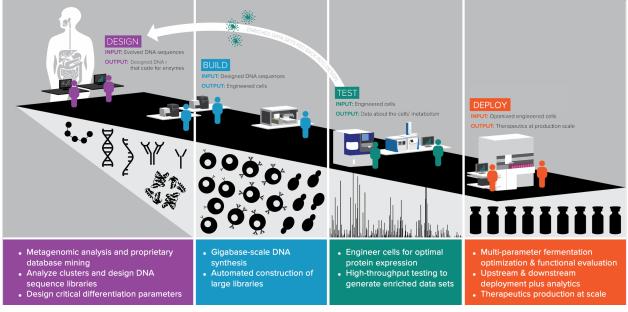


Ginkgo's Synthetic Biology platform — automated Foundry workflows + unparalleled genetic Codebase resources — offer a unique set of resources in support of TEI-REX



	Ginkgo Capabilities	Seeking Tean	ning Opportunities
FA1: 25 Days & FA2: 90 Days	Machine Learning Multi-Omics Enzyme Discovery & Optimization Also see above image & below	Biomarker Discovery Biodosimetry Radiation Exposure Animal Models	Ionizing Radiation Low-Dose Radiation Physics Sample Access & Resources Radiation Biology

Ginkgo's Capabilities:

- **Foundry** combines high-throughput, extensively automated standardized workflows to enable biological engineering at scale. Specific capabilities include:
 - o DNA, protein, enzyme, metabolic pathway, and cell/genomic design
 - DNA synthesis and gene assembly (>10K constructs/week)
 - o Arrayed, sorting, and one-pot testing modalities + adaptive evolution-based optimization
 - Next-generation DNA sequencing and RNAseg (incl. six Illumina NovaSegs)
 - o Proteomics (incl. PTM characterization) & metabolomics readouts (>5K MS data pts/week)
 - o Precision fermentation optimization, using 144 ambr® 250 bioreactors
 - o Process optimization and deployment, including both upstream & downstream
 - Overarching bioinformatics, systems biology, and deep learning analytics
- Codebase the world's largest reusable, standardized genetic "parts list" + computationally
 enhanced metagenomic enzyme and other parts sourcing + deep know-how on which of N
 theoretically reasonable approaches actually work best is a unique asset
- **Foundry** + **Codebase** enable using a *Design—Build—Test—Learn* engineering approach rapid prototyping of components, lysates, organisms, production processes, etc.
- Large capacity (>295K sq. ft.; >650-FTEs) supports >50 ongoing projects spanning >100 organisms (bacterial, fungal, and mammalian, including human) with >40 partners

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About Ginkgo

Ginkgo Bioworks, Inc. is a Boston-based synthetic biology platform company. Founded as a private company in 2008, Ginkgo became publicly traded in September 2021, at an initial valuation of "\$15B.

Ginkgo's mission is to make biology easier to engineer. Our *Foundry* (>290,000 sq. ft; BSL2) combines reusable, standardized workflows with extensive automation to enable biological engineering at scale. Our *Codebase*—the world's largest reusable, standardized genetic "parts list" + computationally enhanced metagenomic enzyme and other parts sourcing + deep knowhow on which of *N* theoretically reasonable approaches actually work best—is a unique asset. Foundry and Codebase combine to enable—using a *Design—Build—Test—Learn* engineering approach—rapid prototyping and development of proteins, enzymes, pathways, and whole organisms, and optimized manufacturing processes. Key capabilities include: DNA, protein, enzyme, metabolic pathway, and cell/genomic design; DNA synthesis and gene assembly; arrayed, sorting, and one-pot testing modalities + adaptive evolution-based optimization; next-generation DNA sequencing and RNA-seq; proteomics & metabolomics readouts; precision fermentation optimization, using 144 Ambr® 250 bioreactors; process optimization and deployment; and overarching bioinformatics, systems biology, & deep learning analytics. Ginkgo has >50 ongoing projects (>100 distinct organism species) with >40 commercial and government customers.

A Small Business, Non-Traditional Defense Contractor, Ginkgo has been awarded >15 U.S. Government (USG) programs and is a member of the MCDC & CWMD OTAs and JE-RDAP ID/IQ. Ginkgo is a current performer on the iARPA FELIX (prime) program, a past performer on iARPA Fun GCAT (sub), a current performer on the DARPA ReVector (prime), I2O Synergistic Discovery and Design (SD2; prime), and PPB (sub) programs, and is in contracting on DARPA DIGET (sub). Ginkgo has ongoing US Government programs, including those focused on the development of nerve agent medical countermeasures, human signature reduction, and detection of natural and engineered nucleic acid threat sequences.

In 2020, Ginkgo repurposed its biology engineering platform to support diverse COVID-19 pandemic responses in therapeutics, vaccines, and diagnostics development. Ginkgo's Boston facility includes a CLIA-certified high-complexity laboratory. In May, 2020 Ginkgo launched *Concentric by Ginkgo*, a nation-wide set of service offerings focused on large-scale SARS-CoV-2 testing, and more broadly national and international biosecurity.