



## CASE STUDY:

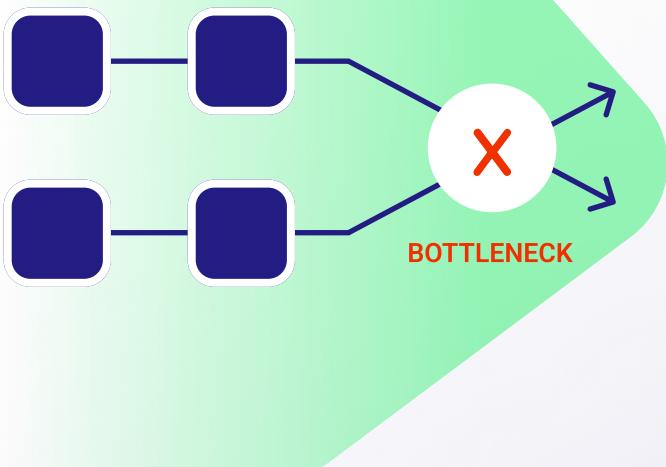
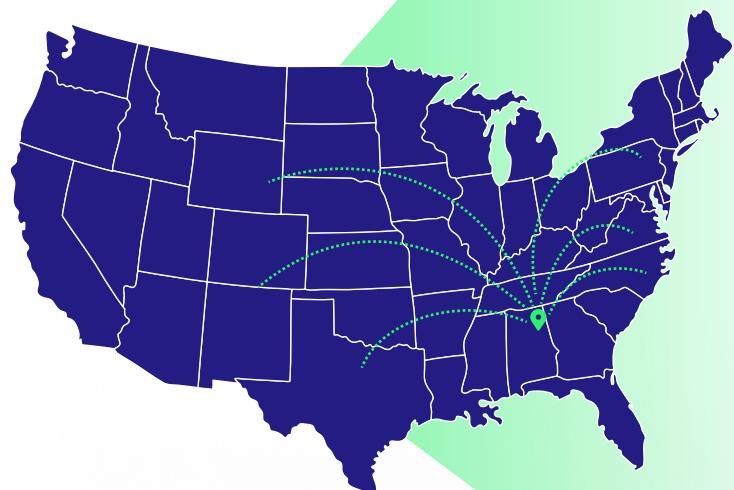
# How One Reference Lab **Improved Operational Efficiency** and Prepared for **High-Volume Growth**

5 JUNE 2025



## The Challenge

A regional reference laboratory in California, supporting over 20 large-scale clients, was facing growing demand for its molecular testing, **but its existing workflows were slowing it down.**



Manual assay prep, instrumentation challenges, and a limited ability to respond to variable testing volumes created bottlenecks that made it hard to scale while also maintaining the speed and reliability their clients depended on. **They needed a simple way to speed up and introduce more flexibility into their workflows.**

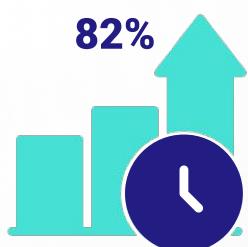
## The Solution

The lab partnered with **Molecular Designs** and **Streamline Scientific** to optimize their respiratory PCR program from both product and operational standpoints.



### 01/ Preplated, Breakaway Respiratory Panels

Molecular Designs' Simplicity™ respiratory panels can help clients achieve **82% reduction in hands-on preparation time**, and the client saw comparable gains in workflow efficiency. Several features played a critical role in the transformation of their operations:



**Preplated assays** reduced pipetting errors, cut prep time, and eliminated the need to manage a complex inventory of multiple reagents.



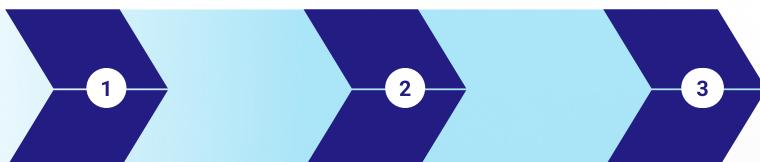
**Breakaway design** meant running only the targets they needed, minimizing waste, and maximizing their ability to respond to fluctuating demand.

# The Solution

## 02/ Better Extractions for Even Faster Processing

The lab also implemented the **Simplicity™ Dx Extraction system**, a next-generation automatic nucleic acid purification system that leverages magnetic bead separation technology to accelerate extraction times and minimize hands-on processing. Using this, **they were able to reduce their extraction times to just 30 minutes.**

### 30 Minutes Extraction Time



## 03/ Instrumentation and Validation Support

Through Molecular Designs' partnership with ThermoFisher, **the lab was able to source instrumentation quickly and cost-effectively**. When it came to adopting the equipment, Streamline Scientific supported the client in validation bridge studies, enabling them to **add instrumentation with minimal disruption to operations**.

Facing some issues with third-party vendors, the client wasn't sure whether specific instruments would need to be replaced. Streamline stepped in, assisted in troubleshooting, and ultimately **helped the client avoid unnecessary equipment costs**.

# The Solution

## 04/ Strategic Consulting for Long-Term Success

In addition to the sourcing of products, the lab also received tailored guidance and post-implementation support from Streamline Scientific's consulting team. Together, they:



**Optimized panel selection** to align with testing demand and better serve current customers



**Ensured rapid access to white-glove product support**, especially during the initial implementation period.



**Ensured COLA inspection readiness** by supporting them with on-site guidance, including material preparation to ensure a smooth audit process



**Established a roadmap for future panel expansion**, giving the lab a clear growth strategy to serve existing clients better and attract new ones

## The Result

Having the dual backing of **Molecular Designs** for PCR panels and **Streamline Scientific** for support meant the client was able to:



- ✓ Reduce time spent on assay prep



- ✓ Increase testing volume without adding staff



- ✓ Simplify inventory management



- ✓ Add instrumentation without operational delays



- ✓ Decrease PCR product waste



- ✓ Improve audit confidence



- ✓ Prepare for future expansion

“

*We were impressed not just with the products, but with the people behind them. From day one, the Molecular Designs and Streamline Scientific teams made it easy to implement, troubleshoot, and prepare for scale. Customer support is often what's missing in this space, and their customer success team far exceeded our expectations.”*

## A Better Path to **PCR Efficiency**

As the demand for molecular diagnostics grows, it was a streamlining of PCR workflows that gave the client a foundation to scale effectively and expand their regional impact. They found that doing so doesn't require excessive complexity – **just the right tools and the right team.**

