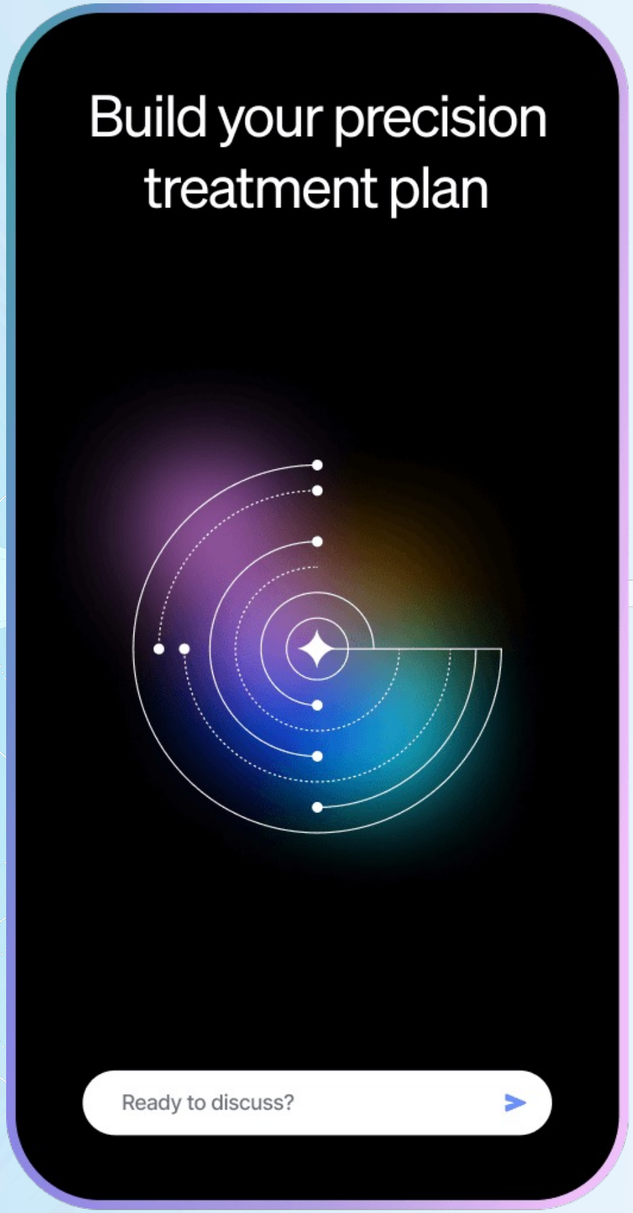
August 2025

GeneSilico Overview

DRIVING CANCER SURVIVAL



GeneSilico.AI

ABOUT US

GeneSilico is a bioscience and AI technology company whose mission is to be a world class provider of precision oncology solutions.

gSage, the GeneSilico AI platform, determines what therapies will be effective for a given cancer patient, as well as assist the patient through the lifecycle of treatment to achieve wellness.

ABOUT US

A BIOSCIENCE AND AI TECHNOLOGY COMPANY

1

01 GENESILICO, INC
HEADQUARTERED IN
AUSTIN, TEXAS USA

2

02 GENESILICO INDIA PRIVATE
LIMITED (GSIPL)

New Dehli | Bangalore | Gulbarga | Mumbai

AI FUTURE ROLE IN PRECISION ONCOLOGY AND REDUCING THE CANCER DEATH RATE

The integration of artificial intelligence (AI) into medical innovation has had remarkable successes to date including immunotherapies and radiopharmaceuticals.

…However, we believe it is still at its infancy…

For the future, we envision that personalized medicine will be integrated across multiple cancer indications and during the entire therapeutic journey of these patients, increasing our understanding of the disease and reducing its death toll.

CANDRIAM
A NEW YORK LIFE INVESTMENTS COMPANY

FEBRUARY 2025

PRECISION ONOLOGY VISION 2025-2030

Precision Oncology at Scale

Personalized Treatments

Data Analytics

Precision Cancer Care at Scale

Oncologist Digital Twins, Multi-Modal, Point-of-Care
Drug Discovery; Precision Care Pathways

Patient Digital Twin AND Personalized Treatment

Multi-Omics to Identify Key Mutations,
Simulate Treatment Paths; Predict Drug Efficacy
Quickly Iterate Therapies and Fine-tune

NGS + AI

NGS Panels; Genomics
Analysis and Guided Treatments with AI RWD

2025 2026 2027 2030

GENESILICO DEEP PRECISION JOURNEY 2025

INDUSTRIES FIRST : DEEP PRECISION NGS PANELS PAIRED WITH ONCOLOGY AI

GeneSilico NGS + AI

Biopsies

GeneSilico Deep Precision Cancer Specific NGS Panels*

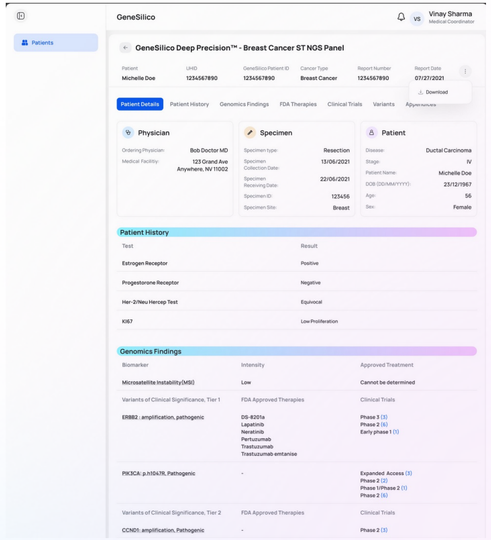
Oncologist

GeneSilico gSage Clinical AI Assistant

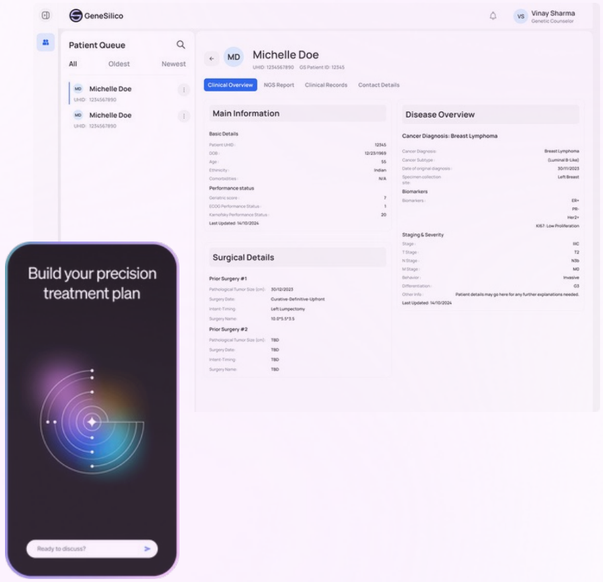
* In Partnership with Karakinos, India

GENESILICO DEEP PRECISION IN GTM ROLLOUT 2025

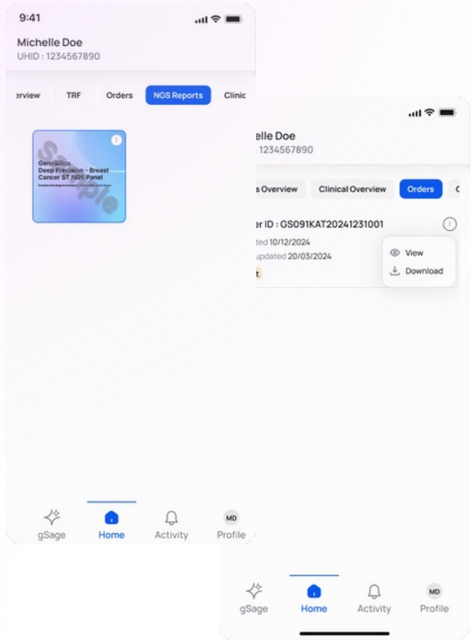
GENESILICO DEEP PRECISION - BREAST CANCER ST **NGS PANEL**



ONCOLOGIST POINT OF CARE CLINICAL MOBILE & WEB APPS



PATIENT COMPANION MOBILE APP



HOW GENESILICO COMPARES TODAY

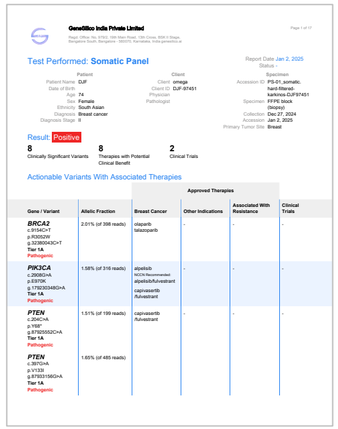
Attribute	Gene Silico Deep Precision ™	Guardant 360	Foundation Medicine	Comments
Cancer-Type Specificity	Breast NGS	Pan-cancer NGS	Pan-cancer NGS	GeneSilico Deep Precision Breast Cancer-Solid Tissue NGS panel covers maximum number of clinically relevant genes relevant to breast cancer Lung Cancer-Solid Tissue NGS is on the roadmap for 2025
Gene Coverage & Biomarker Breadth for Breast Cancer	68-genes[1] 32-MSI sites	13 genes[2]	14 genes[2]	1. Three categories of genes: FDA approved, DNA repair/Drug metabolization related; and targets awaiting approvals and are in late-stage clinical trial. 2. Comprehensive Gene Panels sacrifice sequencing depth as well as many relevant genes for a specific cancer type.
Cost–Value Ratio	High	Low	Low	Pay only for the genes that matter
Clinical Trial Matching	✓ US/Global ✓ India	✓ US/Global	✓ US/Global	gSage provides clinical trials local to India
Predictive Scoring of Therapeutic Efficacy	4Q2025	✗	✗	AI chemo-transcriptomic deep learning (Precily) for personalized drug response inference. Possibility of therapeutic success, personalized treatment response inference helps priority order treatments based on odds of success for the patient in hand
AI Platform and AI Interactive Chat (gSage™)	✓	✗	✗	Oncologist and patient-facing SaaS apps for web and mobile (iPhone, Android)
AI Interpretation of NGS Reports	✓ NGS data ✓ Patient dossier ✓ IHC	✗	✗	4Q2025: Vision models for radiology, pathology slide annotations, and transcriptomics-based treatment response prediction
Real-time Variant Re-interpretation	✓	✗	✗	Genetics with QA for Precision Analysis of BioMarkers And Mutation Understanding and Precision Treatment Path Simulation + Explainability
Integrated Clinical Guidelines	NCCN, ASCO, ESMO, +	✗	✗	Worldwide integrated data to provide guidelines paired with patient’s precision profile – saves tremendous amounts of time for oncologists
Regional Data	✓ India	✗	✗	India: Clinical Trial Matching and regional drug indicative pricing
Peer Insight / Networked Intelligence	2026	✗	✗	Collaboration and secure sharing of patient cases

GENESILICO'S DEEP PRECISON PANEL JOURNEY 2025-2026

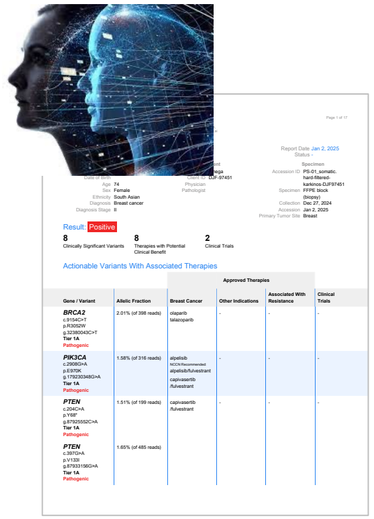
CANCER PATIENT DIGITAL TWIN WITH MULTI-OMICS COVERAGE + AI

GeneSilico Patient Digital Twin AND Personalized Treatment

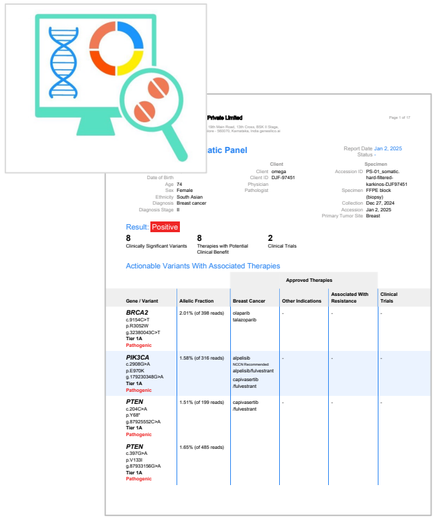
Biopsies



GeneSilico Deep Precision Cancer Specific NGS Panels*



Muti-Omics Coverage Drug Response Prediction



Drug Repurposing AND Discovery

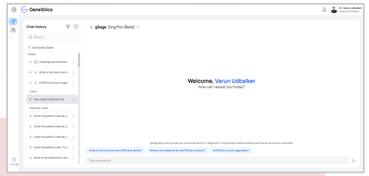
* In Partnership with Karakinos, India

GENESILICO's AI FOR PRECISION ONCOLOGY AT SCALE

OPERATIONALIZING ONCOLOGY AI ACROSS THE PATIENT / PROVIDER JOURNEY

Precision Cancer Treatment AND Care at Scale

Oncologist gSage AI Input



For Patient, Please interpret the Genetic NGS Report and

Summarize the Findings

Health Outcome Observation and Tracking and Monitoring

Precision AI

Patient Health Observation AI Agents

Train the Treatment Coordination AI BOTS

gSage AI Output

Patient AI EHR Summary AI MRI and Pathological Report Validation Genetic Test Results Interpretation and Therapy Matches Generated Treatment Plan and Actions Report Treatment Schedule and Patient Orientation

- AI Agent EHR Summary
- Radiology Report
- Pathology Report

gSage Oncology AgentOS

PLAN | DISCOVER | INFER | REASON | GENERATE

gSage MULTI_MODAL Inferencing Agents

- Digital Pathology AI Agent (LLM)
- MRI to 3D Analysis AI Agent (LLM)
- AI Genetic Test AI Agent (LLM)

- Drug Matching AI Agent (LLM)
- Clinical Trial AI Agent (LLM)
- Drug Repurposing for Mutation Outliers AI Agent (LLM)

GENESILICO's AI FOR PRECISION ONCOLOGY AT SCALE

CLINICALLY TRAINED AI AGENTS AND GS LLM FINE-TUNED FOR MULTI-MODAL ONCOLOGY

Precision AI

AI Agents for Patients Care and Provider Care Delivery

AI Agents Trained in Clinical Oncology Process with Real Patient Data

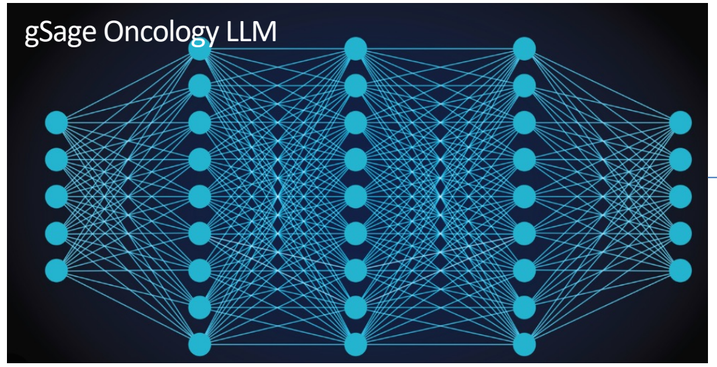
gSage Oncology AgentOS

PLAN | DISCOVER | INFER | REASON | GENERATE

Oncology Agent OS: An Oncology Optimized Orchestration System to Drive Precision Treatment and Care Path for Every Patient

gSage Cancer Specific Patient and Drug Response Knowledgebase

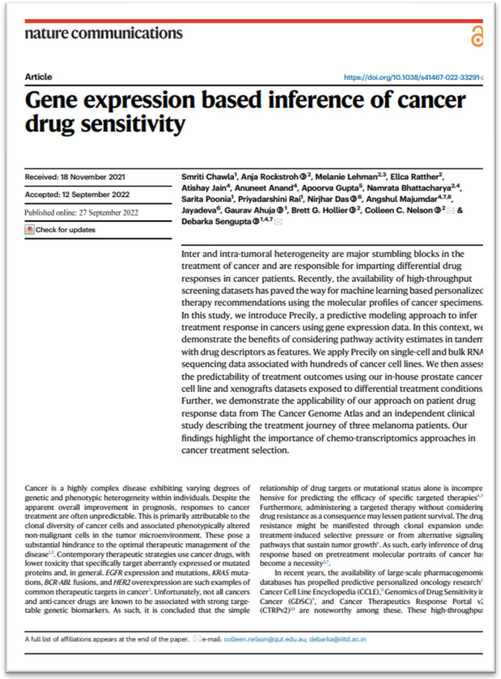
A Continuously Updated and Learning Knowledgebase Based on Patient Data, Clinical Interactions and Oncologist Feedback and Tagging (Reinforcement Learning)



gSage Oncology LLM – Fine-tuned and Trained to Understand Multi-Modal Health Records including Omics and Patient Time Series Data to Drive Accuracy and Scale

PUBLICATIONS

SIMULATING CAREPATH, DRUG REPONSE – BRINGING TUMOR BOARD TO EVERY PATIENT



nature communications

Article

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Gene expression based inference of cancer drug sensitivity

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Check for updates

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Inter and intra-tumoral heterogeneity are major stumbling blocks in the treatment of cancer and are responsible for imparting differential drug responses in cancer patients. Recently, the availability of high-throughput screening datasets has paved the way for machine learning based personalizec therapy recommendations using the molecular profiles of cancer specimens. In this study, we introduce Precily, a predictive modeling approach to infer treatment response in cancers using gene expression data. In this context, we demonstrate the benefits of considering pathway activity estimates in tandem with drug descriptors as features. We apply Precily on single-cell and bulk RNA sequencing data associated with hundreds of cancer cell lines. We then assess the predictability of treatment outcomes using our in-house prostate cancer cell line and xenografts datasets exposed to differential treatment conditions Further, we demonstrate the applicability of our approach on patient drug response data from The Cancer Genome Atlas and an independent clinical study describing the treatment journey of three melanoma patients. Our findings highlight the importance of chemo-transcriptomics approaches in cancer treatment selection.

Cancer is a highly complex disease exhibiting varying degrees of genetic and phenotypic heterogeneity within individuals. Despite the apparent overall improvement in prognosis, responses to cancer treatment are often unpredictable. This is primarily attributable to the clonal diversity of cancer cells and associated phenotypically altered non-malignant cells in the tumor microenvironment. These pose a substantial hindrance to the optimal therapeutic management of the disease[1,2]. Contemporary therapeutic strategies use cancer drugs, with lower toxicity that specifically target aberrantly expressed or mutated proteins and, in general, *EGFR* expression and mutations, *KRAS* mutations, *BCR-ABL* fusions, and *HER2* overexpression are such examples of common therapeutic targets in cancer[3]. Unfortunately, not all cancers and anti-cancer drugs are known to be associated with strong targetable genetic biomarkers. As such, it is concluded that the simple relationship of drug targets or mutational status alone is incompre hensive for predicting the efficacy of specific targeted therapies[4,5] Furthermore, administering a targeted therapy without considering drug resistance as a consequence may lessen patient survival. The drug resistance might be manifested through clonal expansion under treatment-induced selective pressure or from alternative signaling pathways that sustain tumor growth[6]. As such, early inference of drug response based on pretreatment molecular portraits of cancer has become a necessity[7,8].

In recent years, the availability of large-scale pharmacogenomic databases has propelled predictive personalized oncology research[9] Cancer Cell Line Encyclopedia (CCLE),[9] Genomics of Drug Sensitivity in Cancer (GDSC)[9], and Cancer Therapeutics Response Portal v2 (CTRPv2)[10] are noteworthy among these. These high-throughput

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118 Citations Since Sept' 2022

Top **25** Health Articles by Nature

Precily: Predictive Precision Oncology Based on Tumor Transcriptome

Genomics guided multi-agent retrieval-augmented generation for precision oncology

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4 Citations of the Preprint

Under Peer-Review at **NPG**

gSage: World's leading Precision Oncology Agent, Validated on Live Patients

THANKS, LET DISCUSS OPPORTUNITIES