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Depemokimab applications accepted for review in China and Japan for asthma with type 2 inflammation and CRSwNP

- If approved, depemokimab will be the first ultra-long-acting biologic with 6-month dosing
- Submissions based on data from positive SWIFT and ANCHOR trials
- SWIFT-1 and -2 showed depemokimab reduced exacerbation and hospitalisation rates as an add-on therapy for patients with asthma with type 2 inflammation
- ANCHOR-1 and -2 showed depemokimab reduced nasal polyp size and obstruction compared to placebo

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GSK plc (LSE/NYSE: GSK) today announced that new drug applications have been accepted for review by the China National Medical Products Administration and submitted to the Japanese Ministry of Health, Labour and Welfare for use of depemokimab in two indications.

In China, the submitted indications are for an add-on maintenance treatment of asthma in adult and adolescent patients aged 12 and older with type 2 inflammation characterised by blood eosinophil count, and add-on maintenance treatment of adult patients with inadequately controlled CRSwNP. In Japan, the submitted indications are for treatment of severe or refractory bronchial asthma and CRSwNP inadequately controlled with standard treatment.

Kaivan Khavandi, SVP, Global Head of Respiratory/Immunology R&D, said “Simultaneous regulatory submissions for two indications highlight our confidence in depemokimab to help reduce the burden of both asthma and CRSwNP for patients and health systems. Our SWIFT and ANCHOR trials support depemokimab’s potential to suppress IL-5, a known driver of type 2 inflammation, to offer patients sustained inhibition of a key driver of their disease with just two doses per year.”

Depemokimab, a monoclonal antibody that targets interleukin-5 (IL-5), is the first ultra-long-acting biologic to be evaluated in phase III trials and be accepted for regulatory review for use in these conditions.[1] Depemokimab's extended half-life, high-binding affinity and potency, support six month (26 week) dosing regimens based on results from the SWIFT and ANCHOR trials.[1-3] In asthma patients and patients with CRSwNP, these trials showed depemokimab could offer sustained inhibition of a key driver of their disease, and help achieve key clinical outcomes with a dosing schedule of just two injections per year.[1-3] Longer intervals between doses have been shown to overcome barriers to optimal care such as patient adherence.[4]

IL-5 is a key cytokine (protein) in type 2 inflammation.[1,5,6] Type 2 inflammation is typically identified by blood eosinophil count and is an underlying driver in many diseases.[5] This type of inflammation is present in the majority of patients with difficult to treat asthma and can lead to exacerbations and hospitalisation.[5,7] Type 2 inflammation is also present in up to 80% of people with CRSwNP and is associated with more severe disease and symptoms.[8,12]

Asthma is a major health burden in China affecting an estimated 46 million adults with approximately 15.5% reporting to have experienced an exacerbation requiring a hospital visit in the last 12 months.[13]

CRSwNP is a chronic condition that affects up to 4% of the general population, of whom 40% have uncontrolled disease.[8,12,14] It is estimated that about 107 million people in China suffer from chronic sinusitis, about 1/3 of whom have chronic sinusitis with nasal polyps.[8,15-17] In Japan, it is estimated that there are 2 million people with chronic sinusitis, of which about 200,000 are subject to surgery due to nasal polyps.[18]

Depemokimab is currently not approved in any country.

About the depemokimab development programme
The phase III asthma programme consists of SWIFT-1 and SWIFT-2 in asthma with type 2 inflammation, with an open label extension study (AGILE).[1,19] An additional study (NIMBLE) is underway to assess the efficacy and safety of depemokimab when participants with asthma with type 2 inflammation are switched from mepolizumab or benralizumab.[20]

The phase III programme in CRSwNP includes two studies, ANCHOR-1 and ANCHOR-2.[2,3]

Depemokimab is currently being evaluated in phase III trials for the treatment of other IL-5 mediated diseases, including OCEAN for eosinophilic granulomatosis with polyangiitis (EGPA)[21] and DESTINY for hypereosinophilic syndrome (HES).[22]

About SWIFT-1 and SWIFT-2
SWIFT-1 and SWIFT-2 were replicate 52-week, randomised (2:1), double-blind, placebo-controlled, parallel-group, multi-centre Phase III clinical trials.[1] The trials assessed the efficacy and safety of depemokimab adjunctive therapy in 382 and 380 adult and adolescent participants with asthma with type 2 inflammation characterised by blood eosinophil count, who were randomised to receive depemokimab or placebo respectively, in addition to their standard of care treatment with medium to high-dose inhaled corticosteroids plus at least one additional controller.[1] Number of subjects included in the Full Analysis of SWIFT-1: depemokimab = 250, placebo = 132 and in SWIFT-2: depemokimab = 252, placebo = 128.[1]

These results have been reported and published in the *New England Journal of Medicine*.

About ANCHOR-1 and ANCHOR-2
ANCHOR-1 and ANCHOR-2 were replicate phase III clinical trials with the same primary and secondary endpoints assessing the safety and efficacy of depemokimab as add-on therapy in adult patients with CRSwNP. Both were 52-week, randomised (1:1), double-blind, parallel group, placebo-controlled, multi-centre trials. [2,3] Number of subjects included in the Full Analysis Set of ANCHOR-1: depemokimab = 143, placebo = 128 and in ANCHOR-2: depemokimab = 129, placebo = 128.

Both studies met their co-primary endpoints of change from baseline in total endoscopic nasal polyp score at 52 weeks and change from baseline in nasal obstruction verbal response scale (VRS) mean score from weeks 49 to 52. The overall incidence and severity of treatment-emergent adverse events across ANCHOR-1 and ANCHOR-2 were also similar in patients treated with either depemokimab or placebo.

Full results of ANCHOR-1 and ANCHOR-2 will be presented at an upcoming scientific congress.

About Asthma, CRSwNP and type 2 inflammation.
Asthma affects more than 260 million people globally many of whom continue to experience symptoms and exacerbations despite treatment with high-dose inhaled corticosteroids plus a second controller (and/or systemic corticosteroids).[5,24] Asthma presents a significant financial burden to patients as exacerbations place a resource burden on healthcare systems due to emergency department visits and hospitalisations.[5,24]

CRSwNP is caused by inflammation of the nasal lining that can lead to soft tissue growths, known as nasal polyps.[8,11]People with CRSwNP experience symptoms such as nasal obstruction, loss of smell, facial pain, sleep disturbance, infections and nasal discharge that can significantly affect their emotional and physical well-being. [8,11]

There is evidence to show IL-5 has broad effects on other structural and immune and cell types beyond eosinophils, and how they contribute to inflammation, which can lead to lung remodelling and disease progression.[5,6,25-29] Ongoing research is generating further evidence to understand the roles of these cells and their potential contribution to clinical outcomes in patients with respiratory diseases. Type 2 inflammation drives the underlying dysfunction of various immune-mediated conditions. IL-5 is a core cytokine (protein) in type 2 inflammation.[5,6] The presence of type 2 inflammation in asthma or CRSwNP can be detected by blood eosinophil count, which measures the level of a type of white blood cell.[5,8,12]

About GSK in respiratory
GSK is redefining the future of respiratory medicine as it builds on decades of pioneering work to deliver more ambitious treatment goals and develop the next-generation standard of care, for hundreds of millions of people with respiratory diseases. With an industry-leading respiratory portfolio and pipeline of vaccines, targeted biologics, and inhaled medicines, we are focused on improving outcomes and the lives of people living with all types of asthma and COPD along with less understood diseases like refractory chronic cough or rarer conditions like systemic sclerosis with interstitial lung disease. GSK is harnessing the latest science and technology with the aim to modify underlying disease dysfunction and prevent disease progression.

About GSK
GSK is a global biopharma company with a purpose to unite science, technology, and talent to get ahead of disease together. Find out more at gsk.com.

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