

1 **HIGHLIGHTS OF PRESCRIBING INFORMATION**  
2 **These highlights do not include all the information needed to use**  
3 **KEBILIDI safely and effectively. See full prescribing information for**  
4 **KEBILIDI.**

5  
6 **KEBILIDI (eladocagene exuparvovec-tneq) suspension, for**  
7 **intraputaminial infusion**  
8 **Initial U.S. Approval: 2024**

9  
10 -----INDICATIONS AND USAGE-----

11 KEBILIDI is an adeno-associated virus (AAV) vector-based gene therapy  
12 indicated for the treatment of adult and pediatric patients with aromatic  
13 L-amino acid decarboxylase (AADC) deficiency.

14  
15 This indication is approved under accelerated approval based on change from  
16 baseline in gross motor milestone achievement at 48 weeks post-treatment.  
17 Continued approval for this indication may be contingent upon verification  
18 and description of clinical benefit in a confirmatory clinical trial. (1, 14)

19  
20 -----DOSAGE AND ADMINISTRATION-----

21 **For single-dose intraputaminial infusion only.**

- 22 • Recommended dose:  $1.8 \times 10^{11}$  vector genomes (vg). (2.2)
- 23 • Brain imaging for stereotactic planning and intraoperative navigation  
24 should be done prior to the procedure. (2.4)
- 25 • Post stereotactic registration, mark the entry point on the skull. Surgical  
26 access through the skull bone and dura should be performed. (2.4)
- 27 • Administer a total dose of  $1.8 \times 10^{11}$  vg (0.32 mL total volume) delivered  
28 as four 0.08 mL ( $0.45 \times 10^{11}$  vg) infusions (two sites per putamen-anterior  
29 and posterior) at a rate of 0.003 mL/minute (0.18 mL/hour) for a total of  
30 27 minutes per site, administered in a single stereotactic surgery using a  
31 cannula that is FDA-authorized for intraparenchymal infusion. (2.2, 2.4)

33 -----DOSAGE FORMS AND STRENGTHS-----

- 34 • KEBILIDI is a suspension for intraputaminial administration with a  
35 nominal concentration of  $5.6 \times 10^{11}$  vg/mL. (3)
- 36 • KEBILIDI is supplied in a single-dose vial that contains  $2.8 \times 10^{11}$  vg of  
37 eladocagene exuparvovec-tneq in an extractable volume of 0.5 mL of  
38 suspension. Each mL of suspension contains  $5.6 \times 10^{11}$  vg of eladocagene  
39 exuparvovec-tneq. (3, 16)

40  
41 -----CONTRAINDICATIONS-----

- 42 • Patients who have not achieved skull maturity assessed by  
43 neuroimaging. (4)

44  
45 -----WARNINGS AND PRECAUTIONS-----

- 46 • Procedural complications: Monitor patients for procedural complications  
47 for neurosurgery, including events of respiratory and cardiac arrest after  
48 administration of KEBILIDI. (5.1)
- 49 • Dyskinesia: Monitor patients for dyskinesia after treatment with  
50 KEBILIDI. The use of dopamine antagonists can be used to control  
51 dyskinesia symptoms. (5.2)

52  
53 -----ADVERSE REACTIONS-----

54 Most common adverse reactions (incidence  $\geq 15\%$ ) were dyskinesia,  
55 pyrexia, hypotension, anemia, salivary hypersecretion, hypokalemia,  
56 hypophosphatemia, insomnia, hypomagnesemia, and procedural  
57 complications. (6.1)

58  
59 **To report SUSPECTED ADVERSE REACTIONS, contact PTC**  
60 **Therapeutics, Inc at toll-free phone 1-866-562-4620 or FDA at**  
61 **1-800-FDA-1088 or [www.fda.gov/medwatch](http://www.fda.gov/medwatch)**

62  
63 **See 17 for PATIENT COUNSELING INFORMATION.**

64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100  
101  
102  
103

Revised: 11/2024

67 **FULL PRESCRIBING INFORMATION: CONTENTS\***

68 **1 INDICATIONS AND USAGE**

69 **2 DOSAGE AND ADMINISTRATION**

70 2.1 Important Dosing Information

71 2.2 Recommended Dose

72 2.3 Preparation

73 2.4 Administration

74 **3 DOSAGE FORMS AND STRENGTHS**

75 **4 CONTRAINDICATIONS**

76 **5 WARNINGS AND PRECAUTIONS**

77 5.1 Procedural Complications

78 5.2 Dyskinesia

79 **6 ADVERSE REACTIONS**

80 6.1 Clinical Trials Experience

81 **8 USE IN SPECIFIC POPULATIONS**

82 8.1 Pregnancy

83 8.2 Lactation

84 8.3 Females and Males of Reproductive Potential

85 8.4 Pediatric Use

86 8.5 Geriatric Use

89 **11 DESCRIPTION**

90 **12 CLINICAL PHARMACOLOGY**

91 12.1 Mechanism of Action

92 12.2 Pharmacodynamics

93 12.3 Pharmacokinetics

94 12.6 Immunogenicity

95 **13 NONCLINICAL TOXICOLOGY**

96 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

97 **14 CLINICAL STUDIES**

98 **16 HOW SUPPLIED/STORAGE AND HANDLING**

99 **17 PATIENT COUNSELING INFORMATION**

100  
101 \*Sections or subsections omitted from the full prescribing information are not  
102 listed.  
103

105 **1 INDICATIONS AND USAGE**

106 KEBILIDI (eladocagene exuparvovec-tneq) is an adeno-associated virus (AAV) vector-based  
107 gene therapy indicated for the treatment of adult and pediatric patients with aromatic L-amino  
108 acid decarboxylase (AADC) deficiency.

109 This indication is approved under accelerated approval based on the change from baseline in  
110 gross motor milestone achievement at 48 weeks post-treatment [see *Clinical Studies (14)*].  
111 Continued approval for this indication may be contingent upon verification and description of  
112 clinical benefit in a confirmatory clinical trial.

113 **2 DOSAGE AND ADMINISTRATION**

114 **For single-dose intraputamenal infusion only.**

115 **2.1 Important Dosing Information**

- 116 • Confirm patient has AADC deficiency due to biallelic mutations in the *DDC* gene.
- 117 • Strictly observe aseptic technique during preparation and administration of KEBILIDI.
- 118 • KEBILIDI should be administered in a medical center which specializes in stereotactic  
119 neurosurgery.
- 120 • Administer KEBILIDI only using an FDA-authorized cannula for intraparenchymal  
121 infusion (i.e., ClearPoint SmartFlow Neuro Cannula Part Number NGS-NC-01-EE or  
122 NGS-NC-02-EE).
- 123 • Use of the syringe (i.e., connecting the syringe to the syringe pump and priming of the  
124 cannula) should begin within 6 hours of starting product thaw.
- 125 • KEBILIDI is intended to be administered with an infusion pump capable of infusing at a  
126 rate of 0.003 mL/min.

127 **2.2 Recommended Dose**

128 KEBILIDI is administered as four intraputamenal infusions in a single stereotactic neurosurgical  
129 procedure as per the recommended dose shown in Table 1.

130 **Table 1: Recommended Dose of KEBILIDI**

<b>Total Recommended Dose</b>	1.8x10 <sup>11</sup> vg (0.32 mL)
<b>Total number of infusions</b>	4
<b>Volume (dose) per infusion</b>	0.08 mL (0.45x10 <sup>11</sup> vg)
<b>Location of infusions</b>	2 in anterior putamen, 2 in posterior putamen
<b>Infusion rate at each target point</b>	0.003 mL/min
<b>Dose duration for infusion at each target point</b>	27 minutes

131 **2.3 Preparation**

132 Thawing KEBILIDI Vial

- 133 • Coordinate timing of KEBILIDI thaw and infusion. KEBILIDI should be used within 6  
134 hours of starting product thaw. Infusion of KEBILIDI takes 4 hours. The maximum time  
135 from thaw to completion of infusion should be no more than 10 hours.

- 136 • Thaw the KEBILIDI vial upright at room temperature before use. The contents of the vial  
137 will thaw in approximately 15 minutes at room temperature. **Do not** thaw or warm the  
138 vial any other way. Gently invert the vial 3 times. **Do not** shake the vial.
- 139 • Inspect the fully thawed KEBILIDI vial after mixing. KEBILIDI should be inspected  
140 visually for particulate matter, and discoloration prior to administration. KEBILIDI is  
141 clear to slightly opaque. The color of KEBILIDI should be a colorless to faint white  
142 suspension.
- 143 • **Do not** use if particulates, or discoloration are visible in the suspension.

144 Preparing KEBILIDI in Syringe

- 145 1. Gather supplies listed in Table 2 for preparation:

146 **Table 2: Supplies for KEBILIDI Preparation**

Component	Material of Construction
1mL lubricated sterile Luer-lock syringe with elastomer plunger Or 5mL lubricated sterile Luer-lock syringe with elastomer plunger	Silicone, PC; Silicone, PP  Silicone, PP
18 or 19 G sterile needle with 5µm filter	Stainless steel, PC hub; Stainless steel, PP hub
Sterile Luer-lock syringe cap	-
Plastic bag for delivery into surgical unit	-
Secondary container for delivery into surgical unit	-

147 Abbreviations: PC=Polycarbonate; PP=Polypropylene

- 148 2. Prepare KEBILIDI using sterile techniques under aseptic conditions, proper engineering  
149 controls (e.g., biological safety cabinets or isolator) as per the institutional policies.
- 150 3. Open the syringe and label it as the product-filled syringe.
- 151 4. Attach the filter needle to the syringe.
- 152 5. Draw the full volume of the vial of KEBILIDI into the syringe. Invert the vial and  
153 syringe and partially withdraw or angle the needle as necessary to maximize recovery of  
154 product.
- 155 6. Draw air into the syringe so that the needle is emptied of product. Carefully remove the  
156 needle from syringe containing KEBILIDI. Purge the air from the syringe until there is  
157 no air bubble and then cap with a syringe cap.
- 158 7. Place the syringe in a plastic bag and seal the bag.
- 159 8. Place the plastic bag in an appropriate secondary container for delivery to the surgical  
160 suite at room temperature.
- 161 9. The filled syringe prepared under aseptic conditions for delivery to the surgical site  
162 should be used immediately.

163 Notes:

- 164 • **Do not** refreeze thawed product.
- 165 • Dispose any remaining KEBILIDI or disposable material in compliance with institutional  
166 policy.

167 **2.4 Administration**

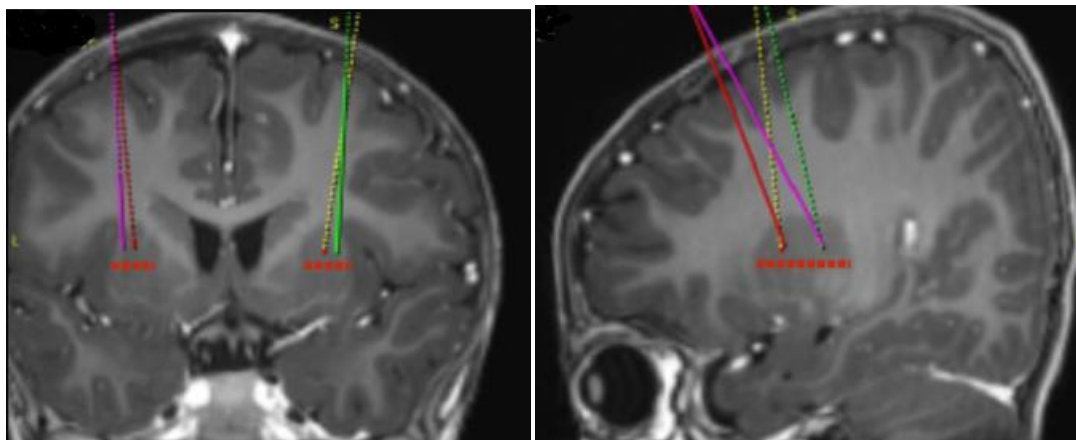
168 Gather supplies for administration:

- 169 - KEBILIDI [*see How Supplied/Storage and Handling (16)*]
- 170 - SmartFlow Neuro Cannula
- 171 - Syringe pump, capable of an infusion rate of 0.003 mL/min and compatible with 1 mL or
- 172 5 mL syringe sizes
- 173 - Stereotactic system

174 Identification of the Target Points Within the Putamen

- 175 • Using standard neurosurgical stereotactic procedure, brain imaging for stereotactic
- 176 planning and intraoperative navigation should be done prior to the procedure (see
- 177 Figure 1).

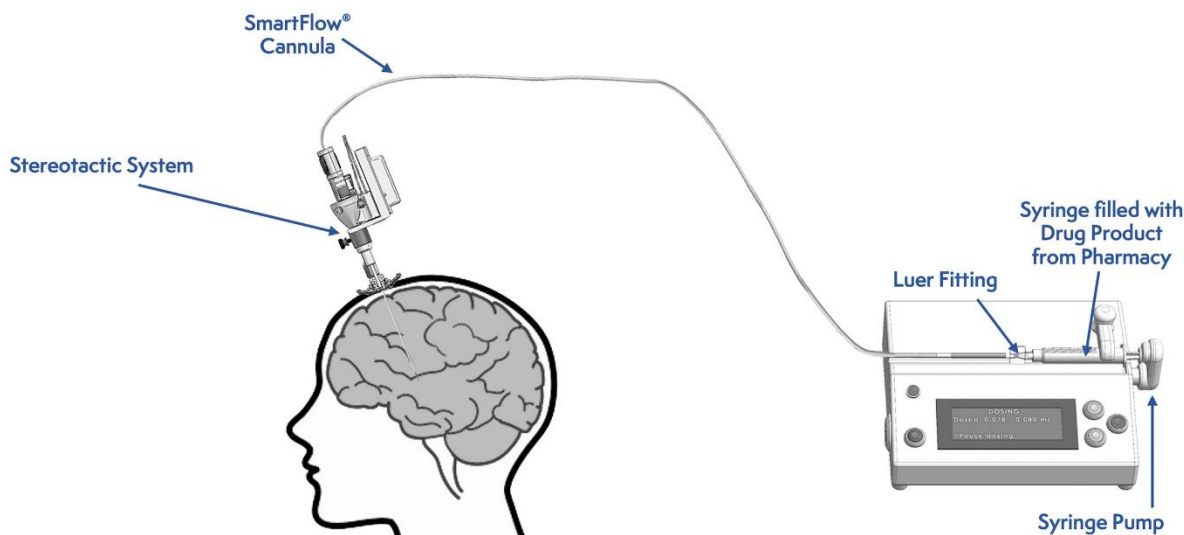
178 **Figure 1: Four Target Points within the Putamen for Infusion Sites**



179

- 180 • After stereotactic registration is complete, mark the entry point on the skull. Surgical
- 181 access through the skull bone and dura should be performed.

182 **Figure 2: Infusion Delivery System**



183

#### 184 Intrapataminal Administration of KEBILIDI

185 Administer KEBILIDI by bilateral intrapataminal infusion using a single infusion cannula in one  
186 surgical session at two sites (anterior and posterior) per putamen. The infusion cannula is placed  
187 and infusion performed separately for each target point (see Figure 2).

- 188 1. Tightly connect the syringe containing the prepared KEBILIDI to Luer Lock connector at  
189 the proximal end of the infusion cannula.
- 190 2. Load syringe onto the infusion pump and secure appropriately.
- 191 3. Set infusion pump occlusion limit to the highest level to prevent pump from alarming or  
192 disrupting the infusion.
- 193 4. Prime KEBILIDI at the rate of up to 0.003 mL/minute (0.18 mL/hour) until the first drop  
194 of the product can be seen at the tip of the needle.
- 195 5. Place sterile absorbent pad or gauze under the tip of the cannula to contain drops of the  
196 prepared product that might emerge during priming.
- 197 6. Run the infusion pump prior to insertion of the cannula to ensure the prepared product is  
198 flowing from the tip immediately before insertion.
- 199 7. Place the infusion SmartFlow Neuro Cannula at the designation point in the putamen  
200 using stereotactic tools based on pre-planned stereotactic trajectories.
- 201 8. Starting with the first target site, insert the cannula through a burr hole into the putamen  
202 and then incrementally withdraw cannula along the intrapataminal infusion track,  
203 distributing the 0.08 mL (infused at a rate of 0.003 mL/min) of KEBILIDI per putamen  
204 across the planned trajectory to optimize distribution across the target site. The pump  
205 should run continuously throughout the 27-minute infusion, including during the  
206 repositioning to the designated sites along the infusion track.
- 207 9. Once the infusion is complete, stop the pump and leave the cannula in place for 5 minutes  
208 before withdrawing. Re-zero the total delivered volume setting on the infusion pump as  
209 soon as the cannula is inserted to the target and perform infusion. Reinsert at the next  
210 target point, repeating the same procedure for the other 3 target points.

211  
212 10. After standard neurosurgical closure procedures, carry out a postoperative brain imaging  
213 examination of the patient to ensure there are no complications (e.g., bleeding).

### 214 **3 DOSAGE FORMS AND STRENGTHS**

215 KEBILIDI is a sterile suspension for intraputaminial infusion. Each single-dose vial contains  
216  $2.8 \times 10^{11}$  vg/0.5 mL (nominal concentration of  $5.6 \times 10^{11}$  vg/mL) of KEBILIDI and each 2 mL  
217 vial contains an extractable volume of 0.5 mL.

218 Following product thaw, the suspension for infusion is a clear to slightly opaque, colorless to  
219 faint white liquid, free of visible particulates [*see How Supplied/Storage and Handling (16)*].

### 220 **4 CONTRAINDICATIONS**

221 KEBILIDI is contraindicated in patients who have not achieved skull maturity assessed by  
222 neuroimaging. Skull maturity is needed for stereotactic neurosurgical administration of  
223 KEBILIDI.

### 224 **5 WARNINGS AND PRECAUTIONS**

#### 225 **5.1 Procedural Complications**

226 Procedural complications have been reported after neurosurgery required for KEBILIDI  
227 administration. These events included respiratory and cardiac arrest which occurred within 24  
228 hours of the neurosurgical procedure and during post-surgical care [*see Adverse Reactions (6)*].  
229 KEBILIDI administration has the potential risk for additional procedure related adverse events  
230 including cerebrospinal fluid (CSF) leak, intracranial bleeding, neuroinflammation, acute  
231 infarction, and infection.

232 Monitor patients for procedure related adverse events with KEBILIDI administration, including  
233 continuous cardiorespiratory monitoring during hospitalization.

#### 234 **5.2 Dyskinesia**

235 Dyskinesia was reported after administration of KEBILIDI. All events were reported within 3  
236 months of administration and 2 events required hospitalization [*see Adverse Reactions (6)*].

237 Monitor patients for signs and symptoms of dyskinesia after KEBILIDI treatment which may  
238 include involuntary movements of face, arm, leg, or entire body. These may present as fidgeting,  
239 writhing, wriggling, head bobbing or body swaying. The use of dopamine antagonists may be  
240 considered to control dyskinesia symptoms.

### 241 **6 ADVERSE REACTIONS**

#### 242 **6.1 Clinical Trials Experience**

243 Because clinical trials are conducted under widely varying conditions, adverse reaction rates  
244 observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials  
245 of another drug and may not reflect the rates observed in practice.

246 The safety data described in this section reflects exposure to KEBILIDI in 13 pediatric patients  
247 with genetically confirmed AADC deficiency who received a single dose of  $1.8 \times 10^{11}$  vg. The  
248 median duration of follow-up was 72 weeks (range 23 to 109 weeks) [see *Clinical Studies (14)*].

249 The most common adverse reactions (incidence  $\geq 15\%$ ) are summarized in Table 3.

250 **Table 3: Adverse Reactions in  $\geq 15\%$  of Patients in Study 1**

Adverse Reaction	Patients Treated with KEBILIDI N=13 (%)
Dyskinesia	10 (77%)
Pyrexia	5 (38%)
Hypotension	4 (31%)
Anemia	4 (31%)
Salivary hypersecretion	3 (23%)
Hypokalemia	3 (23%)
Hypophosphatemia	3 (23%)
Insomnia	3 (23%)
Hypomagnesemia	2 (15%)
Procedural complications*	2 (15%)

251 \*Procedural complications included respiratory and cardiac arrest.

252 Other clinically significant adverse reaction includes worsening in duration and frequency of  
253 oculogyric crises during hospitalization following administration of KEBILIDI reported in one  
254 patient.

## 255 **8 USE IN SPECIFIC POPULATIONS**

### 256 **8.1 Pregnancy**

#### 257 Risk Summary

258 There are no clinical data from the use of KEBILIDI in pregnant women. Animal reproductive  
259 and developmental toxicity studies have not been conducted with KEBILIDI.

260 In the US general population, the estimated background risk of major birth defects and  
261 miscarriage in clinically recognized pregnancies is 2% to 4% and 15% to 20%, respectively.

### 262 **8.2 Lactation**

#### 263 Risk Summary

264 There is no data on the presence of KEBILIDI in human milk, the effects on the breastfed infant,  
265 or the effects on milk production.

### 266 **8.3 Females and Males of Reproductive Potential**

#### 267 Pregnancy Testing

268 Pregnancy status of females with reproductive potential should be verified. Sexually active  
269 females of reproductive potential should have a negative pregnancy test before administering  
270 KEBILIDI.

271 Contraception

272 There are insufficient exposure data to provide a recommendation concerning duration of  
273 contraception following treatment with KEBILIDI.

274 Infertility

275 There is no data on the effects of KEBILIDI on fertility.

276 **8.4 Pediatric Use**

277 The safety and effectiveness of KEBILIDI have been established in pediatric patients. The use of  
278 KEBILIDI was evaluated in a single-arm, open-label study that enrolled 13 pediatric patients  
279 aged 16 months to 10 years who had achieved skull maturity [*see Adverse Reactions (6) and*  
280 *Clinical Studies (14)*].

281 The safety and effectiveness of KEBILIDI have not been studied in pediatric patients younger  
282 than 16 months.

283 **8.5 Geriatric Use**

284 KEBILIDI has not been studied in patients 65 years of age and older.

285 **11 DESCRIPTION**

286 KEBILIDI (eladocagene exuparvovec-tneq) is a gene therapy product that expresses the human  
287 aromatic L-amino acid decarboxylase enzyme (hAADC). It is a recombinant adeno-associated  
288 virus serotype 2 (rAAV2) based vector containing the complementary DNA of the human *DDC*  
289 gene under the control of the cytomegalovirus immediate-early promoter. Eladocagene  
290 exuparvovec-tneq is produced in human embryonic kidney cells by recombinant DNA  
291 technology.

292 KEBILIDI is a sterile suspension administered by bilateral intraputamen infusion in one  
293 surgical session at two sites (anterior and posterior) per putamen. Each single-dose 2 mL vial  
294 contains  $2.8 \times 10^{11}$  vg in an extractable volume of 0.5 mL of suspension. Each mL of suspension  
295 contains  $5.6 \times 10^{11}$  vg. Patients will receive a total dose of  $1.8 \times 10^{11}$  vg delivered as four 0.08 mL  
296 ( $0.45 \times 10^{11}$  vg) infusions (two per putamen).

297 KEBILIDI is provided in a single-dose 2 mL vial containing a clear to slightly opaque, colorless  
298 to faint white liquid, free of visible particulates following thaw from its frozen state. The  
299 excipients include potassium chloride (3 mM), sodium chloride (337 mM), potassium  
300 dihydrogen phosphate (2 mM), disodium hydrogen phosphate (8 mM), and poloxamer 188  
301 (0.001%).

302 **12 CLINICAL PHARMACOLOGY**

303 **12.1 Mechanism of Action**

304 KEBILIDI is a recombinant adeno-associated virus serotype 2 (rAAV2) based gene therapy  
305 designed to deliver a copy of the *DDC* gene which encodes the AADC enzyme. Intraputamenal  
306 infusion of KEBILIDI results in AADC enzyme expression and subsequent production of  
307 dopamine in the putamen.



308 **12.2 Pharmacodynamics**

309 Homovanillic Acid in Cerebrospinal Fluid

310 In Study 1, homovanillic acid (HVA), a downstream metabolite of dopamine, in cerebrospinal  
 311 fluid (CSF) was measured at baseline, Week 8, and Week 48 using a high-performance liquid  
 312 chromatography with tandem mass spectrometry (HPLC-MS/MS). In all patients of Study 1, an  
 313 increase in CSF HVA levels from baseline was observed at Week 8 and Week 48 (Table 4).

314 **Table 4: HVA Levels in CSF (Study 1)**

Timepoint	Observed Values (nmol/L)	Change from Baseline (nmol/L)	Percent Change from Baseline (%)
<b>Baseline</b>			
N	13	-	-
Median (Min, Max)	3.34 (1.00, 93.73)	-	-
<b>Week 8</b>			
N	12	12	12
Median (Min, Max)	35.09 (15.09, 150.48)	26.62 (12.49, 56.75)	534.7 (57.4, 2810.0)
<b>Week 48</b>			
N	9	9	9
Median (Min, Max)	29.16 (14.21, 125.84)	24.7 (13.21, 58.02)	773.1 (33.9, 3991.0)

315 Note: Lower limit of quantification (LLOQ) was 2 nmol/L, and values reported as <LLOQ were imputed as 0.5\*LLOQ.  
 316 Abbreviations: CSF=cerebrospinal fluid; HVA=homovanillic acid; N=number of subjects; Max=maximum;  
 317 Min=minimum

318 <sup>18</sup>F-DOPA Uptake in the Putamen

319 <sup>18</sup>F-DOPA is a positron-emitting fluorine-labeled substrate of the AADC enzyme. Following  
 320 administration of <sup>18</sup>F-DOPA, its uptake into the putamen assessed by positron emission  
 321 tomography (PET) imaging reflects AADC enzyme activity of dopaminergic neurons in the  
 322 putamen. In Study 1, <sup>18</sup>F-DOPA uptake in the putamen was assessed at baseline and followed up  
 323 at Week 8 in 12 out 13 patients and at Week 48 in 10 out 13 patients indicating increased AADC  
 324 <sup>18</sup>F-DOPA uptake in all assessed patients. The median (range) percent increase from baseline  
 325 was 259% (65% to 620%) at Week 8 and 271% (25% to 760%) at Week 48.

326 **12.3 Pharmacokinetics**

327 Biodistribution (within the body) and Vector Shedding (excretion/secretion)

328 KEBILIDI vector DNA levels in various tissues and secretions were determined using a  
329 validated quantitative polymerase chain reaction (qPCR) assay.

330 *Nonclinical data*

331 Biodistribution of eladocagene exuparvovec-tneq was evaluated in rats at Days 7, 30, 90, and  
332 180 after single-dose intraputaminial infusion at dose levels up to  $7.5 \times 10^9$  vg/animal (21-fold  
333 higher than the recommended human dose based on relative brain weight). At Day 7, vector  
334 DNA was observed in the putamen, cerebellum, cerebrum, and spinal cord. Vector DNA levels  
335 declined from Day 7 to Day 90, with DNA levels primarily sustained in the putamen at Day 180.

336 *Clinical data*

337 Following administration of KEBILIDI at a total dose for each patient of  $1.8 \times 10^{11}$  vg in Study 1,  
338 biodistribution and viral shedding in CSF, blood, and urine were evaluated in 13 patients. CSF  
339 was collected at Weeks 8 and 48, and blood and urine were collected from Day 3 up to Week 48.  
340 Five (38%) patients showed detectable vector DNA levels in blood at Day 3 ranging from  
341  $4.0 \times 10^3$  to  $6.5 \times 10^3$  copies/mL, which became below the limit of detection ( $< 3.1 \times 10^3$  copies/mL)  
342 by Week 3. No vector was detected in CSF or urine.

343 **12.6 Immunogenicity**

344 The observed incidence of anti-AAV2 antibodies is highly dependent on the sensitivity and  
345 specificity of the assay. Differences in assay methods preclude meaningful comparisons of the  
346 incidence of anti-AAV2 antibodies in the studies described below with the incidence of anti-  
347 AAV2 antibodies in other studies.

348 There is no clinical experience with KEBILIDI in patients with pre-existing anti-AAV2  
349 neutralizing antibody at titers  $> 1:1200$ .

350 In Study 1, anti-AAV2 total binding antibodies and anti-AAV2 neutralizing antibodies were  
351 assessed from Day 3 up to Week 48 following administration of KEBILIDI. In all patients  
352 (N=13), titers of total binding antibody and neutralizing antibody increased from Week 3 and  
353 remained elevated, as measured at Week 48 (N=9). The highest titers in each patient ranged from  
354 1:800 to 1:204,800 for total binding antibodies and from 1:80 to 1:10,240 for neutralizing  
355 antibody. Because of the small sample size of Study 1, there is insufficient data to determine the  
356 effect of anti-AAV2 antibody on the pharmacokinetics, pharmacodynamics, safety, or  
357 effectiveness.

358 **13. NONCLINICAL TOXICOLOGY**

359 **13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility**

360 Carcinogenicity, genotoxicity, and fertility studies have not been performed with KEBILIDI.

361 **14 CLINICAL STUDIES**

362 The efficacy of KEBILIDI was evaluated in one open-label, single arm study (Study 1;  
363 NCT04903288). The study enrolled pediatric patients with genetically confirmed, severe AADC  
364 deficiency who had achieved skull maturity assessed with neuroimaging. The main efficacy  
365 outcome measure was gross motor milestone achievement evaluated at week 48 and assessed  
366 using the Peabody Developmental Motor Scale, Second Edition (PDMS-2). Patients treated with  
367 KEBILIDI were compared to an external untreated natural history cohort of 43 pediatric patients  
368 with severe AADC deficiency who had at least one motor milestone assessment after 2 years of  
369 age.

370 A total of 13 patients received a single total dose of  $1.8 \times 10^{11}$  vg of KEBILIDI given as four  
371 intraputaminial infusions in a single stereotactic neurosurgical procedure. The demographic  
372 characteristics of the population were as follows: the median age was 2.8 years (1.3 to 10.8  
373 years), 7 patients (54%) were female, 10 patients (77%) were Asian, 2 patients (15%) were  
374 White, and 1 patient was of “other” race. Twelve of the 13 patients had the severe phenotype of  
375 AADC deficiency, defined as having no motor milestone achievement at baseline and no clinical  
376 response to standard of care therapies. The one remaining patient had a “variant” of the severe  
377 disease phenotype, with the ability to sit with assistance but with lack of head control.

378 Gross motor milestone achievement at Week 48 was assessed in 12 of the 13 patients treated in  
379 Study 1 (one patient dropped out of the study prior to Week 48).

380 Eight (67%) of the 12 treated patients achieved a new gross motor milestone at week 48: 3  
381 patients achieved full head control, 2 patients achieved sitting with or without assistance, 2  
382 patients achieved walking backwards and the patient with the “variant” severe phenotype was  
383 able to sit unassisted. The two patients who achieved walking backwards at week 48 were treated  
384 before 2 years of age. The four patients who were unable to achieve new gross motor milestones  
385 at week 48 were treated between the ages of 2.8 and 10.8 years. In comparison, none of the 43  
386 untreated patients with the severe phenotype had documented motor milestone achievement at  
387 last assessment at a median age of 7.2 years (range 2 to 19 years).

388 **16 HOW SUPPLIED/STORAGE AND HANDLING**

389 How Supplied

390 KEBILIDI is supplied in a single-dose 2 mL vial containing sterile, clear to slightly opaque,  
391 colorless to faint white liquid free of visible particulates, following thaw from its frozen state.  
392 Each KEBILIDI (eladocagene exuparvovec-tneq) vial contains  $2.8 \times 10^{11}$  vg of eladocagene  
393 exuparvovec-tneq in an extractable volume of 0.5 mL of suspension. Each mL of suspension  
394 contains a nominal concentration of  $5.6 \times 10^{11}$  vg of eladocagene exuparvovec-tneq.

395 Package (carton): NDC Number 52856-601-01

396 Container (vial): NDC Number 52856-601-11

397 Storage and Handling

398 Store and transport frozen at  $\leq -65^{\circ}\text{C}$  ( $-85^{\circ}\text{F}$ ). Keep the vial in the supplied carton.

399 Thaw KEBILIDI prior to administration. If not used immediately, store at room temperature (up  
400 to  $25^{\circ}\text{C}$  [ $77^{\circ}\text{F}$ ]) and use within 6 hours of starting product thaw [see *Dosage and Administration*  
401 (2.3)]. **Do not** refreeze vial once thawed.

402 **17 PATIENT COUNSELING INFORMATION**

403 Discuss the following with patients and caregivers:

- 404 • Administration: Inform patients/caregivers that KEBILIDI administration involves an  
405 infusion into the brain that is administered during the neurosurgical procedure [see  
406 *Administration 2.4*].
- 407 • Procedural Complications: Inform patients/caregivers about the complications of the  
408 neurosurgical procedure required for administration of KEBILIDI, including respiratory  
409 and cardiac arrest, cerebrospinal fluid (CSF) leak, intracranial bleeding,  
410 neuroinflammation, acute infarction, and infection [see *Warnings and Precautions (5.1)*].
- 411 • Dyskinesia: Inform patients/caregivers that they may experience dyskinesia within 3  
412 months after treatment with KEBILIDI. Symptoms of dyskinesia may include  
413 involuntary movements of face, arm, leg, or entire body which may present as fidgeting,  
414 writhing, wriggling, head bobbing or body swaying. Advise patients and caregivers to  
415 contact their healthcare provider if these symptoms occur [see *Warnings and Precautions*  
416 (5.2)].
- 417 • Vector Shedding: Inform patients/caregivers that temporary vector shedding of  
418 KEBILIDI may occur for 3 weeks after administration. Advise patients/caregivers on  
419 proper hand hygiene and appropriate handling of waste materials generated from  
420 dressings and/or any secretions (e.g., blood, nasal secretions, urine, stool, and CSF).  
421 Recommended procedures include storage of waste material in sealed bags prior to  
422 disposal and wearing gloves for dressings changes and waste disposal. Patients should  
423 not donate blood, organs, tissues, or cells for transplantation [see *Pharmacokinetics*  
424 (12.3)].

425  
426 Manufactured by: PTC Therapeutics, Inc.

427 Warren, NJ 07059 USA

428

429 US License No. 2168