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New Translational Science Team Created In US FDA's CDER To Aid Rare Disease Drug Development

by Derrick Gingery

The group is intended to help rare disease drug developers answer all the necessary questions about surrogate endpoints and markers before the application review cycle.

The US Food and Drug Administration wants rare disease drug sponsors to know very early what questions need to be answered about potential surrogate markers in order to avoid confusion at the application review stage.

Center for Drug Evaluation and Research Director Patrizia Cavazzoni said 13 June that the center is creating a translational science team that would help FDA reviewers and sponsors understand the foundational work that must be completed for a treatment to eventually be approved. A similar team focused on real-world evidence already is in place.

"We recognize one of the problems in [rare] disease development is the fact that more often than not developers come to us in the development process, sometimes we review the application, without having done some of the foundational sort of work that needs to be done to understand the biology of the disease or the target of the drug and so on," Cavazzoni said during a discussion with reporters marking the one-year anniversary of the Accelerating Rare Disease Cures (ARC) program.

"We think that we need to start having those conversations with developers as early as possible in the development process, which for us would be when they first come to us: pre-IND," she added.

In some instances, applications have relied on surrogate markers, but in the late stage of the review that marker has not been fully characterized, which created problems, Cavazzoni said.

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Ideally, the team of translational science experts would offer practical advice to review teams and sponsors on "the questions to ask and when to ask them and not leave these questions for the later stages of review cycles," she said.

Surrogate markers and endpoints often are used for the accelerated approval pathway, which the FDA and stakeholders want opened to more rare disease areas. The 2022 prescription drug user fee reauthorization created the Rare Disease Endpoint Advancement (RDEA) pilot program to increase communications with sponsors and help develop novel endpoints for rare disease clinical trials. (Also see "*US FDA's Stein 'Excited' About Real-World Evidence, Rare Disease Endpoint Pilot Programs*" - Pink Sheet, 14 Sep, 2021.)

Cavazzoni said the translational science team's work will intersect with the RDEA program.

FDA officials regularly offer scientific advice, but to have the agency help sponsors with early rare disease development questions appears similar to an approach former FDA Principal Deputy Commissioner Rachel Sherman floated in 2018. She suggested the Office of Orphan Products Development, which oversees orphan drug designations and the orphan grants program, grow to become more of a consult office and answer pre-IND questions. (Also see "*US FDA Appoints Another Orphan Products Development Office Head Amid Growth Expectations*" - Pink Sheet, 15 Oct, 2018.)

Team Likely Starting Small

Cavazzoni said the team may identify one or two applications that could benefit from the program, consider the value added and then expand.

CDER wants to hire additional staff to focus on translational science activities. But Kerry Jo Lee, associate director for rare diseases in the CDER Office of New Drugs, said "sometimes it's more about connecting the expertise" within the center.

In addition to the existing openings within CDER, PDUFA VII allocated resources to create additional positions for application review and other activities. (Also see "*US FDA User Fee Staffing: The Objective Capacity Planning Adjuster Often Needs Subjective Review*" - Pink Sheet, 17 Oct, 2022.)

Yet Another Effort To Boost Rare Disease Development

ARC and its new translational science team are the latest in a string of rare disease-related programs created within CDER to increase development.

Multiple user fee reauthorizations have called for additional reviewer training on rare disease policies, such as regulatory flexibility, in order to help applications move faster. (Also see "*Rare Disease Integration Into FDA Reviews Will Grow Under PDUFA VI*" - Pink Sheet, 18 Jul, 2016.)

OND also elevated the rare disease program into the Office of Rare Diseases, Pediatrics, Urologic and Reproductive Medicine during its recent reorganization to create more visibility for it. (Also see "*US FDA Drug Office Reorg Enters Homestretch With Leadership Nods For Three Clinical Offices*" - Pink Sheet, 17 Mar, 2020.)

ARC was created in 2022 in part to unite the various rare disease programs throughout CDER and other parts of the FDA, as well as speed endpoint development and application reviews. (Also see "*Don't Call It A Center Of Excellence: Accelerating Rare Disease Cures Program Launched By CDER*" - Pink Sheet, 12 May, 2022.)

Some stakeholders want a Rare Disease Center of Excellence created at the FDA to ensure all relevant staff are working together, but Cavazzoni and other FDA officials have said adding staff would be more impactful. (Also see "*Rare Disease Challenges At US FDA: CDER Director Says More Staff, Not Reorganization, Will Fix Issues*" - Pink Sheet, 6 Apr, 2022.)

In addition, advocates have pushed for more incentives to spur rare disease development, including a new ultra-rare disease designation. (Also see "*Ultra-Rare Orphan Drugs: Advocates Begin Laying Groundwork For New Incentive, Special Pathway*" - Pink Sheet, 2 Mar, 2023.)

More FDA As Drug Developer?

At the same time, the CDER translational science team seems to be another tiny step into the drug development business for the FDA.

The agency also could create a public-private consortium to help develop cancer treatments that are not commercially viable. A proposal from the Oncology Center of Excellence's Project Catalyst would focus on one economically infeasible tumor indication and develop a therapy in an open science, transparent fashion with no intellectual property claims. (Also see "*US FDA Exploring Consortium To Develop Treatments For 'Economically Infeasible' Cancer Indications*" - Pink Sheet, 3 Apr, 2023.)

The Center for Biologics Evaluation and Research also is part of the Bespoke Gene Therapy Consortium, which is attempting to create cost-effective manufacturing for gene therapies that aren't commercially viable. (Also see "*Gene Therapy Manufacturing Hurdle: Sponsors Unwilling To Share 'Secret Sauce'*" - Pink Sheet, 10 Aug, 2020.)