

In the news

CRACKING NEWS

In a development that will have drug manufacturers counting their chickens, scientists in the UK have reared the world's first genetically modified hens capable of laying eggs that contain useful quantities of proteins used in cancer therapy.

A team of researchers at the Roslin Institute near Edinburgh, where Dolly the sheep was created, have bred a flock of 500 birds that are able to produce human interferon- β 1a, which is used to treat multiple sclerosis, and the monoclonal antibody miR24, which has the potential to treat melanoma.

Although medicinal proteins have been produced in genetically modified animals before, the proteins have always been difficult to harvest, and the ability of the animals to produce them has disappeared over successive generations. However, as Karen Jervis of Viragen Scotland, a biotech company that is working with the researchers at Roslin, said "we have bred five generations of chickens so far and they all keep producing high concentrations of pharmaceuticals" (<http://www.theaustralian.news.com.au>, 15 January 2007). The team's results have potentially huge implications for drug production, as Harry Griffin, director of the Roslin Institute explains: "The idea of producing the proteins involved in treatments in flocks of laying hens means they can produce in bulk, they can produce cheaply and indeed the raw material for this production system is quite literally chicken feed" (<http://www.bbc.co.uk>, 16 January 2007).

However, Helen Sang, the lead researcher on the project, cautioned that further improvements were still needed: "We're probably getting a high enough productivity if you want to make a very active protein like interferon, but not enough yet if you want to make an antibody because people need large doses of these over long periods; so one of our next challenges is to try to increase the yield in egg white" (<http://www.bbc.co.uk>, 16 January 2007).

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