

Editorial

Research and Development of Drugs – unequal for certain diseases

A time was when research and development of drugs were driven by human need and scientific heroism. At this time, researches were dictated and controlled by the medical research councils and the university research committees. The ethics committees were more interested in the value of the research to mankind. That time is receding in our memory. Before the discovery of Insulin, the patients with diabetes suffered without hope. The human need for a solution was immense. The research of Dr. Fredrick Banting and Dr. Charles Best led to discovery in 1921 of Insulin which remains the main stay of therapy for diabetes until today. I repeat myself by saying “that was when researches were controlled by the medical research councils and the university research committees”. At this time, the financial rewards were little but the honor was more appreciable. Then, the research aspirants were inspired by human needs and scientific heroism.

In the recent times, the control of research and development of drugs has been snatched away from the academia by the pharmaceutical companies. The article “millions for Viagra and pennies for the poor” by Ken Silverstein is a summary of the economics behind the turn of event. Billions of dollars are channeled to manufacture Viagra and those drugs that deliver lots of money to the pharmaceutical industries to the neglect of life-saving drugs like vaccines, erythropoietin derivatives and anti-malarial drugs. The last major research for any anti-malarial drug was carried out by the Americans during the Vietnam War; not because the Americans wanted to donate antimalarial drugs to some third world country but because, apart from the bullets, the second major killer of the American soldiers in Vietnam was malaria. That period saw the development of the anti-malarial mefloquine which helped the American soldiers to keep fighting. Besides this period, there are almost no major research and development of anti-malarial drugs in the recent time. There are also no major researches for new drugs for tuberculosis, leprosy, schistosomiasis, trypanosomiasis and leishmaniasis. The old dapson for Leprosy remains the main stay of treatment for almost 100 years. The notion that leprosy – one of the oldest diseases of mankind still persists is ridiculous; the dapson resistance is an old story and a symbol of neglect. Streptomycin, despite its ototoxicity is still being used for tuberculosis in some parts of the world. Streptomycin has been on the scene for more than 75 years with probably the highest incidence of drug resistance. All the other neglected tropical diseases fall into the same fate. The World Health Organization Tropical Disease Research does not manufacture drugs. The pharmaceutical companies will never get involved unless there is a reasonable monetary incentive.

The new multilateral consortium led by Holland and followed by a UK pharmaceutical and a research university in Switzerland to embark on research and drug manufacture to eliminate the African Trypanosomiasis (sleeping sickness) and Leishmaniasis is a journey in the right direction. A more tactical approach would be to classify all the drugs for the underserved communities of the world as orphan drugs to make their manufacture a profitable venture. Orphan drugs are those drugs that cure diseases afflicting less than 200,000 people in the world. Their manufacture would be not profitable. Incentives are normally given by governments and International Organizations to the pharmaceutical companies to encourage their manufacture. Tagging the drugs for neglected diseases as orphan drugs will give the pharmaceutical companies the monetary incentives for research and production of these needed drugs. This incentive will switch the brains of the pharmaceutical companies from too much of Silverstein’s proverbial Viagra to just a little bit of the other needed drugs.

Reference

Silverstein K (1999). The Nations: Millions for Viagra, Pennies for the Poor
Mansell P (August 19, 2009). [PharmaTimes | Industry News | Clinical News | Multilateral consortium tackles neglected tropical diseases](#)

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