



Molecular Bioengineering Research Outsourcing Services

Our molecular bioengineering research outsourcing services enable design, construction, and testing of novel biomolecular systems for therapeutics, diagnostics, and industrial applications.

Our Molecular Bioengineering Research Capabilities

Our team of bioengineers, molecular biologists, and synthetic biology experts employ advanced DNA assembly, protein engineering, and computational modeling for cutting-edge bioengineering solutions.

Types of Molecular Bioengineering Research We Handle

- Genetic Circuit Design
- Synthetic Biology Construct Development
- Promoter and Operator Engineering
- Gene Expression Modulation
- CRISPR-Based Gene Regulation
- Protein Engineering and Design
- Enzyme Engineering
- Metabolic Pathway Engineering
- Protein Scaffold Development
- Bioorthogonal System Design
- Cell-Free Synthetic Biology
- Microbial Strain Engineering
- High-Throughput Gene Assembly
- RNA Engineering and Switches
- Optogenetic Control Systems
- Biopolymer and Nanomaterial Synthesis
- Biosensor Development
- Gene Circuit Simulation and Modeling
- In Vivo Testing of Constructs
- Biocontainment System Design
- Regulatory Element Characterization
- Host Engineering for Production
- Metabolic Flux Analysis
- Dynamic Gene Regulation Studies

- Biomanufacturing Process Optimization
- Genome Editing Validation
- Regulatory-Compliant Bioengineering Reports
- Publication-Ready Bioengineering Data
- Cross-Lab Collaboration Projects
- Custom Molecular Bioengineering Projects

Key Research Outsourcing Services Offered

- DNA Synthesis and Assembly
- Custom Plasmid Construction
- Gene Circuit Validation
- Protein Expression and Purification
- Enzyme Activity Assays
- Metabolic Pathway Analysis
- Cell Culture and Transformation
- Strain Optimization for Yield
- Bioinformatics and Modeling
- High-Throughput Screening
- Fluorescence and Reporter Assays
- CRISPR/Cas Editing Verification
- Optogenetic System Testing
- Bioreactor Process Development
- Downstream Processing and QC
- Regulatory-Compliant Documentation
- Confidential Data Handling and NDA
- Periodic Progress Reports and Updates
- Stakeholder Presentation Support
- Publication-Ready Figures and Manuscripts
- Workshops and Training in Bioengineering
- Post-Project Technical Consulting
- Patent and IP Filing Assistance
- Grant Proposal and Manuscript Writing
- Custom Bioengineering Workflow Design
- Sample Archiving and Secure Backup
- Compliance with GLP and ISO Standards
- Integration with Biomanufacturing Units
- Data Security and Encrypted Storage
- Long-Term Bioengineering Partnerships

Why Choose Us for Molecular Bioengineering Research Outsourcing?

Our molecular bioengineering experts deliver reliable, innovative solutions and validated biomolecular constructs that drive breakthroughs in synthetic biology and biomanufacturing.

Industries & Sectors We Serve

- Pharmaceutical and Biotech Companies
- Industrial Biomanufacturing
- Diagnostics and Biosensor Companies
- Academic Synthetic Biology Labs
- Agricultural and Environmental Biotech
- Regulatory and Certification Agencies

Customized Molecular Bioengineering Solutions

We design genetic circuits, protein constructs, and metabolic pathways precisely tailored to your product goals, host systems, and production scale.

Quality Assurance & Regulatory Compliance

Our workflows adhere to GLP, ISO, and global synthetic biology guidelines, ensuring reproducible, audit-ready bioengineering data and reports.

Case Studies & Client Success Stories

Explore how our bioengineering outsourcing has delivered novel therapeutic proteins, robust biosensors, and efficient microbial factories for global innovators. References available on request.

How It Works: Our Research Outsourcing Process

1. **Requirement Gathering:** Define target genes, pathways, and construct goals.
2. **Proposal & Quotation:** Provide a detailed workflow, cost estimate, and timeline.
3. **Lab Execution:** Perform gene assembly, expression, testing, and analysis.
4. **Data Reporting:** Deliver validated constructs, analytical data, and compliance-ready reports.
5. **Post-Project Support:** Offer consulting, scale-up support, and IP assistance.

Frequently Asked Questions (FAQs)

Q: Do you design custom gene circuits?

A: Yes — we build and validate synthetic circuits for diverse applications.

Q: Can you assist with strain engineering for production?

A: Absolutely — we optimize hosts for maximum yield and stability.

Q: How secure is my proprietary design?

A: Strict NDAs, encrypted storage, and compliance with data privacy ensure total confidentiality.

Get Started / Request a Quote

Contact us today to discuss your molecular bioengineering project and receive a custom plan, timeline, and cost estimate aligned with your innovation goals.

Contact Us

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