

MEDIA & INVESTOR RELEASE

Novartis reports positive topline results from the first Phase III trial of Beovu® versus aflibercept in patients with diabetic macular edema (DME)

- *In Phase III KITE study, Beovu (brolucizumab) 6 mg achieved its primary endpoint of non-inferiority to aflibercept 2 mg in mean change in best-corrected visual acuity (BCVA) at year one (week 52)¹*
- *In a key secondary endpoint, more than half of Beovu patients were maintained on a three-month dosing interval through year one, following the loading phase¹*
- *Beovu showed superior improvement versus aflibercept in change of central subfield thickness, a secondary endpoint, over the period of week 40 through week 52¹*
- *Beovu demonstrated an overall well-tolerated safety profile comparable to aflibercept; in addition the rate of intraocular inflammation was equivalent between Beovu and aflibercept¹*
- *Novartis actively progressing full clinical development program of Beovu, with studies across wet AMD, DME, retinal vein occlusion and proliferative diabetic retinopathy*

Basel, September 14, 2020 — Novartis today reported the first interpretable results of the Phase III KITE study, assessing the efficacy and safety of Beovu® (brolucizumab) 6 mg in diabetic macular edema (DME). The trial met its primary and key secondary endpoints, demonstrating non-inferiority for Beovu versus aflibercept 2 mg in mean change in best-corrected visual acuity (BCVA) at year one (week 52)¹.

In a secondary endpoint, Beovu demonstrated superior improvement versus aflibercept in change of central subfield thickness (CST, a key indicator of fluid in the retina) over the period of week 40 through week 52¹. More than half of patients in the Beovu arm were maintained on a three-month dosing interval through year one, following the loading phase. All aflibercept patients were on a two-month dosing interval after the loading phase¹. In KITE, Beovu demonstrated an overall well-tolerated safety profile comparable to aflibercept¹. In addition, the rate of intraocular inflammation was equivalent between Beovu and aflibercept¹.

“Living with DME has significant impact on patients’ lives and frequent treatment injections are needed to control the increased fluid in the eye,” said Dirk Sauer, Global Head Development, Novartis Pharma Ophthalmology. “This data confirms our strong belief in Beovu as a potential therapy for DME patients, and if approved, will provide patients with a new treatment option to control their disease through better resolution of retinal fluid and CST reductions.”

The KITE pivotal trial is an ongoing two-year study that enrolled 360 patients with DME across 80 centers in 23 countries¹. The data from KITE will be submitted for presentation at medical congresses and for peer-review publication. Novartis is currently conducting a second study in DME, KESTREL², and anticipates results later in the year, when Novartis will assess next steps with health authorities.

Novartis is actively progressing studies across wet age-related macular degeneration (AMD), DME, retinal vein occlusion and proliferative diabetic retinopathy. The favorable benefit-risk of the Beovu development program was supported by a company-requested review of ongoing studies by the U.S. Food and Drug Administration.

Novartis has a comprehensive program of work underway to help support retina specialists with the latest data and understanding they need to make appropriate treatment decisions for their wet AMD patients. Beovu is currently approved in over 40 countries for the treatment of wet AMD.

About Diabetic Macular Edema

DME is the leading cause of blindness in people with diabetes and affects 21 million people across the world, including 12% of people with type 1 diabetes and 28% of those with type 2 diabetes^{3,4}.

Consistently high blood sugar levels associated with diabetes can damage small blood vessels in the eye, causing them to leak fluid⁵. The resulting accumulation of fluid (known as edema) in the macula can lead to vision loss⁶. The macula is the area of the retina responsible for sharp, central vision⁶.

Early symptoms of DME include blurry or wavy central vision and distorted color perception, although the disease can also progress without symptoms at early stages^{5,6}.

About Beovu (brolucizumab)

Beovu (brolucizumab, also known as RTH258) is approved in more than 40 countries, including in the US⁷, EU⁸, UK⁸, Japan⁹, Canada¹⁰ and Australia¹¹, for the treatment of wet AMD. Additional trials are currently ongoing which study the effects of brolucizumab in patients with AMD, diabetic macular edema, retinal vein occlusion and proliferative diabetic retinopathy. Brolucizumab is the most clinically advanced humanized single-chain antibody fragment (scFv)¹²⁻¹⁴. Single-chain antibody fragments are highly sought after in drug development due to their small size, enhanced tissue penetration, rapid clearance from systemic circulation and drug delivery characteristics¹⁴⁻¹⁶.

The proprietary innovative structure results in a small molecule (26 kDa) with potent inhibition of, and high affinity to, all VEGF-A isoforms¹⁵. Beovu is engineered to deliver the highest concentration of drug, providing more active binding agents¹²⁻¹⁴. In preclinical studies, Beovu inhibited activation of VEGF receptors through prevention of the ligand-receptor interaction¹⁵⁻¹⁷. Increased signaling through the VEGF pathway is associated with pathologic ocular angiogenesis and retinal edema¹⁸. Inhibition of the VEGF pathway has been shown to inhibit the growth of neovascular lesions and suppress endothelial cell proliferation and vascular permeability¹⁸.

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generally be identified by words such as “potential,” “can,” “will,” “plan,” “may,” “could,” “would,” “expect,” “anticipate,” “seek,” “look forward,” “believe,” “committed,” “investigational,” “pipeline,” “launch,” or similar terms, or by express or implied discussions regarding potential marketing approvals, new indications or labeling for the investigational or approved products described in this press release, or regarding potential future revenues from such products. You should not place undue reliance on these statements. Such forward-looking statements are based on our current beliefs and expectations regarding future events, and are subject to significant known and unknown risks and uncertainties. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those set forth in the forward-looking statements. There can be no guarantee that the investigational or approved products described in this press release will be submitted or approved for sale or for any additional indications or labeling in any market, or at any particular time. Nor can there be any guarantee that such products will be commercially successful in the future. In particular, our expectations regarding such products could be affected by, among other things, the uncertainties inherent in research and development, including clinical trial results and additional analysis of existing clinical data; regulatory actions or delays or government regulation generally; global trends toward health care cost containment, including government, payor and general public pricing and reimbursement pressures and requirements for increased pricing transparency; our ability to obtain or maintain proprietary intellectual property protection; the particular prescribing preferences of physicians and patients; general political, economic and business conditions, including the effects of and efforts to mitigate pandemic diseases such as COVID-19; safety, quality, data integrity or manufacturing issues; potential or actual data security and data privacy breaches, or disruptions of our information technology systems, and other risks and factors referred to in Novartis AG’s current Form 20-F on file with the US Securities and Exchange Commission. Novartis is providing the information in this press release as of this date and does not undertake any obligation to update any forward-looking statements contained in this press release as a result of new information, future events or otherwise.

About Novartis

Novartis is reimagining medicine to improve and extend people’s lives. As a leading global medicines company, we use innovative science and digital technologies to create transformative treatments in areas of great medical need. In our quest to find new medicines, we consistently rank among the world’s top companies investing in research and development. Novartis products reach nearly 800 million people globally and we are finding innovative ways to expand access to our latest treatments. About 109,000 people of more than 140 nationalities work at Novartis around the world. Find out more at <https://www.novartis.com>.

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