## **Biologics, New Challenge for Generic Manufacturers**

Brian Tempest, editor of the Journal of Generic Medicines, underlined the high prices of medicines. In the United States or in Japan, some medicines are priced at over US\$50,000 per year per patient. "It affects everybody in this room," he said.

Tempest underlined the new issue of biologics, bigger, very complex molecules, which are very expensive. They are very difficult to make and current manufacturing assets cannot do that, he said. In 2016, biologics will constitute half of the top 20 medicines sold, and they are taking over the pharmaceutical industry, he said.

According to the International Federation for Pharmaceutical Manufacturers and Associations (IFPMA), "Biotherapeutics, also known as biotech drugs or biologics, are therapies derived from living organisms. By harnessing these living cells to make or modify protein products, therapies that treat illness and improve health are able to be made."

There is a global rise in cancer patients, and cancer drugs are getting increasingly more expensive, Tempest said, adding, "There is a public health crisis around the corner."

Biosimilars, which can be developed after a biologic patent expires, are very expensive to manufacture and the current generic industry would need massive investment in equipment to get into biosimilars, he said.



Brian Tempest, editor of the Journal of Generic Medicines

Large pharmaceutical companies are realigning their R&D and most likely future products will be coming from big molecules, he said. Those expensive medicines will be available only to the wealthy of the world, he said, a looming crisis.

Tempest said new names are emerging in this new market, such as South Korean companies Celltrion, and Samsung, which is building large facilities to supply larger molecules around the world.

Attracted by what has the potential to be a very lucrative market, companies such as Fujifilm are also entering the market, he said.