

# BioTech360 Strain Management App

## Centralize Strain Management for Faster R&D Innovations

Managing microbial strains is fundamental to pharmaceutical development, synthetic biology, and industrial biotechnology. The BioTech360 Strain Management App ensures structured, searchable, and traceable data, centralizing strain tracking in a robust, role- and strain-based access system. As part of the [BioTech360 scientific knowledge management ecosystem](#), the app seamlessly integrates into your digital R&D environment, including the BioTech360 Plasmid Management App, for a single source of truth and smarter, faster decision-making.



## Revolutionize Your Strain Management Workflows

While essential to breakthroughs in drug development, biomanufacturing, and research, managing microbial strain libraries without a dedicated system can lead to:

- **Data fragmentation** across teams and platforms.
- **Reduced efficiency** due to manual tracking and disconnected workflows.
- **Compromised quality** from incomplete lineage tracking and oversight gaps.

Our Strain Management App eliminates these challenges by providing a user-friendly, automated, and integrated approach, ensuring full traceability, streamlined operations, and enhanced collaboration.

## Key Features: Designed for Modern Labs

### 1. Centralized Data Management

- Store and manage microbial strain information, cell bank preparations, and metadata in a single system.
- Streamline workflows for registering, storing, requesting, and testing strains.
- Automates alerts for low stock levels prevent disruptions.
- Fully customizable for annotation, reporting, and business-specific workflows.

**Example:** A biopharma company centralizes its microbial libraries, linking strain data to storage locations, genetic modifications, and QC results. This significantly reduces retrieval times and eliminates errors in strain availability.

### 2. Enhanced Quality and Traceability

- Proven in validated bioscience and pharma environments since 2019.
- Simplifies quality management with built-in workflows for Viability, Purity, and Identity checks.
- Full audit trails provide traceability for strain handling, supporting documentation for internal and external review.
- Enables seamless documentation for knowledge retention and decision-making.

**Example:** A synthetic biology team preparing for an internal review quickly generates reports detailing strain lineage, transformation history, and QC test results, streamlining internal approvals and knowledge transfer.

### 3. Advanced Search and Retrieval

- Locate strains and metadata instantly with robust search tools.
- Retrieve storage details, growth conditions, QC tests, genetic information, and transaction histories in one view.

**Example:** Need a specific strain to replicate an experiment? Search by metadata, review genetic lineage, and confirm viability status—all in seconds.

### 4. Seamless Integration with Plasmid Systems and Experimental Workflows

- Links strains to plasmid transformations for complete genetic tracking.
- Integrates with LIMS/ELN systems and external tools for a unified workflow.
- Supports collaboration between the strain conservation unit, R&D, and manufacturing teams.

**Example:** A research team transforms E. coli strains with plasmids for protein production. By linking plasmid and strain data, they streamline their process from genetic engineering to performance assays, enabling faster optimization cycles.

### 5. Flexible Deployment & Legacy Data Integration

- Provides enterprise-grade security through both cloud and on-premises hosting options, allowing organizations to select the environment that best meets their operational needs.
- Facilitates the migration of existing strain data from legacy systems, ensuring that historical records remain intact and accessible within the new platform.

**Example:** A global biomanufacturing company leverages cloud-based hosting to provide worldwide access to strain data, improving collaboration across research sites and production facilities while maintaining full control over microbial assets.

## Strain Management that Adapts to Your Needs

### Key Advantages:

- **Comprehensive Tracking:** Monitor strain lineage, transformations, cell bank preparations, and stock levels with ease.
- **Optimized Workflows:** Reduce manual effort and improve accuracy with an integrated approach.
- **Customizable and Scalable:** Adapt workflows, annotations, and system configurations to match your needs.

### Use Cases Include:

- **Biopharmaceutical Production:** Track cell banks and ensure full oversight of strain handling.
- **Synthetic Biology:** Link engineered strains to plasmid data and assay results for streamlined workflows.
- **Industrial Biotechnology:** Manage large strain libraries for fermentation or biocatalysis processes.

## A VISION FOR THE FUTURE



Our Strain Management App empowers researchers and manufacturers to unlock the full potential of microbial research. The app optimizes strain workflows, connects with plasmid systems, and supports research and production goals. By centralizing data, integrating workflows, and ensuring traceability, we help you innovate faster and more effectively.

**TO LEARN MORE ABOUT** Smarter Strain Management, contact us at [lvsinfo@labvantage.com](mailto:lvsinfo@labvantage.com) for a demo of the Strain Management App.



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