

Dairy waste to life-saving drug

Dr Pawan Saharan
Founder CEO, Biomix Inc. USA

Estimated Value Per
(IPOS global market research & Glaxo)
US\$ 5.6 Billion USA
US\$ 15 Billion Worldwide

Estimated timeline to market : 3 months

drpawan@biomix.in, +91 8291084108

www.biomix.in



Company Overview

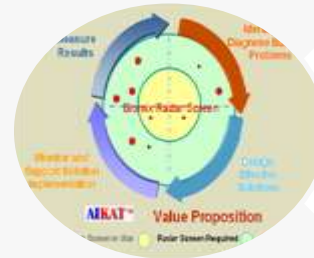
In Brief

- Founded in 1996 and registered in India and US (Delaware), company is a privately held Nano-biotech pharmaceutical company. Drug Discovery in 2001.
- The R&D focused outfit is led by Dr. Pawan Saharan, MS, Ph.D. (West Virginia) with over 25 years of experience in healthcare
- Advised by an eminent Board with over 200 years combined experience in Pharma /Medical, Nano- bio-technology & Dairy Tech. fields
- 3 product lines developed, one launched - the New Generation Immune-Modulator & Broad Spectrum Anti Viral Drug (Receptol).
- Drug is effective against a broad spectrum of viral diseases/ immune disorders. Has undergone three phase of clinical trials and is ready for commercialization.
- Company manufacturing plant and R&D center located at the largest cooperative dairy in the world – AMUL.
- Government Ministry of Science & Technology advanced INR 12 Crores as soft loan for setting up the manufacturing facility.

Product Lines



Successful Phase III trials for HI V treatment completed at the end of CY 2007. The drug is being marketed and distributed under the name RECEPTOL™



Artificial Intelligence Knowledge Acquisition Tool (AIKAT) was used to reduce the time for initial discovery of Receptol. The tool will be developed and provided as a service.



Hand held prototype developed for fast, inexpensive detection of TB antigens in human blood. Further development to allow diagnostics of arbitrary bio-chemical compounds in bodily fluids

Global Team

Founder CEO

Dr. Pawan Saharan, MS, Ph.D. (JNU, WVU)
AMP (ASCI in tie up with Harvard business school)
Best US graduate student scientist award by AAAS with
fellowship at Stanford Medical Centre, Palo Alto, CA.
Email id: biomix108@gmail.com / drpawan@biomix.in

Clinical Director

Prof. Dr. Ali Irani - Ph.D. DPT (Spain), Head of Department
Physiotherapy & Sports Medicine, Nanavati Hospital, Mumbai
Former Physiotherapist of Indian Cricket Team (12 years)

Project Director

Amitabh Thakore, B. Tech., MBA (IIM- A, 67 batc

Business Advisor

Ranjit Shahani BE IIT, MBA Jamnalal Bajaj
Chairman Novartis South Asia

Founder Directors include:

Late Prof George Wald, Harvard Medical Centre 2 times Nobel Prize Winner
Prof Joseph Weizenbaum, Father of AI Founder Chair Robotics Comp science Dept. MIT

Medical Directors

Dr. S.H. Advani, MD, FICP, FNAMS
Oncologist & President - Asian Cancer Society
Padamvibhusan awardee by President of India

Dr. Sushil Indoria , MD
Medical Director Life care Hospital, Thane

Dr. Sandhya Saharan, MD, DGO,
Gynecologist and IVF specialist

Marketing Advisor

Sumeet Arora, COO YUM Group Companies in Canada

Business Development Manager

Hemangi Saharan, MBA
University of North Carolina, Chapel Hills, NC, USA

Business Development Manager

Nicolas Corzo, Master in Strategic Management
Strategic Management and Partnerships (Global)

Business With a Purpose

Mission

Develop & manufacture of cost effective, safe Products for prevention & treatment of all communicable & immune disorders

Vision

HEALTH FOR ALL via affordable and effective healthcare

Goal

Helping 8 billion lives globally

Founders



Dr. George Wald

- 2 Nobel Prizes
- Vit A Inventor
- Biomix Advisor



Joseph Weizenbaum

- Father of AI
- Inventor of 1st Robot
- Biomix Advisor



Dr. Pawan Saharan

- Biomix Founder
- Inventor:RECEPTOL
- Patent holder for 58 Disease Resolution

Journey of RECEPTOL®

After 18 years of research, we have successfully isolated Nano peptides from bovine colostrum and conducted global clinical studies on subjects suffering from Cancer, Infectious Disease viz Covid, AIDS, Swine Flu & Immunity diseases especially to address medical unmet needs based on stand alone AIDS therapy model.

RECEPTOL® Active ingredients consist of Patented Nano – Informational Peptides extracted from mammalian colostrum via Ultra Nano filtration Technology having sequence id 1-8 (provided in the US Patent) & Proline Rich Poly Peptides (PRPs)
<https://patents.google.com/patent/US9249188B2/en>

RECEPTOL® clinical trials & their meta-analysis on **25,301** subjects including healthy population can be accessed at data room at www.biomix.in

Publications in leading peer reviewed medical journals on global studies just concluded are in progress with New England Journal of Medicine & Nature.

US media published a feature on the invention journey

<http://medicaltraveltoday.com/spotlight-interview-pawan-saharan-founder-ceo-biomix-network-inc/>

Government of India Health Minister recognized the release of a Book on RECEPTOL-
“The Next Wonder Drug Creating a Paradigm shift from prevention to treatment providing health for All.”

Executive Summary

People with weak immunity are at higher risk of getting severely sick from Covid-19*

Our product – ‘Receptol’ derived from bovine colostrum, is clinically proven to be an effective immunity booster.

RECEPTOL® consists of a patented new molecule of several peptides which has been isolated and extracted from bovine colostrum via our globally patented Ultra Nano filtration Technology.

Nano peptides get absorbed in the blood through buccal mucosa (inside the cheek), crosses the Blood-Brain barrier to strengthen the immune system via pituitary gland and docks on glycoprotein receptor thus blocking viral entry into immune and epithelial lung cells.

Positive results from global clinical studies on 25,301 subjects including 10,000 healthy adults & children against AIDS, Swine Flue, SARS & other Immunity disorders

Indian regulatory authorities have approved Receptol for the treatment of HIV patients and also as a consumer product to boost the immune system

RECEPTOL® consists of Nano informational peptides (Radha108) & proline-Rich Polypeptides (PRPs) from colostrum.

RADHA108 series has been shown to dock on glycoprotein receptor on the cell surface and thus blocking viral entry into the cell surface & immune cells in particular. Opportune time for UNILEVER to leverage our discovery and patents to develop a world class product in line with today’s Health and Wellness approach increasingly adopted by consumers.

- Strongly recommend immediate launch of a Unilever branded Immunity booster Oral gargle product

What is Receptol?

Receptol is an innovative, single solution to boost Immunity and solves a majority of health issues related to it.

1



3

What it consists of ?

Active Ingredients consist of Patented Nano-Informational Peptides extracted from mammalian bovine colostrum via Ultra Nano filtration Technology with sequence id 1-8 & Proline Rich Poly Peptides (PRPs)

2

4

What are PRPs ?

PRPs are a class of nano-informational peptides consisting of oligo-ribonucleotides attached to a peptide molecule that act as an immunity stimulator via immune-modulation and anti-viral/bacterial activity.

How is it absorbed ?

Absorbed through the buccal mucosa or Gut
Distributed all over the body through the blood streams.
Crosses blood brain barrier to reach Pituitary gland which acts as central hub in building body's immune system naturally.

BUISNESS PROPOSAL WITH SOCIAL IMPACT



To meet the goal post of our common priority Vision in preventing current and future pandemics, we propose to use 21st Century Technology Innovation Receptol in improving health and wellbeing of more than an 8 billion people in India and abroad with Mumbai as a hub in tie up with GoM dairy and pharmaceutical industry.



We are looking for a long term 25 years business association in manufacturing and marketing of Receptol finish products by GoM dairy and local pharma industry to prevent all infections and enhance the health, nutrition and general wellbeing of the common man using the best of innovation and technology in a sustainable manner leading to drastic reduction in child & female mortality rate in India and abroad by over 50%.



Receptol Level2 global Manufacturing Plant requires 500 sq. meter built up area in or around Greater Mumbai with an investment under the joint venture with GoM and GoI as done for the pilot facility in Gujarat at Amul Dairy generating 5000Cr income and for farmers in Maharashtra and 2Lakh new jobs.



Biomix will bring the proprietary technology developed in last 15 years with an investment of US dollar 115million & key equipment for a potential revenue of US\$ 1.45 billion in a span of 5 years with a profit before tax EBITDA US\$ 566 million, based on global market research conducted by Glaxo consumer and IPSOS USA.

Prime Minister Of India

INITIATING RECEPTOL IMMUNITY R&D PROJECT IN INDIA



HEALTH FOR ALL BOOK LAUNCH BY GoI



डॉ. हर्ष वर्धन
Dr. Harsh Vardhan



PT 73-610 / 2014/ND/NDM
स्वास्थ्य एवं परिवार कल्याण मंत्री
भारत सरकार
Minister of Health & Family Welfare
Government of India

18 September, 2014

MESSAGE

It gives me an immense pleasure to release the book, Health for All via Receptol®, authored by Dr. Pawan Saharan.

The book gives detailed account of health benefit of colostrum. I understand that its research & development programme, clinical trials & manufacturing facility at AMUL dairy was supported by Govt. of India.

I wish Dr. Pawan Saharan, Chairman of Biomix Network Ltd., the very best.

Harsh
(Dr. Harsh Vardhan)

GoI DEPT. OF SCIENCE & TECHNOLOGY

FUNDING FOR NEW DRUG DISCOVERY



Dr. Neeraj Sharma
Scientist 'G' & Head
Technology Development and
Transfer Division

नवीन दवाओं

विभाग और प्रौद्योगिकी विकास
विभाग और प्रौद्योगिकी विभाग
उत्कृष्टता सेवा, नया दिल्ली-110 016
नई दिल्ली-110 016

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
TECHNOLOGY DIVISION, NEW MHRALI ROAD
NEW DELHI-110 016

Dated

26.10.2018

D.O. No.

VII-PRDSE/93/05-06/TDT

Dear Shri Ramsin Parmar,

We have received a request from Dr. Pawan Saharan, CEO, M/s Biomix Network Ltd, Navi Mumbai in which, he has requested to write to you a letter regarding support and funding from Department of Science & Technology, GoI with respect to project entitled, "Phase-III clinical trials and scaling up of a novel antiviral product, RECEPTOL for AIDS".

This to state the fact that Department of Science & Technology, under its scheme Drugs and Pharmaceuticals Research Programme, has funded the above mentioned project by the way of providing a loan of Rs. 12 crores to the M/s Biomix Network Ltd, New Mumbai for the Pilot Plant for Phase-III clinical trials and scaling up of a novel antiviral product, RECEPTOL, for AIDS. The project was commissioned at your Amul Dairy Khatej Premises.

This is for your information and consideration please.




(Dr. Neeraj Sharma)
Head(TDT)

Shri Ramsin Parmar
Chairman, Amul Dairy & GCMME
Kaira District Co-operative Milk Producers' Union Ltd
AMUL DAIRY, AMUL DIARY ROAD
ANAND-388 001 (GUJARAT)

Copy to :

Dr Pawan Saharan, CEO,
M/s Biomix Network Ltd,
Navi Mumbai- 400610

MINISTRY OF HEALTH - GoI CERTIFICATION

श्री. डी. पवन सहारन, अध्यक्ष
श्री. डी.
Dr. V. K. SUBBURAJ, MD
Secretary

सचिवालय
908/2017-2 AC/2-14 (BY 740-3)

Government of India
Ministry of Health & Family Welfare
Department of AIDS Control
National AIDS Control Organisation
8th Floor, Chandrabhag Building, 38 Jangpoh, New Delhi - 110 001

07.05.2014

Dear *Dr. Pawan Saharan,*

We are pleased to inform you that Department of AIDS Control has decided to use RECEPDI from June, 2014 for select patient population under Operational Study Programme.

With regards,

Yours
V.K. Subburaj
7/5/2014
(Dr. V.K. SUBBURAJ)

Dr. Pawan Saharan
Chairman & CEO,
Biomix Network Ltd.,
Thane (W)-400610
MUMBAI (India)

8th Floor, Chandrabhag Building, 38 Jangpoh, New Delhi - 110001, Phones: 011-23355331, Fax: 011-23731746
E-mail: naco@naco.org

अपनी HIV स्थिति जानने के लिए, निम्नलिखित सरकारी अस्पताल में मुफ्त में HIV परीक्षा कराएं।
Know Your HIV status, go to the nearest Government Hospital for free Voluntary Counselling and Testing.

HEALTH MINISTER OF INDIA APPROVAL

Department of Health & Family Welfare

Enclosed herewith is the Minutes of the meeting held on 12th January, 2005 in the Chamber of Health Minister on Health for all Programme via lab on chip, Hospital on chip and wearable drug Receptor from Dr. Pawan Saharan, Chairman, Biomix Network Limited with Health Minister, Director General of Health Services, Drug Controller General of India and Director General, Indian Council of Medical Research. I shall ask the concerned officials to take immediate action on the Minutes after the final approval of HPM.

[Signature]
OPASATON (INDIA)
Secretary (Health & Family Welfare)
12th January, 2005

Secretary (Health & FW)
Copy No. 1/102
Date 12/1/2005

at this time
No. 1/102
12/1/2005

Following was agreed

1. Ministry of Health will conduct efficacy trials on the receptor for 50 HIV patients at two sites (Tambaram Hospital in Chennai and JJ Hospital in Mumbai) on Government cost to be coordinated by ICMR and NACO in consultation with Dr. Pawan Saharan, Chairman Biomix Network Ltd.

Dr. Pawan Saharan's company will provide the products free of cost (300 bottles for 50 patients for study of three months) and all local expenses incurred on the wall will be borne by Ministry of Health & Family Welfare.

Once the efficacy of the product is determined Ministry of Health will consider for its inclusion in National Health Programme by NACO and will prepare the feasibility report on manufacturing of receptor in India.

2. Ministry of Health will appraise the project proposal of Dr. Pawan Saharan for lab on chip and Hospital on chip to conduct rapid tests for HIV, Hepatitis, TB and Malaria and efficient health delivery respectively under the collaboration of Government Institutes and Hospitals.

3. Ministry of Health will find an appropriate Public Sector Company to explore possibilities of a joint venture partner with Biomix Network Ltd. for the said projects.

4. Director General Health Services, Drug Controller General of India, Director General, Indian Council of Medical Research and DG, NACO to coordinate and help Dr. Pawan Saharan through their respective Departments/organizations to implement the decisions taken in the said meeting with HPM.

MEDICAL AVIDANCE FROM GLOBAL CORPORATE HOSPITAL

Dr. Ali Irani (PhD PhD DPT)

Head of Department: **PHYSIOTHERAPY AND SPORTS MEDICINE**

Chairperson(International Affairs) Indian Association of Physiotherapists

Direct: 91-22-26172329

Email: dralirani@gmail.com

www.physiotherapyindia.org

To,
The Health Minister of India
Nirman Bhavan, New Delhi 110001

May 13, 2020

Subject: Real time solution to combat all viral infections including Covid-19 based on our personal experience

Dear Dr Harsh Vardhan,

We wish to share our experience from India's most respected & oldest Corporate hospital in Mumbai. Our strategy is to treat new Covid -19 patients in India and abroad with clinically proven immunity booster, Receptol.

I have personally visited Receptol plant in khatraj Gujarat located in AMUL dairy premises & strongly believe that it can help build the immunity of the masses to prevent communicable diseases including Covid-19 after total lockdown is lifted since its Mode of Action is similar to HIV infection.

We have used Receptol on HIV positive kids who did better inspite of being high risk as they lost their parents due to AIDS.

My personal experience of Receptol on 500+ children suffering from HIV and other viral infections in past 8 years who were tried on Receptol illustrates that all of them are healthy and immune to current infections.

Kindly request Indian Council of Medical Research & Ministry of health who approved it for HIV per NACO Secretary letter of 2014 to add to recommendation to use Receptol in current pandemic and make it available through primary healthcare centres in India.

Please feel free to contact me should you or any other organisation need further information.

Thanking you for leading the Nation's healthcare with confidence to save 1.3 billion citizens.

With best Regards



Prof. Dr. Ali Irani

Manufacturing Flow Chart

Go to market strategy



Collection of colostrum from dairy societies across Maharashtra



Transport and freezing at -18



Processing of colostrum whey



Pre-filtration Nano-and altro filtration



Formulation



Delivery to the market

Manufacturing Facility, Toxicity Study

RECEPTOL® Product Range: Oral spray, Oral gargle, Capsules, Tablets & Powder

FDA Approved Manufacturing Facility

➤ GMP Facility

- State of the art, nano biotech facility granted by TUV Nord Germany since 2012.
- **Extraction of API, PRP is done by Merck Millipore Molecular Exclusion Ultra filtration columns.**

➤ Toxicity study at FDA Approved National Institute of Nutrition (NIN), Hyderabad

- **Acute (14 Days) and Sub-chronic (60 Days-45 Days treatment 15 days recovery)**
- **repeated doses through oral route in Sprague Dawley rats**

➤ Acute Toxicity Study

- No pre-terminal deaths in rats after administration of 50 times the intended therapeutic dose through oral route. All rats were found to be active and with **normal body weight. No Acute toxicity found.**

➤ Sub Acute Toxicity Report

- No significant difference in physical & neurological activity between the control and test groups throughout the study period.
- No significant abnormalities in hematology or clinical chemistry profile in blood/serum samples.
- No gross lesions were found in any organ and no significant difference in histopathology of various organs. **No sub chronic toxicity found.**

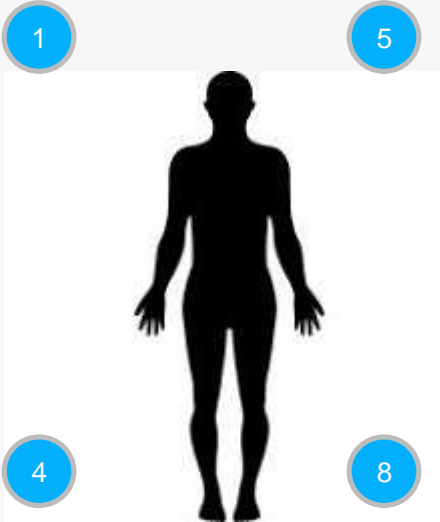
RECEPTOL[®] meets Unmet medical needs

Boost immunity, prevent all communicable, infectious & immunity disorders.

Fight Malnutrition - Increase body mass in underweight children and aid their growth.

Shield body against common infections like cold, cough & flu.

Helps in relief from allergies and asthma.



Prevent and treats all kinds of diarrhoea including viral infection induced.

Aids in overall improvement in health & wellbeing.

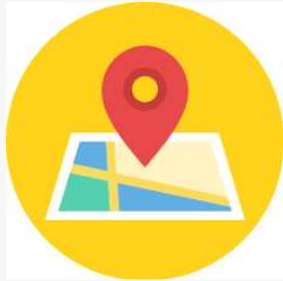
Increase strength & endurance, accelerate healing of injuries in athletes.

Help & slow down ageing in older populations

***Source: Receptol Book released by Dr Harsh Vardhan,
Chairman WHO Board of Directors, Health and Family Welfare Minister, Government of India***

MARKET RESEARCH

By Glaxo IPSOS USA



LOCATION

USA, UK, & India.



SAMPLE SIZE

800 Respondents



TARGET POPULATION

Households of SEC "A" in society
consuming HFDs & FMCG
products.



PRODUCT

RECEPTOL® powder
additive

Innovation : based on consumer research conducted by IPSOS(via Glaxo) & IRMA (via Amul) on 1000 consumers families giving top box responses with very high ITP scores.

The USP against all other Colostrum products available globally is clinically proven efficacy & safety well accepted by global, US Patent granting 58 indications including all immune & viral disorders

2 out of 3 Americans and Europeans can benefit from
Unilever Global Initiative via RECEPTOL®

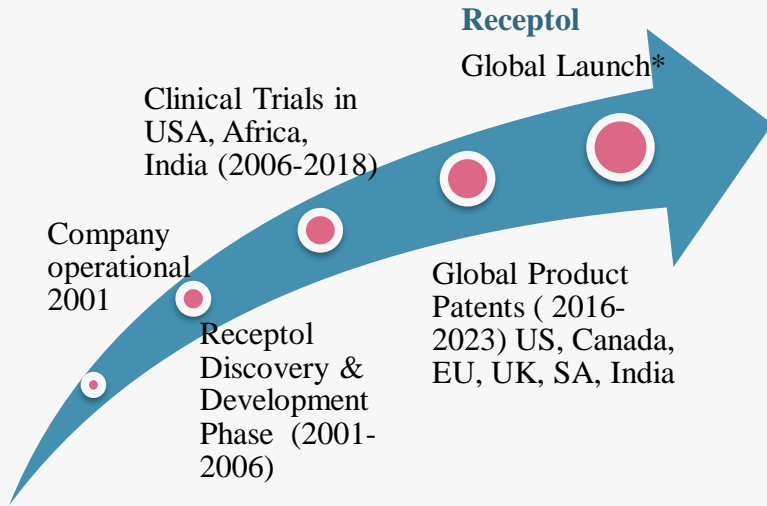
US alone can accounts
for
\$5 Billion

***Unit sale
250 Million
(at \$20 per unit)**

***MARKET
POTENTIAL
BASED ON IPSOS
STUDY**

**Unit sale 200
Million in EU**

Timeline: Key Events & Milestones



Global Launch

Based on

1. Global Market Research by IPSOS USA
2. Indian Market Research by Institute of Rural Management
3. Phase 4 by Lupin Laboratory in India, Himalayan Health Ltd Australia, Pharm Echo Russia,

*Global Launch Strategy

Maximize revenue by

- Out licensing as a Nutraceutical to large MNCs like Unilever.
- Launch as an Immunity Booster in North America & Europe to meet COVID challenge.

Globally **RECEPTOL®** received 65 Product Patents for 58 indications in North America, Canada, EU, UK, South Africa & India with the latest being granted in February 2024

Phase I of the Clinical Trial was conducted in the United States to ascertain the safety of the product along with pre-clinical acute & sub acute studies done at National Institute of Nutrition Hyderabad.

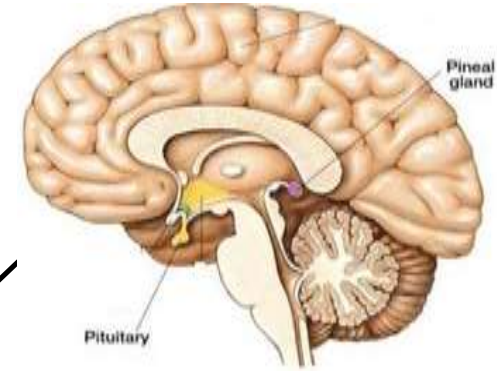
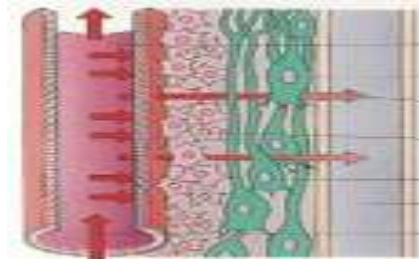
Phase II – IV studies were conducted in Africa & India for efficacy of Receptol using AIDS as a model for all viral/immune compromised conditions

Meta Analysis including study on Allergy, Asthma, Chronic fatigue syndrome & Endometriosis were conducted in the US by doctors who dispensed the products to the patients directly. Similar studies were conducted in Australia & India on Swine Flu whose results can be seen in the links given in the History of Receptol slide

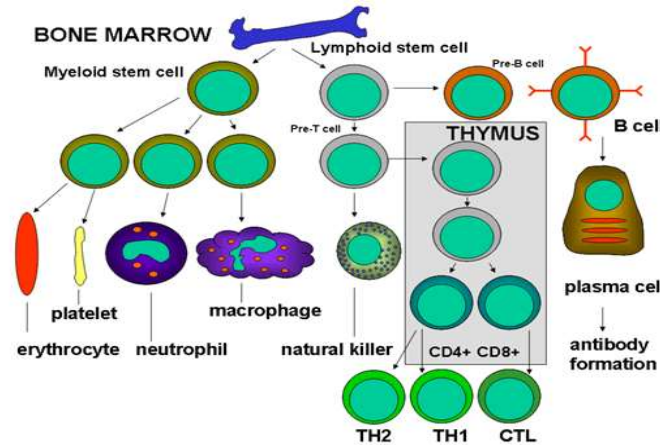
Science Behind Mode of Action



PRPs get absorbed in the blood through buccal mucosa and crosses the Blood Brain Barrier

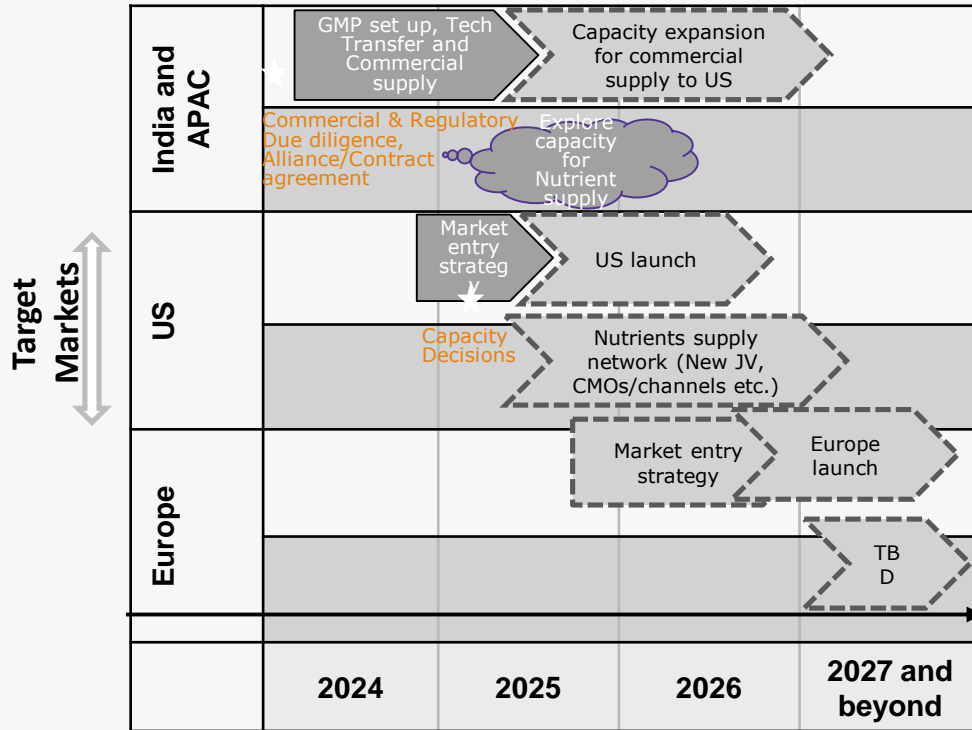


- Radha108 (PRP) promotes differentiation of B cells, differentiation & maturation of macrophages and monocytes.
- Activates natural killer (NK) cells, cytotoxic cells of the innate immune system.
- Mitigates cell fusion and docks on HIV glycoprotein like Gp120, 180,160 and 41 mimicking receptor on the cell surface closing entry of viruses.



- Stimulates production of cytokines IL-1 to IL-11, TNF- α , INF- γ .
- Stimulates the maturation of immature thymocytes into either helper or suppressor T cells
- Radha108 also functions as a molecular signalling device which works through receptors on target cell surfaces

Receptol® Roadmap



Collaboration Options

Pharma Drug Business

1. Manufacturing capacity for commercial supply to China and APAC
2. Manufacturing AND Commercial distribution in China and APAC
3. Manufacturing capacity for commercial supply to US and Europe
4. Manufacturing AND Commercial distribution in US to Europe

Nutrient Business

1. Manufacturing capacity for nutrient supply
2. Nutrient supply network for global markets
 - a. New JV
 - b. Other CMOs
 - c. Commercial distribution partners



Innovation Journey - RECEPTOL® manufactured by Biomix was discovered by Dr. Pawan Saharan,MS,Ph.D. WVU, Stanford with eminent group of scientists including 2 times Nobel laureate Prof. George Wald from Harvard & Prof. Joseph Weizenbaum, MIT Founder Directors with 18 years of research and development with funding by the Department of Science & Technology, GoI.

Product - RECEPTOL®, made from Colostrum Nano-peptides helps people lead longer & healthier lives by building the body's immune system, thus aiding in prevention and cure for all communicable & Immunity diseases: Coronavirus, AIDS, Swine Flu, RA, Allergy etc.

Active Ingredients (API) - Patented Nano - Informational Peptides (Class 4 Proline Rich Poly Peptides & Radha108).

Mode of Action - Receptol® gets absorbed in the blood through the buccal mucosa and crosses the Blood-Brain-Barrier. It stimulates maturation of immature thymocytes into either helper or suppressor T cells. It stimulates secretion of Tumour Necrosis Factor & cytokines IL-1 to IL-11, INF-a, INF-y. Activates Natural Killer (NK) Cells, cytotoxic cells of the innate immune system by 5 times.

Indications – Immunity Enhancer for Recurrent infections in Cancer, Infectious Disease & medical unmet needs viz rare immunity disorders.

USP- Innovative with common Mode of Action for all viral infections, affordable, globally patented, broad spectrum anti viral, immunomodulator, easy to administer, 100% natural with side effects, can be consumed by all and has no age or sex barriers.

Global Patents - US Product Patent # 9,249,188, Canadian, European, Indian, South African & Singapore for 58 diseases.

Market Research: Glaxo Consumer Healthcare conducted Global Consumer Research via IPSOS showing intention to purchase score of 97% of all medical and health professionals.

Global Clinical Studies - Global Safety & Efficacy monotherapy on AIDS & other indications: Highly efficacious and free of all side effects.

Goal - Helping 8 billion lives via safe, affordable and effective treatment & prevention of All communicable disease.