

BioSynthAI™

Synthetic Biology Engine



Gene Design Optimization

- Gene sequence optimization & prediction
- Promoter & regulatory element design
- Metabolic pathway design; genetic element assembly



Strain Screening & Evolution

- High-throughput strain screening; directed evolution design
- Biosensor development; phenotype prediction analysis
- Strain adaptability simulation; growth condition optimization



Bioprocess Control

- Real-time fermentation parameter monitoring; yield prediction
- Metabolic flux analysis; inhibitor identification
- Intermediate product detection; production condition optimization



Intelligent Production Integration

- Production scale-up evaluation; pilot data analysis
- Biosafety risk assessment; product purity control
- Equipment compatibility analysis; production efficiency optimization

Application Scenarios

Green biopharmaceuticals
Industrial enzyme development
Biofuel production
Biomaterial synthesis

Why Choose Ainnocence?

- 1 Multi-omics data integration driven
- 2 Synthetic biology expert models
- 3 Experimental data validation
- 4 Rapid delivery: Hours to two weeks