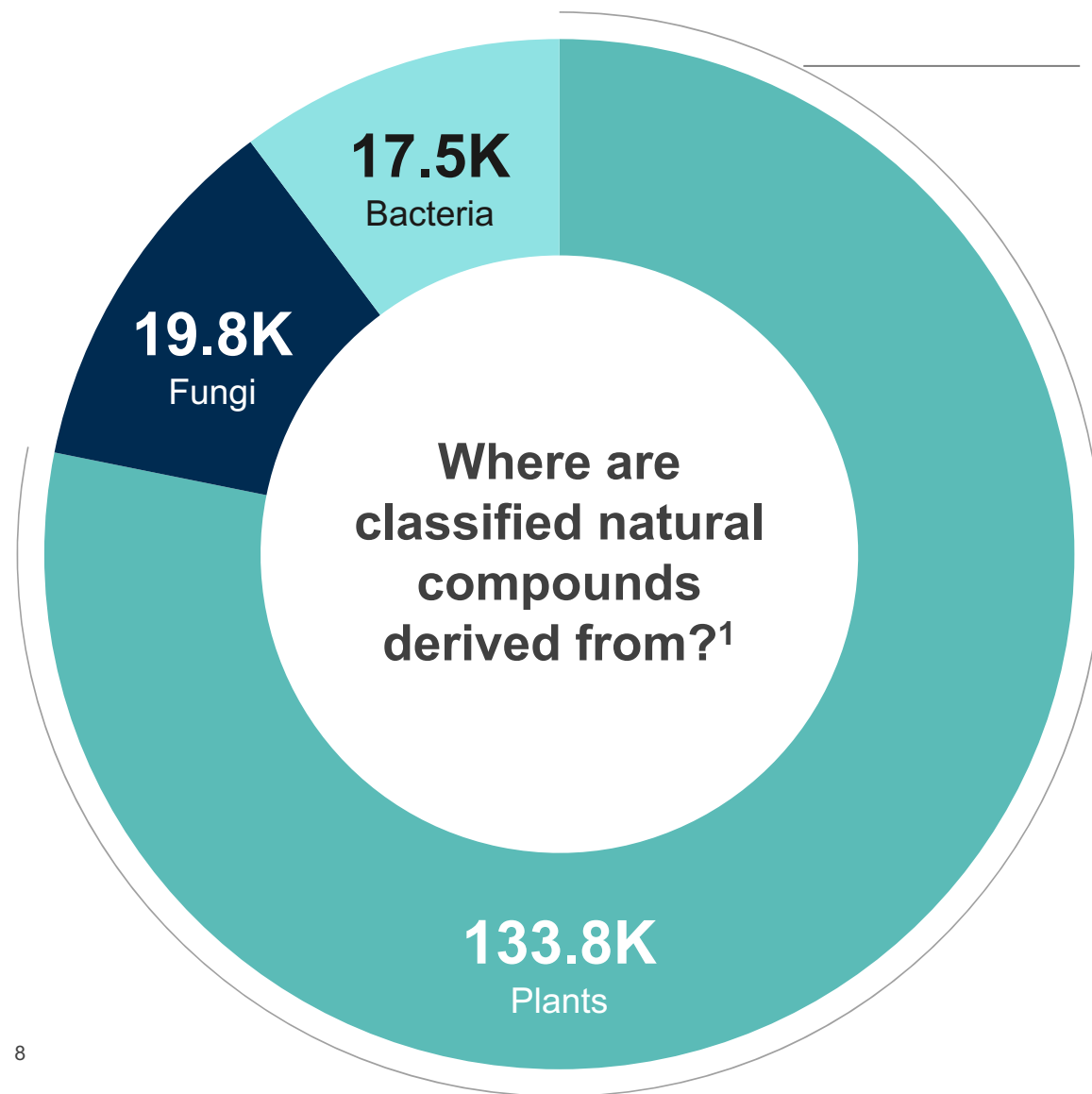
of the world's 2,000 largest public companies **have committed to carbon-neutrality<sup>1</sup>**



Many corporations and consumers are **shifting their focus** to products that are **sustainable** and contain environmentally-friendly **plant-based chemistries**

Calyxt through its **proprietary PlantSpring technology** platform and **BioFactory** production system is **distinctively qualified** to meet this demand

# Plants are Incredibly Diverse and Offer Largest Opportunity to Meet World's Demand for Sustainable Chemistries



Among plants, bacteria and fungi, 80% of classified natural compounds come from plants

Estimates<sup>2</sup> of up to:

1M+

compounds are yet to be discovered

1. François Chassagne, Guillaume Cabanac, Gilles Hubert, Bruno David, Guillaume Marti. The landscape of natural product diversity and their pharmacological relevance from a focus on the Dictionary of Natural Products®. Phytochemistry Reviews, Springer Verlag, 2019, 18 (3), pp.601-622. (10.1007/s11101-019-09606-2). (hal-02915232)

2. Chuanying Fang, Alisdair R. Fernie, and Jie Luo. Exploring the Diversity of Plant Metabolism, Trends in Plant Science, January 2019, Vol. 24, No. 1, citing estimates ranging from 100,000 to 1,000,000.



# Plants Are Central to Our Proprietary PlantSpring™ Technology Platform and BioFactory™ Production System



Experts in **engineering plant metabolism**, leverage **PlantSpring** for development



Applying **AI/ML** in development process, **iteratively expanding capabilities**



Proprietary multicellular **Plant Cell Matrix** structures utilized for **BioFactory production**



The **BioFactory** is designed to continuously produce **plant-based chemistries**

PlantSpring and the BioFactory are a **differentiated** production system for **high-value, innovative, and customer demand-driven** plant-based chemistries

# PlantSpring Technology Platform Constructed Over More Than A Decade



**PlantSpring  
Technology**

Humans have **evolved alongside plants** to **benefit from their chemistries**

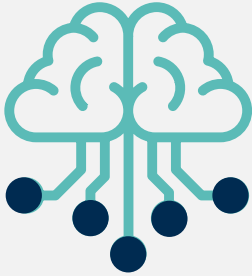
For over a decade, we have studied plant DNA and reverse-engineered key metabolic processes—**rendering the technology to rapidly produce plant-based compounds** based on our customers' needs

PlantSpring incorporates our **scientific knowledge** and our **proprietary systems, tools, and technologies** that together enable us to **engineer plant metabolism**

Protected with **broad IP position**

We built our first **AI/ML capability** into PlantSpring to assist us in **identifying targets** for editing specific genetic pathways and **improve efficiency and speed**

# AI/ML In Our Development Cycle – Bolstering Capabilities and Accelerating Learnings



## Artificial Intelligence/ Machine Learning

Plant DNA and genetics contain a **profound amount of information**. AI/ML filters this data, **searching for patterns**

These findings help our scientists identify relevant trends, leading to rapid results.

Calyxt's AI/ML focus for near term is:

- Expanding capability to identify targets in the Design phase of development current capabilities
- Incorporating further into our development process
- Optimizing pilot production, reducing variables and critical steps in scale-up process

# A Plant Cell Matrix (PCM) Offers Differentiated Advantages Over Single-cell Production Methods



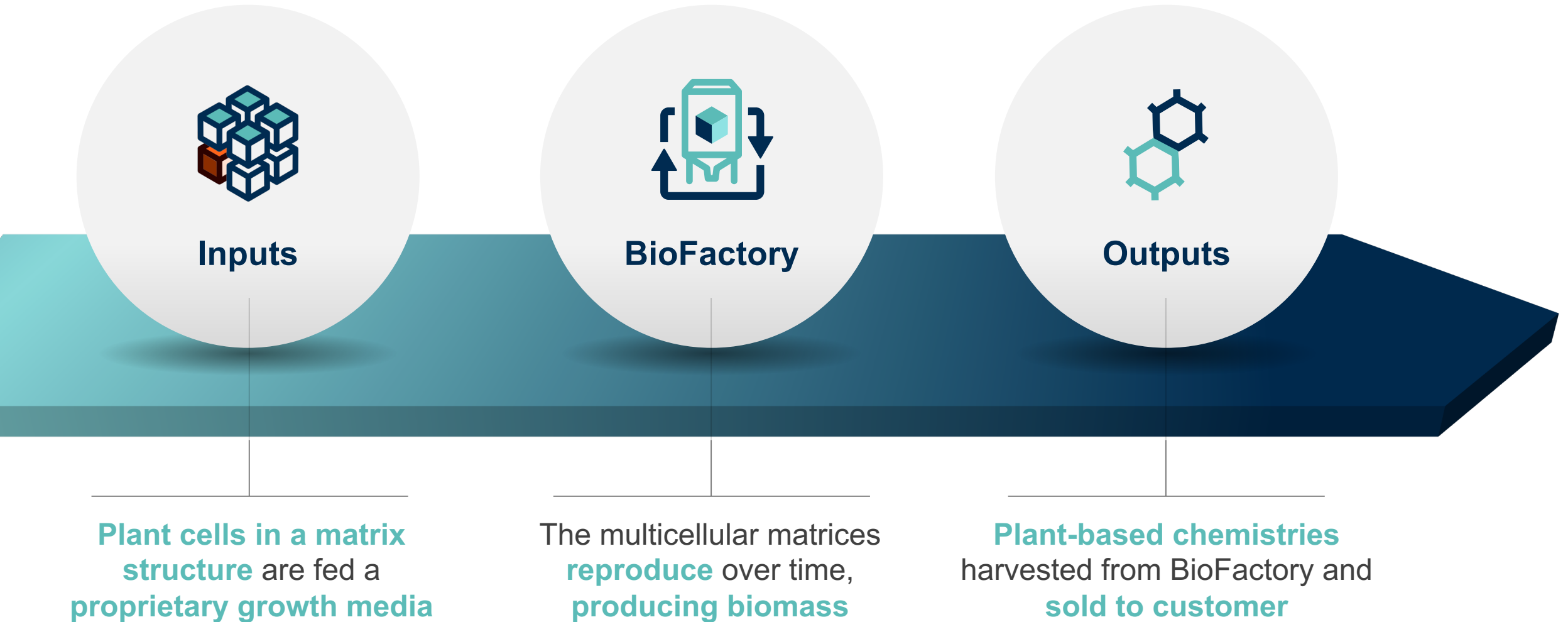
## Plant Cell Matrix Structures

PCM structures are a small grouping of plant cells **designed to emulate the intercellular metabolism of an entire plant**

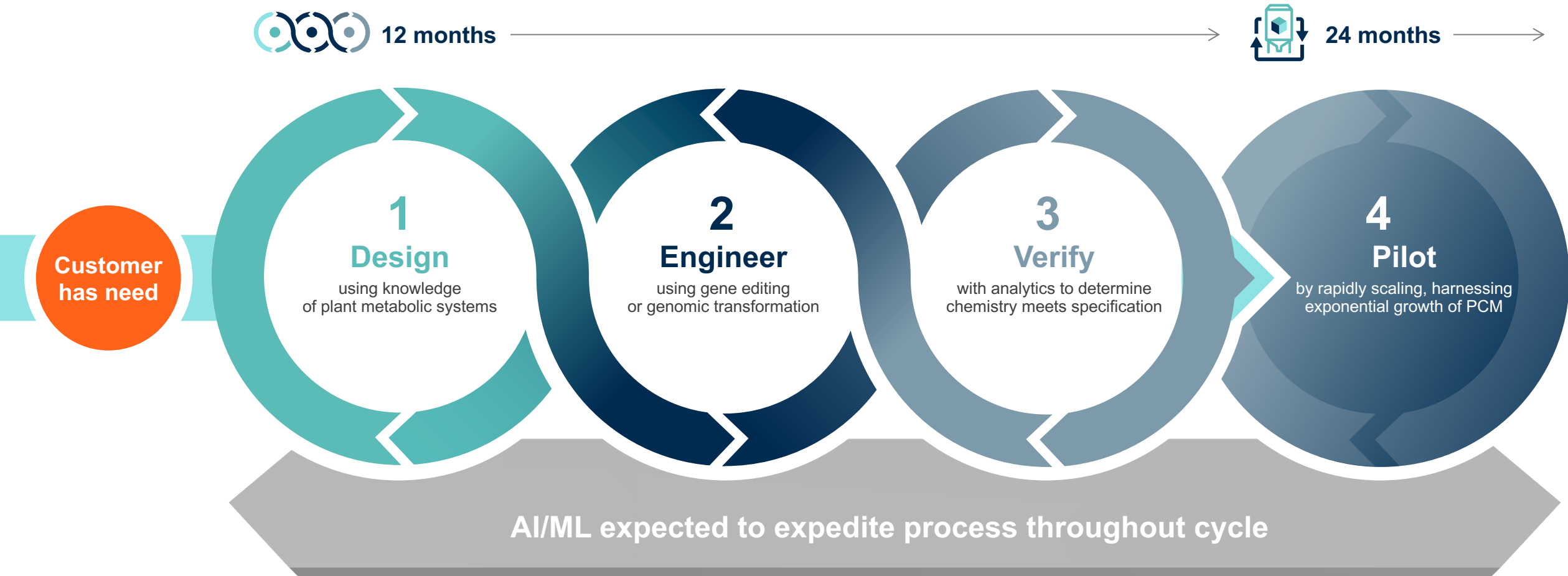
- Allow cells to grow **without needing constant submersion** in growth media
- More **stable scaling of compound production** compared to single-cell plant systems



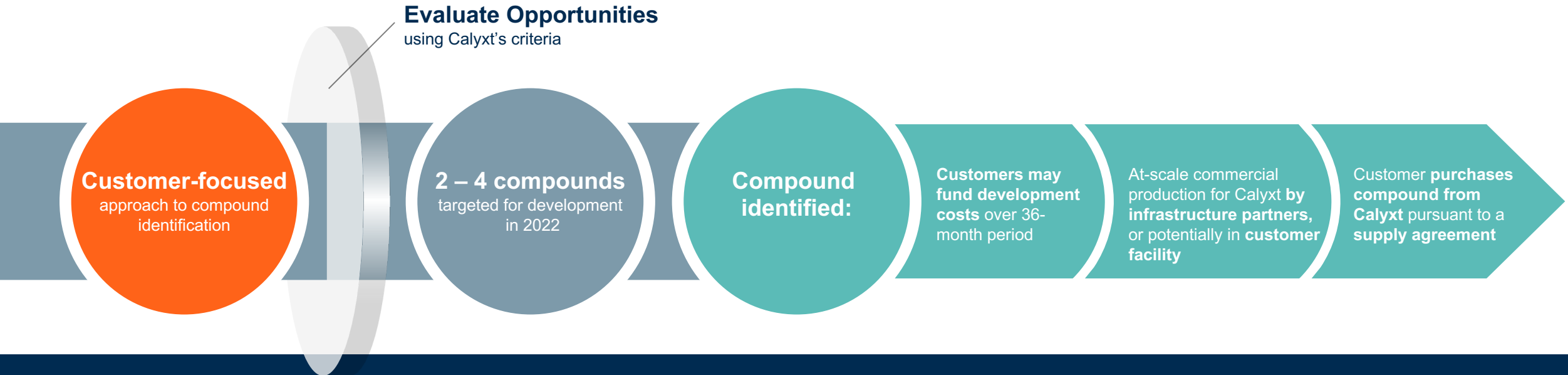
# The BioFactory Production System Delivers Impactful Production of Bespoke Developed Plant-based Chemistries



# 36 Month Development Cycle Would Offer Unprecedented Time to Market



# PlantSpring and BioFactory Business Model



## Cash flow streams from BioFactory business model:



# Customer Acquisition Activities Initially Targeted at Three Key Markets With Many More Available to PlantSpring + BioFactory



INITIAL TARGET MARKETS

SELECT FUTURE MARKET OPPORTUNITIES



**Cosmeceuticals**



**Nutraceuticals**



**Pharmaceuticals**



**Advanced  
Materials**



**Chemicals**

**Large end markets** with customers that have **current business needs** to source finite plant-based chemistries, are known to be **fast adopters of innovation**, and are actively **seeking to reduce carbon footprints**



# Poised to Deliver Plant-based Chemistries with Compelling Financial Returns that Assist Customers in Achieving Their Sustainability Goals

- PlantSpring and the BioFactory are a **differentiated production system**
- Initially targeting the **cosmeceutical, nutraceutical, pharmaceutical** end markets, **all large** and representing **significant growth opportunities**
- **Customer demand-driven approach** for development of **high-value, innovative and sustainable** plant-based chemistries
- **Targeting 2 – 4** plant-based chemistries in development **by end of 2022**
- Business model reflects an **asset-lite approach**, with potential for cash flow **throughout targeted 36-month development period** and ramp of **product-related revenue to follow**

# Fourth Quarter and Full Year 2021 Financial Highlights

- **Cash**, cash equivalents, and restricted cash of **\$14.4M** as of **December 31, 2021**.
- **Revenue** of \$1.9M for 4Q21 compared to \$13.9M in the prior year and was \$26.0M in 2021 compared to \$23.9M in 2020. The increase for the year was driven by sales of the 2020 grain crop, which included higher volumes and reflected higher commodity prices, in each case, as compared to 2020.
- **Total operating expenses** were \$6.6M in 4Q21 compared to \$8.1M in the prior year period and were \$26.8M in 2021 compared to \$32.6M in 2020. The decrease was driven by lower professional fees, lower personnel costs, and restructuring costs recognized in the fourth quarter of 2020. **Operating expenses** excluding \$2.1 million of non-cash stock compensation expense and \$2.3 million of depreciation and amortization expenses were \$22.3 million in 2021.
- **Net loss** was \$7.1M in 4Q21, or \$0.18 per share, compared to \$13.4M, or \$0.37 per share, in the prior year period, and was \$29.2M in 2021, or \$0.78 per share, compared to \$44.8M in 2020, or \$1.32 per share. The improvement in net loss was driven by improved gross profits, reduced operating expenses, and the gain upon the extinguishment of the Paycheck Protection Program loan.
- **Adjusted net loss** was \$7.4M in 4Q21, or \$0.19 per share, compared to \$12.2M, or \$0.33 per share, in the prior year period, and was \$33.2M in 2021, or \$0.89 per share, compared to \$40.8M, or \$1.20 per share, in 2020. The improvement in adjusted net loss was driven by strong operating expense management and the benefits from the wind-down of the soybean product line.
- Launched **at-the-market share issuance program**, with **net proceeds of \$4.1M** received to date.
- In February 2022 closed underwritten offering of common stock and prefunded warrants, generating **gross proceeds of \$10.9 million, cash runway** projected to be into **late 2022 under current business plan**.

# CEO's Closing Remarks

- **2021 was transformational** for Calyxt, in which we became a **synthetic biology company** in our own right
- We are positioned for **growth and scale** through achievement of several key milestones:
  - commissioning our initial pilot BioFactory and achieving subsequent milestones
  - securing key hires in business development, AIML, and technology licensing
  - forming and then expanding SAB to include renowned AIML expertise
  - advancing discussions with a widening breadth of potential new customers
  - strengthening our balance sheet
- Look forward to **continued momentum** in **2022 and beyond**





# Q&A





# Appendix

# Use of Non-GAAP Financial Information

To supplement the Company's financial results prepared in accordance with GAAP, it has prepared certain non-GAAP measures that include or exclude special items. These non-GAAP measures are not meant to be considered in isolation or as a substitute for financial information presented in accordance with GAAP and should be viewed as supplemental and in addition to financial information presented in accordance with GAAP. Investors are cautioned that there are material limitations associated with the use of non-GAAP financial measures. In addition, other companies may report similarly titled measures, but calculate them differently, which reduces their usefulness as a comparative measure. Management utilizes these non-GAAP metrics as performance measures in evaluating and making operational decisions regarding the Company's business.

The Company's non-GAAP financial measures reflect adjustments for certain commodity derivatives entered in connection with its soybean product line. As a result of the continued wind-down of this product line, the Company held no commodity derivative contracts as of December 31, 2021.

The Company presents adjusted net loss, a non-GAAP measure, and defines it as net loss including adjustments necessary to present the underlying gross profit of its soybean product line, including (i) unrealized gains and losses associated with commodity derivatives entered into to hedge the change in value of fixed price grain inventories and fixed price grain production agreements that should be recognized in the future when the underlying inventory is sold, (ii) gains and losses from commodity derivatives realized in prior periods but associated with inventory sold in the current period, (iii) net realizable value adjustments to inventories occurring in the period which otherwise would have been recognized in the future when the underlying inventory is sold, and (iv) net realizable value adjustments recognized in prior periods but associated with inventory sold in the current period, and excluding cash-based Section 16 officer transition expenses, restructuring costs, the recapture of non-cash stock compensation associated with the departure of Section 16 officers and restructuring-related staffing adjustments made in the third quarter of 2020, the gain upon the extinguishment of the PPP loan, and non-operating expenses, which are primarily gains and losses on foreign exchange transactions and losses on the disposals of land, buildings, and equipment.

The Company presents adjusted net loss per share, a non-GAAP measure, and defines it as net loss per share including adjustments necessary to present the underlying gross profit of its soybean product line, including (i) unrealized gains and losses associated with commodity derivatives entered into to hedge the change in value of fixed price grain inventories and fixed price grain production agreements that should be recognized in the future when the underlying inventory is sold, (ii) gains and losses from commodity derivatives realized in prior periods but associated with inventory sold in the current period, (iii) net realizable value adjustments to inventories occurring in the period which otherwise would have been recognized in the future when the underlying inventory is sold, and (iv) net realizable value adjustments recognized in prior periods but associated with inventory sold in the current period, and excluding cash-based Section 16 officer transition expenses, restructuring costs, the recapture of non-cash stock compensation associated with the departure of Section 16 officers and restructuring-related staffing adjustments made in the third quarter of 2020, the gain upon the extinguishment of the PPP loan, and non-operating expenses, which are primarily gains and losses on foreign exchange transactions and losses on the disposals of land, buildings, and equipment.

# Net Loss: GAAP to Non-GAAP Reconciliations

	Three Months Ended December 31		Year Ended December 31	
\$ in thousands	2021	2020	2021	2020
Net loss (GAAP measure)	\$ (7,057)	\$ (13,395)	\$ (29,199)	\$ (44,836)
Non-GAAP adjustments:				
Commodity derivative impact, net	(281)	1,694	(2,801)	2,801
Net realizable value adjustments to inventories	(186)	(678)	(346)	1,322
Section 16 officer transition expenses	117	50	3,196	543
Restructuring costs	-	249	-	685
Recapture of non-cash stock compensation	-	(75)	(2,540)	(1,452)
Gain upon extinguishment of Payroll Protection Program loan	-	-	(1,528)	-
Non-operating expenses	(8)	5	(19)	126
<b>Adjusted net loss</b>	<b>\$ (7,415)</b>	<b>\$ (12,150)</b>	<b>\$ (33,237)</b>	<b>\$ (40,811)</b>

The Company provides in the table above a reconciliation of net loss, which is the most directly comparable GAAP financial measure, to adjusted net loss. The Company provides adjusted net loss because it believes that this non-GAAP financial metric provides investors with useful supplemental information as the amounts being adjusted affect the period-to-period comparability of net loss and financial performance.

# Net Loss Per Share: GAAP to Non-GAAP Reconciliations

\$ in thousands	Three Months Ended December 31		Year Ended December 31	
	2021	2020	2021	2020
Net loss per share (GAAP measure)	\$ (0.18)	\$ (0.37)	\$ (0.78)	\$ (1.32)
Non-GAAP adjustments:				
Commodity derivative impact, net	(0.01)	0.05	(0.07)	0.08
Net realizable value adjustments to inventories	-	(0.02)	(0.01)	0.04
Section 16 officer transition expenses	-	-	0.08	0.02
Restructuring costs	-	0.01	-	0.02
Recapture of non-cash stock compensation	-	-	(0.07)	(0.04)
Gain upon extinguishment of Payroll Protection Program loan	-	-	(0.04)	-
Non-operating expenses	-	-	-	-
<b>Adjusted net loss per share</b>	<b>\$ (0.19)</b>	<b>\$ (0.33)</b>	<b>\$ (0.89)</b>	<b>\$ (1.20)</b>

The Company provides in the table above a reconciliation of net loss per share, which is the most directly comparable GAAP financial measure, to adjusted net loss per share. The Company provides adjusted net loss per share because it believes that this non-GAAP financial metric provides investors with useful supplemental information as the amounts being adjusted affect the period-to-period comparability of net loss per share and financial performance.