# CSIR-CDRI INNOVATIVE PROCESSES & TECHNOLOGIES FOR INDIAN PHARMACEUTICAL SECTOR INDUSTRIES



VOYAGE FOR INTEGRATING INNOVATION & MANUFACTURING FOR SELF-RELIANCE

CSIR – Central Drug Research Institute, a premier drug research institute, seventh in the chain of the laboratories set up in India soon after the Independence with a vision to support and evolve the then almost nonexistent Pharmaceutical Sector in India. Institute was inaugurated on 17<sup>th</sup> February, 1951, with a vision to strengthen and advance the field of biomedical research in India towards affordable healthcare for all and to transform the nation through science and technology. In last six and half decades, the Institute has made significant accomplishments in the pursuit of its founding mission. Thirteen new drugs, >80 Process Technologies, > 600 Patents, >1500 PhDs, >8000 specialized trainings speak enormous contribution of CSIR-CDRI in the service of the Nation. Today, it has become a unique model for drug research in India - having everything under one roof from synthesis, screening, development studies, process up-scaling to clinical studies.

#### Indian Pharmaceutical Sector:

Overwhelming growth & dominance of Indian Pharmaceutical Sector in the last decade, mainly due to its capabilities & resources in Generics market, has actually concealed the fact that India still has to go a long way in Pharma Sector R&D to tackle the major diseases that are having devastating effects on economically weaker population as well as those life style disorders which have started taking toll in millions in India. Data suggest that more

than 75 per cent of bulk drugs (API) are sourced from China, including advanced intermediates like antibiotics (penicillin), analgesics (paracetamol) and supplements (vitamin C). Though, Industry ranks high in growth, still nearly 40% of Indian population, who are below poverty line are unable to access and afford the medicines. Apart from the accessibility and affordability of medicines by the poor man in India, it is very disappointing that there are no therapeutic agents for more than 20 diseases that are prevalent in India.

**CSIR-CDRI's Intervention:** Institute is currently focusing on Unmet medical need and Affordable medical need. Under its program on affordable healthcare, Institute aspires to develop cost effective, profitable processes for key drugs. Efforts will be on development of non-infringing processes that are free to operate shall be developed. The process shall be perfected and all data necessary to enable ANDA filing shall be generated. Innovative Processes & Technologies for Indian Pharmaceutical Sector Industries

### CHEMISTRY PLATFORM

- QSAR, Molecular Modelling, Multiple Organic Synthesizer, Robotic Compound Library
- GLP facility for Acute Toxicity Studies & Safety Pharmacology Studies
- National Centre for Pharmacokinetic and Metabolic Studies (GLP like)
- Sophisticated Analytical Instrument Facility
- National Laboratory Animal Centre
- Molecular & Structural Biology

## Processes & Technologies

- Non-infringing rout of synthesis for Bivaluridin (CDRI Patent)
- process for LH-RH analog (Goserelin)
- Standardization of Artemisinin from Artemisia annua
- novel process for Rosuvastatin

# Contact

#### DIRECTOR

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