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Professional in Biotechnology, Industrial fermentation with more than fifteen years experience in the pharmaceutical research for production of microbial metabolites of commercial significance. Established successfully Business unit for fermentation products in multinational company. Experienced in project identification, evaluation and outsourcing of technology, conceptualisation of research work, planning and implementation. High aptitude for research work. Strong background in Development of Fermentation technologies, Isolation and Screening of novel microbial metabolites/enzymes, Development of screening models for new molecules/antibacterials, Developed many technologies (antibacterials, Lovastatin, compactin, pravastatin, immunosuppressants, recombinant proteins, Nutraceuticals) for commercial bulk drug & nutraceutical production. Hands on experience in Strain improvement, Cell banking system, Fermentation, Biotransformation, Recombinant protein production, High cell density cultivation, Scale up, Enzyme studies, Protein isolation, Downstream processing. Screening for novel molecules (Pharmacologically active compounds/new drugs) from microbial sources, Screening model development, Chemotherapeutic studies MIC, MBC, Killing curve etc. Familiar with intellectual property (patent) laws, Regulatory affairs, GLP, GMP, ICH guidelines in biotechnology. Experienced in preparation and implementation of procedures in manufacturing facilities for international regulatory requirements. Experienced in setting up of productive research laboratory and pilot/production facility.

DATE OF BIRTH: February 27 , 1965.

ACADEMIC QUALIFICATIONS:

1. GRADUATION : June 1982 – May 1985.
St.Xavier's College, University of Bombay.
B.Sc . First class in Microbiology with biochemistry as
Subsidiary subject.
2. MASTERS : June 1985 – May 1987.
Dept. of Microbiology, St. Xavier's College, University of Bombay.
M. Sc. First class in Microbiology by papers and part
research under thr supervision of Dr. Y. M. Freitas.
3. DOCTORATE : February 1988 – May 1992.
Dept. of Microbiology St. Xavier's College, University of Bombay.
Ph. D. in Microbiology (research Guide –Dr. Y. M. FREITAS).

The Doctoral research involved – studies on Extracellular Alkaline Phosphatase producing microorganisms in terrestrial and marine environment, regulation and synthesis of alkaline phosphatase in a marine isolate under various carbon, nitrogen, and phosphate levels, yields and strain improvement, isolation and purification of enzymes and their characterization for kinetics, specificity, molecular weight and stability.

AWARDS:

Dr. K. S. Krishnan Research Fellowship for Study and Research in Life Sciences, 1988 (Dept. of Atomic Energy, Govt. of India).

PROFESSIONAL EXPERIENCE:

CONCORD BIOTECH LTD.

Ahmedabad.

Vice President, Fermentation, (Dec2021 onwards)

Leading teams for developing commercial technologies for fermentation based products, carrying out production activities in efficient way at plant level under GMP conditions and following various regulatory guidelines for USA, Europe, Japan etc.. Looking after Fermentation R & D and fermentation production plant.

HIDAA LIFESCIENCE LLP

Gujarat , India.

Founder & Director,

(2014 to 2021)

Developing a Healthcare venture to meet Health demands of Society using innovative products. To establish a brand in Healthcare area and meet unmet demands of society. Developing products and technologies for “Make in India” slogan fulfilment.

Cadila Health Care Ltd.

Gujarat, India.

Sr. GM, (2007 to 2014)

Developing capabilities to develop & produce fermentation based molecules.

Establishing R & D centre with facilities to develop fermentation based molecules

Developing a group having capabilities to develop fermentation technologies

Creating a pilot plant facilities upto 2.5KL scale

Developing capability to scale up fermentation based processes

Developing many technologies for antibacterial, antifungal & nutraceuticals.

Ranbaxy Research Laboratories

New Delhi, India

Group Leader (Section Head) – Fermentation Dept. (1993 to till date)

Leading a team in the following major functional areas:

- **Project handling**
 - Leading a team of scientists to develop complete technologies for production of pharmaceutical compound upto production scale.
 - Identification and study of new projects for obtaining/technology developments in the field of biotechnology.
 - Project costing, feasibility studies and its planning and implementation.
 - Developed number of microbial fermentation/biotransformation process to commercially viable production scale from wild type strains (e.g. Lovastatin, Compactin, Pravastatin and immunosuppressants).

- **Fermentation**
 - Successfully scaled up many fermentation process for antibiotics and enzymes from shake flask to lab. fermenter to pilot/production scale (60 KL).
 - Transfer of technologies to large-scale fermentation process.
 - High cell density fermentation of industrially important Recombinant cultures.
 - Implementation of production norms as per ICH guidelines, Pharmaeuropa, and US FDA requirement.

- **Strain improvement and yield enhancement**
 - Development of industrially important cultures using a high throughput strain improvement programme, Genetic and biochemical manipulation using mutation, protoplast formation, Gene shuffling. Plasmid stabilisation, biochemical manipulation for recombinant cultures.
 - Maintenance and Preservation of industrially important high yielding strains and /or recombinant cultures .
- **Enzyme Technologies**
 - Development of technology for Enzymatic synthesis of betalactams such as cephalexin, 7ADCA, 6-APA and biotransformation process .
 - Enzyme purification, immobilization and kinetic studies .
- **Down stream processing**
Isolation of fermentation products and enzymes.
- **Drug Regulatory Affairs**
 - Preparation and implementation of system and documentation.

Technology transfer from abroad

- **Visit to GBF, Germany**
 - Member of core team which visited M/s GBF, Germany to transfer Pen –G Acylase Enzyme technology.

Hoechst India Ltd.

Bombay, India

Research Microbiologist – Hoechst Center for Basic Research (1988 –1993)

Major functional areas:

- **Screening for novel molecules**
 - Model development for screening, developed models for screening of DNA gyrase inhibitors, betalactams, macrolides , cellwall synthesis inhibitors etc.
- **Microbial Culture**
 - Isolation, Identification of actinomycetes and fungi from soil for secondary metabolite production.
 - Screening from various microbial isolates including Streptomyces, Actinomycetes of rare genera and fungi.
- **Fermentation**
 - Shake flask cultivation, Laboratory scale fermentation for secondary metabolite production .

- **Strain improvement and yield enhancement**
 - Medium development and process standardisation, High productivity was obtained for decaplanin (a glycopeptide antibiotics) and neoviridogriesin a macrolide antibiotics.
- **Enzymes**
 - Isolation and purification of proteins.
 - Use for 6-APA and 7-ADCA production.
- **Down stream processing**
 - Isolated many known and unknown compounds, Phencomycin & Alisamycin were some novel molecules.
 - Used MPLC, HPLC, reverse phase, ionexchange, adsorption molecular sieving for various biomolecules .
- **Chemotherapeutic evaluation of antibiotics**
 - MIC, MBC, killing curve, post antibiotic effect study of Decaplanin and its comparison to standard antibiotic.

MEMBERSHIP:

Life Member of Association of Microbiologists of India.

PUBLICATIONS & PATENTS:

1. Franco, C. M. M; **R. Maurya**; E. K. S. Vijay kumar; S. Chatterjee, J. Blumbach and B. N. Ganguli (1991), “**Alisamycin**, A New Antibiotic of Manumycin Group, 1. Taxonomy, production, Isolation and Biological Activity,” J. Antibiotics, 44 (12), 1289.
2. Chatterjee, S.; E. K.S. Vijaykumar; Franco, C. M. M; **R. Maurya**; J. Blumbach and B. N. Ganguli (1995), “**Phencomycin**, a new antibiotic from a Streptomyces species HIL Y-9031725,” J. Antibiotic, 48: 1353.
3. **(PATENT)**
Franco, C. M. M; **R. Maurya**; S. Chatterjee, B. N. Ganguli and J. Blumbach, “Antibiotic, **Phencomycin**, A Process For Its Production and Its Use”.

Indian Patent application No. 109/Bom/91.
European Patent Application EP521464 A1 930107(7.Jan. 1993).
4. **(PATENT)**
Vaid S.; **R. Maurya**; Sharma S.; Upadhyay G.
“Process for the preparation of Lovastatin.”

Indian Patent Application No. 1064/Del/97.

5. **(PATENT)**
Vaid S.; R. Maurya; S. Sharma; G. Upadhyay.
“Improved process for the preparation of Mevinolinic acid or its salt.”

Indian Patent Application No. 1500/Del/97.
6. **(PATENT)**
MAURYA RAJKUMAR, UPADHYAY G C, SHARMA SUNITA, VAID SUDHIR,
“Improved process for the preparation of lovastatin”
Indian Patent IN 186317
7. **(PATENT)**
GURNANI MENKA, MAURYA RAJKUMAR,
An improved purification process for lipopeptides
EP 2236513
8. **(PATENT)**
GURNANI MENKA, MAURYA RAJKUMAR,
PURIFICATION PROCESS FOR LIPOPEPTIDES
US 2010249371
9. **(PATENT)**
MAURYA RAJ KUMAR, SHUKLA ANIRUDDHA, MALVIYA HITESH KUMAR, KUMAR PARVEEN,
FERMENTATION PROCESSES FOR THE PREPARATION OF TACROLIMUS
WO 2007039816
10. **(PATENT)**
KATIAL VIKAS, MAURYA RAJ KUMAR, GIGRAS PARESH, SHUKLA ANIRUDDHA, SHARMA
SUNITA, MITRA ASHOKE, KUMAR PARVEEN, KUMAR SUDEEP,
PRODUCTION OF TACROLIMUS (FK-506) USING NEW STREPTOMYCES
SPECIES
WO 2005038009
11. **(MEDIA COVERAGE: Economic Times)**
TITLE: **Giving vegan boost to Vitamin D in society** Date: 30/3/2018 Edition: In all
national editions of INDIA.
<http://economictimes.indiatimes.com/small-biz/startups/newsbuzz/hidaa-lifesciences-fortifying-roti-and-curry-with-mushroom-extracts/articleshow/63537863.cms?intenttarget=no&mailtofriend=yes>