

BRYAN QUOC LE, PH.D.

Food Science Consulting Services

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Consulting Services

SavorFlavor Analysis (NEW)
One-on-One Consulting Calls
Nutrition Facts and Ingredient Labeling
Food Safety Evaluation
Food Formulation Evaluation
Food Product Design
Food Product Prototyping
Food Manufacturing Liaison



SavorFlavor Analysis (NEW)

CHALLENGE

Savory product formulation currently requires significant trial-and-error, as there are so many factors that can impact the final taste, flavor, and texture of the food product. The design of a food formulation can take several months, or even years, as every combination is created, tested, and evaluated to optimize for its desirable qualities. And by the time a food product completes the product development cycle, it may be too late to capture the latest trending flavors demanded by consumers.

OPPORTUNITY

Our SavorFlavor Analysis can quickly pinpoint the precise chemical signatures in a formulation that give rise to the majority of the taste features desired by consumers. Using these data, we can work through the design of a new food formulation with fewer iterations. We focus on the taste features that have been established by the research to be the most essential for consumers. This allows us to quickly develop new formulations and design food product prototypes with greater chance of being a hit with target consumers. Our analysis helps drive rapid product innovation, accelerating the product development cycle, increasing efficiency of research and development investments, and creating more opportunities for blockbuster hits.

OUR APPROACH

We draw on our proprietary software developed from **The Human Flavorome Project** to power our taste insights. Our approach transforms food formulations into quantitative values that match the intensity of human taste perception and preferences based on key metrics captured from digital communities. Based on decades of research into taste physiology and human preference, our analysis service provides you with an efficient map forward towards food product dominance.

CASE STUDY

A client approached us to design a savory Asian seasoning based on a successful brand and product already on the market. The client desired a similar flavor intensity as the seasoning but using a different flavor source. We applied our analysis to the product formulation to estimate the desired flavor intensity, and used those values to reverse engineer the original branded product. From there, we were able to quickly construct a prototype seasoning that matched the needs of the client and provided the same umami that was requested.

BENEFITS

- Reduce product development cycles and reach target markets faster.
- Lower research and development costs by targeting only the highest potential leads.
- Quickly discover insights into the taste and flavor of formulations with chemical precision.
- Rapidly and quantitatively compare your food product against competitor formulations.
- Determine the best approach for ingredient substitutions and formulation changes to achieve market success.

COST: \$497.00



One-on-One Consulting Calls

CHALLENGE

There are few opportunities to connect with high-quality experts in the food science space when you're a small business concern or startup with limited funding. Chances are that you don't know where to look for quality information to lead you to the right business decision in your food business or company. And sometimes, you just need to chat through your current technical challenges with someone that has the background and knowledge to guide you along your food entrepreneurial journey.

OPPORTUNITY

Dr. Bryan Quoc Le offers direct consultations over the phone or over video conferencing to work through your food technical challenges in real time. Whether that means discussing technology options for addressing food spoilage concerns or assessing the lifetime value of an investment into food processing equipment, Dr. Bryan Quoc Le is able to draw on his years of experience in the food industry and academic research to give you the best chances to survive the competitive food industry. He will sit down with you to work through your technical issues and make sure that you leave the discussion with actionable choices as you move successfully navigate your food business.

OUR APPROACH

We use our extensive experience pulling together key insights from research papers and technical documentation to quickly evaluate an ongoing or future potential issue. Our approach cuts through the noise and bring you real solutions. This allows us to map out similar scenarios that have been problem-solved by researchers and food scientists in the past. Our solutions are based on rational scientific evidence that provides you with a sure-fire way to work through major roadblocks impeding the commercial success of your food product.

CASE STUDY

A client reached out to address food processing issues that were occurring on-site at the production facility that morning. He shared the background of the situation, in which a technician had accidently included an ingredient that was not meant to be part of the formulation. After providing more detail about the concerns faced by the client, Dr. Bryan Quoc Le outlined strategies to mitigate the risk of serious spoilage or contamination downstream. He also worked with the client to determine the best next steps in terms of food safety and microbiological testing to ensure that the product remained safe despite the modifications to the production protocol. After the phone call, the client was able to rest easier over the weekend knowing that his company did not need to dispose of all the product that was just produced that day and lose significant amounts of revenue in the process.

BENEFITS

- Fast analysis and problem-solving on the fly to ensure the best outcome.
- Actionable steps outlined during consulting call to overcome technical challenges.
- Draw on years of experience addressing food production and processing concerns.
- Save time not having to go through the process of technical decision-making alone.
- Find solutions without the headache and hassle of poring over technical papers.

COST: \$350.00 Per Hour



Nutrition Facts and Ingredient Labeling

CHALLENGE

Every food product is required by the FDA to have an accurate, compliant nutrient facts and ingredient panel on the product label. However, product testing can be costly and time-consuming, and formulations can quickly change as you develop new product designs or pivot to address processing changes. These minor modifications can add up in a very costly investment.

OPPORTUNITY

We're able to provide quick-turnaround services for the design of nutrition facts and ingredient labeling solely based on your product formulation. We can also quickly redesign the labels from formulation changes as needed.

OUR APPROACH

We break down the ingredients in your formulation into their component parts and use data from the United States Department of Agriculture (USDA) to reconstruct the nutritional profile of your product. We then draw on the latest FDA requirements for nutrition labeling, including the current need to include added sugars, updates to serving sizes, and changes to mineral nutrient requirements. We use the established daily values for adult (or infant/toddler) human needs to calculate the daily values achieved from a serving size. These values we input into our nutrition facts and ingredient label designer, giving you the label in digital format for easy printing with your chosen label printer.

CASE STUDY

A startup company reached out to request a nutrient facts and ingredient label for their new food product. The product did not have a similar product on the market and would have required extensive chemical testing to determine its composition and nutrient content. This would have increased the time to market, which the team did not have as they needed to reach key milestones that would eventually result in a startup pitch event to gain the attention of investors and venture capital. They also needed to be able to pivot and change their nutrient facts and ingredient label quickly with each change to the food formulation.

We worked with the company to construct a spreadsheet tool that could automatically calculate the nutrient values of the product with every change to the formulation. We were also able to design nutrient facts and ingredient labels based on the chemical composition of the ingredients, so we could bypass the need for expensive and time-consuming chemical testing. The company was able to achieve their target milestones and succeeded in securing an initial seed investment from their pitch competition.

BENEFITS

- Multiple options to create the right labels for your product needs.
- Fast design production without compromising on technical accuracy.
- FDA-compliant nutrient facts and ingredient labels on-demand without the headache.
- Quickly iterate new food product formulations without incurring major laboratory testing costs.
- Trust the expertise of a seasoned food scientist capable of understanding nuances in food product nutrition and ingredients.

COST: \$997.00 (+\$99.00 for Revisions or Updates)



Food Safety Evaluation

CHALLENGE

Food safety regulations are a complex subject with many rules to follow. To make matters worse, each state has its own specific interpretation of these food laws and need to be coordinated with other states if the food product is to be sold across state borders. And the liability associated with a potential food recall or outbreak of a food-borne disease can easily create a litigious scenario that can easily bankrupt a food company.

OPPORTUNITY

We offer our services for evaluating the potential food safety risks, challenges, and solutions of your current food product formulation. We work with you to limit compromising your food product vision while designing a process and food product that can withstand the rigors of transport, distribution, and storage. We help you limit the risk of producing a food product that can harm your customers.

OUR APPROACH

We work with you to review your current product formulation and processing, as well as the business goals you want to achieve with your product and the target consumer market that you hope to capture with your product. We will evaluate the regulatory status of your product and the food safety need of your geographic location. We will also work with you to determine what processing options you have to achieve a safe, stable product that can distributed, stored, and transported without serious risk to the consumer.

CASE STUDY

A client approached us with a challenging situation, in which the food product was struggling to achieve its labeled best by date. Each production batch experienced serious problems arising from rapid growth of molds and bacteria associated with poor hygienic production conditions. There was very limited research literature associated with this product, as it was a novel non-dairy analogue with ingredients that were not commonly found in conventional dairy. The client sought our assistance to guide them in addressing these production challenges.

We visited the production facility on-site and discovered that it was inadequate to produce the food product in question and the process used would not achieve a sufficient reduction in microbial growth. We recommended a combination of a clean-label preservative, a heat treatment process, and substituting a high-risk ingredient with a lower risk version with similar taste properties. We eventually worked with the client to transition them to a co-manufacturer, where they could greatly mitigate the risk of producing their product in an established, certified food manufacturing facility.

BENEFITS

- Research-backed recommendations sourced from primary sources in the technical literature.
- Deep understanding and expertise in flavor chemistry and recognizing the potential impact of processing conditions and ingredients on taste and flavor.
- A battery of processing options and conditions available to explore and achieve a safe, low-risk food product.
- Collaboration with the current formulation to achieve auxiliary goals, such as marketing and nutrition.
- Connections with trusted third-party testing laboratories and ingredient suppliers.

COST: \$1,497.00

"We consulted Bryan as a Food Scientist assessor of our beverage concept. He is very knowledgeable, extremely quick to reply, has a quick grasp of what you, as a nonscientist, are exactly looking for and delivers in a timely and correct manner. Please consider Bryan if you are looking for a solid scientist partner to help you advance your projects in an efficient way."

Jessica Roozen | Business Development Director | Selayia
Investment



Food Formulation Evaluation

CHALLENGE

Consumers nowadays are seeking healthier, cleaner, and less processed food product options than previous generations. They are interested in seeing food labels with pronounceable ingredients, no synthetic dyes or preservatives, natural flavors, and organic certifications. Other market opportunities include the continuously growing trends in the ketogenic diet, zero-calorie sweeteners, and high-protein desserts. However, these changes to formulations can have a negative impact on taste, flavor, texture, quality, and shelf-life stability. While there is a growing market for ingredients that can achieve a clean-label ingredient panel, it remains unclear if they are as effective as their synthetic counterparts. These challenges become more acute when a food product requires preservatives to prevent the growth of dangerous food-borne pathogens.

OPPORTUNITY

We have worked with many clients to reformulate their food products to achieve a cleaner ingredient label, meet organic certifications, and improve the nutritional quality. We understand the challenges linked to replacing ingredients and how they can impact taste and flavor, the factors that remain the most important for consumers today. We'll also work with you to find the right substitute that minimizes these negative effects while still achieving your business goals of penetrating the clean-label or organic food market.

OUR APPROACH

We work with you to better understand the needs of your target consumer market, especially as it pertains to the ingredient panel and nutrition facts. Whether that means you're seeking a keto-friendly variation of a currently available food product, need an organic version of a formulation, or seeking to remove synthetic dyes and preservatives, we'll find the right solutions for you to achieve your product. We'll also share with you what we believe will be the challenges to processing, scaling, and commercializing the product, as well as guidance and recommendations to mitigate these challenges.

CASE STUDY

A client reached out to us to reformulate a popular beverage syrup using both clean-label and low or zero-calorie ingredients. The major challenge was replacing the sugar with the right combination of natural zero-calorie sweeteners to achieve the same taste profile. We used a combination of flavor enhancers, bitter blockers, and natural sweeteners to create a duplicate beverage syrup with a much lower calorie profile. We also successfully applied the sweetener stacking principle to ensure each natural sweetener included would not exceed the threshold that can cause bitterness, off-flavors, or a lingering metallic taste. We further tackled the coloring and were able to achieve a similar viscosity, color, and stability as the conventional beverage syrup.

BENEFITS

- Intimate knowledge of how clean-label and organic ingredients can impact taste and flavor.
- Reduce the risk of creating negative qualities in the food product following substitutions.
- Vast knowledge and breadth of clean-label and organic ingredients, and how they can be used in lieu of their synthetic counterparts.
- Connections to trusted third-party suppliers of clean-label and organic ingredients for prototyping and scaling.

COST: \$1,997.00



Food Product Design

CHALLENGE

You have a great idea for a food or beverage product. You're confident that there's a hungry market and you've been able to make a rough prototype in the kitchen to share with your friends and family, who love it. But you're not sure if the product is commercially feasible to manufacture. And you're definitely not sure how much the product will cost and if you'll be able to generate a profit from selling the product, especially in the highly competitive food industry.

OPPORTUNITY

We'll review your food product and determine the total cost of production through our systematic approach for accounting. We'll also outline the possible challenges you'll experience in manufacturing, scaling, and distributing. That way, you'll have a clear path forward on whether or not to continue pursuing the project.

OUR APPROACH

We break down each of the individual components of your product and the processes involved in its production. We'll then apply our insights into the food manufacturing process combined with research knowledge combed from the technical literature. With these data, we'll build a simulated model of the inputs involved in your product and account for all the costs involved in its creation, packaging, and transportation. Together, we'll work with you to evaluate ingredients that may have limited supply or fluctuation prices and figure out the commercial viability of the product with our research-backed recommendations on how to reduce cost, improve production efficiency, or enhance product stability for transport and storage.

CASE STUDY

A venture-backed startup came to us to evaluate the commercial viability of designing a flavor production facility a geographical region with limited agricultural productivity. The client outlined the desired inputs for the production facility, which included the abundant supply of a specific crop grown in the region, and the value of the output. The client wanted to avoid specific processing conditions that would increase the cost of production. With these parameters in mind, we were able to construct a simulated chemical process that would take the low-cost agricultural material and convert the material into the high-value, food-grade flavor product. The economics of the production were laid out in detail to provide the client more information to make a decision on investing into the production technology in that region.

BENEFITS

- Trusted experience in building simulated models and designs of food production processes for various food products.
- Fast turnaround for economic and cost projections to allow for rapid decision-making in uncertain markets.
- Keen understanding of the relationship between business needs, economic viability, and current food technology.
- Holistic perspective to achieve cost estimates without compromising on detailed resolution of specific steps, processes, and ingredient components.
- Ability to project costs across other novel technologies entering the food sector, including biotechnology, precision fermentation, and cellular agriculture.

COST: \$2,998.00



Food Product Prototyping

CHALLENGE

With a market opportunity in your sights, you're ready to seek out investment from friends and family, angel investors, family offices, and venture capital. Your pitch deck is ready, you have your market projections on hand, and you're confident you can bring value to the consumer through your food product. The problem? You don't actually have a physical product to showcase to potential partners and stakeholders to bring your vision to life.

OPPORTUNITY

Our flagship service is our food product prototyping, which gives clients such as yourself the chance for stakeholders to touch, smell, and taste your food vision. We've honed our skills and earned our chops developing food products for food entrepreneurs, startups, and established companies, so we know what's involved in the process. Together, we'll take your vision and transform it into a ready-to-eat prototype for the world to enjoy.

OUR APPROACH

Dr. Bryan Quoc Le, selected as Food Science Consultant of the Year (2023) and his company as Food Science Consulting Company of the Year (2024) by LUXLife Magazine, has partnered with **Patric Food & Beverage Development**, a world-class, boutique food product development firm led by Dr. Alan McClure. The team at Patric Food & Beverage Development possesses decades of experience working with food products, beverages, and flavors, especially in the confectionary space. Dr. Alan McClure was the original creator and flavor designer of Patric Chocolate, which won a total of 26 Good Food Awards. We've joined forces, incorporating our analytical food design tools into their practical expertise and state-of-the-art food research laboratory. Together, we are sure to bring delight to your potential consumers and investors with our creations.

CASE STUDY

A client connected with us to develop a beverage syrup using zero-calorie sweeteners and clean-label ingredients. We built out the foundation for the sweetener to give the same intensity sweetness as the conventional version of the syrup and constructed the preliminary design for the caramel coloring. Patric Food & Beverage Development finalized the flavorings of the syrup and implemented a novel caramel coloring with low 4-methylimidazole (4-MEI) to address regulatory concerns around California's Proposition 65 law. We were able to design the beverage syrup to achieve the client's stated specifications using our combined expertise.

BENEFITS

- A world-class product development team, led by two of the foremost food scientists in product development, within reach.
- The most advanced food design software and analysis tools combined with unmatched flavor creation expertise.
- Research-backed insights forged from practical, in-depth product development experience.
- Low overhead with costs estimated on a per-project basis.
- Flexible pricing based on value.
- Ongoing client communication and team discussions.

COST: Request a quote by clicking the button below.

Request a Quote

"Throughout our tenure together, Bryan displayed the unique ability to communicate complex food science topics with both clarity and personality, and while our time as colleagues is now over, I would not hesitate to work with him again in the future! His technical knowledge and strong writing skills would make him a great asset to any team!"

Meredith Myers | R&D Product Development Scientist |
Ocean Spray Cranberries



Food Manufacturing Liaison

CHALLENGE

After developing a food or beverage prototype, you're now faced with the challenge of scaling your product to distribute to consumers, food outlets, and retailers. You don't currently have the capital to build a food production facility but have heard that the best way forward is to work with a co-manufacturer or co-packer. Problem is that there's very limited information about how to work with co-manufacturers or co-packers, or even where to find them. And once you've started working with one, there's always the question of potential food safety issues, production challenges, packaging selection, sourcing ingredients, and more.

OPPORTUNITY

Dr. Bryan Quoc Le provides services to directly work as a liaison between you and your desired co-manufacturer or co-packer to address any technical concerns that may arise. He will communicate information between you and the third-party, translating technical jargon into actionable insights for making the right decision for your business needs.

OUR APPROACH

We start by reviewing the food product formulation and determining what are the equipment, processing, and scaling requirements to achieve commercial success. We also work with you to determine your precise production needs, as every co-manufacturer and co-packer has a minimum order quantity (MOQ). We build connections with the right major ingredient suppliers so that you can purchase your ingredients in bulk and select the ones that will work best for you and your costs in the long-term. Along the way, we'll continue to keep the communication alive between you and your manufacturing partner, so that together we can understand and solve any technical or sourcing challenges that may arise. Our expertise is in translating complex, technical information into digestible summaries that allow you to do what you do best – move your food business ahead.

CASE STUDY

We worked with a major food and agricultural corporation in Southeast Asia over 12 months to support them in reviewing, vetting, and communicating with contract manufacturers in the cellular agriculture and precision fermentation spaces. We began with creating an exhaustive list of potential leads and following up with each to conduct initial discussions on their capabilities, equipment, and technical team expertise. We conducted additional follow-up meetings to assess their capacity to achieve the client's timelines and desired intellectual property rights over the technology developed from the project. Our team provided regularly scheduled updates to give the client a summary of details so that they could make actionable investment decisions.

BENEFITS

- Work directly with Dr. Bryan Quoc Le to achieve a successful collaboration with a co-manufacturer or co-packer.
- Gain access to a network of third-party service providers that are needed to bring a food product to scale.
- Save time, money, and stress working with an established player in the food sector.
- Work through tough technical challenges with an expert in your corner.
- Flexible pricing plans, short-term services, and long-term services.

COST: Request a quote by clicking the button below.

Request a Quote