

Cellular, Tissue, and Gene Therapies Advisory Committee (CTGTAC) Meeting
September 2-3, 2021
Erratum – FDA Briefing Document

1. Page 21, Section 3.1, Sentence #6: “Notably, there are also no reports of oncogenesis associated with AAV integration in non-hepatic tissues.” Revised to read: “Notably, the majority of the reports of oncogenesis to date appear to be associated with AAV integration in hepatic tissues (55, 72, 128, 186).”
2. Pages 24, Section 3.2.1, Sentence #1: “For example, a recent study conducted in neonatal Twitcher mice demonstrated HCC development following administration of AAV9 vector into the CNS, while a similar study using an AAV5 vector did not find any HCC development (12, 102).”

Page 27, Section 3.3.1, Sentence #4: “Because AAV vectors are thought to integrate randomly into transcriptionally active regions of the genome, it is not surprising that integration events have also been observed outside of the *Rian* locus and near proto-oncogenes (7, 12, 104, 129).”

Page 28, Section 3.3.2, Sentence #2: “Various approaches to evaluate AAV vector-mediated oncogenesis have been reported, including: 1) histopathological assessments to characterize the type of lesion, 2) potential markers associated with HCC (e.g., elevated serum alpha-fetoprotein (AFP)), and 3) gene expression profile and vector integration analysis of healthy and tumor tissue (7, 12, 47).”

Reference #12: Li C, Samulski RJ. 2020. Engineering adeno-associated virus vectors for gene therapy. *Nat Rev Genet* 21:255-272.

This reference citation is replaced with:

New reference #186: Li Y, et al. 2021. Enhanced Efficacy and Increased Long-Term Toxicity of CNS-Directed, AAV-Based Combination Therapy for Krabbe Disease. *Mol Ther* 29(2):691-701.

3. Page 27, Section 3.3.1, Sentence #4: “Because AAV vectors are thought to integrate randomly into transcriptionally active regions of the genome, it is not surprising that integration events have also been observed outside of the *Rian* locus and near proto-oncogenes (7, 12, 104, 129).”
Removal of reference citation #129: Wang PR, et al. 2012. Induction of hepatocellular carcinoma by in vivo gene targeting. *Proc Natl Acad Sci U S A* 109:11264-9.
4. Page 29, Section 3.3.2, Sentence #4: “In nonrodent species, follow-up durations of 8-10 years in various canine disease models (7, 132, 133)...” Revised to read: “In nonrodent species, follow-up durations of more than 10 years in various canine disease models (7, 132, 133)...” and include a new reference:

New reference #187: Batty P, et al. 2020. Frequency, location and nature of AAV vector insertions after long-term follow up of FVIII transgene delivery in a hemophilia A dog model. *Res Pract Thromb Haemost.* 4S1:550.

5. Page 51, Section 7.3, last sentence of the page: “Over time, the severity of some findings increased (in rats), while others decreased (in NHPs), and new abnormalities were evident.” Revise to read: “Over time, the incidence and/or severity of some findings increased (e.g., perivascular cuffing, swollen microvesiculated neurons, gliosis), while others decreased (e.g., hemosiderin-laden macrophages) to variable degrees in these animals.”