

## **Appendix – III**

### **R&D Efforts in India**

In the medium term the Indian pharmaceutical industry cannot generate adequate revenues to do significant basic R&D. Research in known leads or analogues has produced some success and the country is at a very nascent stage in drug discovery.

In the coming years, India needs own products. It has to synergise government institutions, Universities & industry to develop own drugs. Such effort needs large balance sheet for companies. Progress in exports and public private initiatives are therefore mandatory. Governments across world take very serious and at times ruthless initiatives in pharmaceutical matters by forging linkages of industry, academia and scientific & financial institutions either to guard the current eminence or to protect the health needs of their citizens.

There is a need for regulatory reform in India to encourage leading global players to continue and accelerate the outsourcing of their R&D activities-beginning with discovery research-to the subcontinent. This is particularly urgent in the face of the strong competition from China, where the government has been particularly proactive in encouraging foreign investments in pharmaceuticals and biotechnology.

An OECD report on the nature of research funding in India has shown that there are a number of organisations which are engaged in research on biotechnology in India, including, the Department of Scientific and Industrial Research (DSIR), the Department of Science and Technology (DST), the Department of Biotechnology (DBT), the Indian Council of Agricultural Research (ICAR) and the Indian Council of Medical Research (ICMR) that have programmes supporting biotechnology and each of them has growing allocations for biotechnology.<sup>21</sup> However apart from DBT none of these have specific allocations earmarked for areas of research such as biotechnology, etc.

This means that in the realm of pharmaceutical research generally and more particularly in the realm of biotechnology based research, there is a great likelihood that research funding is being duplicated i.e. not being used to optimal effect. Venture capital has emerged as a major source for funding, but this needs to be encouraged more.

---

<sup>21</sup> Sachin Chaturvedi, "Dynamics of Biotechnology Research and Industry in India: Statistics, Perspectives and Key Policy Issues", OECD Document No. DSTI/DOC (2005)6, available at <http://www.oecd.org/dataoecd/43/35/34947073.pdf>.