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Manufacturing Strategy for Rare Disease

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Overview of Presentation

- Common challenges in manufacturing/CMC
- Additional watchouts in the CMC space
- Strategies and recommendations for how to enable success
- Q&A

Common Challenges

- Translating the science into a deliverable (and manufacturable) therapy
  - Benefits and tradeoffs of the current existing menu of modalities
  - Dose and route of administration
- Finding the right partner(s)
  - Process and analytical development; platform vs custom
  - Batch size, number of batches required (and does that make you a “small fish”)
  - Cost, capacity, competing clients
  - “General Contractor” approach vs selecting (and managing) multiple “Trades” specialists
  - Transactional relationship vs cultivating a longer-term relationship
- Balancing near-term needs with longer-term objectives
  - Pay now or pay (more) later…

Additional Watchouts

- Lead times and durations might surprise you (and not in a good way)
  - Raw materials (especially custom/specialized materials), single-use materials, etc.
  - Method development (e.g., product-specific potency assay)
  - Design→Approve→Execute→Analyze→Report (and repeat)
- Biological manufacturing processes can be variable (as well as the methods used to measure them)
- Bridging and comparability studies
  - Material manufacturing differences (potency, impurities, other product characteristics)
  - Method and analytical differences
- Material demand doesn't come only from animal studies and human trials
  - CMC needs can include stability studies, reference standard, analytical development, method qualification/validation, QC/REG retains, comparability…

Strategies and Recommendations

- Bring in a CMC resource early
  - Manufacturing feasibility assessment (including COGs)
  - Program timeline and budget development
  - CMC is often on critical path but it doesn't have to be!
- Allocate enough time to select the right C(D)MO partner
  - The value of building a solid foundation for your manufacturing process early (read: minimizing major process changes in later phases) is enormous
  - Likewise for the analytical methods and tools to monitor your process and product
- Include CMC topics in your initial interactions with Regulatory Agencies
  - Thoughtful and justifiable creativity can be rewarded!
  - Fleshing out CMC concerns early can save (a ton) of time (and $) down the line
  - Leverage the approach of phase-appropriate GMPs to your advantage
- Start a retains program ASAP
  - And ensure all your partners (academic labs, CDMOs, etc.) do the same

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Thank You!

Questions?