TRUEGATE BIO

Regulatory Pathway Analysis Template

A framework for determining classification, pathway, and key milestones for a novel therapeutic — built to produce a defensible recommendation, not just a conclusion.

Why a Template Instead of a Checklist

Pathway determination is frequently presented as a decision tree: answer a series of yes/no questions and arrive at an answer. In practice, novel products — new modalities, combination products, therapeutics without direct precedent — rarely resolve cleanly through a tree. The value of a pathway analysis is in the reasoning that supports the recommendation, because that reasoning is what gets tested when the sponsor engages with FDA.

This template is built around documenting the reasoning at each step, not just the conclusion.

Section 1: Product Characterization

The pathway question cannot be answered without a precise description of what the product is.

- **Composition and mechanism of action** — what the product is, how it works, and why that matters for classification
- **Comparison to existing precedent** — the closest approved or previously reviewed products, and specifically how this product differs from them
- **Novel elements** — anything about the formulation, delivery, manufacturing, or mechanism that lacks direct regulatory precedent

This section should make explicit where precedent exists and where it doesn't. Pathway risk concentrates in the gaps.

Section 2: Classification Analysis

- **Statutory classification** — drug, biologic, device, or combination product, with the specific reasoning (not just the conclusion)
- **If combination product:** primary mode of action analysis and the resulting lead center determination
- **Applicable pathway(s)** — the regulatory pathways genuinely available given the classification (e.g., 505(b)(1), 505(b)(2), BLA under the PHS Act), and why alternatives were or weren't viable

Document the reasoning, including any classification questions that are genuinely uncertain. A pathway analysis that presents uncertainty as certainty creates risk later; a pathway analysis that flags real ambiguity gives the sponsor an accurate picture of where FDA engagement will be most valuable.

Section 3: Precedent and Guidance Review

- Relevant FDA guidance documents, including product-specific guidance if one exists
- Comparable approved products or products with public regulatory history (e.g., through Drugs@FDA, advisory committee materials, or published FDA communications)
- Relevant recent FDA decisions or public statements that bear on how the agency is currently thinking about this product class

Output: a short synthesis of what precedent supports the proposed approach and where the proposed approach goes beyond existing precedent.

Section 4: Milestone Mapping

Once pathway is established, map the major milestones from current state to approval:

Milestone	Key Deliverable	Dependencies
Pre-IND (if applicable)	Briefing document, FDA meeting	Sufficient nonclinical/CMC data to ask specific questions
IND Submission	Complete IND package	Nonclinical package, CMC section, clinical protocol
Phase 1 Initiation	IND clearance	30-day FDA review with no clinical hold
[Subsequent phases as applicable]		
Marketing Application	NDA/BLA submission	Full clinical package, CMC, facility readiness

Each milestone gets an honest timeline estimate and an explicit statement of what determines that estimate — this is where a pathway analysis becomes a planning tool rather than a static document.

Section 5: Key Regulatory Risks

For each major risk, the same three questions:

- **What is the risk**, stated specifically rather than generically ("the pathway may not be accepted" is not specific; "FDA may not agree that our proposed comparator data supports a 505(b)(2) bridge" is)
- **What is the consequence** if the risk materializes — timeline impact, cost impact, or a pathway change
- **What mitigates it** — additional data, an earlier FDA interaction, or an alternative path held in reserve

Output: a risk register ranked by combination of likelihood and consequence, not just a list.

Section 6: Recommendation

A one-page synthesis: the recommended pathway, the reasoning in brief, the two or three points of greatest uncertainty, and the recommended next step (which may be an FDA meeting, additional internal data generation, or both).

What This Template Is Built to Avoid

A pathway analysis that reads as confident when the underlying picture is genuinely uncertain. The value of this document to a sponsor is accurate calibration of risk, not reassurance. A recommendation stated with appropriate confidence, alongside clearly flagged uncertainty, is more useful — and more defensible in front of FDA — than a document that resolves every question neatly on paper.

This template reflects a general approach to regulatory pathway analysis developed through CMC and regulatory work supporting IND and BLA submissions for a novel biologic (autologous cell therapy) without established regulatory precedent. Applied here as a demonstration of methodology; no proprietary or client-specific information is represented.

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