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Keywords: -

OTC Drugs, Dietary Supplements, Medical Grade Cosmetics, Functional Foods & Medical Foods, Integrated Medicine, Clinical Trials, Product and Process Development in Botanical Drug Product, Business Development, Technical Marketing & Brand Management, Technical Sales

ACADEMIC QUALIFICATION: -

- MBA-Biotechnology (Finance, Marketing, Strategy) University of Pune, India – March 2004 to March 2006
 - Course focus – Biotechnology Business Management with integrated Economics catering to critical business aspects of Biotechnology.
- M.D.(Botanical Drugs) University of Mumbai, India - June 1999 to Oct. 2002
 - Course focus – Study & Development of Botanical Drug Product, Functional Foods, Nutraceuticals and define rationale there of through Bio-prospecting, Reverse Pharmacology and Evidence Based Medicine.
- BAMS (Ayurveda Integrated Modern Medicine) University of Mumbai, India – June 1993 to March 1999
 - Course focus – Anatomy, Physiology, Embryology, Histology, Pathology, Forensic Medicine, Social & Personal Hygiene, Clinical Diagnosis, Pharmacology, Biochemistry, Internal Medicine, Toxicology, Clinical Trials.

PROFESSIONAL WORK EXPERIENCE & ACHIEVEMENTS: -

Epilay (Indus Extracts) - (25th March 2015 - Present)

- Location - Los Angeles, CA
- Designation – Management Analyst
- Responsibilities – Management Analyst, Chief Scientific & Marketing Officer, Product Development, Technical Marketing & Sales.
- Performance –
 - Product designed and developed entirely novel concept and process formulated the Non Invasive Treatment products in 'Utilization of Adult Stem cells in Skin for Age Management for Licensed Estheticians & Dermatologists'. The Treatment is in Surrogate Empirical Trial by company Danne Montuge King.
 - Product designed and formulated and sold Condition Specific Dietary Supplement for 'Bladder Incontinence' in females to the company, Trusted Remedies.
 - Successfully developed and sold four conditions specific liquid dietary supplements for "Thinking Clarity", 'Seasonal Immune Response', 'Athlete Performance', 'Stress Reduction' to the company True Tonics
 - Successfully revised 2 Medical Foods formulations for 'Chronic Metabolic Syndrome' and products are in surrogate clinical trials by the company Rejuvalyte.
 - Designed product as 'Spagyrics' as Condition Specific Dietary Supplements for the Company 'Sun Potion'.
 - In Process of formulating Condition Specific Dietary Supplement for 'Blood Sugar Management' for the company Banyan Botanicals.
 - In Process of formulating 4 Botanical Tinctures (Non Alcohol based) for the Company Banyan Botanicals.

Malabar Food Products LLC - (5th March 2014 – 25th March 2015)

- Location - Los Angeles, CA

- Designation – Management Analyst
- Responsibilities – Chief Scientific & Marketing Officer, Product Development, Technical Marketing & Sales.
- Performance -
Successfully designed the Initial Product Concepts for the company on -
 - Condition Specific Dietary Botanical Integrated Supplements for Insulin Dependent Diabetes Mellitus (IDDM), Non Insulin Dependent Diabetes Mellitus (NIDDM), Diabetic Neuropathy, Diabetic Nephropathy, Diabetic Ophthalmopathy, Chronic Renal Failure (CRF)
 - Nutri Cosmetics in Diabetic Wound Management.
 - Condition Specific Dietary Botanical Integrated Supplements for Connective Tissue Disorders like, Sero-Positive and Sero-Negative Rheumatoid Arthritis (RA), Lupus, Fibromyalgia.
 - Condition Specific Dietary Botanical Integrated Supplements in Osteoarthritis, Degenerative Osteoarthritis.
 - Condition Specific Dietary Botanical Integrated Supplements in Psoriasis.
 - Specific Life Style Functional Foods.
 - 'iBeing' Preventive Health Care Mapping Algorithm.
 - Botanical Drug Product Development for Lymphoid and Myeloid Leukemia.
 - Transgenic Medicinal Plants and Germplasm preservation of endangered important medicinal plant species through Tissue Culture.
 - USP Grade Phytochemicals Piperine 98%, Colchicine 98%, Thiocolchicine 98%, Reserpine 98%, Dioscorine 98%, Camptothecin 98%.

Maya Overseas Foods Inc. - (1st Dec 2010 - 4th March 2014)

- Location – Los Angeles
- Designation – Business Analyst
- Responsibilities - Business Analyst, Product Development, Technical Marketing & Sales.
- Performance –
 - Successfully developed and sold Anti Oxidant Functional Beverage based on Indian Gooseberry to the company Patanjali Ayurveda Limited.
 - Successfully developed and sold the concept of Gluten Free Functional Snacks based on Amaranths Seeds to the company Patanjali Ayurveda Limited.
 - Successfully developed and sold the concepts on 50 different products which are 100% Natural, 100% Safe food grade Cosmetics. (Shampoos, Conditioners, Creams, Lipsticks) to the company Patanjali Ayurveda Limited.

Naturomic LLC – (1st Jan 2009 – 25th Dec 2010) (Company got acquired by Herboved Inc.)

- Location – Los Angeles, CA
- Designation – Business Analyst
- Responsibilities – Business Analyst, Product Development, Technical Marketing & Sales.
- Performance –
 - Successfully developed & sold six 100% Organic, and 100% Natural 'Biovibrance' brand Condition Specific Dietary Supplements,
 - Active - For Joints Health Management.
 - Calm - For Stress Management.
 - Lean - For Weight Management.
 - Vitality - For Energy Homeostasis.
 - Regular - For Bowel Peristalsis Management.
 - Detox - Oxidation Hazard Management.

GMP Chemtech Pvt.Ltd.- (1st July 2006 to 25th Dec. 2008) (Company got acquired by Naturomic LLC)

- Location – Bombay, India
- Designation - Business Analyst, Project Manager

- Responsibilities – Product Development, Technical Marketing & Sales
- Performance -
 - Successfully developed and sold Phytochemical Catechin 90%, Catechin 65%, Catechin 40% development to the company Perrigo
 - Successfully developed and sold Natural Fermented Fossil Mineral Pitch 50%, 80% Extract to the company Omica Organics.
 - Successfully developed and sold Integrated Polar Molecular Curcuma longa root extract, Tinospora cordifolia stem extract, withania somnifera root extract to the company Paradise Herbs and Quantum Foods.
 - Successfully developed the concept of Condition Specific Medicated Wines from Medicinal Plants.
 - Successfully developed the concept of Condition Specific Dietary Supplement for Psoriasis.

Consulting Family Integrated Internal Medicine Physician - (1st Mar 2003 – Dec. 2008)

- Specialization – Integrated Internal Medicine
- Contribution –
 - Family Physician for 75 Families worldwide.
 - Treated 7500 patients till date.
 - Treated approximately 2500 Diabetic Patients in among. (Endocrinological, Metabolic Disorders)
 - Treated approximately 1000 Connective Tissue Disorders Patients hitherto.
 - Treated approximately 500 Allergic Patients among. (Immunological Disorders)

KGMP Hospital – Resident Physician- 3 years

- Designation – House physician, House Surgeon, Registrar
- Tenure –
 - House Surgeon – 1st March 2000 – 30th June 2000
 - House Physician – 1st July 2000 – 31st Dec 2000, 1st Jan 2001 – 30th June 2001
 - Registrar – 1st August 2001 – 24th Jan 2003
- Location – Bombay, India
- Responsibilities – Out patient department, In patient department, Emergency calls, lectures & presentations.

INTERNSHIP & PROJECTS: -

Company: Yes Bank (Oct 2005 – April 2006)

- Internship – Market Research Reports and Equity Analysis
- Synopsis – Market Research report on ‘Medical Tourism’ and equity analysis of top 10 Life Sciences and Healthcare companies in India.

Company: Nicolas Piramal India Ltd (May 2005 – July 2005)

- Project Title: Awareness programme for patients for the brand ‘Synvisc’
- Synopsis: Brand equity of the product ‘Synvisc’ of Genezyme.

Company: Merck (July 2005 – August 2005)

- Project Title: Market survey and defining market strategy for Merck bioreagents.
- Synopsis: The project involved market survey of bioreagents and forming of market strategy.

Institute: K.G.M.P. Hospital (Mar 2001 – Mar 2003)

- Project Title: ‘Study of Ethnopharmacology of sesamum indicum linn and its clinical efficacy with respect to hemorrhoids in ano’

- Synopsis : Precise study of Ethnopharmacology and Ethnopharmacognosy of *sesamum indicum* linn. in pursuit of Evidence Based Medicine (EBM). Clinical trials of single blind controlled phase II are performed and results drawn with biostatistics tools including standardization of drug.

PUBLICATIONS: -

- Editor of “Handbook of Metallonutraceuticals” by Taylor & Francis, CRC Press
 - Book Summary -
Metallonutraceuticals is totally new area for Pharmaceuticals and Nutritional Industry and can create totally innovative products for entire world.

The nutritional and medicinal value of metals, such as zinc, calcium, and iron, has been known in traditional medicine for a long time. Other metals, such as silver and gold, may also have therapeutic and health benefits. Ancient medicines have long incorporated their use in the treatment of diseases, and they have also more recently been explored for treatment in allopathic medicine, birthing the concept of metallonutraceuticals. The challenge of using metals in the human body is to find forms that are safe and effective.

Handbook of Metallonutraceuticals presents basic concepts related to the nutritional and therapeutic use of metals, product development strategies, and some ideas ready to be applied for condition-specific metallonutraceuticals. The book begins with an overview of the nutraceuticals field and the need for metallonutraceuticals. It considers the roles of various metals in metabolism, reviews the ethnopharmacology and ethnomedicine of metals, and covers the characterization and possible properties of metallonutraceuticals. It also examines bioavailability and drug interactions, and therapeutic applications of nanometals including use as imaging agents, in cancer diagnosis and treatment, as antibacterials and antivirals, in ocular disease, and in neurodegenerative diseases.

The book explores the use of metals in traditional Chinese medicine, potential applications for metalloenzymes, the use of nanosilver in nutraceuticals, and the potential of gold nanoparticles as a drug delivery system. In addition, it addresses intellectual property rights and regulatory considerations regarding metallonutraceuticals. Using an interdisciplinary approach, this user-friendly text provides a knowledge base and inspiration for new research in this exciting field.

- Book Features -
 - Presents background information on nutraceuticals and the therapeutic use of metals.
 - Captures ready-to-go applied research leads in designing new functional foods.
 - Proposes quality assurance norms for industry players to bring harmonization and control check points in process and product development in metallonutraceuticals.
 - Provides a vivid explanation of institutional regulations and ethics for nutraceutical industrial operations and corporate transactions.
 - Describes gold nanoparticles and a drug delivery system with therapeutic applications.
 - Discusses nanometals for use in dentistry, as a dermal protectant, for diabetes treatment, for cancer diagnostics and therapeutics, and more.
- Editor of ‘ Botanical Drug Products - Recent Developments & Market Trends’ accepted by Taylor & Francis, CRC Press
 - Book Summary –
Botanicals, which have been part of human food and medicine for thousands of years, are perceived as being safer than synthetic pharmaceuticals. The global botanical drug market was expected to reach \$26.6 billion by 2017. In terms of FDA regulations, botanical drugs are no different from non-botanical products, having to meet the safety and effectiveness standards of a

new drug in accordance. This book comprises a complete start-to-end process from drug-idea conception, to drug development process.

- Book Features -
 - The first of its kind complete Guide for Pharmaceutical Industry in Botanical Drug Product Development, and Marketing.
 - It will include at least 200 ready to go Botanical Drug Product development leads.
 - Complete IPR Strategy integrated with Drug Launch.
 - Complete Drug Approval Regulatory Pathway with various countries.
 - Complete enumeration on Scale Up manufacturing strategies.

EXECUTIVE PRESENTATION IN ORGANIZATION:-

- Representation in “Dietary Supplements” Committee of NPA (Natural Products Association) in 2009.

AWARDS: -

- Achievers 2007 - Entrepreneurship Award from Department of Management Sciences and Department of Biotechnology, University of Pune, India

AUTHORSHIP:-

- Jayant Lokhande and Yashwant Pathak. Concept, Definition, and Need for Metallonutraceuticals, CRC Press Published November 16, 2016 Reference - 350 Pages - 54 B/W Illustrations ISBN 9781138199231 - CAT# K31455
- Jatin Shah and Jayant Lokhande. Roles of Metals in Metabolism, CRC Press Published November 16, 2016 Reference - 350 Pages - 54 B/W Illustrations ISBN 9781138199231 - CAT# K31455
- Jayant Lokhande and Yashwant Pathak. Characterization of Metallonutraceuticals, CRC Press Published November 16, 2016 Reference - 350 Pages - 54 B/W Illustrations ISBN 9781138199231 - CAT# K31455
- Jayant Lokhande, Shriniwas Samant, Ganesh Shinde, and Yashwant Pathak. Ethnopharmacology and Ethnomedicine of Metals, CRC Press Published November 16, 2016 Reference - 350 Pages - 54 B/W Illustrations ISBN 9781138199231 - CAT# K31455
- Vishal Kataria, Jayant Lokhande, Vrinda VEDI, and Yashwant Pathak. Regulatory Pathways and Intellectual Property Rights for Metallonutraceuticals. CRC Press Published November 16, 2016 Reference - 350 Pages - 54 B/W Illustrations ISBN 9781138199231 - CAT# K31455
- Jayant N. Lokhande and Sonali Lokhande. Global Pharmaceuticals Industry and Botanical Drug Products, CRC Press December 3, 2018 Forthcoming Reference - 274 Pages - 50 B/W Illustrations ISBN 9781498740050 - CAT# K26672
- Grace Checo, Jayant N. Lokhande, and Sonali Lokhande. Regulatory Perspectives of Botanical Drug Products in Top Pharmaceutical Markets. CRC Press December 3, 2018 Forthcoming Reference - 274 Pages - 50 B/W Illustrations ISBN 9781498740050 - CAT# K26672
- Jayant N. Lokhande, Sonali Lokhande, and Ganesh Shinde. Role of Reverse Pharmacology, Translational Medicine, and Indian System of Medicine in BDPs Development. CRC Press

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- Jayant N. Lokhande, Sonali Lokhande, Sameer Mahajan, Ganesh Shinde, and Yashwant Pathak. Botanical Drug Products of Ayurved, Indian System of Medicine in Integration with Other Metallopharmaceuticals, Nano Medical Devices, and Theranostics. CRC Press December 3, 2018 Forthcoming Reference - 274 Pages - 50 B/W Illustrations ISBN 9781498740050 - CAT# K26672
- Jayant N. Lokhande and Sonali Lokhande. Botanical Drug Products and Rare Diseases. CRC Press December 3, 2018 Forthcoming Reference - 274 Pages - 50 B/W Illustrations ISBN 9781498740050 - CAT# K26672
- Pathak YV, Lokhande J., Pathak, S and Tran H. , Understanding and exploring regulatory pathways for Metallonutraceuticals, paper presented at AAPS National Conference at Los Angeles, November 2009
- Pathak YV, Lokhande J Scaling Up and Processing Nutraceutical Dispersions: Emulsions and Suspensions. Handbook of Nutraceuticals - Scale Up Processing and Automation Volume II – CRC Press Published May 22, 2017 Reference - 593 Pages - 131 B/W Illustrations ISBN 9781138116092 - CAT# K35460

LECTURES & PRESENTATIONS: -

- Being invited to deliver lecture on 'Skin & Systems Biology' in August 2017 in the event 'Skin Inc Face & Body', San Jose, CA
- Delivered Presentation on 'Epidermal Adult Stem Cells and its applications' in Danne Montuge King Distribution Meeting in July 2017, Los Angeles
- Panel Member on Ingredients Section on 'Skin Games 2017 Conference' in March 2017, San Ramon, CA
- Delivered Presentation on 'Epidermal Adult Stem Cells and its applications' in Danne Montuge King Distribution Meeting in July 2016, Los Angeles
- Delivered Lecture on 'Indian Vedic Sciences for Modern Times' in Oct 2015, Los Angeles
- Delivered lecture on request at 'International conference of medicinal plants' on the topic 'Role of biotechnology in medicinal plants' at Kolhapur, India, Dec.24th-26th 2004
- Conducted Good Manufacturing Practices workshop at Trendz Pharmaceuticals, Vadodara, India in 2004
- Conducted Good laboratory Practices workshop at Span Diagnostics, Surat, India in 2004
- Delivered Lecture on request at Workshop for PG Teachers of Botany at Ramniranjan Zunzunwala College, Mumbai, India, July20-2003

- Conducted Good Manufacturing Practices workshop at K.E.M. Hospital- Parel in 2001
- Conducted Good Manufacturing Practices workshop at Podar Hospital- Worli in 2001
- Conducted Good Manufacturing Practices workshop at Mittal Hospital- Charni Road, India in 2001
- Participated in Conference on 'Identification on Medicinal plants' at Keshav Shrushti- Thane, India in 2001