Gene Therapies: Current Legal and Regulatory Challenges

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Moderated by Kalah Auchincloss, Executive Vice President and Deputy General Counsel, Greenleaf Health, Inc.
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FDLI Annual Conference

June 14, 2022

Wilson W. Bryan, MD
Office of Tissues and Advanced Therapies
OTAT / CBER / FDA
Approved Gene Therapies

- KYMRIAH (tisagenlecleucel)
- YESCARTA (axicabtagene ciloleucel)
- TECARTUS (brexucabtagene autoleucel)
- BREYANZI (lisocabtagene maraleucel)
- ABECMA (idecabtagene vicleucel)
- CARVYKTI (ciltacabtagene autoleucel)
- LUXTURNNA (voretigene neparvovec-rzyl)
- ZOLGENSMA (onasemnogene abeparvovec-xioi)
Breakthrough (BTD) and Regenerative Medicine Advanced Therapy (RMAT) Designations

BTD Requests, 124

RMAT Requests, 194

Granted RMAT, 70

Granted BTD, 37
All OTAT Meetings

![Chart showing the number of OTAT meetings from 2010 to 2021]
OTAT workload outpaces increases in workforce

Full-Time Employees (FTEs), Total Meetings, and INDs (across OTAT)
Objective 1 - Pilot Solutions

1) Clarify expectations and create tools to help sponsors engage OTAT productively

• Revise website, with initial focus on meetings with OTAT

• Consolidate resources related to cell and gene therapies on CBER’s website (e.g., OTAT Learn recordings, guidance documents)
Objective 2 - Pilot Solutions

2) Re-design core operational practices to drive efficiency, transparency, and collaboration

- Standardize practices for clarifications after meetings, particularly after “Written Responses Only”
- Investigate opportunities for increased communication regarding status of submissions, including both original INDs and IND amendments
Objective 3 - Pilot Solutions

3) Increase frequency of scientific exchange externally and internally
   - Collaborate with trade and scientific organizations (e.g., ASGCT) to facilitate mutual learning
     - Identify priority topics (32 / 64)
       - White Papers (1 topic)
       - Workshops (5 topics)
       - Advisory Committees (1 topic)
       - Webinars (6 topics)
       - Guidances (13 topics)
2022 OTAT Guidances

FINAL GUIDANCES
• Human Gene Therapies for Neurodegenerative Diseases (pending)
• Regulation of Human Cells, Tissues, and Cellular and Tissue-Based Products (HCT/Ps): Small Entity Compliance Guide (pending)

DRAFT GUIDANCE
• Considerations for the Development of Human Gene Therapy Products Incorporating Human Genome Editing (3/21/22)
• Considerations for the Development of Chimeric Antigen Receptor (CAR) T Cell Products (3/21/22)
• Manufacturing Changes and Comparability for Human Cellular and Gene Therapy Products (pending)
• Voluntary Consensus Standards Recognition Program for Regenerative Medicine Therapies (pending)
• Recommendations for Determining Eligibility of Donors of Human Cells, Tissues, and Cellular and Tissue-Based Products (HCT/Ps) (pending)
Objective 4 - Pilot Solutions

4) Create more staff and management capacity and sustainability

- PDUFA VII
- Reconsider OTAT structure

www.fda.gov
Gene Therapy: Challenges

• Duration of Effect
• Safety
• Rare diseases
  • Accelerated approval
  • Cost
Summary

• OTAT is committed to patients and high-quality scientific exchange in the development of cell and gene therapies.
• Rapid growth in the development of cell and gene therapies has created new challenges for OTAT.
• Ideas from OTAT staff and sponsors spurred initiatives to sustain strengths and meet challenges.
• OTAT is piloting solutions to
  - improve communications with stakeholders and
  - increase capacity and efficiency in OTAT operations
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• OTAT Learn Webinar Series:
  http://www.fda.gov/BiologicsBloodVaccines/NewsEvents/ucm232821.htm

• CBER website: www.fda.gov/BiologicsBloodVaccines/default.htm
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