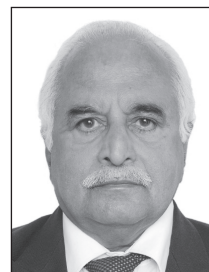


## INNOVATION ERA IN INDIAN PHARMACEUTICAL FIELD

Dear Reader,

It is my pleasure and privilege to commence this “Editorial” feature in “Indian Drugs”, as proposed by our Publication Committee and the Editorial Board.



The entrepreneur-driven Indian Pharmaceutical Industry has moved into the “innovation era” from the WTO/TRIPs driven “generic era” post 1995/2005. Innovation is the key to success to retain the leadership role that the Indian pharmaceutical industry had initiated post-1995. In the past, ‘research funding’ has been substantially driven by the government and CSIR. In the current changing times, the government, through its ministries and departments, are demanding more and more innovation and new molecules from the pharmaceutical research entities, while its “funding” is drying up, not only to the industry and academia, but also to the CSIR laboratories themselves. Researchers in institutes and academia are under pressure to bring in their own research funds from Academia-Industry collaborations. Reality checks for innovative research in India is the need of the hour. Unlike yesteryears, “research funding” is not the most critical problem. Indian pharmaceutical research needs infusion of skilled and well-qualified research personnel and professionals. In the sixties and seventies of India, we had brilliant scientists, competing (healthily) with each other on fundamental concepts and application sciences. Today, with the advent of the internet era, almost all research has moved to incremental improvements, often bordering on “plagiarism”. This is a clarion call to all Indian pharmaceutical researchers, both in industry and in academia, to wake up to the needs of the nation and aggressively approach innovative research truly in a novel and inventive manner to make India globally the “Pharmaceutical Innovation Capital of the World” from a mere generic pharmaceutical capital of the world. Let us transform India in the next 10 years to “Pharmaceutical Innovator of the World”. This transformation is possible only with your, the pharmaceutical research communities’, active participation.

Speaking of novelty and inventiveness in Innovation, it is time to delve with the research communities’ participation in patenting. From mere publishing of research findings for personal glory and career promotion, we have started making ‘kaizen’ steps to patenting. There is a major misconception or myth in the pharmaceutical community “to publish or patent?” The answer is “Patent and publish”. Every innovative research finding must first be patented (initially through provisional filings and later within one year through complete filing) and must be followed up by publishing in research publications. In this context, it is essential for pharmaceutical researchers to inculcate the habit of “prior art” search before initiating any new research project. This should be incorporated in an initial “checklist” before commencing any research. This early “homework” of “prior art” search will not only help not to “reinvent the wheel”, but also help

- (i) in ensuring that the product or process which is developed is non-infringing
- (ii) in ensuring that the product or process is novel and inventive
- (iii) in commercialising or licencing, because only novel and inventive (patentable) technologies are welcome in the Industry and also any such technology has to enjoy PNIS (Patent Non-Infringing Status) and FTO (Freedom to Operate). There is great demand in the industry for non-infringing processes. Let us bridge this gap through indigenous research.

Over-compartmentalisation and isolation in technical fields of pharmaceutical research has adversely affected innovation in the pharmaceutical industry. Pharmaceutical research, like any other research, has to be a collaborative effort and a networked exercise. Indian pharmaceutical researchers need to develop “networking” habits (of course, with confidentiality agreements) with allied fields and areas to make innovations work and be useful to the community. “Jugad”, an Indian slogan for innovation, makes it imperative that “innovations” need to be useful to the community and must be workable and meeting a need/gap in the market place. Indian pharmaceutical researchers have it, they need to realise it and

*break through. This is also transition time from small molecule (chemistry) to large molecules (biologicals). Let us sail through this together.*

*Coming back to the need for networking, pharmaceutical research is just not only pharmacy. The API/Bulk Drug industry needs so much of contribution from chemists, biologists, chemical engineers, mechanical engineers, skilled operators, environmental engineers and professionals with many more skills. New drug research needs working with medical doctors, pharmacologists, clinicians and hospitals. The pharmaceutical industry and its research professionals of all hues and colours from all fields including chemical, instrumental, clinical, packaging and others, over and above manufacturing pharmacists and quality assurance pharmacists need to come together under the innovation umbrella. 'Indian Drugs' can offer a meeting place for all these professionals, through a club or fellowship of 'Indian Drugs' for pharmaceutical research and scale up commercialisation and licensing professionals. As a first step, please come forward and contribute your research articles to 'Indian Drugs' and follow up by registering with us to form a unique Fellowship of pharmaceutical professionals. We can jointly make it happen and take India forward as the "Pharmaceutical Innovation" Capital of the World" in the next 10 years!*



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## About the Editor

Dr. Gopakumar G. Nair is a Ph.D in Organic Chemistry (1966) from National Chemical Laboratory, Pune (Pune University). He was a Post-Doctoral fellow at IIT Bombay, Powai (1967) before joining the Pharma Industry. He was Director of Bombay Drug House P. Ltd., later Chairman of BDH Industries Ltd. as well as CMD of Bombay Drugs & Pharma Ltd., which was merged with Strides Arcolab Ltd. in 2001. Dr. Nair served IDMA as office bearer for many years from 1972 onwards and was Chairman of various Committees for nearly 4 decades. He was the President of IDMA in 1999/2000. Currently, Dr. Nair is the Chairman of the IPR Committee in IDMA.

Having moved into the Intellectual Property field, he was the Dean of IIPS (Institute of Intellectual Property Studies) at Hyderabad in 2001/2002. Later, he set up his own boutique IP firm, Gopakumar Nair Associates, as well as Gnanlex Hermeneutics Pvt. Ltd., having done his L. L. B. from Mumbai University. He is also CEO of Patent Gurukul and President of Bharat Education Society, Kurla, Mumbai, managing many educational institutions in and around Mumbai.