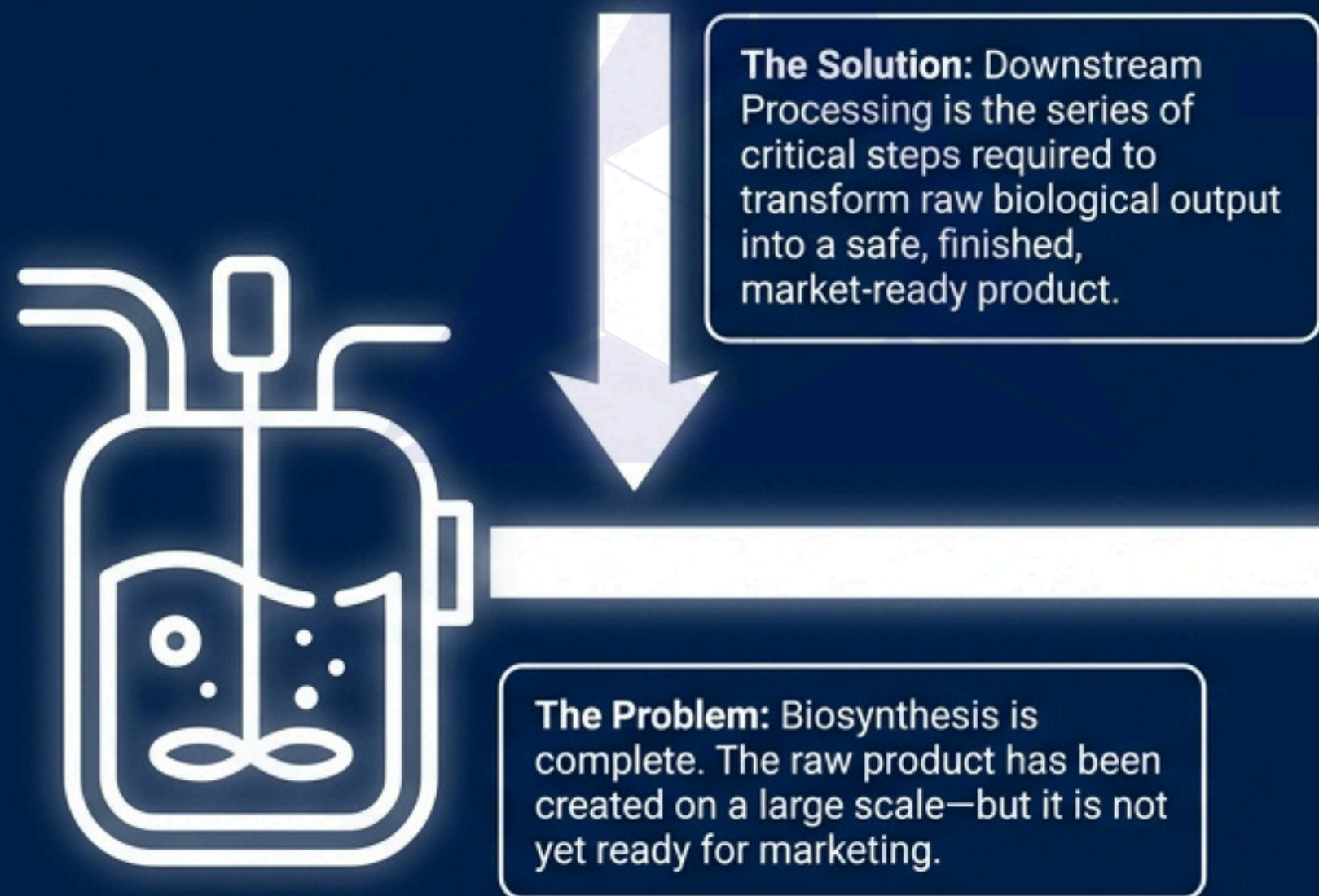


Downstream Processing: Making the Product Ready



Step 1: Separation & Purification



Separation: Isolating the target product from the bulk cellular mass and culture medium.

Purification: Refining the isolated product to remove all remaining micro-impurities, achieving a highly concentrated active state.



You've Learned the Theory. Let's Test Them Now.

$$E=mc^2$$



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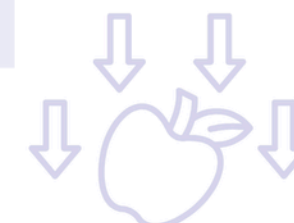
Practice Now



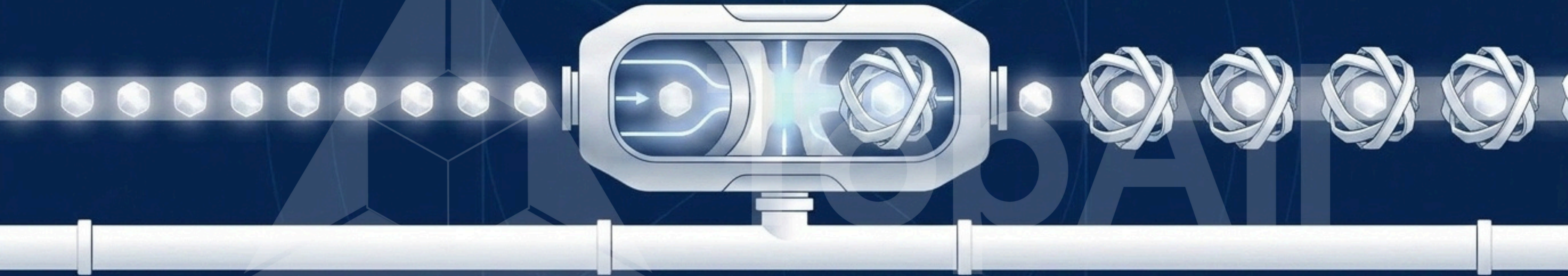
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Key Highlights

- » Free Study Material, Videos & Infographics
- » Push Your Limits with Level-Based Challenges
- » Climb the Leaderboard Among Fellow Aspirants
- » Practice Unlimited MCQs for NEET & JEE
- » Get Clear Explanations, Not Just Marks
- » Track Your Performance Smarter



Step 2: Formulation & Stabilization



The Vulnerability

A highly purified biological product is often fragile and unstable on its own.

The Formulation

The product is carefully mixed with suitable preservatives and stabilizing agents.

The Goal

Ensuring long-term shelf-life and viability for real-world distribution.

Step 3: Clinical Trials & Quality Control

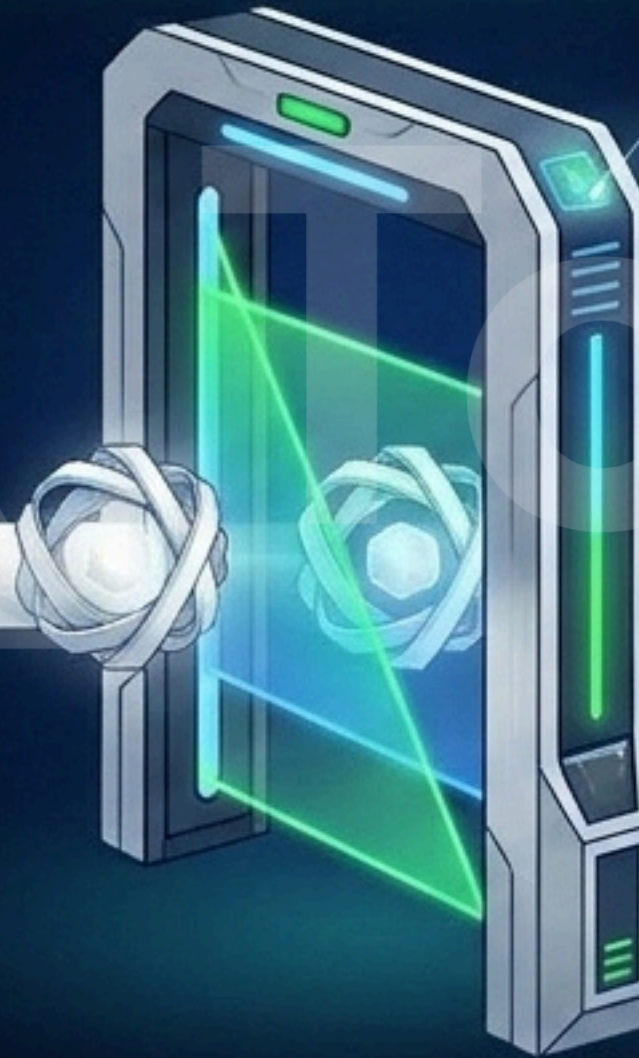
✓ QUALITY MILESTONE 03
QC PASSED & APPROVED

Clinical Trials

Particularly in the case of drugs, the formulated product must undergo thorough clinical trials to definitively prove human safety.

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Strict Quality Control (QC)

Every batch undergoes rigorous testing to ensure exact concentrations, purity, and performance standards.

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Every batch undergoes rigorous quality control testing to ensure exact concentrations, purity, and performance standards.

The Path to the Market



Key Insight: Process Variability: While this overarching pipeline remains constant, the exact downstream processing methods and specific quality control tests vary significantly from product to product based on their unique biological properties and intended use.



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