



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

22 September 2016
EMA/COMP/500995/2016
Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

2-((2-ethyl-6-(4-(2-(3-hydroxyazetidin-1-yl)-2-oxoethyl)-piperazin-1-yl)-8-methylimidazo[1,2- α]pyridin-3-yl)-(methyl)amino)-4-(4-fluorophenyl)-thiazole-5-carbonitrile for the treatment of idiopathic pulmonary fibrosis

On 29 August 2016, orphan designation (EU/3/16/1712) was granted by the European Commission to Galapagos NV, Belgium, for 2-((2-ethyl-6-(4-(2-(3-hydroxyazetidin-1-yl)-2-oxoethyl)-piperazin-1-yl)-8-methylimidazo[1,2- α]pyridin-3-yl)-(methyl)amino)-4-(4-fluorophenyl)-thiazole-5-carbonitrile for the treatment of idiopathic pulmonary fibrosis.

What is idiopathic pulmonary fibrosis?

Idiopathic pulmonary fibrosis is a long-term disease of the lungs characterised by the progressive deposition of collagen and fibrous tissue in the lungs. This causes the lung tissue to become thick and to form scars. As a result, the lungs become unable to work normally, reducing the transfer of oxygen from the air into the blood. Patients with idiopathic pulmonary fibrosis have a persistent cough, frequent lung infections and shortness of breath that worsens over time.

Idiopathic pulmonary fibrosis is a long-term debilitating and life-threatening disease because the lungs gradually lose their ability to work properly.

What is the estimated number of patients affected by the condition?

At the time of designation, idiopathic pulmonary fibrosis affected approximately 3.5 in 10,000 people in the European Union (EU). This was equivalent to a total of around 180,000 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 designation, Esbriet (pirfenidone) and Ofev (nintedanib) were authorised in the EU to treat idiopathic pulmonary fibrosis.

*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 28), Norway, Iceland and Liechtenstein. This represents a population of 513,700,000 (Eurostat 2016).



The sponsor has provided sufficient information to show that the medicine might be of significant benefit for patients with idiopathic pulmonary fibrosis. Early laboratory studies showed the medicine to have more effect in reducing fibrosis than one of the currently authorised products. Its effects were further increased when used in combination with currently authorised products. This assumption will need to be confirmed at the time of marketing authorisation, in order to maintain the orphan status.

How is this medicine expected to work?

The medicine works by blocking the action of an enzyme called autotaxin or lysophospholipase D. This enzyme is thought to be present at high levels in inflammatory conditions of the lungs and to play a key role in development of fibrous tissue. Thus, by blocking it, the medicine is expected to improve the symptoms of idiopathic pulmonary fibrosis.

What is the stage of development of this medicine?

The effects of the medicine have been evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials with the medicine in patients with idiopathic pulmonary fibrosis were ongoing.

At the time of submission, the medicine was not authorised anywhere in the EU for idiopathic pulmonary fibrosis 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 13 July 2016 recommending the granting of this designation.

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.

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:

Contact details of the current sponsor for this orphan designation can be found on EMA website, on the medicine's [rare disease designations page](#).

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 languages¹, Norwegian and Icelandic

Language	Active ingredient	Indication
English	2-((2-ethyl-6-(4-(2-(3-hydroxyazetidin-1-yl)-2-oxoethyl)-piperazin-1-yl)-8-methylimidazo[1,2- α]pyridin-3-yl)-(methyl)amino)-4-(4-fluorophenyl)-thiazole-5-carbonitrile	Treatment of idiopathic pulmonary fibrosis
Bulgarian	2-((2-етил-6-(4-(2-(3-хидроксиазетидин-1-ил)-2-оксоетил)-пиперазин-1-ил)-8-метилимидазол[1,2- α]пиридин-3-ил)-(метил)амино)-4-(4-флуорофенил)-тиазол-5-карбонитрил	Лечение на идиопатична белодробна фиброза
Croatian	2-((2-etil-6-(4-(2-(3-hidroksiazetidin-1-il)-2-oksoetil)-piperazin-1-il)-8-metilimidazo[1,2- α]piridin-3-il)-(metil)amino)-4-(4-fluorofenil)-tiazol-5-karbonitril	Liječenje idiopatske plućne fibroze
Czech	2-((2-ethyl-6-(4-(2-(3-hydroxyazetidin-1-yl)-2-oxoethyl)-piperazin-1-yl)-8-methylimidazo[1,2- α]pyridin-3-yl)-(methyl)amino)-4-(4-fluorfenyl)-thiazol-5-karbonitril	Léčba idiopatické plicní fibrózy
Danish	2-((2-ethyl-6-(4-(2-(3-hydroxyazetidin-1-yl)-2-oxoethyl)-piperazin-1-yl)-8-methylimidazo[1,2- α]pyridin-3-yl)-(methyl)amino)-4-(4-fluorophenyl)-thiazol-5-carbonitril	Behandling af idiopatisk lungefibrose
Dutch	2-((2-ethyl-6-(4-(2-(3-hydroxyazetidine-1-yl)-2-oxoethyl)-piperazine-1-yl)-8-methylimidazo[1,2- α]pyridine-3-yl)-(methyl)amino)-4-(4-fluorfenyl)-thiazol-5-carbonitril	Behandeling van idiopathische longfibrose
Estonian	2-((2-etüül-6-(4-(2-(3-hüdroksüasetidiin-1-üül)-2-oksoetüül)-piperasiin-1-üül)-8-metüülimidaso[1,2- α]püridiin-3-üül)-(metüül)amino)-4-(4-fluorofenüül)-tiasool-5-karbonitriil	Idiopaatilise kopsufibroosi ravi
Finnish	2-((2-etyyli-6-(4-(2-(3-hydroksiatsetidiini-1-yyli)-2-oksoetyyli)-piperatsiini-1-yyli)-8-metyyli-imidatso[1,2- α]pyridiini-3-yyli)-(metyyli)amino)-4-(4-fluorofenyyli)-tiatsoli-5-karbonitriili	Idiopaattisen keuhkofibroosin hoito
French	2-((2-éthyl-6-(4-(2-(3-hydroxyazétidine-1-yl)-2-oxoéthyl)-pipérazine-1-yl)-8-méthylimidazo[1,2- α]pyridine-3-yl)-(méthyl)amino)-4-(4-fluorophényl)-thiazole-5-carbonitrile	Traitement de la fibrose pulmonaire idiopathique
German	2-((2-Ethyl-6-(4-(2-(3-hydroxyazetidin-1-yl)-2-oxoethyl)-piperazin-1-yl)-8-methylimidazo[1,2- α]pyridin-3-yl)-(methyl)amino)-4-(4-fluorphenyl)-thiazol-5-carbonsäurenitril	Behandlung von idiopathischer pulmonaler Fibrose
Greek	2-((2-αιθυλο-6-(4-(2-(3-υδροξυαζετιδιν-1-υλ)-2-οξοαιθυλο)-πιπεραζιν-1-υλ)-8-μεθυλιμιδαζο[1,2- α]πυριδιν-3-υλ)-(μεθυλ)αμινο)-4-(4-φθοροφαινυλο)-θειαζολο-5-καρβονιτριλιο	Θεραπεία της ιδιοπαθούς πνευμονικής ίνωσης

¹ At the time of designation

Language	Active ingredient	Indication
Hungarian	2-((2-etil-6-(4-(2-(3-hidroxiazetidín-1-il)-2-oxoetil)-piperazin-1-il)-8-metilimidazo[1,2-alfa]piridin-3-il)-(metil)amino)-4-(4-fluorofenil)-tiazol-5-karbonitril	Idiopathiás tüdőfibrózis kezelése
Italian	2-((2-etil-6-(4-(2-(3-idrossiazetidín-1-il)-2-ossetil)-piperazin-1-il)-8-metilimidazo[1,2-alfa]piridina-3-il)-(metil)amino)-4-(4-fluorofenil)-tiazolo-5-carbonitrile	Trattamento della fibrosi polmonare idiopatica
Latvian	2-((2-etil-6-(4-(2-(3-hidroksiazetidín-1-il)-2-oksoetil)-piperazín-1-il)-8-metilimidazo[1,2-alfa]piridín-3-il)-(metil)amino)-4-(4-fluorofenil)-tiazola-5-karbonitrils	Idiopātiskās plaušu fibrozes ārstēšana
Lithuanian	2-((2-etilo-6-(4-(2-(3-hidroksiazetidino-1-ilo)-2-oksoetilo)-piperazino-1-ilo)-8-metilimidazo[1,2-alfa]piridino-3-ilo)-(metilo)amino)-4-(4-fluorofenilo)-tiazolo-5-karbonitrilas	Idiopatinės plaučių fibrozės gydymas
Maltese	2-((2-ethyl-6-(4-(2-(3-hydroxyazetidín-1-yl)-2-oxoethyl)-piperazin-1-yl)-8-methylimidazo[1,2-alpha]pyridin-3-yl)-(methyl)amino)-4-(4-fluorophenyl)-thiazole-5-carbonitrile	Kura tal-fibrozi pulmonari idjopatika
Polish	2-((2-etylo-6-(4-(2-(3-hydroksy-azetydyn-1-ylo)-2-okso-etylo)-piperazyn-1-ylo)-8-metyloimidazo[1,2-alfa]pirydyn-3-ylo)-(metylo)amino)-4-(4-fluorofenylo)-tiazolo-5-karbonitryl	Leczenie idiopatycznego zwłóknienia płuc
Portuguese	2-((2-etil-6-(4-(2-(3-hidroxiazetidín-1-il)-2-oxoetil)-piperazin-1-il)-8-metilimidazol[1,2-alfa]piridin-3-il)-(metil)amino)-4-(4-fluorofenil)-tiazol-5-carbonitrilo	Tratamento da fibrose pulmonar idiopática
Romanian	2-((2-etil-6-(4-(2-(3-hidroxiazetidín-1-il)-2-oxoetil)-piperazin-1-il)-8-metilimidazo[1,2-alfa]piridin-3-il)-(metil)amino)-4-(4-fluorofenil)-tiazol-5-carbonitril	Tratamentul fibrozei pulmonare idiopatice
Slovak	2-((2-etyl-6-(4-(2-(3-hydroxyazetidín-1-yl)-2-oxoetyl)-piperazín-1-yl)-8-metylimidazo[1,2-alfa]pyridín-3-yl)-(metyl)amino)-4-(4-fluorofenyl)-tiazol-5-karbonitril	Liečba idiopatickej pľúcnej fibrózy
Slovenian	2-((2-etil-6-(4-(2-(3-hidroksiazetidín-1-il)-2-oksoetil)-piperazin-1-il)-8-metilimidazo[1,2-alfa]piridin-3-il)-(metil)amino)-4-(4-fluorofenil)-tiazol-5-karbonitril	Zdravljenje idiopatske pljučne fibroze
Spanish	2-((2-etil-6-(4-(2-(3-hidroxiazetidín-1-il)-2-oxoetil)-piperazin-1-il)-8-metilimidazo[1,2-alfa]piridin-3-il)-(metil)amino)-4-(4-fluorofenil)-tiazol-5-carbonitrilo	Tratamiento de la fibrosis pulmonar idiopática
Swedish	2-((2-etyl-6-(4-(2-(3-hydroxyazetidín-1-yl)-2-oxoetyl)-piperazin-1-yl)-8-metylimidazol[1,2-alfa]pyridin-3-yl)-(metyl)amino)-4-(4-fluorofenyl)-tiazol-5-karbonitril	Behandling av idiopatisk lungfibros
Norwegian	2-((2-etyl-6-(4-(2-(3-hydroksyazetidín-1-yl)-2-oksoetyl)-piperazin-1-yl)-8-metylimidazo[1,2-alfa]pyridin-3-yl)-(metyl)amino)-4-(4-fluorfenyl)-tiazol-5-karbonitril	Behandling av idiopatisk lungefibrose
Icelandic	2-((2-etýl-6-(4-(2-(3-hýdroxýasetidín-1-ýl)-2-oxóetýl)-píperasín-1-ýl)-8-metýlímídasó[1,2-alfa]pýridín-3-ýl)-(metýl)amínó)-4-(4-flúorfenýl)-tíasól-5-carbónitríl	Meðferð sjálfvakinnar bandvefsmyndunar í lungum