

# Harmonization of Regulatory Requirements for Biosimilar Development

*Biosimilars are biopharmaceutical products that are approved after the patent expiry of the originator (“reference”) product. In 2004, Europe was the leading region when implementing a specific regulatory pathway for the approval of biosimilars. Other countries have recently developed or are currently developing “biosimilar pathways”, e.g. Japan, Canada and the United States. In addition, the World Health Organization (WHO) aims to propose a globally acceptable set of principles as guidance for biosimilar development.*

*Furthermore, some terms and conditions of the relation between reference product and biosimilar product are still unclear. It needs to be determined whether and how a biosimilar product can be launched in a market, where its reference product has not been authorised (e.g. in developing countries) and whether the biosimilar development for a certain region has to rely on the country/region-specific source of the reference product for the comparability demonstration, which might lead to duplication of studies.*

## Novartis perspective

Novartis strongly supports the application of the same high regulatory standards to all biopharmaceuticals, including the precedent-setting standards laid down in the “European pathway” for the development of biosimilars. The European concept of biosimilarity relies on the demonstration of comparable quality, safety and efficacy of the biosimilar with the reference product that was approved based on a stand-alone, full dossier. It comprises a thorough physico-chemical comparability exercise and appropriate non-clinical and clinical studies to confirm comparable safety and efficacy.

Global sets of principles for the development of biosimilars need to be scientifically sound and in accordance with recognized high regulatory standards, while being flexible enough to account for differences in national regulations and market capabilities.

A reference product might be authorized in several regions or countries, which might be supplied by different manufacturing sites from either the same or a dependent sponsor (licensing contract). Novartis believes, that one “global biosimilar development” based on comparability to one reference product should be possible if the biosimilar sponsor 1) can demonstrate that the quality attributes of the reference product samples from such multiple manufacturing sites do not differ and 2) is conducting the comparability exercise according to those regulatory standards that are the most advanced among the regions concerned.

In case, the reference product has not sought market authorization in the country concerned, Novartis believes that data from other regions having the highest standards of quality, efficacy & safety (e.g. Europe) should be accepted to allow for biosimilar approval.