



FORTITUDE BIOCUISINE™

"Food is the most powerful tool in medicine that healthcare never built infrastructure to use."

Fortitude BioCuisine™ is building the first clinical culinary platform designed to measurably improve outcomes for patients suffering from cancer cachexia and treatment-related malnutrition.

Built in collaboration with Johnson & Wales University

THE PROBLEM

Cancer cachexia is killing patients in plain sight.

If you have ever watched a loved one disappear before your eyes — skin thinning, muscles vanishing, strength leaving — that is cachexia. It is not just weight loss. It is systemic metabolic collapse driven by inflammation. It affects up to 80% of advanced cancer patients and contributes to approximately 33% of cancer mortality — nearly 250,000 deaths per year in the United States alone. Patients in treatment exist in a state of metabolic purgatory: massive pharmacologic inputs, constant immune assault, and a body already on the edge. When these patients enter hospice, they are not even offered feeding tubes.

80%

Advanced cancer patients affected by cachexia

33%

Cancer deaths attributable to cachexia

6,457

Clinical trials attempted — 99.7% failure rate

THE INSIGHT

No one asked the right question.

"Not whether cookware causes cancer — whether it exacerbates it."

For a decade, the focus has been on prevention and cure. But what about the people stuck in the middle — actively in treatment, their bodies in constant metabolic stress? We know heavy metals elevate inflammatory markers. We know certain cookware materials can leach trace metals under heat. We know inflammation is the engine of cachexia. But no one has formally evaluated whether reducing environmental exposure load in actively treated patients changes measurable outcomes. That is the question Fortitude is designed to answer.

📄 "In a body already on the edge — does incremental environmental exposure tip the scale?"

DIFFERENTIATION

Fortitude connects four systems that have never been combined.

Culinary Expertise

Chef-developed, protocol-controlled recipe architecture engineered for clinical outcomes

Ingredient Intelligence

Provenance tracking and material composition data across the full supply chain

Independent Validation

FDA-registered third-party laboratory testing for rigorous, unbiased signal detection

Clinical Infrastructure

Biomarker-driven outcomes framework aligned to NCI-grade methodological standards

The result: the first clinical culinary platform. Not a meal kit. Not a supplement. An intervention system.



MARKET GAP

Three industries. Zero integration.

No institution has integrated clinical science, food supply chain intelligence, chef innovation, and independent biomarker validation into a single platform. Until now.

Healthcare

Focused on drugs, pharmacologic intervention, and molecular targets. Food treated as logistics — never as a clinical variable.

Food Industry

Focused on scale, cost, and shelf life. Clinical outcomes are not a design variable. Patient context is invisible.

Culinary Arts

Focused on flavor, creativity, and technique. No clinical validation infrastructure exists in professional kitchen culture.

📄 **Fortitude connects them.** The gap between these three industries is not a market weakness — it is the white space that defines Fortitude's defensible position.

A self-reinforcing clinical culinary platform.



Each cycle strengthens the platform. Data improves outcomes. Outcomes drive adoption. Adoption attracts more institutions and chefs.

AI Culinary Intelligence

Ingredient Certification

Kitchen Certification Program

A disciplined, capital-efficient validation ladder.



Phase 1 — Power of Seven Pilot

JWU structured culinary competition with standardized preparation variables and FDA-registered independent food testing. **Milestone:** Independent validation dataset and signal detection.



Phase 2 — Power of 300 Clinical Program

Multi-institution clinical study with biomarker-driven outcome measurement across enrolled cachexia patient populations. **Milestone:** Publishable data and institutional adoption pathway.



Phase 3 — Protocol Deployment

Licensing to hospitals and health systems, recipe library certification, and culinary intelligence analytics. **Milestone:** Scalable clinical impact and recurring revenue.

☐ Phase I generates publication-quality data regardless of effect direction. **This is not a binary bet — it is disciplined translational science.**

A fundamentally different risk–capital profile.

Traditional Drug Development

- \$20M–\$100M+ capital requirement
- High toxicity risk across patient populations
- Extensive regulatory burden and approval timelines
- Multi-year attrition with binary outcomes
- Significant failure rate at each phase gate

Phase I Structured Validation

- \$500K total structured round
- Non-pharmacologic intervention – zero toxicity risk
- Defined, measurable biomarker endpoints
- Publishable outcomes regardless of effect size
- Institutional validation pathway from Day 1

\$500K

Phase I Total

Full structured validation round

\$100M+

Drug Development

Comparable pharmacologic programs

200x

Capital Efficiency

Relative to traditional cachexia drug development

Non-pharmacologic. No toxicity risk. Valuable data in every outcome scenario.

PHASE I CAPITALIZATION

\$500,000 Structured Round — Two-Tranche, Milestone-Aligned

Purpose: Pilot Study Completion

- Standardized ceramic heat-interface protocol implementation
- Barrier-controlled preparation methodology deployment
- Biomarker collection infrastructure and statistical oversight
- Data architecture and documentation systems
- Fractional scientific leadership engagement
- IP groundwork and filing preparation

Milestone: Formal pilot dataset with biomarker correlations, suitable for peer review

TRANCHE II — \$250,000

Purpose: Institutional Readiness

- Protocol refinement from pilot findings
- Scientific and clinical advisory board formalization
- Multi-site institutional partner discussions
- Regulatory pathway and reimbursement mapping
- Phase II budget architecture and planning

Milestone: Institutionally ready Phase II launch package

☐ Capital deployed only upon achievement of defined scientific milestones. Tranche II releases exclusively following successful completion of Tranche I deliverables.

Multiple recurring revenue streams from a single validated platform.



Protocol Licensing

Hospitals and health systems license validated preparation protocols directly into existing food service infrastructure



Recipe Library Licensing

Institutional access to the CACHEXIT™ recipe and culinary database, continuously updated with new validated protocols



Ingredient Certification

Standards-based certification for compliant ingredient suppliers, creating a recurring certification renewal revenue stream



Kitchen Certification

Facility and program certification for clinical food preparation environments within hospital systems



Culinary Intelligence Analytics

AI-assisted ingredient and outcome data services, generating ongoing SaaS-style recurring revenue



Publishing & Education

CACHEXIT™ Library of Hope, cookbooks, and patient-facing educational materials

Fortitude upgrades existing hospital food infrastructure — systems already outsourced to Sysco, Aramark — with validated clinical protocols.

Adoption friction is dramatically lower than standalone systems.

FOUNDER

Paula Jagemann — Founder & Chief Visionary Officer

For the past ten years — morning, noon, and night — Paula has focused on one problem: cancer cachexia. Not as a professional detour, but as a decade-long systems-level commitment rooted in a question no one else was formally asking. This initiative represents the third structured evolution of founder-led oncology-focused ventures over a fifteen-year period, each reflecting progressive refinement of scientific understanding and operational execution within the cancer care domain.

Significant personal capital has been deployed to de-risk early thesis development prior to external capitalization. Senior leadership supporting National Cancer Institute research operations under SAIC has advised that external capitalization is now essential as the project transitions into formal clinical validation. Paula's approach is that of a systems architect: identifying gaps that large institutions are structurally unable to see, then building the infrastructure to fill them.

15 Years

Oncology-focused venture development

10 Years

Exclusive focus on cancer cachexia

JWU Partner

Johnson & Wales University
collaboration

Cachexia has been studied for decades. No one built the kitchen.

Fortitude builds the kitchen.

If this work succeeds, food becomes a validated clinical intervention. Hospitals adopt culinary protocols designed for patient outcomes. Chefs, scientists, and clinicians collaborate through a shared platform. The CACHEXIT™ Library of Hope grows alongside the communities it serves. Fortitude becomes the global standard for clinical culinary nutrition – the infrastructure that medicine forgot to build.

Capital Efficient \$500K structured deployment	Milestone Driven Two-tranche alignment
Evidence Based Rigorous signal detection	Institutionally Aligned NCI-standard methodology