

From Sample Iteration to Controlled Gummy Validation

Product architecture, process definition and technical governance for three distinct kids' gummy formulas: Smart Focus, Immune Guard and Growth & Bone.

STARTING POINT	IMMEDIATE FOCUS	STAGE REACHED
Three formulas; one shared platform	Immune Guard lead formula	Bench base validated; pilot path defined

THE ENGAGEMENT IN ONE VIEW

- 01

Initial development
Promising concept; process not yet controlled
- 02

Baseline recovery
Requirements and development history reconciled
- 03

System definition
Formula and process variables separated
- 04

Validation pathway
Base-only trial before full-actives pilot



IMMUNE FORMULA FLAVOR STUDY

Strawberry | Blueberry | Green apple

WHAT CLS CHANGED

The work replaced open-ended sample iteration with a controlled validation program built around defined evidence, decision gates and manufacturer accountability.

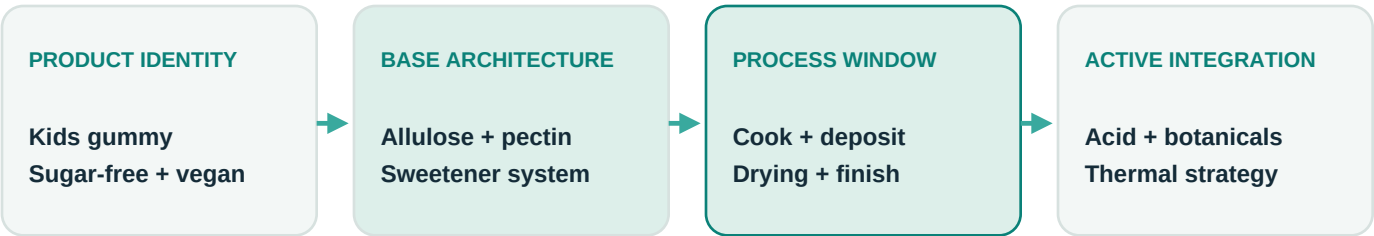
CLIENT OUTCOME

A defined sugar-free pectin baseline, a structured base-to-actives validation sequence and a documented technical path for manufacturer-led pilot execution.

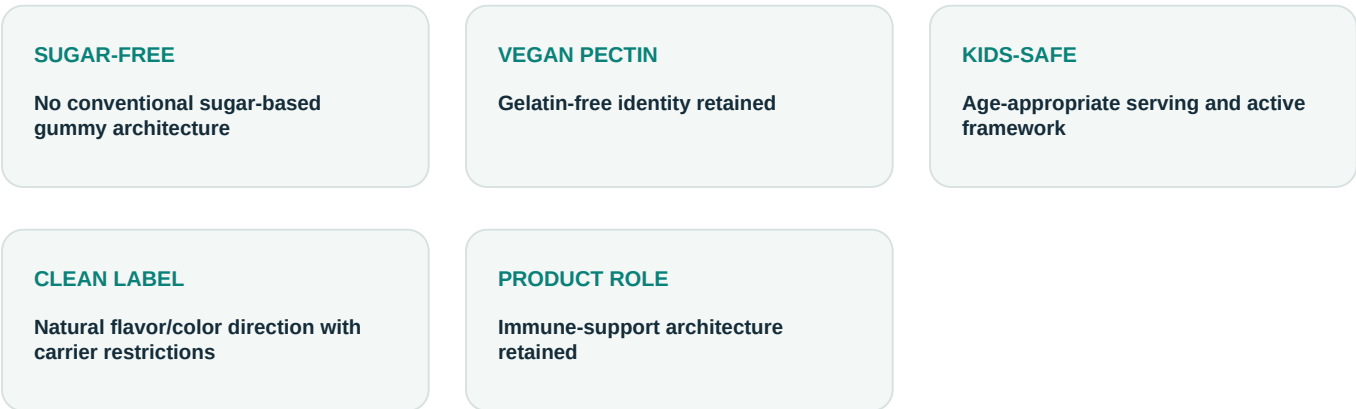
The gummy was a system - not a recipe.

Sugar-free pectin gummies are defined as much by processing as by composition. The formulation, thermal history, deposit conditions and drying behavior had to be managed as one interconnected system.

SYSTEM LOGIC



WHAT HAD TO REMAIN FIXED



WHAT COULD BE ADJUSTED THROUGH VALIDATION



CORE PRINCIPLE

The formula could not be approved independently from the process required to manufacture it reproducibly.

Samples became evidence only when the questions were defined.

The project moved from a single early Immune sample into a comparative flavor study using the Immune formula across strawberry, blueberry and green apple. These samples supported flavor development; they did not represent the separate Smart, Immune and Growth formulas.



EARLIER IMMUNE SAMPLE

Established a tangible starting point for texture and sensory review

Earlier image edited solely to remove identifying label text.



LATEST IMMUNE FLAVOR STUDY

One formula evaluated across three flavor/color directions

CONTROLLED DEVELOPMENT RESPONSE

1

Recover the baseline

Reconcile the intended formula, actual sample conditions and any deviations before drawing conclusions.

2

Isolate the base

Validate the sugar-free pectin system before reintroducing the complete active matrix.

3

Define the evidence

Require process parameters, physical measurements, observations and written success criteria.

4

Gate the next step

Advance to a full-actives pilot only after the base/process data support a written decision.

The images establish real sample development. They do not establish long-term stability, potency retention, reproducibility at scale or commercial-production approval.

A controlled path forward - not another sample request.

The deliverable was a decision system connecting product requirements, formula variables, process controls, sample observations and manufacturer responsibilities.



CURRENT SAMPLE DETAIL

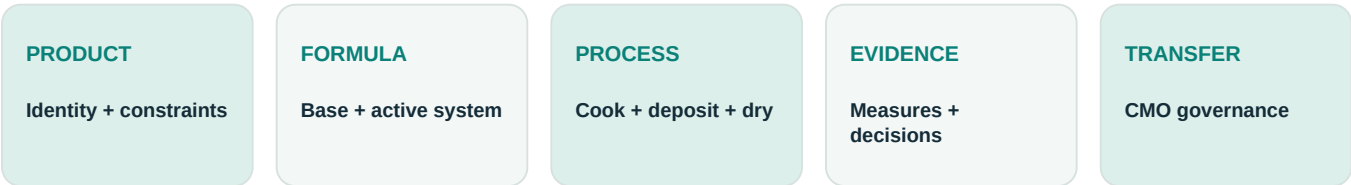
Close inspection supported evaluation of shape, translucency, surface condition and visible air-void patterns.

Authentic development sample photographed during review.

WHAT THE CLIENT COULD MOVE FORWARD WITH

- Consolidated technical baseline
- Locked requirements and adjustable levers
- Base-only process-validation plan
- Defined measurements and acceptance criteria
- Full-actives pilot entry conditions
- Deviation and trial-readout expectations
- Framework reusable across future gummy SKUs

CLS SCOPE ACROSS THE DEVELOPMENT SYSTEM



THE RESULT

From open-ended sample iteration to a controlled gummy-validation program with a bench-validated base, defined decision gates and a documented path to full-actives pilot execution.

CLEAN LABEL SUPPLEMENTS

Supplement Product Architecture | Formulation | Compliance | CMO Transfer

This case study is based on a real engagement. Client identity, formula quantities, suppliers and manufacturers have been withheld or generalized.