MHRA
10 South Colonnade
Canary Wharf
London
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United Kingdom

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Decision Cover Letter

Decision of the licensing authority to:

agree a paediatric investigation plan and grant a deferral and grant a waiver

MHRA-100291-PIP01-21

Scope of the Application

Active Substance(s)

imetelstat

Condition(s)

Treatment of Acute Myeloid Leukaemia, Treatment of Myelodysplastic Syndromes (MDS), including JMML

Pharmaceutical Form(s)

Powder for solution for infusion

Route(s) of Administration

Intravenous use

Name / Corporate name of the PIP applicant

Geron Corporation

Basis for the Decision

Pursuant to the Human Medicines Regulations 2012, Geron Corporation submitted to the licensing authority on 01/10/2021 18:12 BST an application for a Paediatric Investigation Plan

The procedure started on 25/03/2022 14:07 GMT

1. The licensing authority, having assessed the application in accordance with the Human Medicines Regulations 2012, decides, as set out in the appended summary report:

to agree a paediatric investigation plan and grant a deferral and grant a waiver

2. The measures and timelines of the paediatric investigation plan are set out in the Annex I.

This decision is forwarded to the applicant, together with its annex and appendix.

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Final Decision Letter

MHRA-100291-PIP01-21

Of 30/03/2022 07:14 BST

On the adopted decision for imetelstat (MHRA-100291-PIP01-21) in accordance with the Human Medicines Regulations 2012.

The licensing authority, in accordance with the Human Medicines Regulations 2012, has adopted this decision:

Agreement on a paediatric investigation plan

This decision applies to a Paediatric Investigation Plan for imetelstat, Powder for solution for infusion , Intravenous use .

This decision is addressed to Geron Corporation, 919 E. Hillsdale Blvd, Suite 250, Foster City, United States, CA 94404

ANNEX I

1. Waiver

1.1 Condition:

Treatment of Acute Myeloid Leukaemia (AML) The waiver applies / applied to: Paediatric Subset(s): The paediatric population from birth to less than 28 days of age Pharmaceutical form(s): Powder for solution for infusion Route(s) of administration: Intravenous use Reason for granting waiver: on the grounds that clinical studies with the specific medicinal product cannot be expected to be of significant therapeutic benefit to or fulfil a therapeutic need of the specified paediatric subset(s). 1.2 Condition: Treatment of Myelodysplastic Syndromes (MDS), including Juvenile Myelomonocytic Leukaemia (JMML) The waiver applies / applied to: Paediatric Subset(s): The paediatric population from birth to less than 28 days of age Pharmaceutical form(s): Powder for solution for infusion Route(s) of administration: Intravenous use Reason for granting waiver: on the grounds that clinical studies with the specific medicinal product cannot be expected to be of significant therapeutic benefit to or fulfil a therapeutic need of the specified paediatric subset(s).

2. Paediatric Investigation Plan:

2.1 Condition(s):

Treatment of Acute Myeloid Leukaemia (AML); Treatment of Myelodysplastic Syndromes (MDS), including Juvenile Myelomonocytic Leukaemia (JMML)

2.2 Indication(s) targeted by the PIP:

Treatment of paediatric patients with relapsed or refractory AML or MDS, including JMML

2.3 Subset(s) of the paediatric population concerned by the paediatric development:

The paediatric population from 28 days to less than 18 years of age

2.4 Pharmaceutical Form(s):

Powder for solution for infusion

2.5 Studies:

Study Type	Number of Studies	Study Description
Quality Measures	1	(Same study for both conditions) Study 1 Development of an age appropriate presentation of a powder for solution for infusion.
Non-Clinical Studies	2	(Studies for condition: Treatment of Acute Myeloid Leukaemia [AML] only) Study 2 Ex-vivo pharmacology study to evaluate the anti-leukaemic activity of imetelstat. Study 3 In vivo pharmacology study to evaluate the anti-leukaemic activity of imetelstat.
Clinical Studies	2	(Same studies for both conditions) Study 4 Open-label, single arm, two-stage trial to evaluate dose, safety, pharmacokinetics (PK), pharmacodynamics (PD), and activity of imetelstat as monotherapy in children from 1 year to less than 18 years of age with relapsed or refractory AML or MDS, including JMML. Study 5 Open-label, single arm, confirmatory trial to evaluate safety and activity of imetelstat as monotherapy in children from 28 days to less than 18 years of age with relapsed or refractory AML or MDS, including JMML.

Extrapolation, Modeling & Simulation Studies	1	(Same study for both conditions) Study 6 Modelling and simulation study to support the dose finding of imetelstat as monotherapy in children from 28 days to less than 18 years of age with relapsed or refractory AML or MDS, including JMML.
Other Studies	0	Not applicable
Other Measures	0	Not applicable

3. Follow-up, completion and deferral of a PIP:

Concerns on potential long term safety and efficacy issues in relation to paediatric use:	Yes
Date of completion of the paediatric investigation plan:	31/07/2030
Deferral of one or more studies contained in the paediatric investigation plan:	Yes