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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

(54) **Title:** B-CELL LYMPHOMA 2–ASSOCIATED ANTHANOGENE 3 (BAG3) GENE THERAPY USING AAV VECTOR

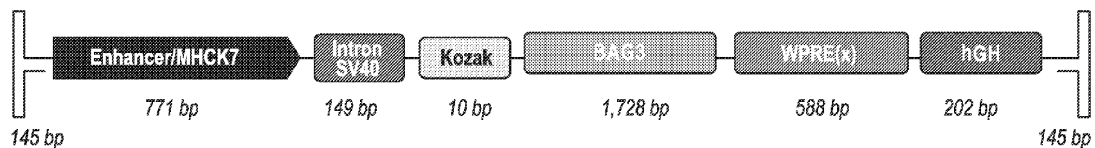


Fig. 1

(57) **Abstract:** Provided herein is a gene therapy for BAG3 (B-cell Lymphoma 2–Associated Anthanogene 3), e.g., using an adeno-associated virus (AAV) vector. The promoter of the vector may be a MHCK7 promoter, a cardiac troponin T (hTNNT2) promoter, a heat shock protein 70 (HSP70) promoter, or a ubiquitin C (UBC) promoter. The capsid may be an AAVrh.74 or AAV9 capsid or a functional variant thereof. In certain embodiments, the capsid is an AAVrh.74 capsid or functional variant thereof. Other promoters or capsids may be used. Further provided are methods of treatment, such as by intravenous, intracoronary, intracarotid or intracardiac administration of the AAV vector, and other compositions and methods.

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