

# Turning Complex Questions into Sequencing Solutions

How AUGenomics combines scientific collaboration, flexible workflows, and Quantabio's sparQ DNA Library Prep Kit to help researchers tackle ambitious sequencing projects



AUGenomics



Hannah Dose, the Co-Founder and CEO of AUGenomics, helping researchers solve complex genomics challenges.

Some sequencing projects come with a well-established workflow. Others begin with a question that sounds more like a challenge:

**"We're not sure if this is even possible."**

For Hannah Dose and Suzie Alarcon, that's often where things get interesting. When they founded AUGenomics, they wanted to address a problem they had seen repeatedly while supporting sequencing projects: researchers were sometimes being held back by obstacles that had little to do with the science itself. Limited access to expertise. Inflexible workflows. Long turnaround times. Technologies that weren't designed around the biological question.

Their answer was to build something different. "We wanted to make genomics more collaborative, more accessible, and more adaptable," says Dose. "Rather than offering standardized, one-size-fits-all services, we work alongside researchers to design custom sequencing strategies that fit their specific scientific goals."

Today, AUGenomics supports an unusually broad range of projects—from whole genome and targeted sequencing to RNA sequencing, microbial genomics, epigenomics, immune repertoire sequencing, and environmental research.

No two projects are quite alike. And that's exactly how the team likes it.

## When the Science Doesn't Fit a Standard Workflow

Many AUGenomics projects involve challenging samples, low-input or degraded material, difficult tissue types, or experimental questions that don't have an established sequencing approach. Rather than seeing those challenges as roadblocks, the team embraces them as opportunities for scientific collaboration and creative problem-solving. Through these collaborations, AUGenomics can help develop new approaches, test unconventional ideas, and build workflows around the science, not the other way around.

"Our goal is to become an extension of our clients' team," says Dose. "We ask questions, brainstorm ideas, troubleshoot challenges, and celebrate discoveries together." That philosophy requires a careful balance between flexibility and reproducibility. Workflows need to adapt to different sample types and project goals while still delivering consistent, high-quality results.

For AUGenomics, that means looking beyond how a workflow performs on an ideal sample. Library complexity, coverage uniformity, reproducibility, robustness, and over all workflow efficiency all matter.

Ultimately, the goal is simple: Make sequencing the easy part. "We take on the technical complexity so our customers can stay focused on the science."

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## A Workhorse for DNA Sequencing

For DNA sequencing projects, Quantabio's sparQ DNA Library Prep Kit plays a key role in helping AUGenomics support diverse sample types and applications. "The sparQ DNA Library Prep Kit has become a main workhorse for DNA sequencing projects where consistent performance and workflow simplicity are priorities," says Dose. AUGenomics values the kit for its combination of robustness, flexibility, and reproducibility. The workflow is straightforward to implement and optimize, while its modular design allows the team to adapt it across different sample inputs and project types without sacrificing consistency.

That flexibility is particularly valuable in a service laboratory where no two projects are exactly alike. By standardizing around workflows that can accommodate a broad range of sample qualities while remaining adaptable to individual project goals, AUGenomics has also reduced the amount of troubleshooting and optimization required for new applications.

Less time overcoming technical limitations means more time collaborating with researchers, refining experimental designs, and helping answer ambitious scientific questions.

## Consistency from Library to Data

AUGenomics also utilizes the Element AVITI sequencing platform across whole genome sequencing, targeted sequencing, RNA sequencing, and microbial genomics. The team has been impressed by the platform's sequencing quality, Q-scores, and run-to-run consistency across varying library types and sample qualities.

For a service laboratory supporting diverse projects and customer requirements, AUGenomics values workflows that deliver dependable performance from library preparation through sequencing. The team has found that sparQ integrates seamlessly into AVITI-based workflows, supporting a wide range of applications while maintaining confidence in downstream results. "The biggest advantage has been the consistency of the overall workflow," says Dose. "Combining a straightforward, reliable library preparation process with a

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## Bigger Questions. More Possibilities.

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The combination has also improved laboratory efficiency by reducing hands-on time and streamlining sample processing. For AUGenomics, that's more than an operational benefit. It means technology can stay in the background while the scientific question stays front and center.

Looking ahead, the most exciting developments in the field for Dose are not tied to any single technology, but to the bigger questions researchers are now able to ask. Genomics is becoming increasingly multidimensional. By bringing together genomic data with proteomics, spatial biology, environmental exposures, lifestyle factors, and other biological information,

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