



The Power of Plants

Q3 2022 INVESTOR PRESENTATION

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 report 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; changes in macroeconomic and market conditions, including inflation, supply chain constraints, and rising interest rates; 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 in Part I, Item 1A, “Risk Factors” in the Company's filings with the SEC, included in Part I, Item 1A of its Annual Report on Form 10-K for the year ended December 31, 2021, which was filed with the SEC on March 3, 2022 (its Annual Report) and its subsequent reports on Forms 10-Q and 8-K filed with the SEC. 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.



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 sustainable and/or scarce in nature, that have unstable supply chains or that cannot be produced through fermentation or other similar methodologies.

Strong and Innovative Management Team



Michael A. Carr
President and
Chief Executive Officer



Travis Frey, Ph.D.
Chief Technology Officer



Bill Koschak
Chief Financial Officer



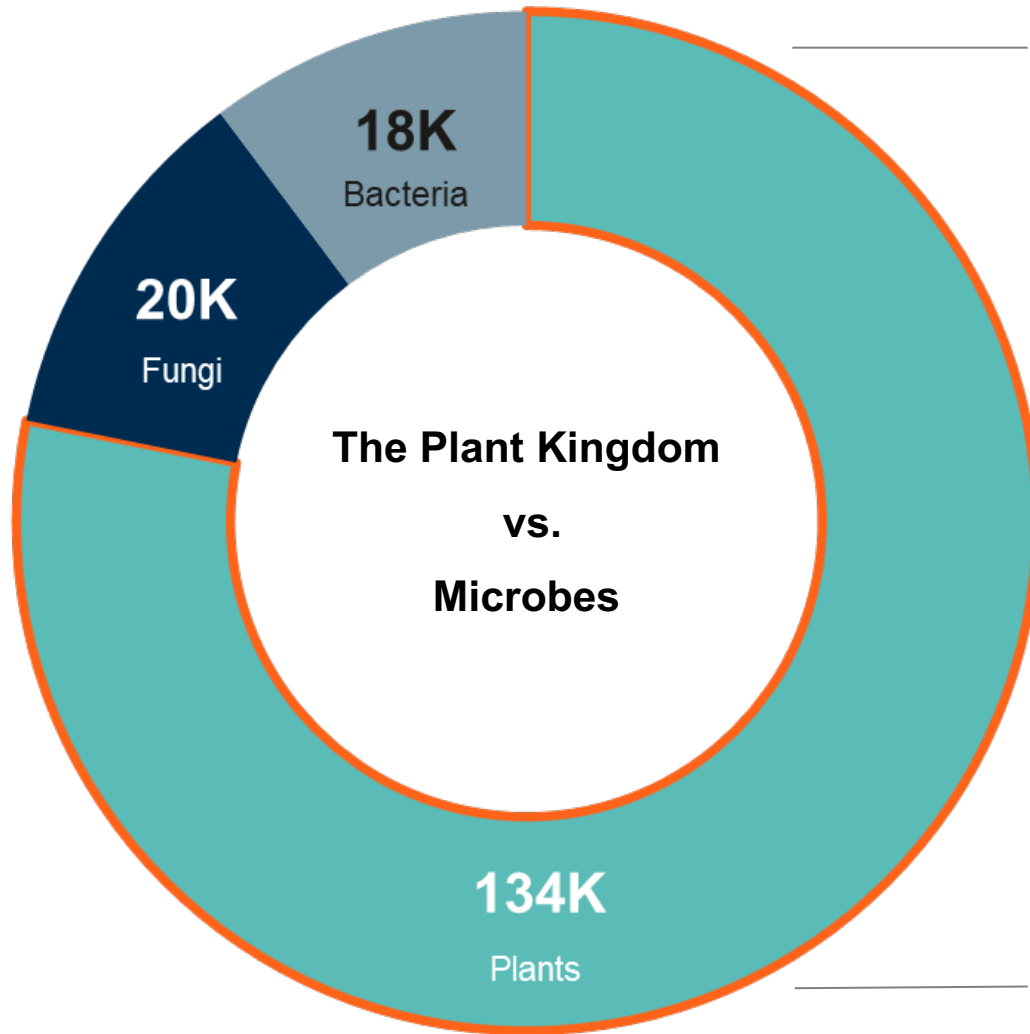
Debra Frimerman
General Counsel &
Corporate Secretary

Company Highlights

- **Plant-based Synthetic Biology company** with industry-leading experience in **engineering plant metabolism** - first in the world to launch a gene edited soybean product
- Proprietary **PlantSpring technology platform** used to design multi-cellular **Plant Cell Matrix (PCM) structures**
- PCM **production** occurs **in the BioFactory**, a bioreactor-based system
- Intend to leverage **infrastructure partners** for production
- **Customer demand-driven** approach to product development expected to result in **committed sales pipeline**
- **Development cycle is 36-months or less** from lab to commercial scale
- **Strong demand for development and scale up** from customers
- Advantageous time for SynBio with **White House Executive Order for \$2B initiative to grow biomanufacturing**

Plants as a Differentiated Core Production System

Among plants, bacteria and fungi, **80% of classified natural compounds¹ come from plants**, and we believe that the incredible diversity of plants offers the greatest opportunity to meet the world's demand for sustainable chemistries.



Example Plant Chemistry Functions

Cosmetics

Anti-aging
Anti-oxidant
Anti-reddening
Colorants
Flavors
Fragrances

Pharma

Anti-microbial
Anti-cancer
Anti-inflammation
Pain relief
Heart health
Adjuvants

In many cases, **fermentation and other production systems use single cell organisms combined with external DNA** to replicate what plants can produce naturally.

Key Differentiators from Other Production Systems



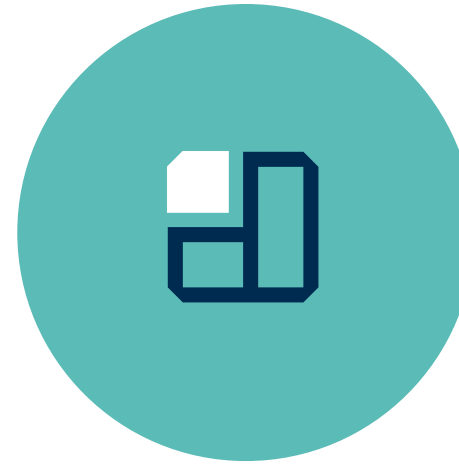
Plant-based yields enable **higher chemistry complexity** and opportunity vs microbes



Matrix of cells, or PCM, allows **multi-cell structure** vs single cell



Bathe PCM in medium vs continuously submerge like fermentation



Production occurs in a bioreactor vs field or fermentation tank



Modular & geographically independent vs large-scale facility

- These technical differentiators enable Calyxt to **produce complex plant-based chemistries**
- The approach to identification of a plant-based chemistry for development is **customer demand-driven**
- The BioFactory **business and revenue model** is primarily focused on the **sale of plant-based chemistries to customers**

Our Proprietary Technology-Driven Business Model

PlantSpring



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

Plant Cell Matrix



Proprietary multicellular **Plant Cell Matrix (PCM)** structures utilized for **BioFactory production**

BioFactory



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

Design & Engineer

Produce

Scale

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

PlantSpring Engineered PCM Express Chemistries of Interest



The PCM is a **collection of plant cells** that **exponentially reproduce, generating biomass**

The **multi-cellular PCM** is differentiated by:

- Building **small groupings of plant cells** designed to emulate intercellular metabolism of a plant
- Capable of **simultaneously producing multiple molecules** potentially saving time, space and resources

BioFactory Production System Expected to Deliver Chemistries at Scale, Produced by Infrastructure Partners

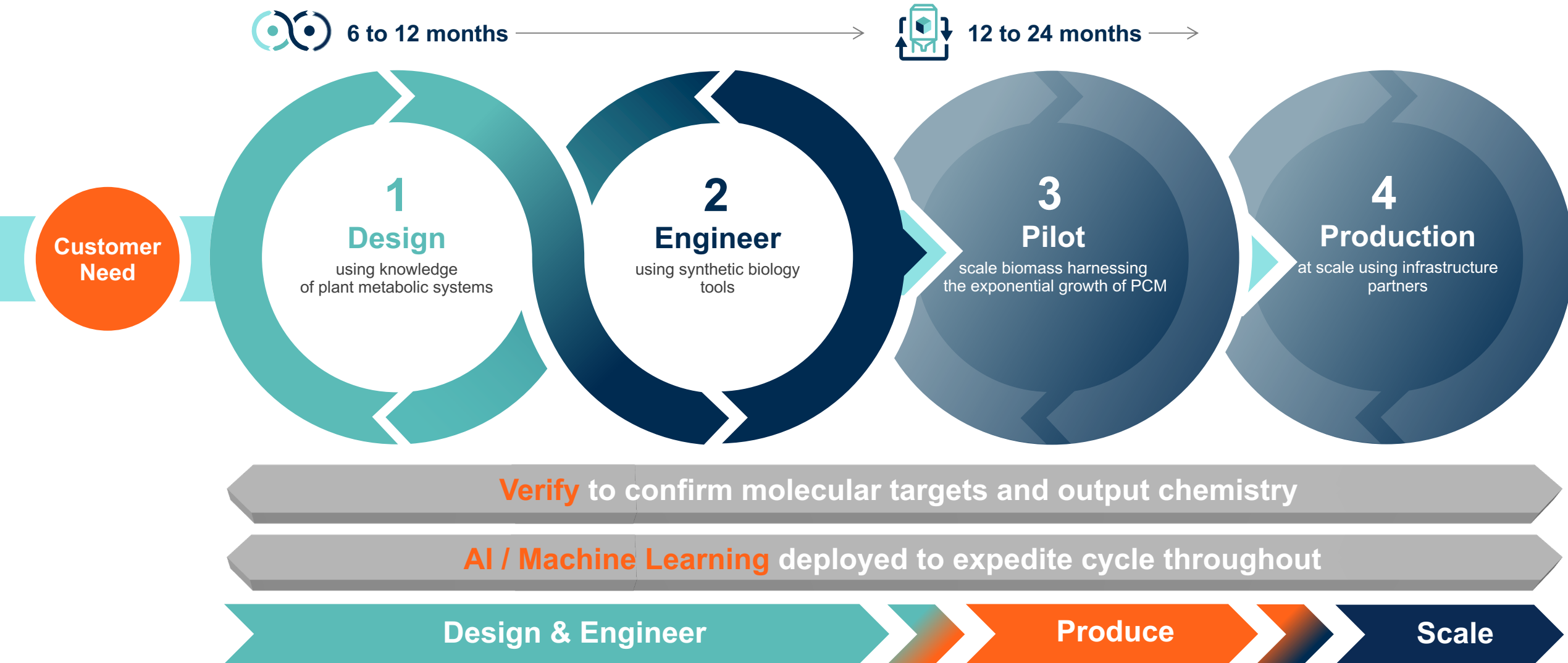


Pilot level production scales through vessels of **increasing sizes from ~ 20L to 200L**

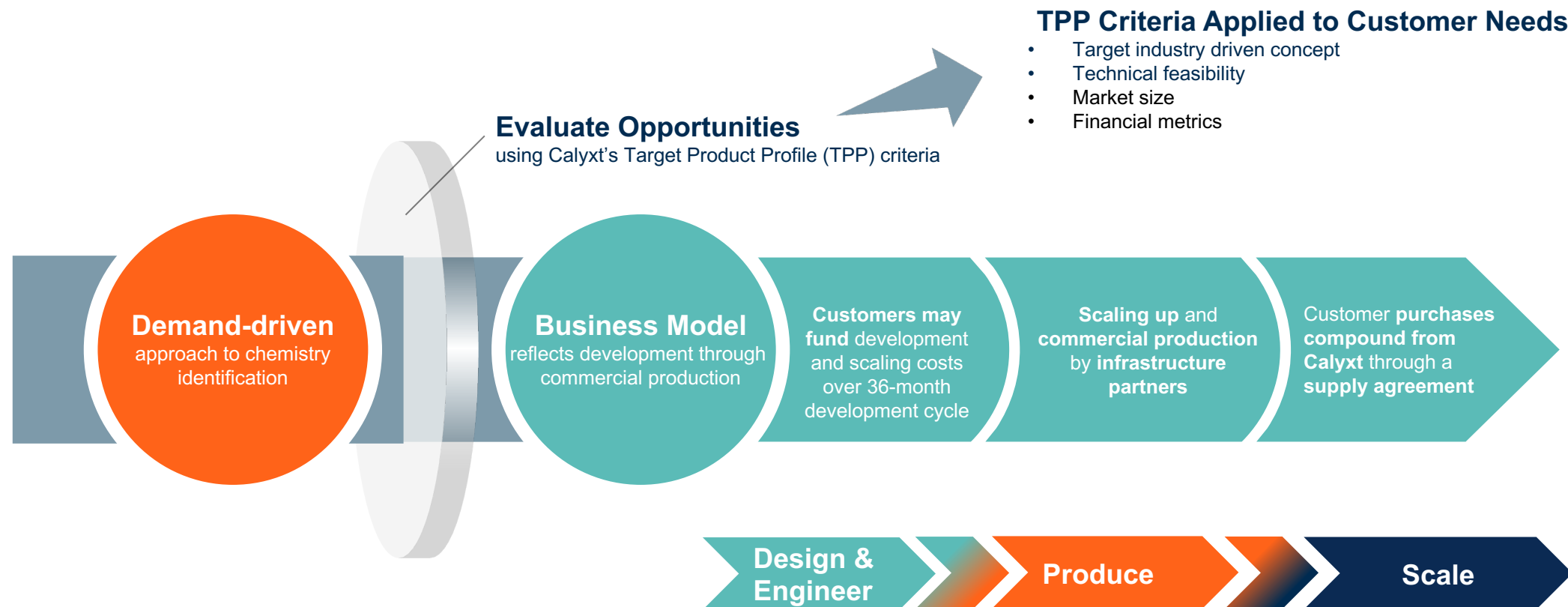
Commercial scale production can occur at a variety of vessel sizes **depending upon the size of demand and rate of chemistry production**

Commercial production **may be modular** and has potential to be installed in a **customer's manufacturing site** once the PCM is established

Development Cycle 36 Months or Less from Lab to Commercial Production



BioFactory Business Model Is Customer Demand-Driven With Cash Flow Potential Through Development with Product Sales to Follow



Customer Acquisition Activities Initially Targeted at Three Key Markets with Many More Available



PlantSpring



BioFactory

INITIAL TARGET MARKETS

SELECT FUTURE MARKET OPPORTUNITIES



Cosmeceuticals



Nutraceuticals



Pharmaceuticals



**Advanced
Materials**



Chemicals

- Large end markets
- Have current needs for sustainable and/or finite plant-based chemistries
- Fast adopters of innovation
- Actively seeking to reduce carbon footprints

Customer Demand-Driven Plant-Based Chemistries under Development for Potential Customers

- In the second quarter, we received **nine new chemistries** from potential customers, bringing the total number of chemistries cumulatively evaluated for PlantSpring development and BioFactory production to **95**
- Importantly, several of the 95 chemistries **have been identified by the potential customers as having been unsuccessfully attempted by others** in the industry - **speaks to our unique technology and approach**
- **31 of the 95 customer** demand-driven chemistries have passed our **target product profile, or TPP criteria**
- From the 31 chemistries, we are currently **negotiating several term sheets with potential customers** for the development of a select number of those plant-based chemistries
- We are targeting **two to four customer demand-driven compounds** for development by year end
- We are performing a **pilot project** for a potential high-value chemistry for a **large global consumer packaged goods (CPG) company**; expect to deliver an engineered solution in early 2023

Discussions with Multiple Large-Scale Global Infrastructure Partners Underway

- We initiated conversations with **multiple infrastructure partners**:
 - These potential infrastructure partners provide a **global footprint** and **capabilities to enable our speed to scale**
 - They have capacities to produce chemistries **in various size bioreactors** from **pilot to commercial scale**
 - They understand we are going after **hard-to-solve chemistries** that are **high-value** and potentially **high-margin**
 - To date, we have **exchanged term sheets with one** of these potential infrastructure partners and are **advancing discussions with others**
- This **asset-lite approach** allows for **our development of a robust customer base** and **accelerates the speed** at which we can bring chemistries to potential customers, instead of deploying capital on large-scale manufacturing

Licensing of Technology and Plant Traits - Multiple Term Sheets under Evaluation

- We made a **strategic hire** in late 2021, onboarding **Pete Ball**, our **Technology Licensing Leader**, and implemented our strategy for **optimizing potential revenue** from the **licensing of our technology and historically developed plant traits**
- We are canvassing a **wide range of potential licensees** and have made important progress
- We have successfully procured **term sheets** for the **licensing of our patents** and for the **licensing of our plant traits**. For plant traits specifically, there has been **significant interest** in our **high fiber wheat** and second generation **high oleic soybean** traits
- These discussions are ongoing, but given **global supply issues and food insecurity**, our potential licensees see the value in our offerings
- Our project with a large food ingredient manufacturer who contracted with us to develop a **soybean** intended to produce a **replacement for palm oil** remains on track for completion in the **first quarter of 2024**
 - Given world events, we have recently received **inbound interest** from other manufacturers and users of palm oil
 - Recently, we were included in an article published in **THE WALL STREET JOURNAL** about this topic and the potential for Calyxt to provide solutions

Calyxt On Track To Realize These Milestones by The End of 2022

- Design **several PCM structures using PlantSpring** and **produce related chemistries** in the BioFactory
 - **Four or more PCMs** expected to be designed and producing chemistries
 - Set to **deliver an engineered solution** for a high-value molecule in early 2023 to a **large global consumer packaged goods company**
- Initiate **2 to 4 customer demand-driven compounds under development**
 - **Several term sheets in negotiation** with prospective customers
- **Execute multiple licenses** in both technology and trait licensing
 - **Several term sheets in negotiation** for both technology licensing and plant trait licensing; high interest in high fiber wheat and second-generation soybean product offerings
- Advance commercial scale production through agreement with **one infrastructure partner**
 - **Multiple discussions** underway with **several potential infrastructure partners** able to produce chemistries from pilot to commercial scale production



Thank You!

Company

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