9 February 2015
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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Adeno-associated viral vector serotype 8 containing the human *AIPL1* gene for the treatment of Leber's congenital amaurosis type 4

First publication	20 December 2011
Rev.1: sponsor's change of address	26 November 2013
Rev.2: withdrawal from the Community Register	9 February 2015

Disclaimer

Please note that revisions to the Public Summary of Opinion are purely administrative updates. Therefore, the scientific content of the document reflects the outcome of the Committee for Orphan Medicinal Products (COMP) at the time of designation and is not updated after first publication.

Please note that this product was withdrawn from the Community Register of designated Orphan Medicinal Products in September 2014 on request of the Sponsor.

On 9 December 2011, orphan designation (EU/3/11/929) was granted by the European Commission to Fondazione Telethon, Italy, for adeno-associated viral vector serotype 8 containing the human *AIPL1* gene for the treatment of Leber's congenital amaurosis type 4.

What is Leber's congenital amaurosis type 4?

Leber's congenital amaurosis is an inherited disease characterised by loss of sight at birth or soon after birth. The disease is linked to a number of genetic defects, which affect the normal development of the light-sensitive cells in the eye. Leber's congenital amaurosis type 4 is caused by a defect in the gene *AIPL1*.

Leber's congenital amaurosis is a long-term debilitating disease due to progressive loss of vision.

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What is the estimated number of patients?

At the time of designation, Leber's congenital amaurosis type 4 affected less than 1 in 10,000 people in the European Union (EU). This was equivalent to a total of fewer than 51,000 people[*], and is below the ceiling for orphan designation, which is 5 people in 10,000. This is based on the information provided by the sponsor and the knowledge of the Committee for Orphan Medicinal Products (COMP).

What treatments are available?

At the time of submission of the application for orphan designation, no satisfactory methods were authorised in the EU for treating Leber's congenital amaurosis. Patients with Leber's congenital amaurosis usually received genetic counselling on the risks of passing the condition on to children and regular medical follow up.

How is this medicine expected to work?

The medicine is made of a virus that contains normal copies of the *AIPL1* gene. When injected into the patient's eye, it is expected that the virus will carry the *AIPL1* gene into the light-sensitive cells of the eye, enabling the cells to develop normally and thereby help to improve the patient's sight and reduce other symptoms of the disease.

The type of virus used in this medicine ('adeno-associated virus') does not cause disease in humans.

What is the stage of development of this medicine?

At the time of submission of the application for orphan designation, the evaluation of the effects of the medicine in experimental models was ongoing.

At the time of submission, no clinical trials with the medicine in patients with Leber's congenital amaurosis type 4 had been started.

At the time of submission, the medicinal product was not authorised anywhere in the EU for Leber's congenital amaurosis type 4 or designated as an orphan medicinal product elsewhere for this condition.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 7 October 2011 recommending the granting of this designation.

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Opinions on orphan medicinal product designations are based on the following three criteria:

- the seriousness of the condition;
- the existence of alternative methods of diagnosis, prevention or treatment;
- either the rarity of the condition (affecting not more than 5 in 10,000 people in the EU) or insufficient returns on investment.

[*]Disclaimer: For the purpose of the designation, the number of patients affected by the condition is estimated and assessed on the basis of data from the European Union (EU 27), Norway, Iceland and Liechtenstein.
At the time of designation, this represented a population of 507,700,000 (Eurostat 2011).

Designated orphan medicinal products are products that are still under investigation and are considered for orphan designation on the basis of potential activity. An orphan designation is not a marketing authorisation. As a consequence, demonstration of quality, safety and efficacy is necessary before a product can be granted a marketing authorisation.

For more information

Sponsor's contact details:

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For contact details of patients' organisations whose activities are targeted at rare diseases see:

- Orphanet, a database containing information on rare diseases which includes a directory of patients' organisations registered in Europe.
- European Organisation for Rare Diseases (EURORDIS), a non-governmental alliance of patient organisations and individuals active in the field of rare diseases.

Translations of the active ingredient and indication in all official EU languages[1], Norwegian and Icelandic

Language	Active ingredient	Indication
English	Adeno-associated viral vector serotype 8 containing the human *AIPL1* gene	Treatment of Leber's congenital amaurosis type 4
Bulgarian	Адено-свързан вирусен вектор серотип 8 съдържащ човешки *AIPL1* ген	Лечение на вродена амавроза на Лебер 4
Czech	Sérotyp 8 adeno asociovaný virový vektor, obsahující lidský gen *AIPL1*	Léčba Leberovy vrozené slepoty typ 4
Danish	Adenoassocieret viral vektor serotype 8 indeholdende det humane *AIPL1* gen	Behandling af Lebers kongenitale amaurose type 4
Dutch	Adeno-geassociëerde virale vector, serotype 8, welke het humane gen *AIPL1* bevat	Behandeling van amaurosis congenita van Leber type 4
Estonian	Adenoga assotsieeruv viirusvektori serotüüp 8, mis sisaldab inimese *AIPL1* geeni	Leberi päriliku amauroosi (neljanda tüübi 4 ravi
Finnish	Serotyyppiä 8 oleva adenoassosioitu virusvektori, joka sisältää ihmisen *AIPL1* geenin	Leberin synnynnäisen amauroosin (sokeus) tyyppi 4 :n hoito
French	Vecteur viral adéno-associé du sérotype 8 contenant le gène humain *AIPL1*	Traitement de l'amaurose congénitale de Leber type 4
German	Das humane *AIPL1* Gen beinhaltender, adeno-assoziierter viraler Vektor Serotyp 8	Behandlung der Leberschen Kongenitalen Amaurose Typ 4
Greek	Αδενοσύνδετος φορέας ορότυπου 8 που περιέχει το ανθρώπινο γονίδιο *AIPL1*	Θεραπεία τής συγγενους αμαύρωσης του Leber 4
Hungarian	Humán *AIPL1* gént tartalmazó 8-as szerotípusú adeno-társított virus vector	Leber-féle 4-es típusú herediter amaurosis kezelése
Italian	Vettore virale adeno-associato di serotipo 8 contenente il gene umano *AIPL1*	Trattamento dell'amaurosi congenita di Leber tipo 4
Latvian	Adeno-saistītā vīrusa vektora 8. serotips, kas satur cilvēka *AIPL1* gēnu	4 tipa Lēbera pārmantotās amaurozes ārstēšana
Lithuanian	Adeno-asocijuotas viruso vektoriaus 8 serotipas, pernešantis žmogaus *AIPL1* geną	Įgimtos Lėberio amaurozės 4 tipo gydymas
Maltese	Vettur imnissel mill-adenovirus tas-serotip 8 li fih il-ġene uman *AIPL1*	Kura ta' l-amawrożi konġenitali ta' Leber tat-tip 4
Polish	Wektor adenowirusowy serotyp 8 zawierający ludzki gen *AIPL1*	Leczenie wrodzonej ślepoty Lebera typu 4
Portuguese	Vector viral adeno-associado de serotipo 8 contendo o gene humano *AIPL1*	Tratamento da Amaurose Congénita de Leber tipo 4
Romanian	Vector viral adeno-asociat de serotip 8 conţinând gena umană *AIPL1*	Tratamentul amaurozei congenitale Leber de tip 4

[1] At the time of designation

Language	Active ingredient	Indication
Slovak	Adeno-asociovaný vírusový vektorový sérotyp 8 obsahujúci l'udský gén *AIPL1*	Liečba Leberovej vrodenej amaurózy typ 4
Slovenian	Adenovirusni pridruženi virusni vektor serotipa 8, ki vsebuje človeški gen *AIPL1*	Zdravljenje Leberjeve vrojene amavroze tip 4
Spanish	Vector viral adenoasociado del serotipo 8 que contiene el gen humano *AIPL1*	Tratamiento de la amaurosis congénita de Leber de tipo 4
Swedish	Adenoassocierad virusvektor serotyp 8, innehållande den mänskliga *AIPL1* genen	Behandling av Lebers kongenitala amauros typ 4
Norwegian	Adenoassosiert virusvektor serotype 8 som inneholder det humane genet *AIPL1*	Behandling av Lebers kongenitte amaurose type 4
Icelandic	Adenótengd veiruferja af sermisflokki 8 sem inniheldur manna *AIPL1* gen	Meðferð á Leber meðfæddri blindu gerð 4