HealthTech Activator

Regulatory Touchpoint Map Dietary Supplements and High-Value Nutritional Products – US FDA

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POWERED BY
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REGULATORY TOUCHPOINT MAP DIETARY SUPPLEMENTS AND HIGH-VALUE NUTRITIONAL PRODUCTS – US FDA

PERSPECTIVE OF PERSON/ ROLE	KNOWLEDGE REQUIRED TO OPERATE EFFECTIVELY	RELEVANT REGULATORY FRAMEWORKS	NOTES
DECIDING WHICH CATEGORY YOUR PRODUCT IS REGULATED IN			
Innovator/ scientist/ R&D/ regulatory	Is product idea/technology regulated?	• Dietary Supplement Health and Education Act of 1994 (DSHEA) • The Federal Food, Drug and Cosmetic Act (the Act) and subsequent amendments • The basic categories[1] include: › Food ingredients/additives › Dietary supplements › Drug product (refer to Touchpoint Map for Pharmaceutical Drug Products)	• Generally all foods and food components have some form of regulatory control in the US market. • Important to identify the FDA category for the product. • FDA regulates dietary supplements under a different set of regulations than those covering 'conventional' foods and drug products. • Specific to any 'claim' the company wants to make about the product or the intended use for the product. • All marketing claims made must comply with the intended use. • Further regulation can also apply for any specific attributes of the product or relating to import controls and biosecurity. E.g. Genetically engineered foods; phytosanitary requirements etc.
	Which regulations apply?	• Highly variable depending on product and the intended product claims. • Commercial strategy can impact regulatory category – develop the marketing claims to suit the regulatory category.	• Does your product meet the definition of finished dietary supplement products and dietary ingredients? • If commercial strategy is to claim impact on a health condition then a higher level of evidence is required, e.g. Does A2 milk make a claim to treat a health condition?
	Timing of regulatory requirements?	• Early regulatory awareness drives R&D, commercial and marketing plans.	Establish regulatory strategy at the beginning.
	Additional guidance provided by FDA	• Relevant standards • Relevant guidance documents • Current Good Manufacturing Practices (CGMPs) • Food Facility Registration+ • Hazard Analysis & Critical Control Points (HACCP)+ • Imports & Exports	

+: Does not apply to Dietary Supplements

1 Note that Nutraceuticals is a marketing term, it is not a regulatory category. Depending on the ingredients and marketing claim, the product will generally be regulated under one of the FDA categories described.

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FOODS			
Innovator/ scientist	Where to seek expert advice?	• Develop product according to guidance on: food quality controls and standards and ingredients.	• There may be some capability at NZ local associations and CRIs including: › New Zealand Food Safety (e.g. Verified Risk Management Programmes) › Plant and Food › Beef and Lamb New Zealand. › Local and international food safety and regulatory consulting groups.
Marketing team/ commercial lead	What marketing claims and labels are acceptable within this category?	• Avoid making claims about any therapeutic benefit to humans or animals.	• Products or ingredients that claim to have a use in the diagnosis, cure, mitigation, treatment or prevention of disease are defined as medicines and regulated as such.

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FOOD INGREDIENTS			
Innovator/ scientist	What constitutes a food ingredient?	• Any component that is added to a food is deemed to be an ingredient. • Any ingredient that has a technical effect in the food (e.g. preservative or colourant) needs to be approved.	• Any substance that is reasonably expected to become a component of food is a food additive
	Regulatory strategy?	• Ingredients that are generally recognised as safe (GRAS) are exempt from the need to apply for approval and use a notification process.	• FDA strongly encourages you to submit a GRAS notice to them if you intend to market a food substance on the basis of a GRAS conclusion even though neither the FD&C Act nor their regulations in 21 CFR require you to do so. Submitting a GRAS notice to them represents prudent practice for those who claim an exclusion from a statutory requirement.
Marketing team/ commercial lead	What marketing claims and labels are acceptable within this category?	• Avoid making claims about any therapeutic benefit to humans or animals.	• Products or ingredients that claim to have a use in the diagnosis, cure, mitigation, treatment or prevention of disease are defined as medicines and regulated as such.

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DIETARY SUPPLEMENTS – VITAMINS, MINERALS, BOTANICALS, PROBIOTICS, AMINO ACIDS AND GLANDULAR EXTRACTS			
Innovator/scientist – R&D/ regulatory	Definition of dietary supplement and the evidence for health claims.	• FDA law defines dietary supplements in part as products taken by mouth that contain a 'dietary ingredient'. • Dietary ingredients include vitamins, minerals, amino acids, and herbs or botanicals, as well as other substances that can be used to supplement the diet. • The definition can be challenging to interpret and is mainly based on the type of ingredient and level of claim that a company intends to make about the product's effects.	• Under the 1994 Dietary Supplement Health and Education Act, dietary supplements were classified as a category of food and are not subject to the premarket safety and effectiveness testing required by the FDA for drug products. • Companies may only make 'health claims' or 'qualified health claims' where there is 'Significant Scientific Agreement' (SSA) that the ingredient has such an effect. • SSA is decided by the FDA using the following criteria: (1) Identifying studies that evaluate the substance/ disease relationship (2) Identifying surrogate endpoints for disease risk (3) Evaluating the human studies to determine whether scientific conclusions can be drawn from them about the substance/disease relationship (4) Assessing the methodological quality of each human study from which scientific conclusions about the substance/disease relationship can be drawn (5) Evaluating the totality of scientific evidence (6) Assessing significant scientific agreement (7) Specificity of claim language for qualified health claims, and (8) Re-evaluation of existing SSA or qualified health claims.
	Regulatory strategy?	• Relevant standards • Relevant guidance documents • Current Good Manufacturing Practices (CGMPs) • Imports & Exports	• Establish path to market

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	Product claims?	• FDA provides guidance on how labelling should be developed, including acceptable structure/function claims.	• Dietary supplement labels or labelling may bear statements that describe the role of a nutrient or dietary ingredient intended to affect the structure or function in humans or that characterise the documented mechanism by which a nutrient or dietary ingredient acts to maintain such structure or function, provided that such statements are not disease claims. • If the label or labelling of a product marketed as a dietary supplement bears a disease claim, the product will be subject to regulation as a drug unless the claim is an authorised health claim for which the product qualifies.
	Need for evidence of safety?	• Dietary supplements may also rely on GRAS status (as for food ingredients above)	• FDA strongly encourages to submit a GRAS notice to them if you intend to market a food substance on the basis of a GRAS conclusion even though neither the FD&C Act nor their regulations in 21 CFR require you to do so. Submitting a GRAS notice to them represents prudent practice for those who claim an exclusion from a statutory requirement.
	Timing of regulation?	• Predominately post market	• FDA focus on compliance around adulteration and 'misbranding' once product is on the market. • Manage business risk/understand manufacturing compliance environment.
Quality, regulatory & manufacturing	Environment	• Requirement for Current Good Manufacturing Practice (CGMP)	• FDA requires any entity that manufactures, packages, labels or stores a dietary supplement to establish and follow Current Good Manufacturing Practice (CGMP). • CGMP aims to ensure the quality of the dietary supplement and to ensure that the dietary supplement is packaged and labelled as specified in the master manufacturing record.

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DIETARY SUPPLEMENTS – VITAMINS, MINERALS, BOTANICALS, PROBIOTICS, AMINO ACIDS AND GLANDULAR EXTRACTS			
	Post-market requirements	• Surveillance • Reporting • Labelling	• To identify products that are unsafe or adulterated (contain unapproved ingredients), the FDA relies on post-market surveillance efforts, including review of adverse event reports and consumer complaints, inspection of dietary supplement firms and screening of imported products. • Additionally, a dietary supplement firm is obligated to report events that require medical intervention to prevent death, hospitalisation or birth defect to the FDA. When a product has the potential to cause serious adverse health consequences, the FDA can issue a class I recall and take it off the market.
Marketing/sales	Post-market requirements	• Post-market requirements	• To identify products that are unsafe or adulterated (contain unapproved ingredients), the FDA relies on post-market surveillance efforts including review of adverse event reports and consumer complaints, inspection of dietary supplement firms and screening of imported products. • Additionally, a dietary supplement firm is obligated to report events that require medical intervention to prevent death, hospitalisation or birth defect to the FDA. When a product has the potential to cause serious adverse health consequences, the FDA can issue a class I recall and take it off the market.

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COMPLEMENTARY AND ALTERNATIVE MEDICINE (CLOSEST FDA CATEGORY TO NUTRACEUTICALS)			
Innovator/scientist – R&D/regulatory	Definition of Complementary and Alternative Medicine and the evidence for health claims.	• Relevant standards • Relevant guidance documents	• Complementary and alternative medicines consist of four categories of health treatments: › 'Biologically Based Practices' includes, but is not limited to, botanicals, animal-derived extracts, vitamins, minerals, fatty acids, amino acids, proteins, prebiotics and probiotics, whole diets and 'functional foods'. › 'Energy Medicine', considered to be energy fields, either measurable or putative. › 'Manipulative and Body-Based Practices' include any form of manipulation or massage and similar practices. › 'Mind-Body Medicine' that involves interactions among the brain, mind, body and behaviour that affect health.
	Which regulations apply?	• CAMs are not exempt from other regulation.	• Where products are considered complementary and alternative medicines (CAM), this does not exempt them from standard regulation, e.g. food, food ingredient, cosmetic, pharmaceutical or device. Regulation depends on the product ingredients/ mechanism and the claims made about the product. • E.g. Any nutraceutical claiming to supplement a person's dietary intake for general health reasons would still be regulated as a dietary supplement, and any nutraceutical such as a berry extract claiming to be beneficial in treating diabetes would be regulated as a drug. • Companies should clearly define the therapeutic claim about their product that they can support with evidence through the R&D programme and identify the regulatory pathway to follow based on this claim.

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COMPLEMENTARY AND ALTERNATIVE MEDICINE (CLOSEST FDA CATEGORY TO NUTRACEUTICALS)			
	Label claims?	• Levels of data/evidence required	• Where CAMs are sold with a claim of having any therapeutic effect on a disease they are regulated as drugs and require the standard level of evidence to support the claim being made.
		• Use of entries in Pharmacopeia, official Homeopathic Pharmacopeia or official National Formulary.	• Where established data of safety and efficacy and reference standards exists on a drug (including nutraceuticals) this is captured in pharmacopoeia and these may be referenced in support of registering new products.
	Where to seek expert advice?	• Get certainty about the regulatory category and requirements from an expert.	• Early clarity of the regulatory category, FDA guidance and reference standards will help streamline the R&D path and reduce R&D risk. • See Medsafe list of regulatory consultants (for local services). • Companies can approach the FDA directly for advice, but this should be done in partnership with an experienced Regulatory Affairs professional (either from NZ or in-country).

NOTE:
TYPICAL ROLES ACROSS ALL CATEGORIES INCLUDE:

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CEO	Regulatory impacts of R&D manufacturing and Quality Facility licensing Regulatory impacts of scale-up	• Relevant regulations/ standards • Relevant guidance documents	• Identify changes necessary for manufacture of units for clinical trial purposes, if needed • Facility accreditation • Identify changes required for manufacture at scale
Investor/ commercial partner/CFO	Regulatory capability	• Is regulatory advice/support budgeted for R&D? • Is regulatory pathway clearly understood and resourced for successful execution?	• Post-market feedback loop into next-gen (new and improved) product. • Confidence that planned studies will achieve post-market requirements, if applicable. • Or achieve results that multinational can utilise in a different regional dossier.
Founder (technical)	Clear milestones identified to meet market approval requirements, including but not limited to clinical studies, as applicable		• Post-market feedback loop into next-gen (new and improved) product. • Confidence that planned studies will achieve post-market requirements, if applicable. • Or achieve results that multinational can utilise in a different regional dossier. • Ensure the existing product remains safe and effective once it's on the market.

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Medsafe website listed consultants, Tech Transfer Office (and/or CEO)	Adequate budget and skills for regulatory support	• Discuss with potential licensee or industry expert	• Licensees have rigid expectations about type of studies that demonstrate product potential.
Investor/CEO	Regulatory capability Is regulatory advice/support budgeted for?	• Pre-clinical • Clinical • Post market	• Ensure the existing product remains safe and effective once it's on the market • Manage/mitigate product risk • Manage/mitigate patient risk
Quality manager	Experience and relevant working knowledge of product development and QSRs in a commercial setting to support pre- and post-market approval. Relevant guidance documents Relevant standards	• Compliance knowledge and experience in the product technology • Product Release • Post-market reporting	
Regulatory manager	Experience and relevant working knowledge of regulatory process, product development and commercialisation to support pre- and post-market approval. Ongoing monitoring for regulatory updates Regulatory expertise in the technology space/product application space.	• Relevant guidance documents • Relevant standards • Labelling • Protection of Human Subjects • Institutional Review Boards • Establishment and Listing • Good Laboratory Practices • Good Clinical Practices • Regulatory knowledge and experience in your product technology • Knowledge and experience of regulatory process for the region of interest • Ability to deliver a regulatory strategy that is current for the product and regulatory environment which is relevant to the business • Knowledge and experience in regulatory inspection/assessment • Ability to integrate regulatory knowledge into business strategy • Knowledge and experience of reimbursement process	

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R&D manager	Relevant working knowledge of compliant product development processes and environment to support pre-market approval. Regulatory expertise in the technology space.	• Relevant guidance documents • Relevant standards • Good Laboratory Practices	• Strong scientific skills for the product technology under development • Skills in tech transfer, design and manufacturing • Knowledge and experience in product development
Manufacturing manager	Relevant working knowledge of compliant manufacturing processes in product development, tech transfer and operations to support pre- and post-market approval. Manufacturing expertise in the technology space	• Relevant guidance documents • Relevant standards • GMPs • Labelling	• Knowledge and experience in manufacturing standards for the environment this technology will be manufactured • Skills in tech transfer, manufacturing and science • Knowledge and experience in Process Controls
Marketing/Sales manager	Relevant working knowledge of regulatory process and environment in product development and commercialisation to support pre- and post-market approval. Marketing and sales expertise in the technology/clinical application space, if applicable	• Labelling	• Knowledge and expertise in establishing label claims • Knowledge and expertise in requirements needed to commercialise supplements/HVN • Knowledge in market, specifically of competitors for the sector