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NEWS

European regulator defends tough stance on approving gene and cell therapies

Elizabeth Sukkar

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The European Medicines Agency (EMA) believes that the level of regulatory requirements needed to approve "advanced therapy medicinal products" are appropriate, although only one product has been approved since new EU rules were brought in three years ago to help speed up their development.

Advanced therapy medicinal products (ATMPs) is a term that comprises the much heralded gene and stem cell therapies, as well as tissue engineered products, that hold promise to cure a range of diseases, including Alzheimer's disease and cancer, and have the potential to build organs from cells.

Regulators and product developers, including academics, small and medium sized enterprises and drug companies, met in London last week to discuss the problems facing these products.

The main issues cited included their complex regulatory approval pathway, a lack of funding from risk adverse investors, the lack of appropriate animal models to show their effectiveness, and their long term safety risks such as unwanted immune responses or the formation of tumours.

Christian Schneider, the chairman of the EMA's Committee for Advanced Therapies (CAT), the body that issues draft EU marketing opinions for these products, told delegates how difficult it was for regulators to decide when to stop asking for more information about these products from developers.

"Can we ask Nobel prize questions on the development of ATMPs?" he asked. In some instances, it is not yet known, on the basis of current scientific knowledge, how some of these treatments work, he noted.

Dr Schneider believes that the current level of regulation is right for most of these products and that the EMA could not allow "double standards" by approving them differently from, say, other complex biopharmaceuticals such as monoclonal antibodies, although some of the targeted diseases had an unmet medical need.

"How can you tell patients that you did not follow the regulatory requirements? It is difficult to come up with a different approach as these patients have the same rights to having efficacious and safe products as others. The goal is to create a fruitful regulatory environment for these products," he said.

Already the committee's work programme to 2015 plans to explore ways of improving the existing regulatory procedures and reflecting on alternative procedures.

But some product developers have their own ideas on alternative ways to proceed. Paul Kemp, the chief executive officer of Intercytex, a small biotech firm in Manchester, said he would like to see the use of conditional marketing approvals to help speed up access to patients.

"Regulators have the ability to ask questions about the 'omics' for these products, but industry does not have the answers. We get stuck in the 'nice to know questions', such as where do cells go once injected and their mode of action," he said.

The gene therapy community saw their hopes dashed when Glybera, a treatment for lipoprotein lipase deficiency, a rare condition, was rejected by the EMA recently. This month a US biotech firm Geron decided to leave the embryonic stem cell research space, citing "clinical, manufacturing and regulatory complexities" associated with these therapies during a tougher economic climate.

These treatments were "not doing well just now," declared Sir Gordon Duff, professor of molecular medicine at the University of Sheffield. "There is also consternation in the public about these high-tech therapies, but these concerns are not new. There has always been misunderstanding and anxiety about them."

Professor Duff, who chairs the Commission on Human Medicines, a body that advises the UK health secretary about the safety and efficacy of all medicines, believes these products need "expert" risk management plans throughout their development.

"The future for these products requires change. One that involves the public and healthcare systems much more than at present. We also need to have an appropriate basis of regulation that keeps innovation barriers low, while ensuring that advanced therapy products provide safe new options for patients," he said.

One speaker from a large biotech company believed matters would improve. "While challenges remain, there is a goal in sight. Regulation brings certainty. Business needs certainty. Now we have a centralised [approval] procedure, there is a clear path to a single EU market," said Duncan MacKay, director of regulatory affairs Europe for Genzyme.

Yet some quarters in the academic sector were not convinced. Sebastian Seth, a member of Academic GMP, a research consortium which investigates how the 2008 legislation affects the development of these therapies in academic institutions, said, "It was hoped that the 2008 EU legislation would create certainty for the industry, but where is industry? There are no patents, blockbusters or pipeline for these products."

The meeting was hosted by the Drug Information Association and the UK's Medicines and Healthcare products Regulatory Agency on 18 November in Canary Wharf.

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