

teselagen
BIOTECHNOLOGY

for Lab Information Management

Make Life Better™

The Artificial Intelligence enabled Operating System for Biotechnology.

The TeselaGen® operating system connects biologists, lab technicians, and bioinformaticians so that they can collaboratively design and build experiments, organize and standardize data, test and continually learn. Our modern approach, coupled with artificial intelligence modeling, has opened the door for a radical transformation of biology and chemistry, enabling rapid expansion of potential applications.

TeselaGen's founding team met at Stanford while working on problems in computational and molecular biology. The team includes an elite group of engineers, biologists and physicists from Stanford, Cal, MIT and Harvard with wide experience in synthetic biology, molecular biology, automation, artificial intelligence, software development, and business development. TeselaGen has been now deployed by a number of small startups, Fortune 50 companies, as well as emerging innovators in biopharmaceuticals, agriculture, and specialty chemicals.

Reduce cost and time to market.

Our Artificial Intelligence-enabled operating system radically accelerates product development of therapeutics, high value chemicals, and agricultural products. TeselaGen has demonstrated that it can increase the design and build speed, as well as reduce the costs associated with research & development, by an order of magnitude.

TeselaGen as your Operating System for R&D.



➤ Why TeselaGen?

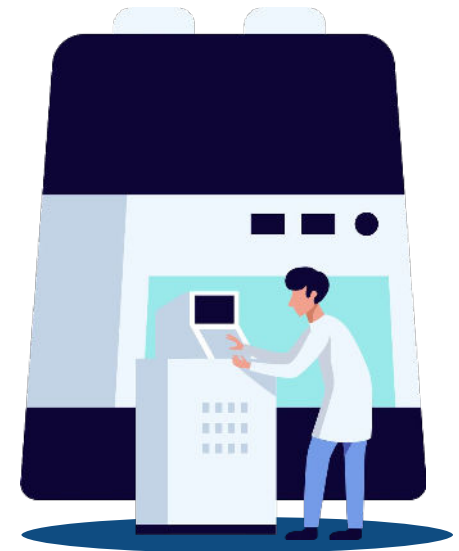
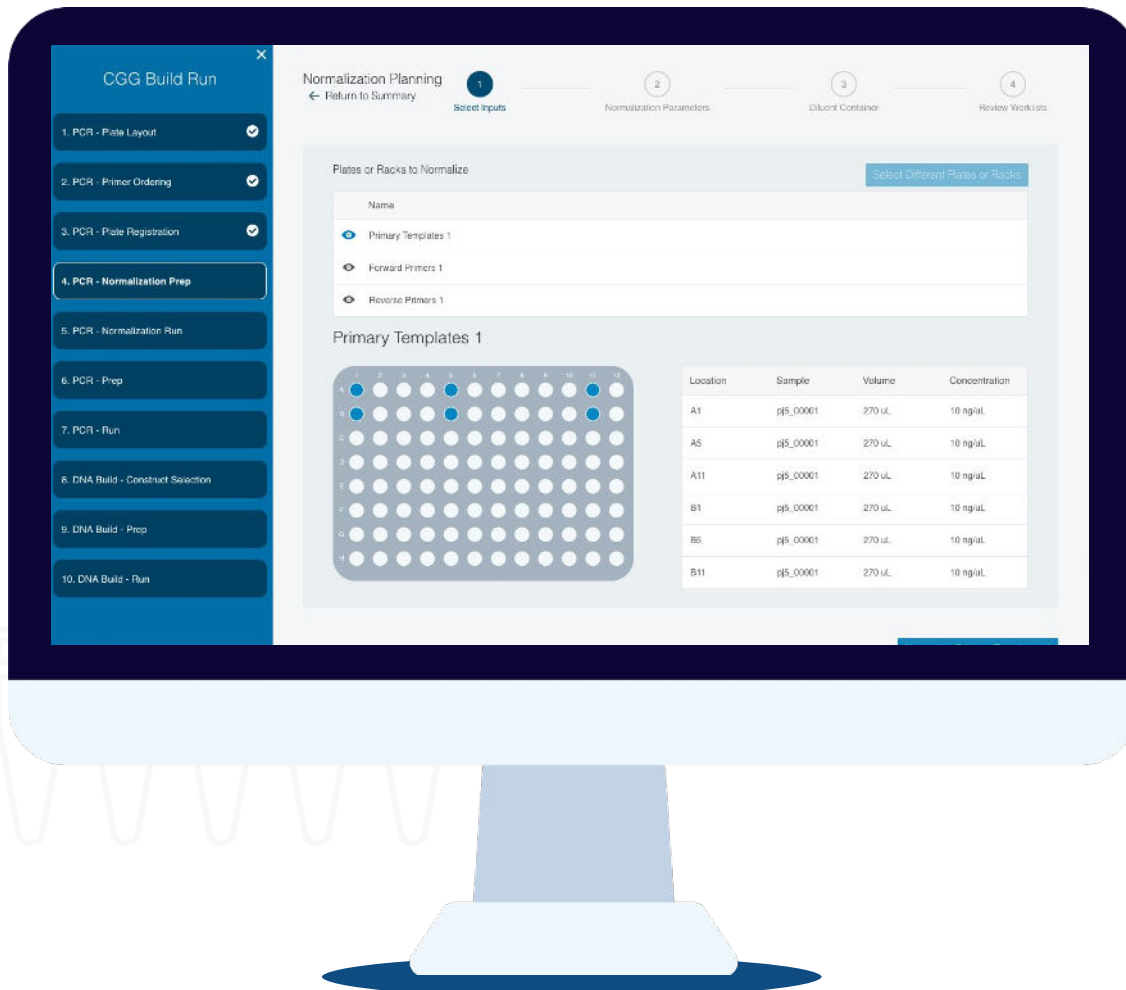
Large and small companies that participate in the bio-economy are replacing traditional methods with modern biotechnology and machine learning driven techniques. This is opening the door for a radical transformation of biology and a rapid expansion of potential applications. This increased demand requires a secure, scalable, interoperable, protocol-driven platform that can span multiple users working on multiple projects across large, geographically distributed organizations.

➤ The four pillars of our system

- **Design Management:** From DNA to protein design, to the most advanced large scale combinatorial and hierarchical designs that use state-of-art synthetic biology approaches for product development, our design tools help you design complex libraries that can get built quickly in the lab.
- **Lab Management:** A fully integrated laboratory management system that knows how to talk to you and your robots. Our system can orchestrate workflows, hands off to automation, manages samples, freezers and inventory, coordinates inventory and purchasing, guides quality control, and keeps track of everything you need to apply machine learning to optimizing your product.
- **Data Management:** All too often, data is scattered and isolated in places that make it hard to find and difficult to use. Our system provides a connected resource that acquires data from analytic and monitoring equipment and brings it together, links it to your design-build process, transforms it and makes it ready for analysis, predictive modeling, and machine learning.
- **Intelligence:** teams can combine their knowledge and data with AI algorithms built to understand biology — leading to new, high performance bio based products faster than ever before. Our AI models allow you to converge on an optimal product ten times faster then using traditional approaches.

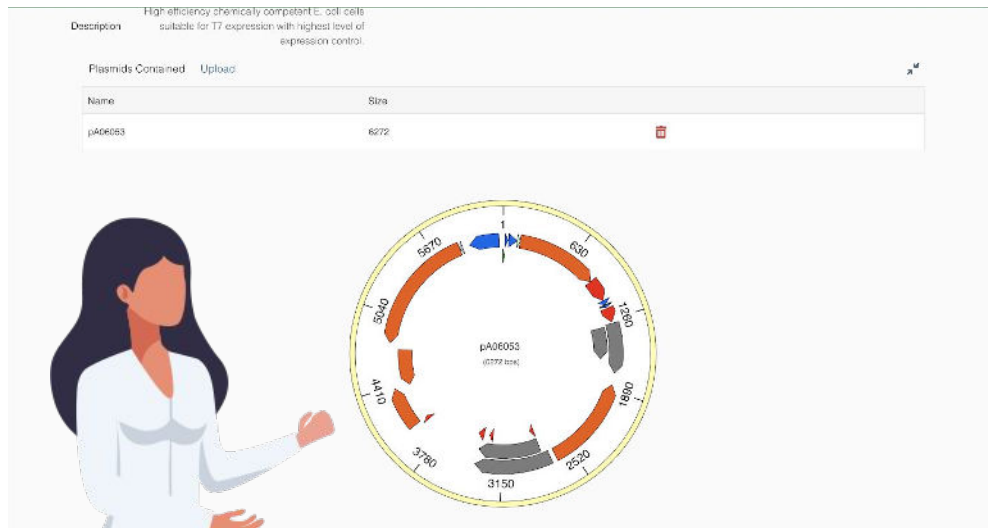
Define and execute experimental workflows

- A Lab Information Management System ideal for simple or **high-throughput** workflows.
- Access to fundamental 'atomic' level actions or steps that cover the **most common lab protocols**.
- By using our user-friendly workflow manager, you can knit the right set of atomic steps together to express just about **any workflow imaginable**.



Biological material management and sourcing

- **Manage all your biomaterials** in one place; DNA, Oligos, Strains, Proteins, Enzymes and Reagents, and other configurable domain-specific biomaterial types.
- **The strain library** has been enhanced to include information about the individual plasmids the strain may have been modified to carry, information about physical aliquotes such as location, volume, and concentration.
- **Provenance:** physical strains resulting from a synthetic biology workflow have built-in provenance for the parent strain and the DNA design used to generate them.
- Accommodate **inventory management** tasks such as recording and displaying locations and contents for samples contained in plates/wells, tubes, and trays as well as laboratory equipment.



Interfacing with suppliers of reagents and services

- Check if the material you need to use is **manufacturable** by validating against corresponding synthesis rules.
- Estimate the **cost of ordering** your molecules or reagents within our **BioShop**.
- Our platform allows you to generate **order forms for synthesizing DNA** molecules without leaving the platform.



Bioshop

1

Select DNA

2

Download Order Forms

+ DNA

Rescore

<input type="checkbox"/>	Name	Length (bps)	Vector	Score	Errors	Estimated Price
<input type="checkbox"/>	PCR-4	4623	No Vector ▶	❗	1 Error (Unbuildable)	\$ 0.00
<input checked="" type="checkbox"/>	PCR-6	806	No Vector ▶	✅	No Errors	\$ 56.42
<input checked="" type="checkbox"/>	PCR-6	812	No Vector ▶	✅	No Errors	\$ 56.84
<input checked="" type="checkbox"/>	PCR-6	782	No Vector ▶	✅	No Errors	\$ 54.74
<input checked="" type="checkbox"/>	PCR-6	788	No Vector ▶	✅	No Errors	\$ 55.16
<input type="checkbox"/>	PCR-6	4629	No Vector ▶	❗	1 Error (Unbuildable)	\$ 0.00

Summary

Total Selected Items:

4 out of 6

Items not available for order:

0

Synthesis Vendor:

Twist Bioscience

Created By:

admin@teselagen.com

Estimated Total:

\$223.16

Enter Linear DNA Order Name:

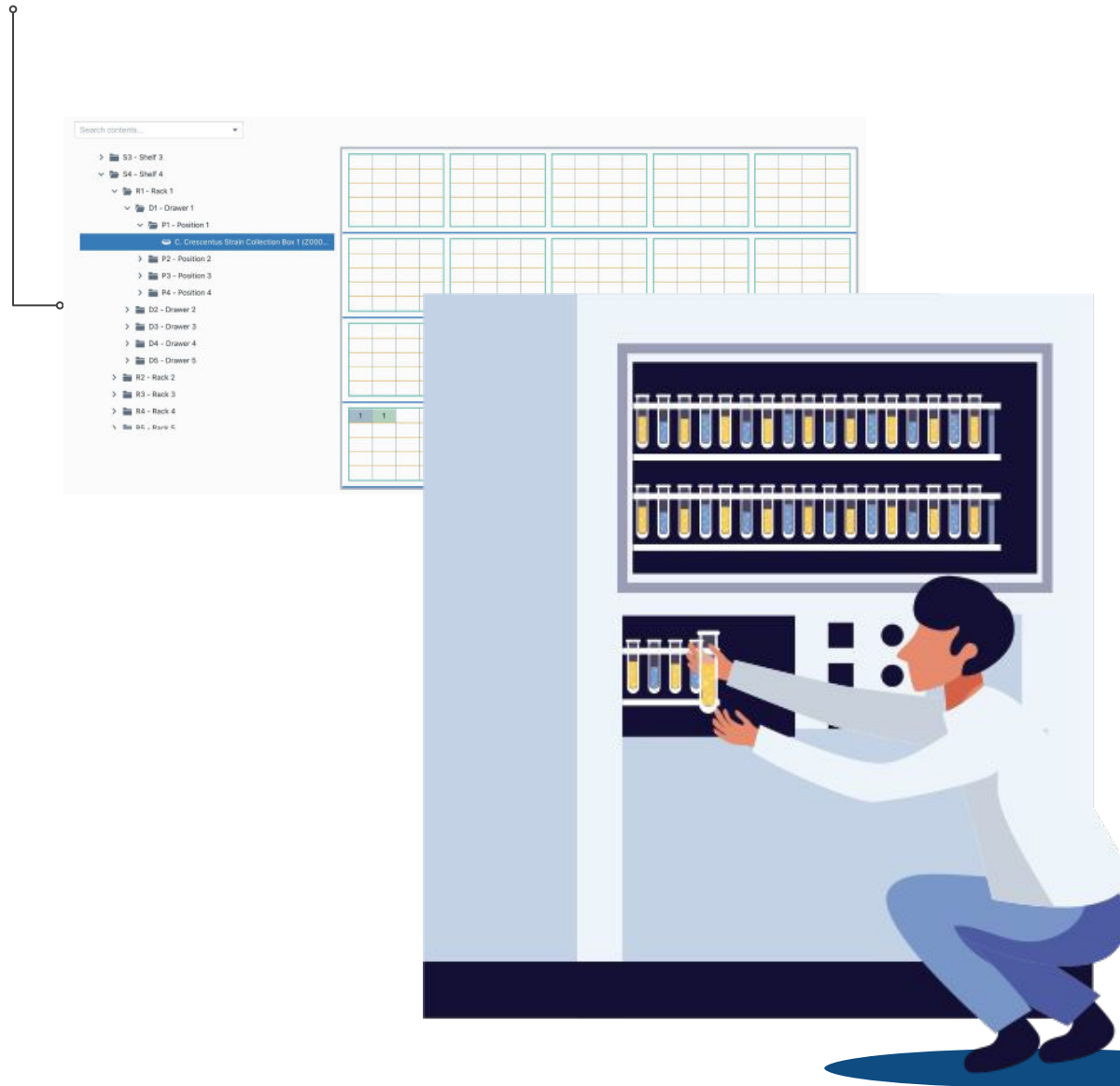
Linear DNA Order

Linear DNA Order Comments:

Linear DNA Order Comment

Next

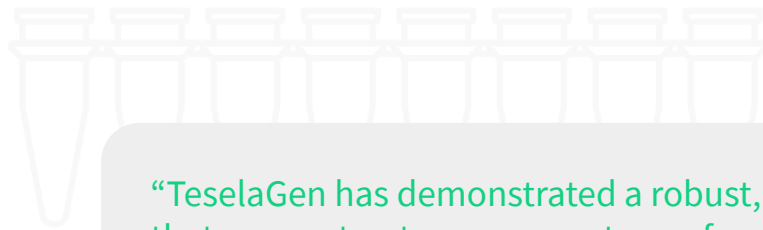
Inventory Management



- **Freezer Management:**
We support partially or fully automated freezer management. Place plates and tubes into any configured freezer manually, or use an automated placement strategy that finds a location for you.
- Our **API and integration tooling** allows you to interface with existing management systems, automated freezer systems, alarms, and environmental management systems, etc.
- **Barcoding Support:** automatically generate barcodes and their corresponding labels, to track items in your inventory.



Some Partners using **TeselaGen** for LIMS



“TeselaGen has demonstrated a robust, scalable, and easy-to-use platform that we can trust as a cornerstone of our DNA manufacturing processes.”

-George McArthur, Head of Product, Ansa Biotechnologies.



“TeselaGen has developed one of the most advanced cloud-based solutions for designing, building, and optimizing complex biological workflows and products. We are enthusiastic about extending our collaboration with the TeselaGen team.”

-Dr. Michael Köpke, Vice President Synthetic Biology, LanzaTech.





**Learn more about TeselaGen and
request a demo today at:**

www.teselagen.com