Molecular Design Has Scaled.
Synthetic Decisions Have Not.

Scale Mismatch

Thousands of candidate molecules are generated
Only a fraction can be efficiently synthesized

Bottleneck

Synthetic assessment has not kept pace with molecular design
Manual route planning limits throughput

Costly Consequences

Wrong molecules enter the lab
Failed routes destroy time, capital, and IP advantage

The Solution

SynovAI turns synthetic feasibility into a scalable advantage
Complete, optimized synthesis routes in seconds — so teams build the right molecules first

Synthesis Bottlenecks Every Major Chemical Industry

Industries Where Synthetic Feasibility Determines ROI

Pharmaceuticals
MERCK · GSK · NOVARTIS · GILEAD · novo nordisk · AMGEN · Pfizer · VERTEX · GRACE · Biogen · Johnson&Johnson · Boehringer Ingelheim

Consumer Products
COLGATE-PALMOLIVE · Kimberly-Clark · Mondelēz International · Reckitt Benckiser · General Mills · Coca-Cola · Unilever · SCJohnson · P&G

Agricultural
COFCO · KERRY · dsm-firmenich · BUNGE · Givaudan · Cargill · BAYER · ADM · Ingredion

Basic Chemicals
Dow · EVONIK · ARKEMA · 3M · LYB LyondellBasell · syngenta · DUPONT · Formosa Plastics · CLARIANT · BASF · sabic

Scalable synthetic feasibility unlocks efficiency and speed across >$100B in annual chemical R&D

SynovAI Converts Synthetic Risk Into Revenue

The Platform

AI Retrosynthesis Platform

- Generates optimized multi-step routes in seconds

- Evaluates feasibility before lab commitment

- Delivered via subscription, service, or enterprise license

Reduces Failed Synthesis OpEx
(Basis for SynovAI revenue)

Value Capture

**Accelerates Time to Market**
(Customer upside)

The Lab

Validation and Data Engine

- Paid route validation programs

- Proprietary experimental dataset generation

- IP creation & Licensing

SynovAI prices on economic impact: avoided failed synthesis + faster time-to-market
Customers capture the much larger time-to-market upside

SynovAI Means Validated Synthesis in Weeks, Not Years.

**Cancer Gene Inhibitor
Intermediate Synthesis**
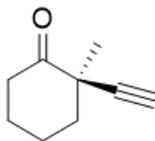
**Chemical Experts
>2 years R&D
11-28% Yield**

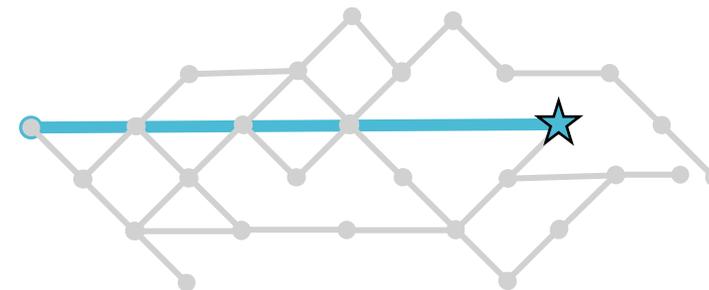*Org. Process Res. Dev.* **2024,** 28, 78-91
doi.org/10.1021/acs.oprd.3c00363

**Traditional Planning
1-5 routes
Hours to days
Manually prioritized**

**With SynovAI
2 weeks R&D
33% Yield**

Nat Commun **2024, 15**, 7818
doi.org/10.1038/s41467-024-52048-4

**SynovAI at Scale
20-200 ranked routes
Seconds
Multi-criteria optimized**

18 additional SynovAI routes have been synthetically validated

SynovAI Means Complete, Viable Routes — In Seconds.

Other Systems

Literature & Retrieval Systems

- Assemble routes from documented reactions

- Cannot go beyond published chemistry

Bound by published chemistry

Stepwise Generative Systems

- Predict reactions one step at a time

- Iteration may take hours

- Limited to trained reaction data
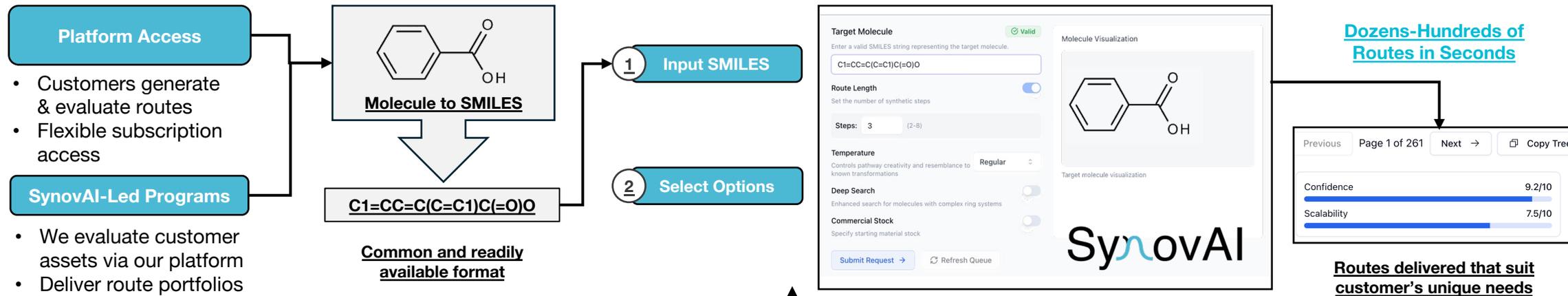
Constrained by training data

SynovAI

SECONDS, NOT HOURS.

- Complete multi-step routes in seconds

- Built-in procedure, patent, and feasibility guidance

- Designed for lab-synchronous iteration

- Generates proprietary experiment data

Expanding proprietary synthetic coverage over time
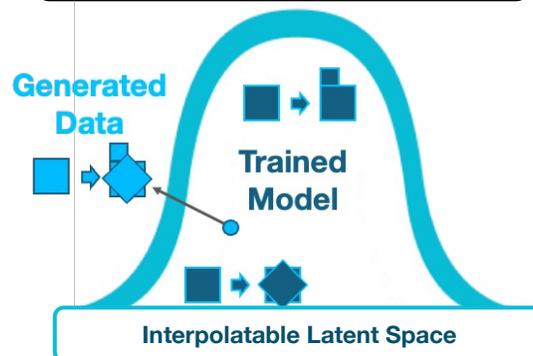
# SynovAI Means Full-Stack Reaction Intelligence

Platform Access
- Customers generate & evaluate routes
- Flexible subscription access

SynovAI-Led Programs
- We evaluate customer assets via our platform
- Deliver route portfolios

Molecule to SMILES

C1=CC=C(C=C1)C(=O)O

Common and readily available format

① **Input SMILES**

② **Select Options**

Target Molecule — ⊘ Valid
Enter a valid SMILES string representing the target molecule.
C1=CC=C(C=C1)C(=O)O

Route Length
Set the number of synthetic steps
Steps: 3 (2-8)

Temperature
Controls pathway creativity and resemblance to known transformations — Regular

Deep Search
Enhanced search for molecules with complex ring systems

Commercial Stock
Specify starting material stock

Submit Request → ⟳ Refresh Queue

Molecule Visualization

Target molecule visualization

SynovAI

Dozens-Hundreds of Routes in Seconds

Previous | Page 1 of 261 | Next → | Copy Tree

Confidence 9.2/10
Scalability 7.5/10

Routes delivered that suit customer's unique needs

Core Technical Differentiators

Multi-Model Reaction Intelligence
Integrates reactions, conditions, yields

Multi-Step Reaction · MOSAIC Experts · Conditions · Ring Breaking
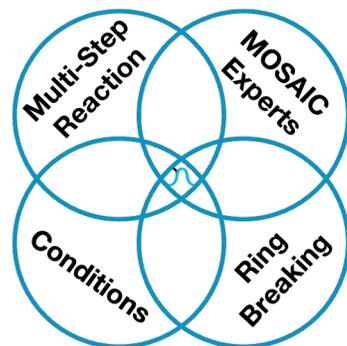
Novel Reaction Exploration
Beyond published chemistry

Generated Data

Trained Model

Interpolatable Latent Space

Multi-Step Awareness
Optimizes complete routes
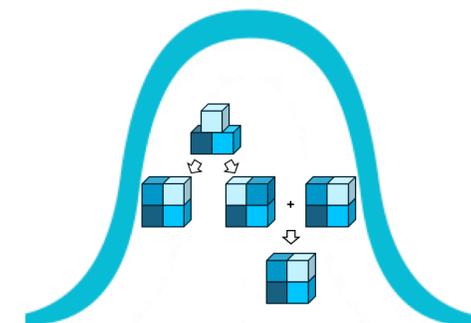
Commercially Delivered Through Platform Access or SynovAI-Led Programs

SynovAI Means Lab-Powered
Data Advantage and Recurring Revenue

Platform Routes → Lab Validation → IP & Licensing

New Experimental Datasets Drive Expanding Model Advantage

Immediate Revenue

- Paid route validation

- mg-gram execution

- Dataset generation contracts

Proprietary Data Moat

- Novel reaction coverage

- Yield & scalability data

- Compounding model advantage

Process IP & Licensing

- Target non-competitive process gaps

- Validate & patent improvements

- License into ecosystem

Proprietary experimental data expands model capability increasing performance, stickiness, and enterprise ARR.

From Ecosystem Validation to Enterprise Scale

Proprietary experimental data + workflow integration create durable differentiation.

PLATFORM

Large Chemical and Pharma Companies
- Enterprise <u>site licenses</u>
- Long term, multi-site adoption

Contract Research Organizations
- Higher throughput per scientist
- Embedded across client portfolios

5
Research Labs **Actively** Using SynovAI

Small-Medium Chemical Design Companies
- Faster asset development & exits
- Embedded in R&D decision workflows

Strategic Integrations
- Differentiates partner platforms
- Embedded technical capability

Academic Users
- Accelerates grants, publications & spin-outs
- Real-world validation & product hardening

EXPAND

LAND

9

$5M Seed to Execute Structured Scale and Enterprise Conversion

Proprietary experimental data + workflow integration create durable scale.

6 Months
Revenue Base Established

- Expand to 12+ research labs
- Convert 3–5 small-medium chemical companies to paid subscriptions
- Secure 2–3 strategic integration partnerships
- Hire core technical + lab team

12 Months
Revenue Expansion & Data Advantage

- Lab fully operational
- 2–3 lab validation customers
- Generate proprietary experimental condition data
- Expand SMB & CRO customer base

18 Months
Enterprise Scale and Asset Monetization

- Secure and expand first enterprise contract
- File targeted process patents and secure initial licensing revenue
- Deliver enterprise-ready dataset generation services

Use of Proceeds
- 65% Technical and Lab Talent
- 11% Laboratory Cap-Ex
- 9% Platform Development
- 15% Overhead and Professional Services

Inflection Drivers
- Recurring ecosystem revenue
- Proprietary experimental data
- IP-backed licensing revenue
- Enterprise ARR

Built to Lead Synthetic Intelligence at Enterprise Scale

Jessica Freeze, PhD
Co-Founder
President & Chief Executive Officer

Founder and AI chemistry leader
building enterprise-scale synthetic
intelligence systems

Klas Holmlund, MBA, CFA
Co-Founder
Chief Operating Officer

Leads enterprise scale, capital
strategy, and commercial execution

Corey Jones, PhD
Co-Founder
Chief Scientific Officer

Synthetic chemistry leader driving
practical route execution across
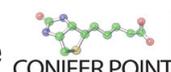complex reactions

Victor Batista, PhD
Co-Founder, Board Member
Yale Kirkwood Professor of Chemistry

Global leader in computational
chemistry and scientific authority

Institutional relationships across academia, pharma, venture, and industry

Check us out here →