evOgene

REAL-WORLD INNOVATION

AI-first discovery platform generating multi-parameter molecules

Sep 10, 2025

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THERE IS A GAP

BETWEEN REAL-WORLD CHALLENGES
AND INNOVATIVE SOLUTIONS

UTILIZING

AI AND ADVANCED PROPRIETARY ALGORITHMS

TO DELIVER INNOVATIVE SMALL MOLECULES, TAILORED TO REAL-WORLD COMMERCIAL PRODUCT NEEDS

WE CALL IT: REAL-WORLD INNOVATION

EVOGENE PIONEERS
REAL-WORLD INNOVATION

Using a proprietary generative AI engine, we design highly potent and novel small molecules, optimized across multiple-parameters, for the pharmaceutical and ag-chemical industries

OUR STORY IN 3 SENTENCES

GEN AI ENGINE

Design of small molecules with high probability of success

REVOLUTIONIZING AG

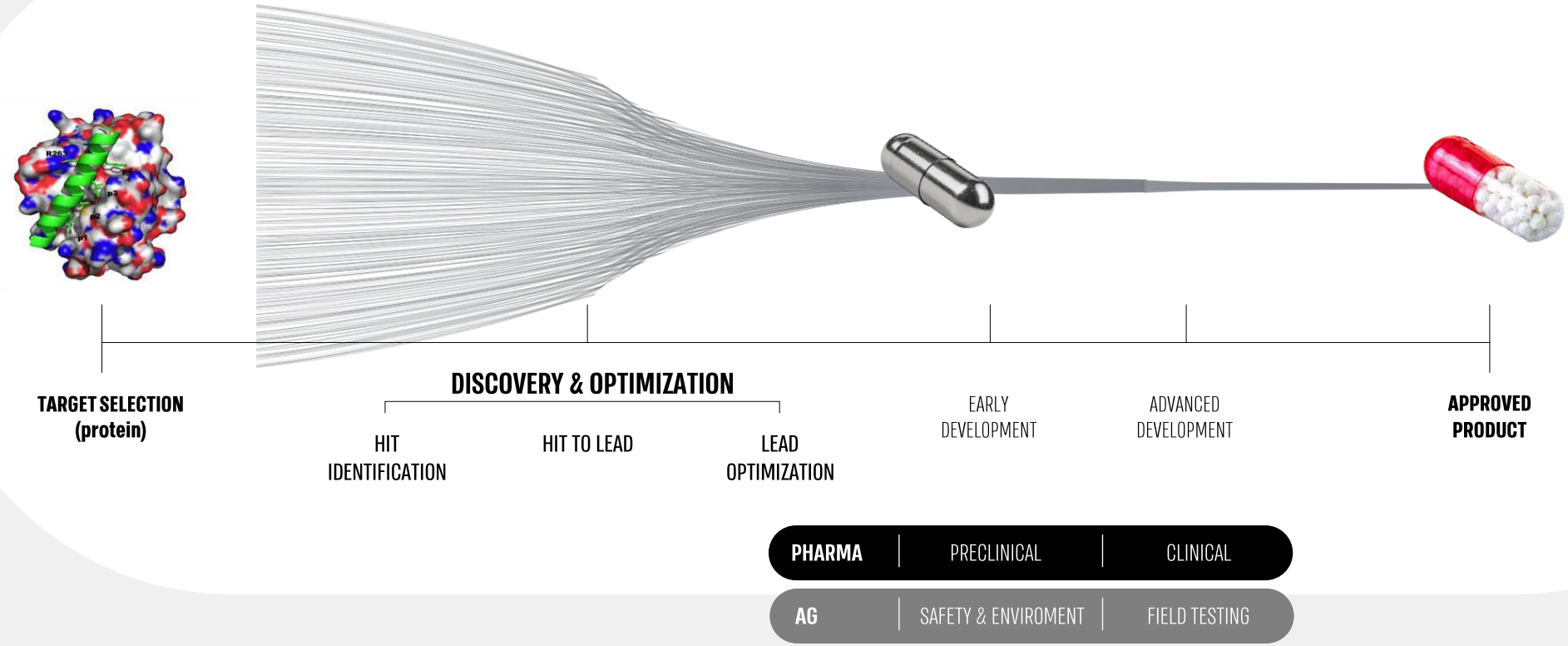
Proven results with strategic collaborations

PIONEERING IN PHARMA

Differentiated tech offering that fits market demand

THE DISCOVERY & OPTIMIZATION CHALLENGE

DESIGN THE RIGHT CANDIDATES TO REACH THE MARKET



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LESS THAN 10% OF MOLECULES TESTED IN CLINICAL TRIALS MAKE IT TO MARKET

Discovery & optimization are the critical stages for increasing market success probability

THE MULTI-PARAMETER OPTIMIZATION **CHALLENGE**

Creating a molecule that will succeed through all development phases requires balancing in advance multiple, often competing, parameters

THE CHALLENGE FOR TRADITIONAL METHODS:

- Optimization typically limited to a small number of parameters
- Cannot address multiple-parameters simultaneously
- Requires lengthy, resource-intensive iterative cycles

INTRODUCING CHEMPASS AI:

A MULTI-PARAMETER DESIGN ENGINE FOR REAL-WORLD INNOVATION

ChemPass AI

MULTI-PARAMETER OPTIMIZATION

Optimizes multiple-parameters simultaneously, adapted to project specific chemical, biological, and physical constraints, increasing probability of success

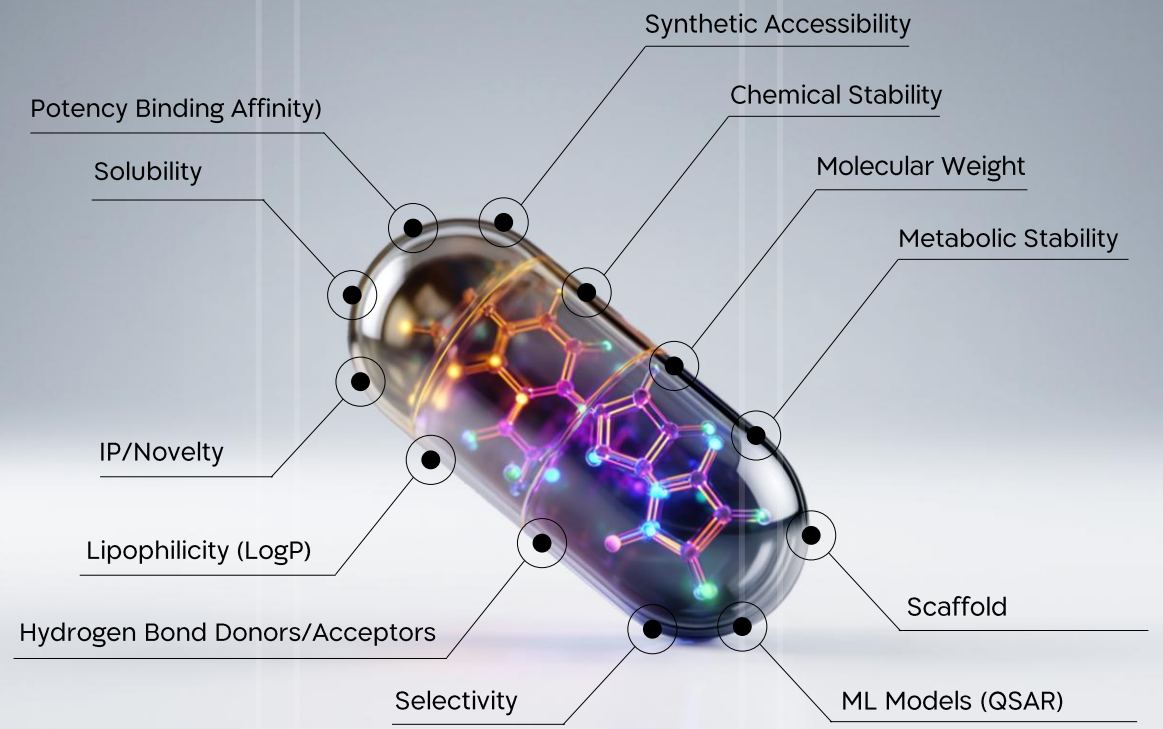
NOVEL MOLECULAR STRUCTURES

Based on 38B molecules, expanding far beyond traditional libraries, tapping into one of the largest searchable chemical universes

HIGHLY POTENT

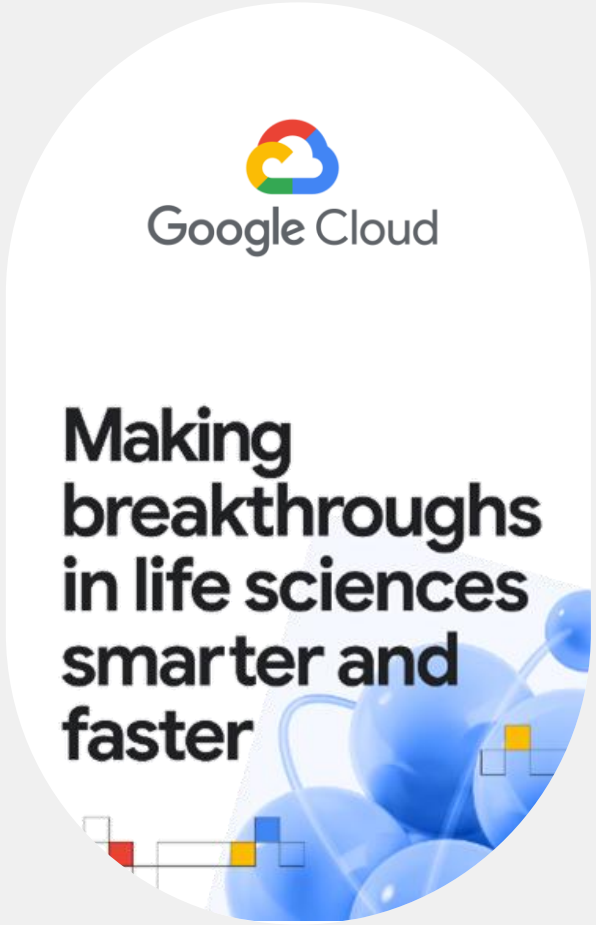
AI-first designed molecules optimized through targeted experimental validation

CHEMPASS AI:
A MULTI-PARAMETER DESIGN ENGINE FOR REAL-WORLD INNOVATION



CHEMPASS AI TRANSFORMS TRADITIONAL METHODS:

- Optimization of diverse product specific parameters
- Addresses multiple constraints simultaneously
- Minimizes lengthy, resource-intensive iterative cycles



GOOGLE CLOUD x EVOGENE

BREAKING NEW GROUND IN AI-FIRST MOLECULE DESIGN

TRANSFORMATIVE PARTNERSHIP

Combining Evogene's proprietary AI foundation model, with Google Cloud's world-class infrastructure to scale revolutionary molecular discovery

ACCELERATED INNOVATION

Google's infrastructure enabled efficient use of a massive dataset starting with millions and ultimately reaching a training set of approximately 38 billion molecular structures

3x IMPROVED ACCURACY

Optimization across multiple-parameters reached 90% precision (vs. 29% in traditional GPT AI-model)

"We're pleased to collaborate with Evogene's innovation in AI-powered molecule design. Their progress with ChemPass AI highlights the strength of pairing advanced AI infrastructure with deep scientific insight. We look forward to seeing the impact of this new model in drug discovery and agriculture."

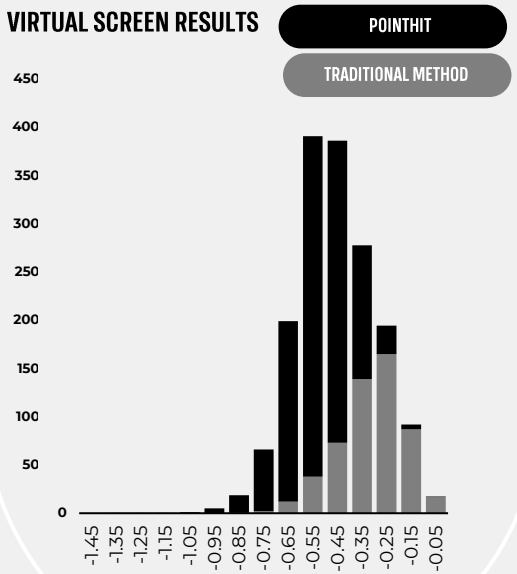
BOAZ MAOZ, MANAGING DIRECTOR, GOOGLE CLOUD ISRAEL

CHEMPASS AI FOUNDED BY PROPRIETARY TECHNOLOGY
BOOSTING PROBABILITY OF SUCCESS

Step 1

HIT SCREENING
WITH *POINTHIT™*

Utilizing deep learning to enhance rapid screening in ultra-large databases



Step 2

HIT TO LEAD
WITH *ACTIVESEARCH™*

DMTA coupled with upgraded analog search using proprietary algorithms

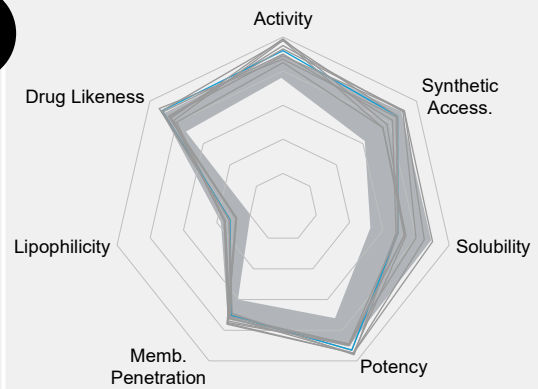
UP TO 400-FOLD IMPROVEMENT

ACTIVESEARCH RESULTS	1,800
SELECTED & PURCHASED	41
ACTIVE	16
SUB MICROMOLAR POTENCY	7

Step 3

LEAD OPTIMIZATION
WITH *LEADOP GPT™*

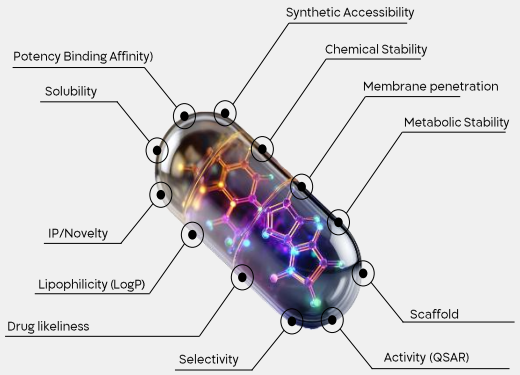
Simultaneous optimization of multiple parameters using generative AI



REACHED MULTI-PARAMETER OPTIMIZED nMol ACTIVE NOVEL COMPOUNDS

Result

DEVELOPMENT CANDIDATE



DELIVERING REAL-WORLD INNOVATION
THROUGH TWO STRATEGIC MARKET DIVISIONS

ChemPass AI

PHARMA DIVISION

EXTERNAL COLLABORATIONS

TEL AVIV UNIVERSITY Metabolic Disease

INTERNAL PIPELINE

Undisclosed

AG DIVISION

VIA AGPLENUS

STRATEGIC COLLABORATION

BAYER Herbicides

CORTEVA agriscience Herbicides

INTERNAL PIPELINE

Wheat Blotch

OUR STORY IN 3 SENTENCES

GEN AI ENGINE

Design of small molecules with high probability of success

REVOLUTIONIZING AG

Proven results with strategic collaborations

PIONEERING IN PHARMA

Differentiated tech offering that fits market demand

A GROWING MARKET
WITH PLENTY OF ROOM FOR INNOVATION

1 Increase of pest resistance & regulatory requirements

2 Urgent need for new Modes of Action (MoAs)

3 Decreased rate in discovery of new pesticides due to lack of innovation

$43.3B
BROAD SPECTRUM HERBICIDES[1]

$22.2B
FUNGICIDES FOR MAJOR DISEASES[2]

$22.3B
BROAD SPECTRUM INSECTICIDES[3]

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Company calculation based on: 1) Mordor Intelligence 2) Fortune Business Insights 3) Data Bridge

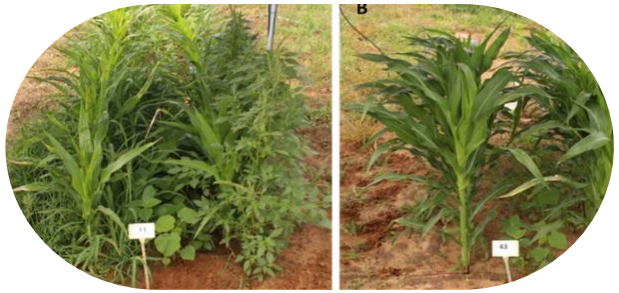
With rising pest resistance, tighter regulation, and laggard development

COMPUTATIONAL CHEMISTRY CAN CREATE REAL-WORLD IMPACT IN AGRICULTURE

STRATEGIC **COLLABORATIONS**

"Bringing together AgPlenus' expertise with Bayer's CropKey approach to crop protection innovation will help accelerate the delivery of essential, sustainable, and affordable solutions to farmers and set a new benchmark in the industry."

Rachel Rama, Head of Small Molecules, Crop Science division



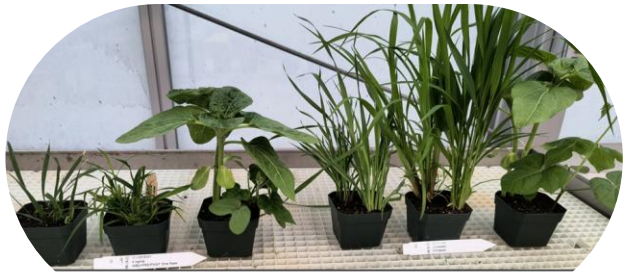
Nontreated Treated

Development of new sustainable Mode-of-Action broad spectrum, herbicide

Demonstrated high weed control efficacy and good tolerance in corn

"The collaboration with AgPlenus has accelerated the identification of a class of herbicide chemistry that targets a new mode-of-action for weed control, something the industry has been lacking for decades."

Vid Hegde, Former VP of Crop Protection Discovery and Development



Treated nontreated

Development of novel herbicides

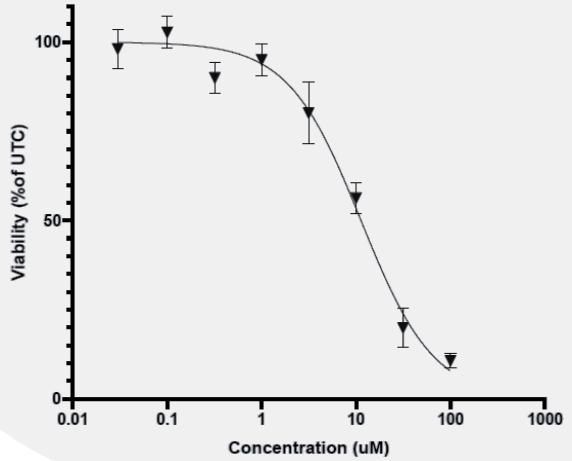
Demonstrated weed growth reduction in post emergence application

INTERNAL PIPELINE
WHEAT BLOTCH

DISRUPTING A $1.2B PROBLEM AT RECORD SPEED

- 70% of EU fungicide usage in wheat is for Wheat Blotch[1]
- EU market alone >$1.2B annually[1]
- Widespread resistance to current top products ('Strobilurins') with 2024 sales of $4.59B[2]

APTF-4 PRESENTS STRONG POTENTIAL FOR REAL-WORLD INNOVATION



- Shows clear concentration-dependent antifungal efficacy
- Ongoing optimization to enhance potency
- 18 months from target to optimized hit

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1) TResearch Summer 2019 2) Global Growth Insights

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Design of small molecules with high probability of success

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PIONEERING IN PHARMA

Differentiated tech offering that fits market demand

GROWING OPPORTUNITY IN AI-DRUG DISCOVERY



SMALL MOLECULES

Account for
58%
Of total pharmaceutical market ($1,344B)

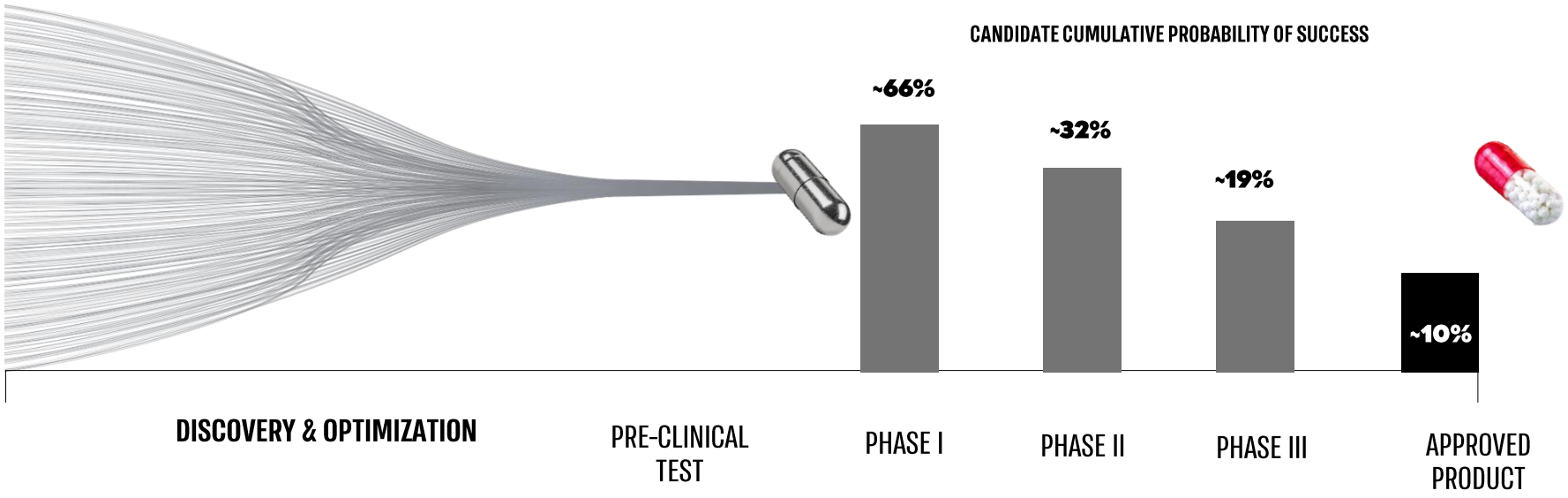
AI-based candidates in pipeline
>60
150% CAGR in last 3 years

Discovery market expected to reach
$190.68B
by 2034


1) DCAT Value Chain Insights 2) Science Direct 3) Precedence Research

THE DISCOVERY AND OPTIMIZATION CHALLENGE

DEVELOPING CANDIDATES THAT WILL REACH THE MARKET



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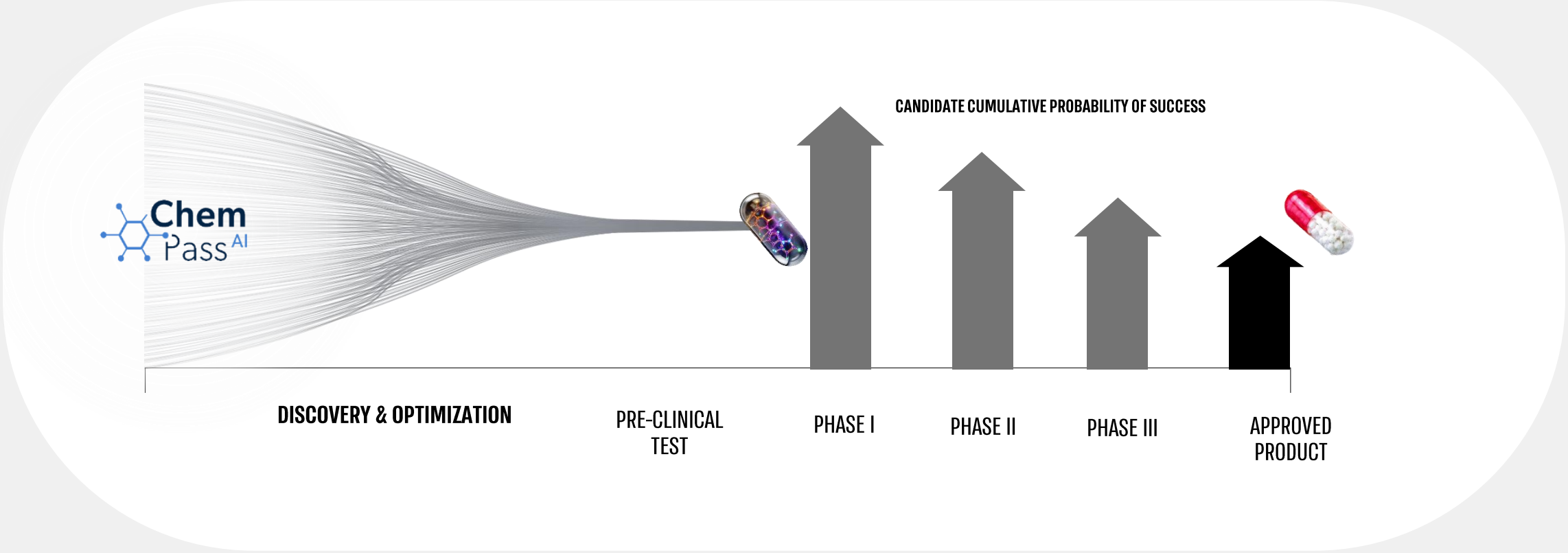
https://pmc.ncbi.nlm.nih.gov/articles/PMC9293739

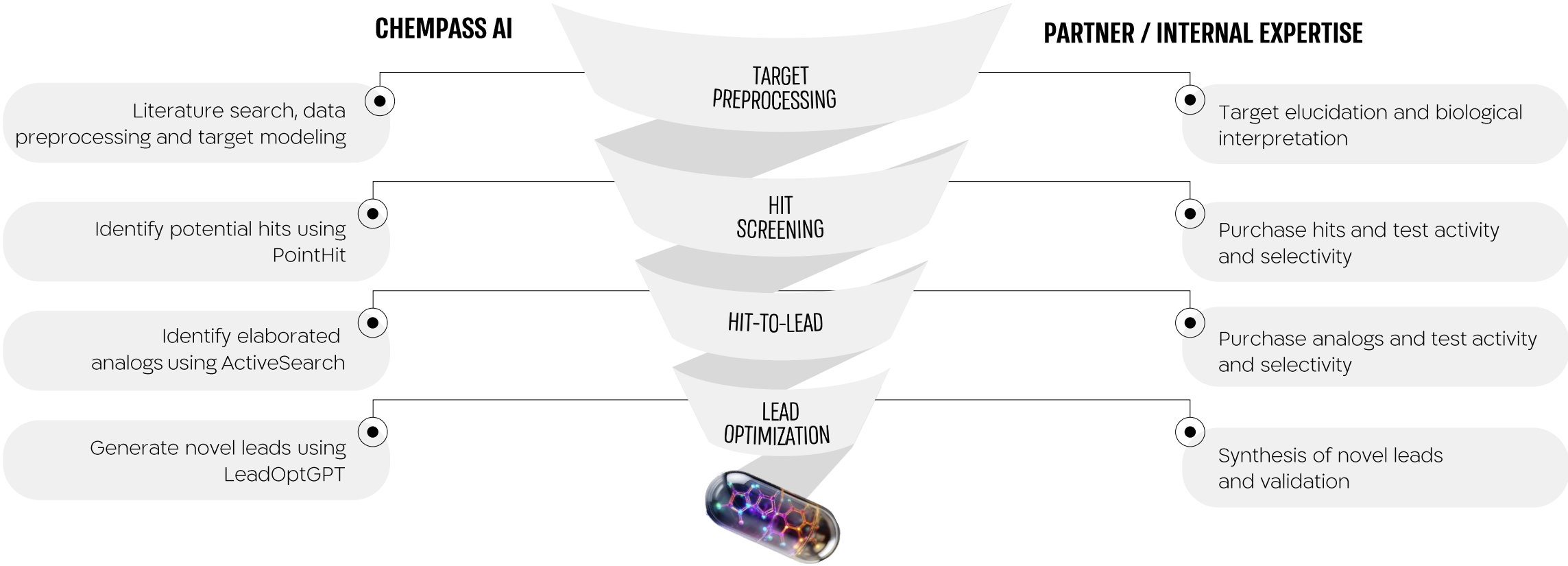
CHEMPASS AI: DRIVING HIGHER CUMULATIVE PROBABILITY OF SUCCESS



evogene https://pmc.ncbi.nlm.nih.gov/articles/PMC9293739/

THE KEY FOR SUCCESS –STRATEGIC PARTNERSHIPS / INTERNAL EXPERTISE

TAILORED TO EACH CHALLENGE & OPTIMIZED FOR SUCCESS



SHOWCASING SYSTEM CAPABILITIES: MOLECULAR GLUE CASE STUDY

PARTNERSHIP WITH LEADING BIOTECH

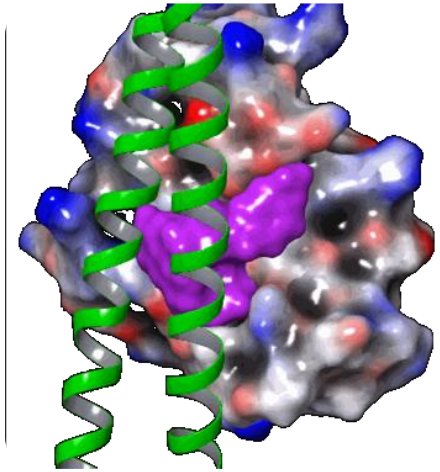
To develop first-in-class molecular glue therapeutics

NOVEL TARGET:

Protein–protein interaction, considered highly challenging

CHEMPASS AI GENERATED 150 MOLECULES WITH PROMISING RESULTS

- 100% novelty (not in DBs or patents)
- Synthesizability confirmed
- 93% uniqueness
- 92% validity (chemically viable)
- 6x improvement in binding prediction accuracy



MORE REAL-WORLD INNOVATION IN AG AND PHARMA

MEANS A BETTER WORLD FOR ALL

REAL-WORLD INNOVATION
Unique technology to create novel small molecules

AI-FIRST, FROM HIT TO LEAD
Integrating proprietary technology across the entire discovery pipeline

HIGHER PROBABILITY OF SUCCESS
90% of molecules generated meet all predefined parameters

MULTI-PARAMETER OPTIMIZATION
Balancing ~20 constrains simultaneously using ChemPass AI

UNLIMITED INNOVATION
Based on ~38B molecule structures

PROVEN IN AG PIONEERING IN PHARMA
Real-world impact where it matters most

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Creating

REAL-WORLD INNOVATION

for a better future