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Novartis ARROW trial to assess mechanistic superiority of direct IL-17A inhibition (Cosentyx®) over IL-23 inhibition (Tremfya®*)

- **ARROW study to assess the mechanistic superiority of direct IL-17A inhibition (Cosentyx) over IL-23 inhibition (Tremfya®*) in clearing Stelara®*-resistant psoriatic plaques**

- **This is the 100th trial with Cosentyx in the last 10 years, adding to the wealth of data**. Cosentyx has been prescribed to more than 150,000 patients to date

- **Cosentyx has a broad head-to-head study program that includes FIXTURE, CLEAR, CLARITY, SURPASS and EXCEED clinical superiority trials**

**Basel, May 15, 2018** – Novartis announced today the plan to initiate ARROW, a head-to-head proof of concept study to assess the mechanistic superiority of the direct inhibition of IL-17A with Cosentyx® (secukinumab) over the inhibition of IL-23 with Tremfya®* (guselkumab) in patients with psoriatic plaques resistant to treatment with Stelara®*. Study results are expected in 2019.

“We know there are different immune mechanisms driving the clinical manifestations of psoriasis, including the involvement of joints, scalp, nails, palms and soles psoriasis. Results from the ARROW trial could help us learn more about the differences between the direct targeting of IL-17A and IL-23 in psoriasis,” said Kristian Reich, M.D., Ph.D., Georg-August-University Göttingen and Dermatologikum Hamburg, Germany. “It’s great to see Novartis leading the science in psoriasis, psoriatic arthritis and ankylosing spondylitis.”

“Treating all manifestations of psoriasis in the most effective way is crucial for patients and physicians. We are proud to be driving scientific activities to elucidate the biologic pathways in these diseases with the goal of transforming treatment options for patients,” said Shreeram Aradhye, Chief Medical Officer and Global Head, Medical Affairs, Novartis Pharmaceuticals.

The ARROW study objective is to assess the mechanistic superiority of Cosentyx® over Tremfya®* in controlling clinical activity in psoriatic plaques resistant to treatment with Stelara®*. IL-23 independent pathways of IL-17A release are potentially involved in inflammation of other persistent localizations, including joints, scalp, nails, palms and soles psoriasis. Up to 90% of people with psoriasis may develop nail or palmoplantar psoriasis. Nail psoriasis is an important predictor of psoriatic arthritis (PsA) which affects up to 40% of patients with psoriasis.

Cosentyx is the first fully-human biologic that specifically inhibits interleukin-17A (IL-17A), a cornerstone cytokine involved in the inflammation and development of psoriasis, ankylosing spondylitis (AS), and psoriatic arthritis (PsA). IL-17A is produced by both IL-23 dependent and IL-23 independent pathways, by various cells from both the innate immune system (which can be triggered by mechanical stress) and the adaptive immune system. By acting directly on IL-17A, Cosentyx inhibits this cornerstone cytokine irrespective of where the IL-17A comes from.
This study is now the 100th trial with Cosentyx in the last 10 years, adding to the wealth of data. Cosentyx has a broad head-to-head study program that includes FIXTURE, CLEAR, CLARITY, SURPASS and EXCEED clinical superiority trials. To date, Cosentyx has been prescribed to more than 150,000 patients with psoriasis, PsA and AS worldwide.

About ARROW
ARROW (CAIN457A2403) is a global multicenter open label randomized proof of concept Phase 2a study designed to assess the mechanistic superiority of secukinumab 300 mg over guselkumab 100 mg in achieving the clearing of psoriatic skin plaques resistant to treatment with ustekinumab after 16 weeks. 40 patients will be randomized 1:1 to secukinumab or guselkumab and treated for 16 weeks. The primary endpoint of the study is the percentage of patients achieving clear or almost clear status of the ustekinumab-resistant plaques as assessed through the Total Clinical Score (TCS ≤2). The mechanistic exploratory endpoints of this study will explore the hypothesis that the direct targeting of IL-17A is able to overcome IL-23 independent mechanisms of resistance, providing a more complete approach to the control of alternative pathways of psoriasis inflammation.

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About Novartis
Novartis provides innovative healthcare solutions that address the evolving needs of patients and societies. Headquartered in Basel, Switzerland, Novartis offers a diversified portfolio to best meet these needs: innovative medicines, cost-saving generic and biosimilar pharmaceuticals and eye care. Novartis has leading positions globally in each of these areas. In 2017, the Group achieved net sales of USD 49.1 billion, while R&D throughout the Group amounted to approximately USD 9.0 billion. Novartis Group companies employ approximately
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References
1. Expected to be available on clinicaltrials.gov imminently.
2. Clinicaltrials.gov. Active trials include all those that are listed as recruiting, active but not recruiting, enrolling by invitation and not yet recruiting and completed. This list excludes all trials listed as suspended, terminated and withdrawn.

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