

## Chiral drugs development: Safe medication for future

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In spite of US FDA and European agencies guidelines for marketing of optically active (homochiral) drugs, the racemic mixtures of chiral drugs are being sold and prescribed by clinicians in most of the Asian and African countries, resulting into some diseases and various side effects in human beings. It is a matter of great concern for all of us to have well developed, prosperous and healthy world. Therefore, there is a great need to design and develop economic, effective and selective methods of chiral drugs. The optically active drugs may be manufactured either by synthesis or separation of racemic mixture into optically active chiral drugs. To the best of my experience, the later approach is suitable and practical, which can be performed easily by HPLC. In this context, the development of HPLC methods for chiral separation at analytical level is the first step followed by the transfer of the developed conditions to preparative HPLC scale. The lecture will emphasize the need of the use chiral drugs. Besides, the state-of-art of chiral drugs development by HPLC will also be discussed. Efforts will be made to discuss chiral recognition mechanism.

### Biography

Imran Ali obtained his M.Sc. (1986) and Ph.D. (1990) degrees from Indian Institute of Technology, Roorkee, India. Presently, he is working as a Professor, Department of Chemistry, Jamia Millia Islamia (Central University), New Delhi, India. His research areas are Chiral Drugs and Anticancer drugs Development and Environmental Chemistry. He is author of more than 250 articles including research papers, books and encyclopaedia chapters and technical reports. He has written five books on chromatography published from USA, UK and The Netherlands. He has filled two patents on the development of HPLC components. He is Editor of Current Drug Therapy, Bentham Science, USA and on Editorial board of 10 international journals and life member of six national and international societies. He has many outstanding publications: Nature and Chemical Reviews (ACS) with Impact Factor more than 40. He has been Scientist at King Faisal Specialist Hospital and Research Centre, Riyadh, Saudi Arabia and Visiting Professor at Sultan Qaboos University, Muscat, Oman.

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