



BioMed Research International

Special Issue on
Biotechnology and Biosimilars in Emerging Countries

CALL FOR PAPERS

Biopharmaceuticals are the rising product segment in the pharmaceutical industry. Since the launching of the first ones in the late 1970s and early 1980s, the number of original products approved in the USA is close to 150. Copies of these drugs are called biosimilars. They are not exact copies of the original product for several reasons, including the fact that the original innovators do not release the information about the processes used to produce them. Thus, they are not “generic” but “biosimilar” drugs. Some of follow-on biologics are improved versions of the original drug and they are called “biobetters.”

In the pipeline, the number of biobetters is around 450, and the number of biosimilars being developed is nearly 650. Most biosimilars and biobetters are developed by such companies as Amgen, Boehringer Ingelheim, Eli Lilly, Novo Nordisk, Pfizer, and Sanofi as well as large generic pharmaceutical companies such as US Mylan, Swiss Sandoz, and Israel TEVA. But the pipeline includes nearly 200 biopharmaceuticals being developed or already produced in emerging and developing countries.

These include not only China and India, but also Argentina Brazil, Korea, and Russia. The entry of these companies based in emerging countries in the production of biosimilars comes from different ways. There are alliances such as those between US Mylan and India's Biocon announced in 2013 to commercialize Biocon's recombinant insulin or between LG Life Sciences (Korea) and Mochida (Japan) for the development of a biosimilar adalimumab. There are also partnerships in countries such as Brazil, where Merck KGaA's biological division, Merck Serono, is signing agreements with Bionovis. Other companies such as Biocad in Russia, or Amega, Biosidus, and Insud in Argentina are developing and marketing biosimilars on their own.

Potential topics include, but are not limited to:

- ▶ Biosimilars as learning ground for health biotechnology in emerging countries
- ▶ From imitation to innovation in the pharmaceutical industry
- ▶ Regulatory environments and learning in emerging country biopharmaceuticals
- ▶ Different avenues for catching up in the biopharmaceutical industry: collaborate, imitate, or import

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/biotechnology/bbec/>.

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