

Precision Phytotherapy Blueprint (B1.7): Asthma

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1 Executive Summary & Advisor Review

Asthma pathophysiology is a complex interplay of inflammatory mediators. This blueprint moves beyond symptomatic relief to target the Th2-driven inflammatory cascade using a high-bioavailability Phytosomal Triple-Complex.

Strategic Mirror: The primary risk factor is the metabolic interference with standard-of-care (SoC). Quercetin's inhibition of CYP3A4 must be managed to prevent unpredictable steroid levels. Landry Industries must prioritize companion diagnostics for CYP profiling to ensure the safety of the "Organic Revolution."

2 Phase I: Foundational Research & Hypothesis

2.1 Target Mechanism Identification

We target the **Type 2-high (Th2)** endotype:

- **Target 1: CysLT Receptors:** Mediators of bronchoconstriction.
- **Target 2: Th2 Cytokines ($IL-4$, $IL-5$, $IL-13$):** Orchestrators of eosinophilic recruitment.

2.2 Generate Testable Hypothesis (H_T)

The administration of a Phytosomal Triple-Complex (Quercetin 500mg, Curcumin 500mg, and Nigella sativa 500mg) twice daily will significantly reduce airway hyperresponsiveness and plasma $IL - 5$ levels in patients with eosinophilic asthma compared to placebo.

3 Phase II: Preclinical & Safety Analysis

3.1 Pharmacogenomic Vetting

- **Curcumin (CYP2D6/CYP3A4):** May inhibit CYP2D6 activity; critical for patients on specific beta-blockers.
- **Quercetin (CYP3A4/2C9):** Potent inhibitor of CYP3A4; potentially increases serum levels of inhaled corticosteroids (ICS).

3.2 Advanced Delivery Strategy (H_DEL)

Proposed System: Phytosomal Phospholipid Complex. By complexing polyphenols with phosphatidylcholine, we bypass traditional absorption barriers, achieving up to 20x higher plasma concentration.

4 Phase III: Clinical Protocol Blueprint

4.1 Trial Parameters (PICO)

- **P:** Adults (18-65) with persistent eosinophilic asthma.
- **I:** Phytosomal Quercetin/Curcumin/N. sativa blend (1500mg daily).
- **C:** Placebo (microcrystalline cellulose).
- **O:** Change in FEV1 (Forced Expiratory Volume) and FeNO levels.

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