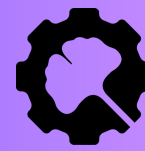


Power your AI models

[GINKGO DATAPOINTS]



GINKGO DATAPOINTS

Ginkgo Datapoints is trusted to generate the data that underpins AI models in biotech

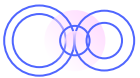
Functional Genomics

Cell perturbation data for target ID models in cell context of choice. Partners choose perturbation, cell type, and experimental design.

Antibody Developability

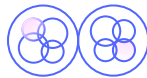
Antibody data generation across developability metrics for AI model training. Partners select developability assays from our set of standard services.

How to work with us



Scoping

Design the data generation campaign to your needs



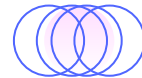
High-throughput assays

Ginkgo executes experiments at its Boston lab in high-throughput



Diverse Readouts

Readouts are captured via automated workflows



Data integration

Multimodal data is analyzed and integrated



Data transfer

Data and analyses are transferred back to your teams

We have your needs in mind to help promote your progress in AI



Pricing

We offer volume discounts—so you can benefit from the economies of scale our automation offers. Deals are fee-for-service with no milestones, royalties, or other value share.



Ownership

You own the data.



Pilots

We can do small, nimble pilot deals to start.



Flexibility

We will flex data generation campaigns to your needs, including:

- Size of dataset, timeline
- Assays
- Readouts
- Flexible & secure access to data



Partnership

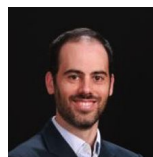
Our highly skilled scientific team wants to collaborate with you. We communicate clearly & frequently and are dedicated to seamless delivery towards your goals.

Get in touch with us!



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Phil Merksamer

Antibody Developability
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Functional Genomics

[PERTURBATIONS]

	Type of perturbation
Arrayed (bulk)	Chemical Genetic CRISPRi / CRISPR KO (synthetic sgRNA library)
Pooled (single cell)	Genetic CRISPRi (Lentiviral sgRNA library)

[READOUTS]

	Measurement
Transcriptomic (Drug-seq, bulk RNA-seq)	Transcript abundance
High Content imaging	Images, fluorescence intensity
Transcriptomic (10x, single-cell)	Transcript & sgRNA abundance
Proteomics	Global proteomics, Targeted proteomics
Flow cytometry	Fluorescence intensity, cell size, granularity

Data generation scale

10,000+

chemical and genetic perturbations

Use your own **cell lines** or **primary cells** or use the 30+ cell types already onboarded at Ginkgo.

Example dataset: <https://datapoints.ginkgo.bio/functional-genomics/gdpx2>

Antibody Developability

Standard Assays	Technology	Key Data Output
Core		
Titer	Valita	mg/L
Target Binding (BLI)	Octet	K_D
Fragmentation (CE-SDS)	LabChip	%Purity
Aggregation (SE-HPLC)	HPLC	%HMW, %Monomer, Chromatogram
Biological		
FcRn Binding	Lumit, BLI	K_D
Heparin Binding	HPLC	RT
Polyspecificity (PSP)	PSP or PAIA	PSP score or RFU
Biophysical		
Thermostability (nanoDSF)	nanoDSF	T_m , T_{onset}
Self-Association (AC-SINS)	AuNP-based	$\Delta\lambda_{max}$
Hydrophobicity (HI-HPLC)	HPLC or PAIA	RT or RFU
Colloidal Stability (SMAC-HPLC)	HPLC	RT
Colloidal Stability (SMAC-HPLC)	HPLC	RT, chromatogram

Data generation scale

10,000+

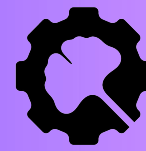
antibody sequences

Collect data on **your sequences of interest** in assays that matter to your pipeline. Work with Ginkgo to onboard assays specific to your needs.

Example dataset: <https://datapoints.ginkgo.bio/antibody-developability>

Build your AI models

[GINKGO AI]



GINKGO AI

Ginkgo AI builds models to empower biotech

Software & Data Infrastructure

Leverage Ginkgo AI's resources and investments: cluster with 100s of Google TPUs + GPUs for training and inference; robust codebase and infrastructure supporting rapid computational experimentation and iterations; public API for model deployment and access.

Expertise in Biological Domains

Ginkgo AI's team is composed of AI and ML researchers and engineers with hands-on experience across DNA, RNA, and Protein data spaces. We've build models that utilize this expertise to address specific engineering challenges across biotechnology.

How to work with us

Pay-as-you-go Model Access

Access public and proprietary models via API. Priced per use. See www.ginkgobioworks.ai

Training on Custom Data

Train or fine-tune models on private data either existing or generated with Ginkgo.

AI Acceleration Partnership

End to end AI enablement of a single modality with data and models.

Example Results

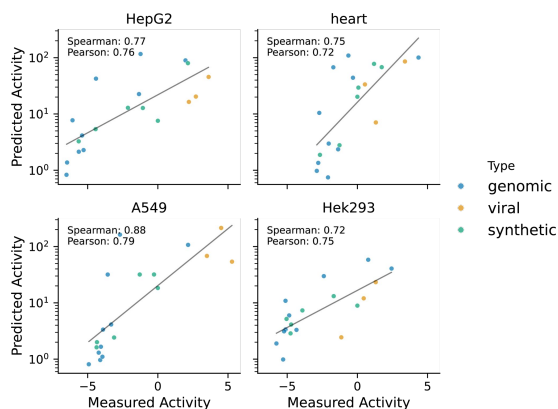
Antibody Discrete Diffusion

Generative model trained on clusters of the Observed Antibody Space (OAS) database. Remodel antibody sequences while maintaining natural features.



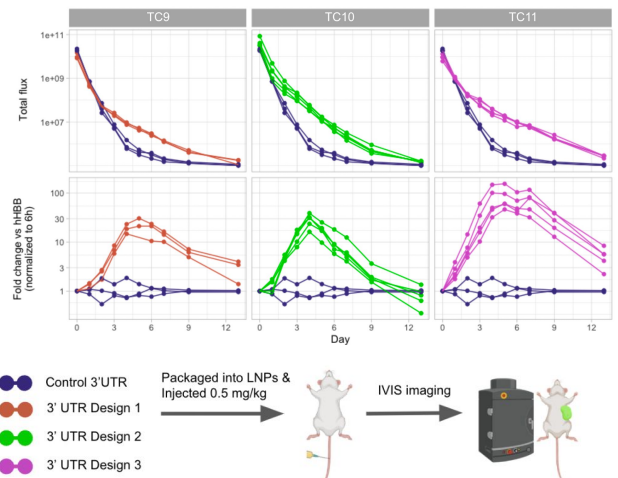
Tissue Specific Promoter Activity Prediction

We built a scalable pipeline for predicting cell type specificity of promoters in thousands of cellular conditions. Our model is trained on genomic data, and can be used to provide an initial set of cell type specific candidates for high throughput screening.



ML driven mRNA UTR design increases *in vivo* protein expression

We leveraged AI models trained on proprietary data. Using various generative AI design strategies, we designed multiple untranslated regions (UTRs) that increased mRNA expression significantly *in vitro* and *in vivo*.



Learn more at: <https://ai.ginkgo.bio/>

Get in touch with us!



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