

# **Forward-Looking Statements**

This presentation contains "forward-looking statements" relating to future events, and Ag Plenus Ltd. (the "Company") and its parent, Evogene Ltd. ("Evogene", and collectively "we", "us", "our"), may from time to time make other statements, regarding our outlook or expectations for future financial or operating results and/or other matters regarding or affecting us that are considered "forward-looking statements" as defined in the U.S. Private Securities Litigation Reform Act of 1995 (the "PSLRA") and other securities laws. Such forward-looking statements may be identified by the use of such words as "believe", "expect", "anticipate", "should", "planned", "estimated", "intend" and "potential" or words of similar meaning. We are using forward-looking statements in this presentation when we discuss our value drivers, growing market's expectations, challenges, business model and potential revenue stream, commercialization efforts and timing, product development and launches, estimated market sizes and milestones, as well as the capabilities of Evogene's and our technology.

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# **Agenda**

#### **01//** Company Overview

02// The Technology Platform

03// Business Strategy

04// Pipeline & Collaboration

05// Summary



#### **Our Vision**

#### Novel and sustainable crop protection products

Design and develop novel and sustainable crop protection products allowing food security for the rapidly growing world population

#### **Our Mission**

# Al and science to boost novel crop protection development

To direct and accelerate the development of target-based novel crop protection products, utilizing a revolutionary tech-engine based on AI, combined with a deep understanding of biology and chemistry



# **Agro-chemical Market Growth Drivers**

Market growth forecast for 2028 ~\$92B

2023 Est., ~\$75.6 B (E.CAGR 5%)\*



**10B** 

the world's population in 2050



5

Multinationals lead the field. Low levels of innovation



50%\*\*

Yield loss to Wheat Blotch due to resistance is common in the UK



# Agro-chemical pesticides

are a well proven economical approach for increase of crop yields



# **Agro-chemical Market Segments**



# **Broad Spectrum Herbicide**

#### **Market opportunity**

Total herbicide – Estimated at **\$41.3B**<sup>1</sup>

#### **Major markets**

- · North America, Latin America
- · Needs in all major global regions



# Fungicides for major diseases

#### **Market opportunity**

Total fungicide market – estimated at **\$20.2**<sup>3</sup>

#### **Major markets**

- Europe, Asia
- Needs in all major global regions



# **Broad Spectrum Insecticide**

#### Market opportunity

Total insecticide market – estimated at \$18.7B<sup>2</sup>

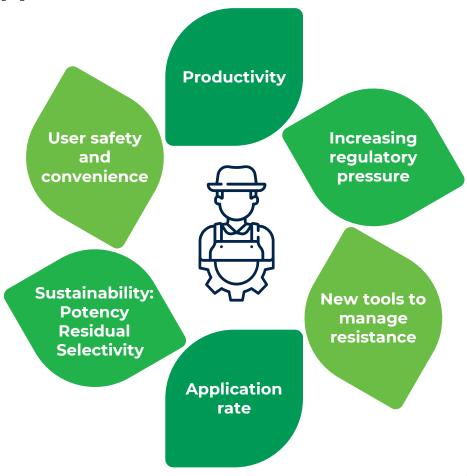
#### **Major markets**

Global



# **Agrochemical Market**

#### **Opportunities**



#### **Challenges**

# Increase of Pest Resistance & Regulatory Requirements

- Reduced tools due to regulatory requirements
- Resistant pests
- Increased application rate resulting in environmental damage

#### **Long and Expensive Development**

- Time to market 10-12 years
- Average cost of \$286M
- 160K molecules synthesized

#### **Lack of Innovation**

- Decreased rate in discovery of new pesticides
- Lack of capabilities to identify protein targets



# **Key Product Development Challenges**



01

# Target Protein Selection

Target Protein - an essential protein, that upon loss of its function compromises the organism.

#### The Challenge

To find a novel, safe, and druggable\* *Target Protein* from the thousands of proteins in the relevant organism, with a new mode-of-action (MOA) that *will not* result in adverse cross-reactivity in beneficial species.



02

# **Small Molecule Inhibitor Identification**

A small molecule inhibitor - is a chemical compound that effectively modulates or inhibits the activity of the target protein.

#### The Challenge

To find a novel molecule inhibitor out of the billions of potential chemical compounds, that both effectively and selectively affects the target protein.



#### **Our Solution**

#### Al and Science for Novel Crop Protection

Computational prediction of essential druggable proteins

Novel Modes of Action

for sustainability and to

overcome resistance



Robust experimental biology and chemistry platform

AI- based rapid virtual screening of >10<sup>10</sup> compounds

Addressing
environmental
safety and selectivity
early in discovery

**Cost-effective**, wet screening of only hundreds of compounds

Reduced time to market

Increase
probability of
success



# **Our Pipeline**



**Broad Spectrum Herbicide** 

No. of programs

3



**Fungicides for Major Diseases** 

No. of programs

3

**Partnerships** 







# Our Impact – Sustainable & Novel Crop-Protection Solution



Highly potent products

Effective in low doses Infrequent application Spare the ecosystem



Low field residual

Environmentally degradable Safe to farmers



**Highly selective** 

Safe to environment Safe to pollinators Safe to humans



Overcome resistance

Effective in resistance management efforts



Suitable for modern agriculture

High ROI to farmer with limited environmental damage Frequency of application Convenience safety



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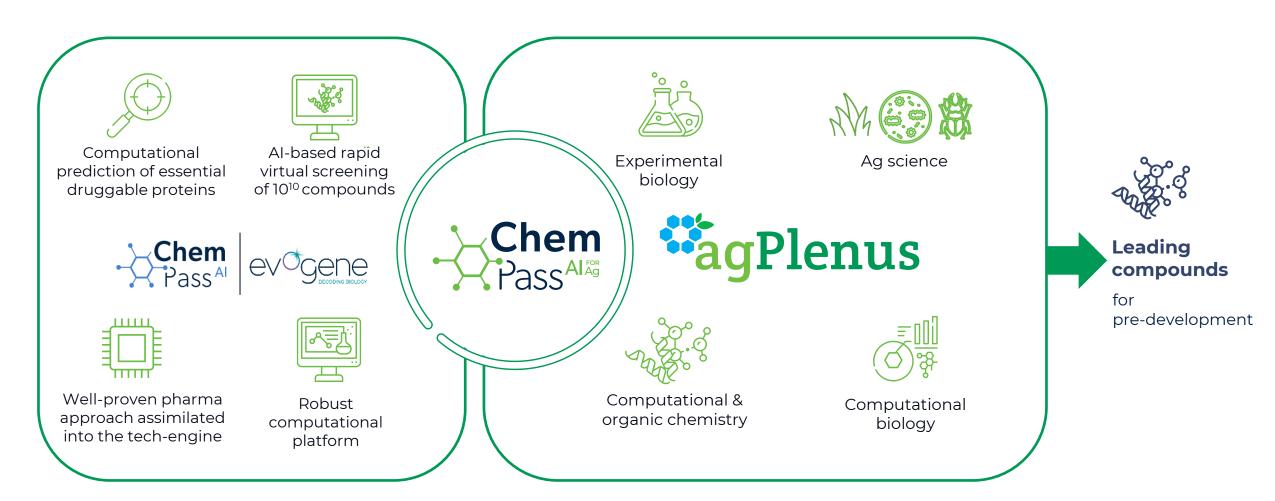
04// Pipeline & Collaboration

05// Summary



## The Concept Behind our Platform -

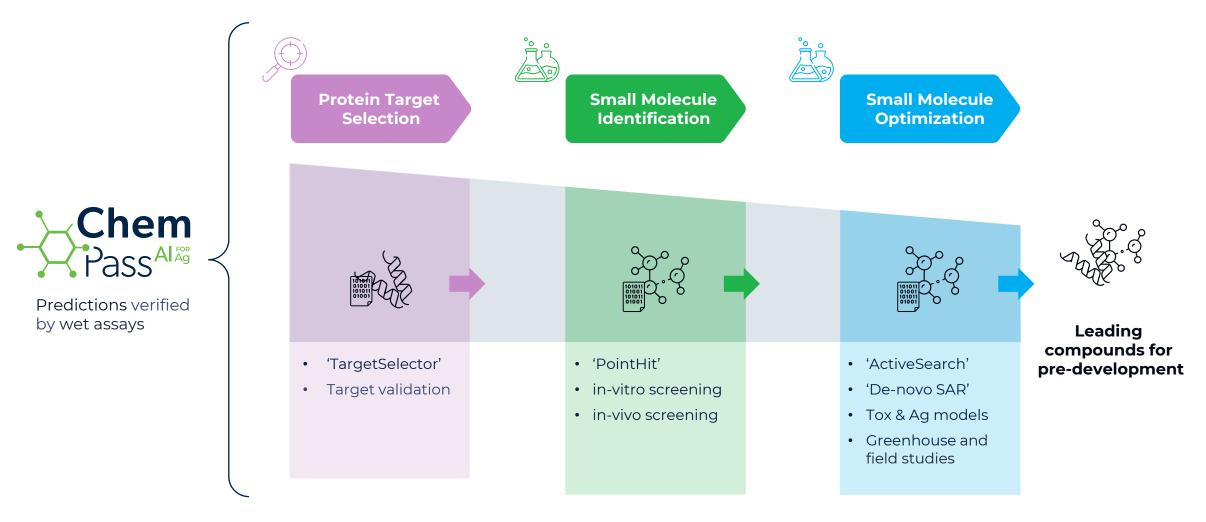
Harnessing AI and Science for Novel Crop Protection Development





## Computational platform and methodology

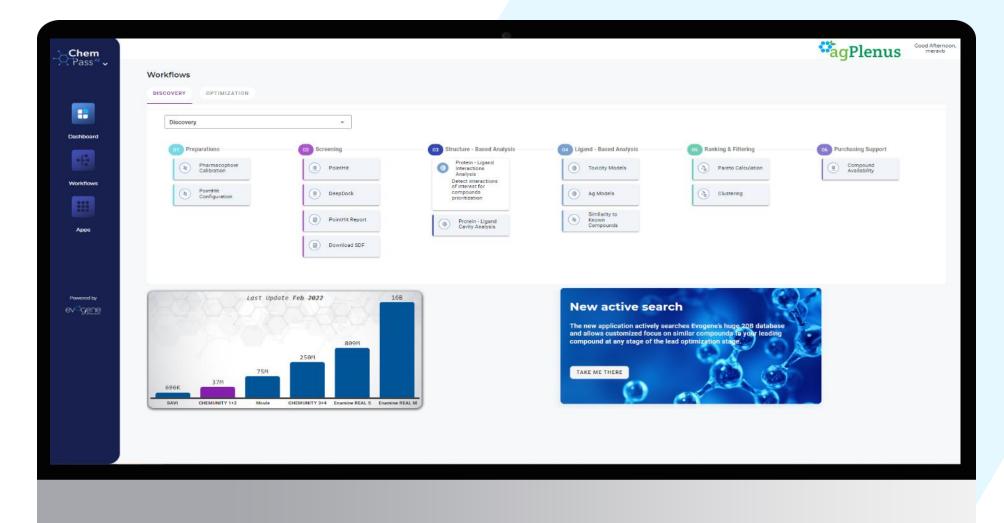
Experimentally validated predictions





# Simple user-friendly dashboard

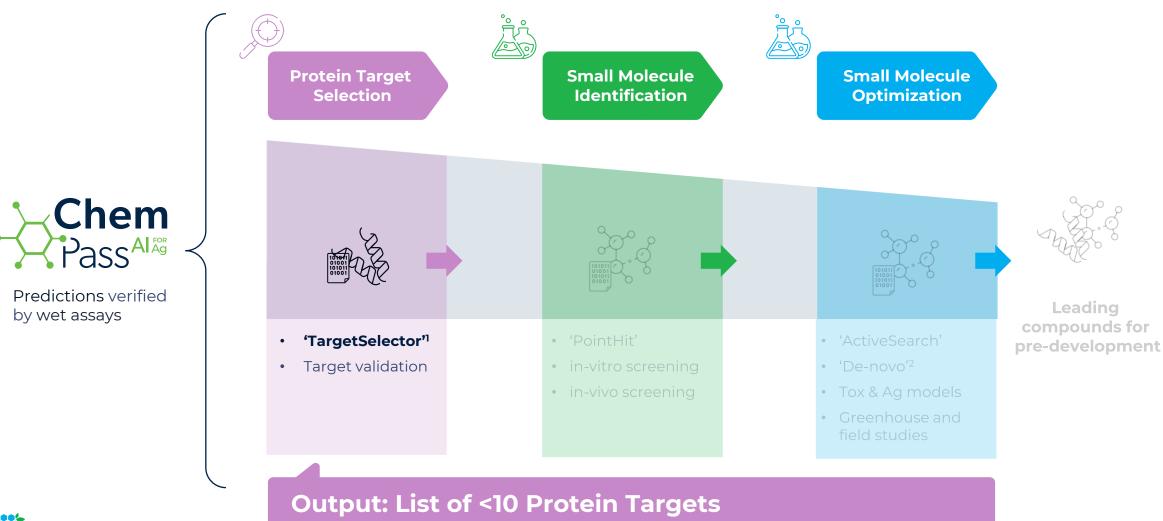






# Computational platform and methodology

Experimentally validated predictions

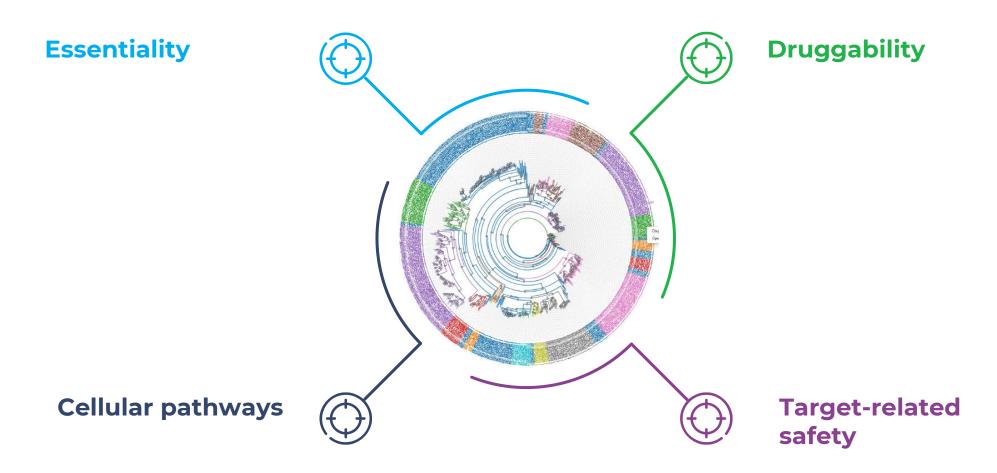




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## **TargetSelector** ™

Increasing Probability and Efficiency of Target Selection

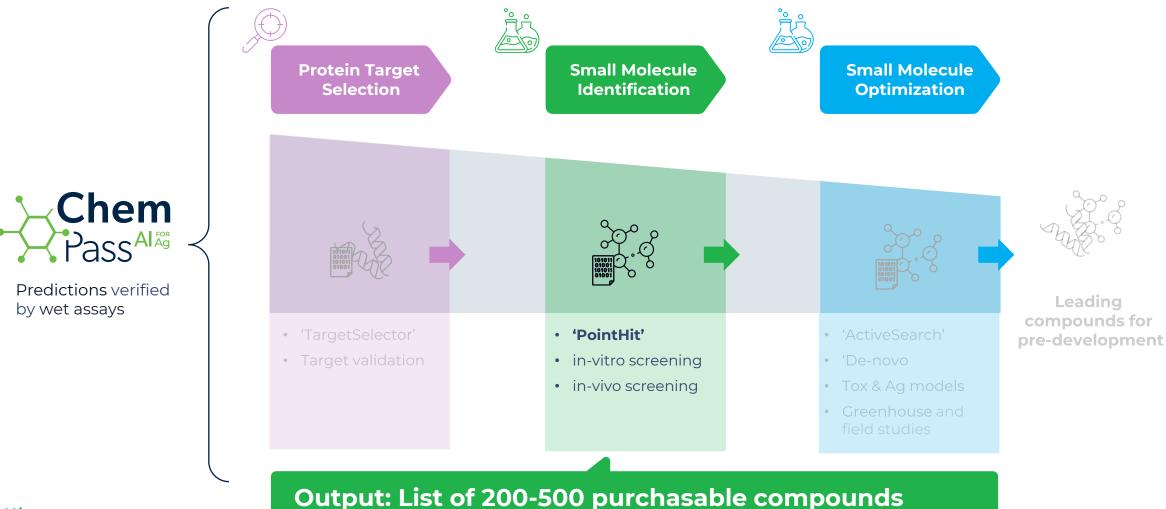






# Computational platform and methodology

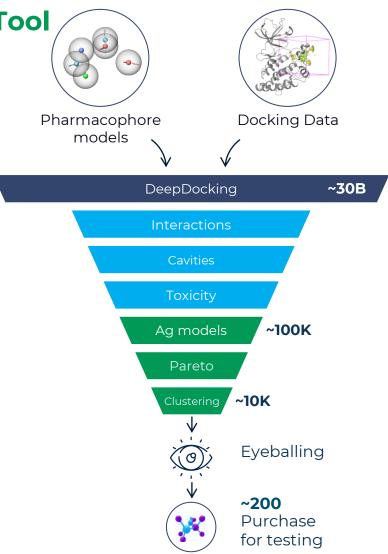
Experimentally validated predictions





# PointHit – Virtual High

**Throughput Screening Tool** 



Massive parallel screening

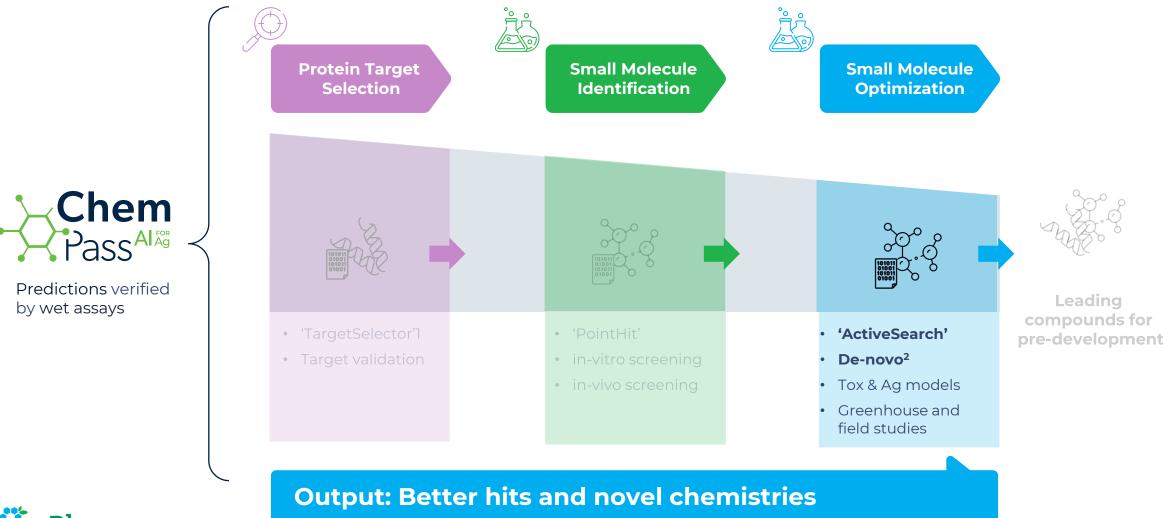
Reduces the volume of downstream analysis cost and time-effective

Increases structural variability and opportunity to find Hits



# Computational platform and methodology

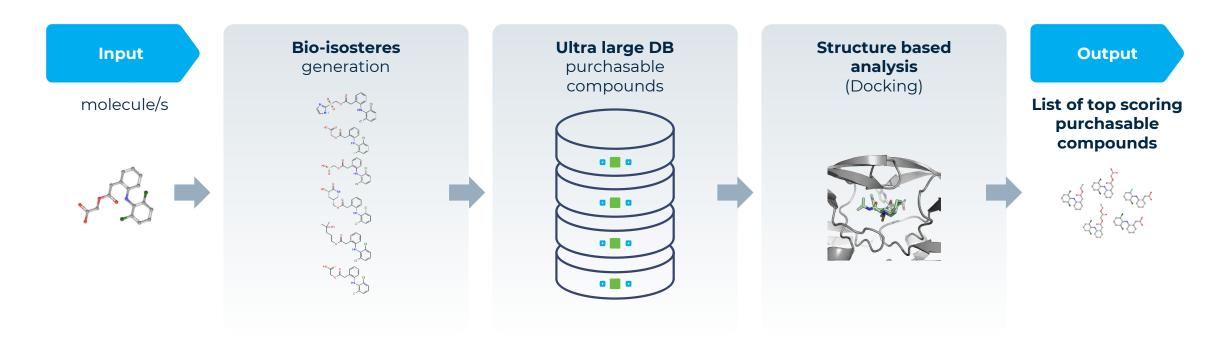
Experimentally validated predictions







# **ActiveSearch - Optimization Tool**



Output: List of top scoring purchasable compounds

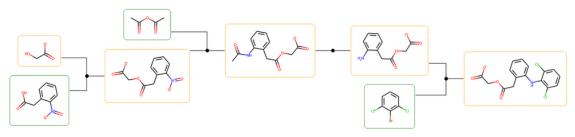


# De-novo Design Generative AI for entirely new chemistries



#### De-novo design of new chemical entities:

- Generative AI creating entirely new chemistries trained on deep learning of results from previous steps
- Results are not limited by existing chemistry or the training sets



**Output: Entirely new chemistries** 





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# **Business Strategy**

- AgPlenus is a collaborative company, building financial rights in a collaborative pipeline
- We focus on discovery of novel targets, generating active hits and optimizing them, while our partners focus on advanced optimization and development
- Through partnering, we leverage the development, regulatory and commercial capabilities of our partners to generate a significant pipeline of products
- We focus on broad scoped blockbuster products, with peak sales of no less than \$750M in current terms





# **Partnership Opportunities**

Full R&D capabilities companies











#### **Opportunities**

New projects, identified targets, SAR, pipeline projects

Interest in partnering for earlier innovation







#### **Opportunities**

Pipeline projects

**Generic companies** 



#### **Opportunities**

Pipeline projects

**Discovery companies** 

biologicals

enko

moa

#### **Opportunities**

Target identification, hit ID, optimization



#### **Business Model**



# Collaboration and Licensing agreement

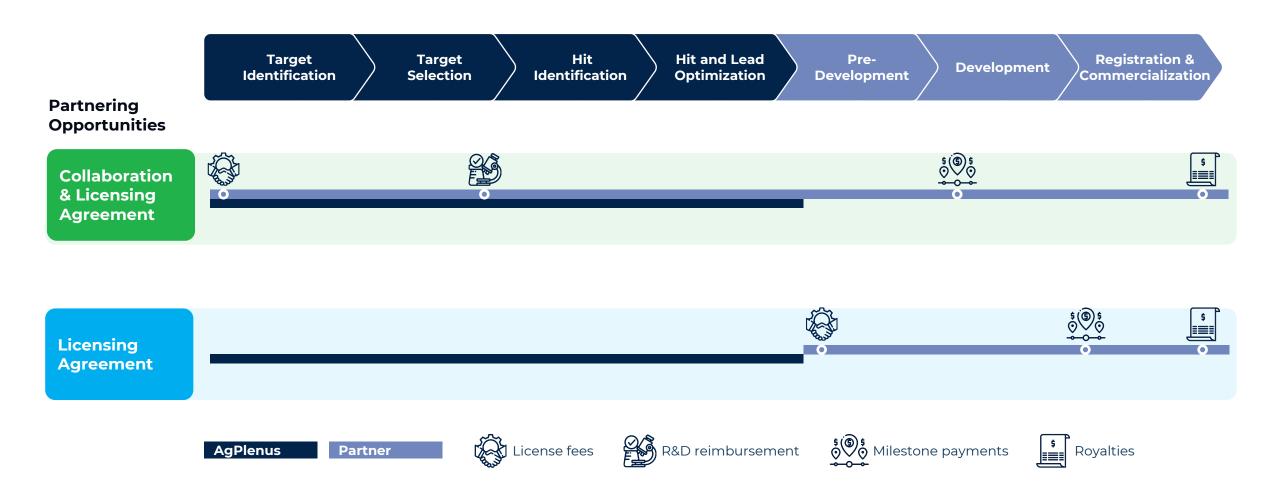
- Co-development utilizing AgPlenus' and partner's capabilities
- Flexible entry point along development path
- Revenue via upfront fee, R&D reimbursement, milestones, royalties

# Licensing Agreement

- Development up to Lead optimization, by AgPlenus
- Hand off to partner
- Revenue via license, milestones, royalties



#### **Revenue streams**





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#### **Our Focus - Blockbusters**



# **Broad Spectrum Herbicides**

#### **Market opportunity**

- Total herbicide \$42.8B1
- Resistance to current top products
- Regulatory and legal issues with Roundup®

#### **Major markets**

- · North America, Latin America
- · Needs in all major global regions



#### Wheat Blotch Fungicide

#### **Market opportunity**

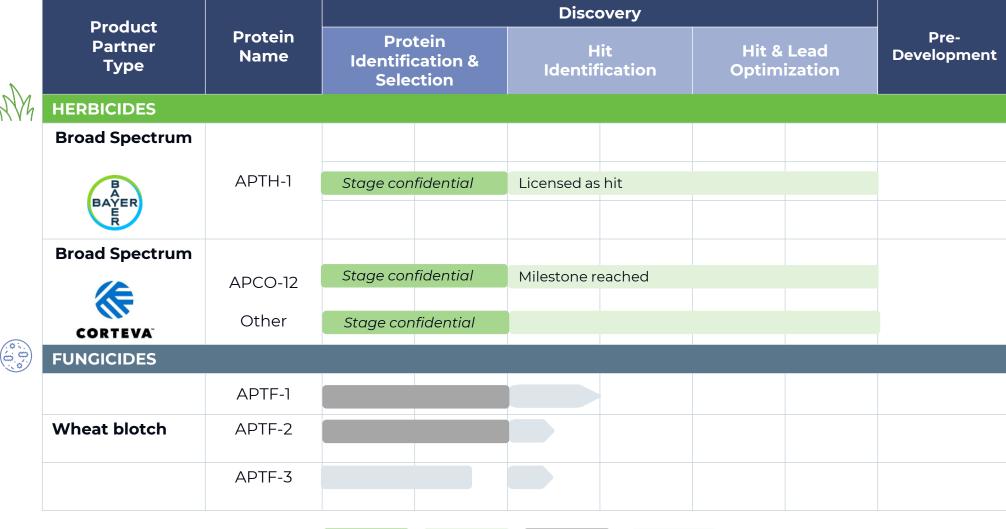
- Total fungicide market \$20.8B<sup>2</sup>
- 70% of EU fungicide usage in wheat is for Wheat Blotch<sup>3</sup>
- EU market alone >\$1.2B annually<sup>3</sup>
- Widespread resistance to current top products ('Strobilurins') with 2023 sales of \$4.4B<sup>4</sup>

#### **Major markets**

- Europe, Asia
- Needs in all major global regions



# **AgPlenus Pipeline**





# Collaboration and Licensing **Agreement**





#### **Develop new MoA herbicides** to target resistant weeds

- Started in March 2020
- AgPlenus to discover & optimize herbicide candidates
- Corteva to conduct testing & product development

#### **License to Corteva**

- Corteva has exclusive license to products of collaboration
- AgPlenus receives rights to research fees, milestones & royalties upon commercialization



# Collaboration and Licensing **Agreement**







# chemistry, developing a novel sustainable Mode-of-Action (MoA) broad-spectrum herbicide for farmers **Herbicide program -APTH1**



APH1 demonstrated high weed control efficacy and good tolerance in Corn (Figure B)

#### **Status**

- Significant agreement signed with Bayer in February 2024 for APTH1 program
- The license and collaboration agreement indicates the vote of confidence in AgPlenus' computational approach to expedite the discovery and development of pesticides



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## **The Management Team**

#### Innovative & Experienced Management Team



Dan Gelvan | CEO

Previous positions:

- t-syte, CEO
- Aurum Ventures, MD
- · Biobeat, Chairman



Merav Beiman, PhD | VP R&D

Previous positions:

- ImmPACT-Bio, CEO
- Ferring, R&D
- Compugen, R&D
- QBI, R&D



Mirit Ram, MSc | VP Portfolio Management

Previous positions:

- Evogene, PM
- FMC, PM
- HP. R&D



Yaron Elad | CFO

Evogene, CFO Previous positions:

- Yamba Group Int. Ltd, CFO
- Recoly NV, CFO
- e-Sim Ltd., CFO



Liat Foigel Wejgman | VP HR

Evogene, VP HR Previous positions:

- Evogene, Director of HR
- Beta Media, HR



#### **Board**

#### **Board of Directors**



Ofer Haviv | Chairman of The Board

• Evogene, President & CEO



**Adrian Percy | Director** 

- North Carolina Plant Sciences Initiative (N.C. PSI), Executive Director
- Board of Directors: Evogene, BioLumic, Nufarm, FA Bio
- Previously: UPL, CTO
- Previously: Head of R&D, Bayer



**Eran Kosover | Director** 

- Atera Networks
- Previously: AgPlenus Ltd., CEO
- Previously: Evogene, EVP & GM Crop Protection



**Robert A. Woods | Director** 

- · Former Chair of Marrone Bio Innovations,
- CEO and Chair of Targeted Growth Inc.
- · Former Chair of Syngenta Corp, US





Prof. Bill Jorgensen, PhD

Sterling Professor of Chemistry at Yale, renowned for his computational work on force fields, molecular recognition, protein-ligand binding, de-novo drug design and FEP calculation for lead optimization



Prof. Hanoch Senderowitz, PhD

Professor of Computational Chemistry at Bar-Ilan where he leads a laboratory focusing on molecular modeling, computer-aided drug design, and chemoinformatics.



Hans J. Santel, PhD

Herbicide expert, with extensive professional experience in development and marketing at Bayer CropScience. Hans holds a diploma and PhD from Albert Ludwig University of Freiburg with a focus on plant physiology and biochemistry



# **Summary**



6 novel pesticides in development, 3 herbicides & 3 fungicides



Partner of two AgChem multinationals for developing broad-scope herbicides



Revolutionary AI tech-engine, combined with advanced biology and chemistry platform



Continuously evolving tech platform improvements



Target-based design with new MoA for sustainable and resistance-breaking products



Flexible business model



Time and cost-saving discovery approach





#### **THANK YOU**

www.agplenus.com