Discovery of India – The El-“CRO”rado

Isn’t time for India to be rediscovered and revisited by “CRO”-LUMBUS”s and “VAS CRO-DA GAMA”s of the 21st Century for more commercially valuable technological treasures? Robert Clives to Queen’s chemists will find more “spicy” products coming out from the Indian diaspora, for sure. All one needs to now do is to get ready to receive the innovation tourists from chemistrariea, pharmacyland and biotechnica with right mix of rope-(in)- trickers, research chemists, enter(pre)tainers and micro-snake charmers and bio-chefs.

Don’t we deserve to be taken note for the right reasons, as the “CRO”-searchers fly in ? A few years earlier, expecting the worst, I asked a leading European “outsourcer” “what do you think of Indian Pharma Entrepreneur?” “The best in the world”, was the answer. As to my “why?”, he went on to add, “the Indian Pharma manufacturer ‘delivers’ against heavy odds”. First of all he has “labour pains” (this is translated to my language), which most countries have only rarely. Then he has to fight the system, almost entire Government machinery (not the “commerce”, which nobody takes seriously anyway), as we all as a range of unexpected events working at odds against intentions and schedules (shipping and freight included), a few “frights” en route, and an assay of generations of private, public and government “daylight” robbers and manipulators to be dealt with. It is a miracle how the Indian entrepreneur manages to deliver.

We have in India all the right “ingredients” for the CONTRACT Research “potion” and “CRO-CK TAIL”. We have qualified chemists and pharmacists (though not enough “qualified” biotechnologists) to act as CRO- Bartenders. After crying ”wolf” for years, our growing pharma entrepreneurs have been successful in reversing the brain drain, to bring back the (prodigal ?) scientists and researchers back to Indian laboratories. A “well-oiled” allied and supporting array of machinery and equipment manufacturers and service providers is another key

success parameter. I am sure many more “right reasons” have been listed elsewhere in this edition and hence let me move on.

Let me cheer up our CRO-friends and colleagues. The “Madey vs. Duke” and “Integra vs. Merck” decisions of US Supreme/Federal Circuit Courts are good news for India. In the first case (Madey vs. Duke), it was held that use of patented invention by the Duke University amounted to an infringement, even though the use was in University education and research. In the second case, use of a patented research tool by Merck in non-commercial research was held to be infringement, inspite of prior examination of the issue and non-infringement certification by Merck pool of patent attorneys. Uses of patented inventions or research tools for any purpose other than for regulatory (generic) submissions are considered infringement in USA. This leaves little mobility and space for research. In India, the Patent Act, 1970 has the new section 107A, in addition to the already existing section 47, which allows research using patented inventions (i) solely for regulatory submissions through 107A and (ii) for the purpose merely of experiment or research including imparting of instructions to pupils [I would however strongly advocate removing “solely” from 107A and “merely” from 47(iii) or even a deletion of 107A retaining 47(iii)]. In short the provisions of (Indian) Patent Act, 1970 (as it exists now and provided no “chhed-chhad” is done in 3rd amendment) is favorable to attract overseas clients to India for Contract Research.

Contract Research in India has to succeed for one wrong reason. For years together, speakers and paper-presenters in seminars and workshops have been boradcasting out long list of new drugs going out of patent protection. Annual lists of patent expiring-new drugs used to be an “added attraction” in journals and articles. “Much ado about know-thing” is now solely fizzling out and being replaced by cautious optimism. Why so? With the revolutionary emphasis surfacing in the nineties on knowledge-based industry and intellectual property and having noticed that “early birds” of the Seventies and eighties in innovation

and patenting are likely to loose the “NCE-patents” on scheduled expiry dates, the ‘plot’ has been rewritten and the “monopoly-net” has been widened and strengthened through Hatch-Waxmann, SPC, WTO-TRIPs, marketing exclusivity and data exclusivity extensions to prolong the patent expiries. To add to the woe of the generic “pelicans”, the rain of “expiries” have further been dried out because of large number of family, progeny patents on salts, derivatives, solvents, hydrates, anhydrates, amorphous, polymorphs, crystallines, impurity-ranges, hydrate-ranges, solvate-ranges, pro-drugs, metabolites and plasma level concentrations and method of use / method of treatment patents and extensions.

In this process, those few enterprising innovative ‘generic’ entrepreneurs, who ventured upon to step on to the “patent-expired” minefields had to “bleed” financially. Inspite of scathing criticism from very wide strata of society and community world over including the FTC (Federal Trade Commission of USA – who overseas anti-trust laws), UK CIPR report and many governmental, a few judicial strictures and NGO criticisms, the Pharma and MNC Pharma lobby has succeeded so far in sweeping under the carpet, the issue of “evergreening” and perpetual monopolies. To add “fuel” (not the Iraq-type) to the (“monopolistic”) fire, the USTR and even the US President himself has been pressurizing the least developed, under developed and developing countries with low per-capita incomes to negotiate bilaterally (in some cases unilaterally) to implement “TRIPS-Plus” regime. Negotiators and Ministers of developing countries (including India) who were sworn to the cause of affordable access to essential drugs for underdeveloped and developing countries and who had been shedding (“crocodile”) tears in public, lost their nerve or verve at Geneva in August, 2003 to sign and seal an unworkable, impractical post-Doha agreement on operation of third-country imports of lifesaving drugs through compulsory licencing. The fate of this agreement is still not known as the Cancun round failed to ratify this agreement. If “Alibaba” does not come forward in good time to say “open sesame” in this patent-game soon enough, post-2010 (or even earlier) India’s will

have to content with Contract-Research and Contract-Manufacturing, as the predominant option.

All said and done, new drug research is not every country's "cup of T". India (in Pharma) is not just another country, agreed. The lack of "critical mass", financial depth and security and above all a friendly understanding mother-India (infact we have the handicap of a mother-in law-India" when it comes to pharma-research and innovation-spirit) home(ly) atmosphere is our bane and weakness when it comes to new-drug research. Even the worst critics of reverse-engineering (they call it piracy) will agree that there is inventive steps and innovative research in new process development. We have proven our talents here. We have home opportunities in process and improved product (NDDS etc.) protections and patentable innovations. These will come in handy on a post-2005 – rainy day. Contract Research remains the best option for the period 2005 to 2010. One could hope to build on this experience and move on to innovative new drug research pastures, post-2010.

There is one more negative reason to support the cause of Contract Research. How so ever, one might expect the 21st Century Columbuses and Vasco Da Gamas to visit and invest in India for the wrong reasons (only the Government of India knows the right reasons), they are headed to China. China has succeeded in placating them with the right "mukhauta" on its "chehra" (we vie with each other in exposing our subsidies and incentives). With increasing Mother-in-law attitude of the Government, impractical and unhelpful (for best known reasons) attitude of Governmental agencies like Environment (pollution), heavy and unbearable load of unexplainable compliance and clearance expenses, India is at a severe disadvantage vis-à-vis China as far as manufacturing and exports are concerned. All the "brainy" reasons for supremacy are negated and neutralized by the heavy antipathy from home ground umpires.

China has also succeeded in implementing labour-reforms at home and have managed to “corrupt” India with its antique trade-unionism and the “no-work-all play” bar-gains. Any fair version of “hire and fire” is distant dream for India, while it is a routine practice in China, who have succeeded in exporting all its past-collective bargaining practices to Indian Industrial zone.

The much-awaited Mashelkar Committee Report and the much-lauded Drug Policy of the new Millennium has come and gone (infact hit the dust) and got solemnly/judicially buried. A cropping Rs.2 to 4 crore has come out of a whopping (?) Rs.150 crore pharma research fund for facing post-2005 patent-era challenges (Sigh!) as the R&D projects are to be done from the interest accrued from this one time deposit of Rs.250 crore.

Are we ready for the post-2005/post-2010 challenges? Are we taking note of the developments in pharma, chemical, biotechnology industry in China who is our nearest (in culture, costs and technology) competitor? Is our English-speaking advantage getting diluted year after year? Are our Minister, bureaucrats and (especially) left-front veterans aware that China is going “capital” by leaps and bounds? If I say that sooner than later, China is going to be the Contract Manufacturer even for most leading Indian pharma manufacturers, are you feeling upset ? Sorry facts and truths are often sour and bitter. Myths may not be. But it is time for us to wake up and face the realities and move and shake the “Movers and Shakers” in the “Great Government of India Laboratory” at Delhi (and also Kolkata and Kerala).

All this leaves us only one thing, our brains! Age old sages had said that “knowledge” and “intellect” is an asset which is available and dependable when everything else fails. We have abundance of trained manpower (we need to lay more emphasis on increasing the tribe of PhDs in pure sciences like Chemistry, Biology and Pharmacy. If Corporates do not take up the responsibility of attracting and training the “cream” of SSCs & HSCs into pure science stream, we

may soon be dried up of this (human) resource also). We could exploit our research talents in the field of Contract Research. We may need to reassure our overseas partners with “confidentiality” guarantees. Very often (even all the time), we hear the lament, “if India needs to attract FDI and Contract-outsourcing partnerships, India should have a strong TRIPs-plus Patent regime. Nothing is far from the truth. All that is required is a fool-proof corporate policy of protecting research-results and tying up all concerned into a workable Confidentiality Agreement / Non-disclosure Agreement, as most of the Intellectual property/ patentable technical research information are for global use and exploitation which can and will anyway be done internationally from abroad through PCT or convention routes, by the overseas partner. The MOUs and Agreements and their implementation which form the foundation for CRO-relationships will be and can be strongly TRIPs plus. These will anyway be mostly drafted overseas with help of a team of IP lawyers.

What are we “CRO”-ying about? Let us get to work, for we have miles to go, before we creep!

May Gold Bless the Indian CROs.