



RECEPTOL[®] ORAL SPRAY SHIELD FOR CORONA VIRUS PROPOSED TREATMENT AND PREVENTION AS DEMONSTRATED IN AIDS

INDIAN SOLUTION TO GLOBAL HEALTH PROBLEM

Dr. Pawan Saharan MS Ph.D.(USA) drpawan@biomix.in, www.biomix.in, +91-8291084108

MILLIONS SUFFER

CORONARY
ACUTE
PAPILLOMA
ASTHMA
CARCINOMA
PREMENSTRUAL
MUSCLES



HEPATITIS A, B & C HERPES SIMPLEX I&II
VIRAL INFECTIONS DENGUE FEVER HUMAN
IMMUNODEFICIENCY VIRUS (HIV) ROTA VIRAL DIARRHEA ALLERGIES &
IMMUNE DEFICIENCY HYPERPLASIA HEPATIC (LIVER) CELLULAR
CARCINOMA (SYSTEMIC) ORAL THRUSH AUTISM
RHEUMATOID & OSTEO ARTHRITIS SPINAL

FROM IMMUNE SYSTEM
RELATED ILLNESSES

Global Health Problems – Millions suffer from



Cancer, Allergy, SARS



Coronavirus 2019-nCoV.



AIDS, TB

INDIAN SOLUTION TO GLOBAL HEALTH PROBLEMS

What if there was a way to treat all immunity disorders via

RECEPTOL®, The New Immunity drug that not only builds body's own immune system but also prevents Recurrent infections in Cancer, Auto immune & AIDS patients

RECEPTOL® fulfills unmet needs in diseases caused due to poor immunity.

A Brief History of RECEPTOL®



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

- RECEPTOL® is an innovative single solution to a majority of health problems, like AIDS, Swine Flue, SARS-Coronavirus related to poor Immunity as demonstrated by Global Studies on HIV Patients.
- After 18 years of research, we have successfully isolated Nano peptides from bovine colostrum and conducted global clinical studies on 25,301 subjects suffering from AIDS, Swine Flue & other communicable & Immunity diseases.
- RECEPTOL® helps people lead longer & healthier lives by naturally building the body's own immune system, thus aiding in the prevention for all communicable & Immunity diseases, which can help current Global Pandemic.
- 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)
- PRPs & Radha-108 are a class of nano informational peptide consisting of oligo-ribonucleotide attached to a peptide molecule that act as immunity drug via immune-modulation and anti-viral vaccine like activity.
- Dosage - 3ml QDS via oral buccal spray (1 ml contains 0.03 gram of said Patented Nano Peptides) as successfully tested during global clinical studies.

**The 'Biggest' thing in Healthcare Industry, just may be the 'Smallest' thing –
Radha 108 Nano-peptides saving Billions from communicable infections**

RECEPTOL® oral spray for Corona virus treatment and prevention

A new coronavirus, declared as Global Health Emergency by WHO, 2019-nCoV was first identified in Wuhan, the capital of China's Hubei province, after people developed SARS like pneumonia. The incubation period (time from exposure to the development of symptoms) of the virus is 2-10 days and can be contagious during this time. Symptoms include fever, coughing, and breathing difficulties. Without a clear cause of 2019-nCoV, treatments with existing vaccines is not effective.

The Receptol® oral spray, Globally Patented (USA Patent # US 9,249,188 B2) is a new Immunity Drug (NID) providing mode of action in a vaccine like manner with active immunity, can be used for treatment and as preventive vaccine in dealing with current 2019-nCoV epidemic.

Receptol® consists of cell to cell communicator Nano informational peptides (Radha108) & proline-Rich Polypeptides (PRPs) from colostrum, Mother's 1st milk after the birth of the child or calf.

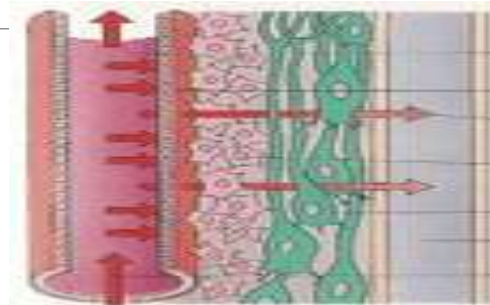
RADHA108 series has shown to dock on glycoprotein receptor on the cell surface and thus closing doors and windows for viral entry into the cell surface & immune cells in particular.

The S-protein/receptor interaction is the primary determinant for a coronavirus to infect a host species and also governs the tissue tropism of the virus. Receptol nanopeptides can block the attachment of S protein like In case of well-studied mode of action in treatment of retrovirus infection such as HIV and Swine flue.

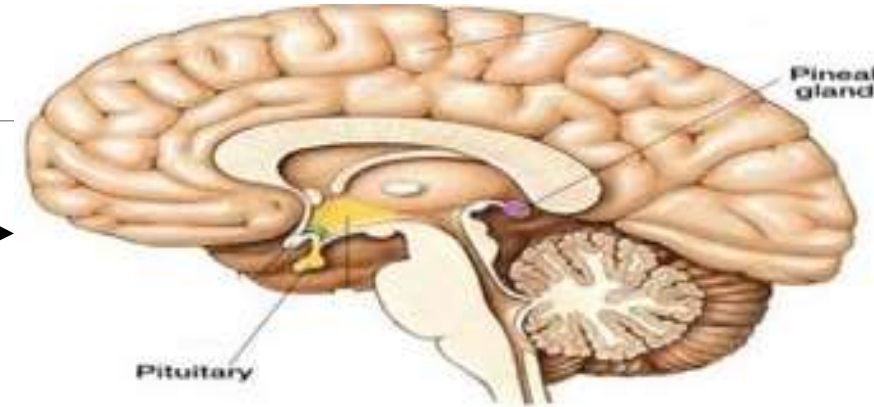
RECEPTOL[®] Mode of Action



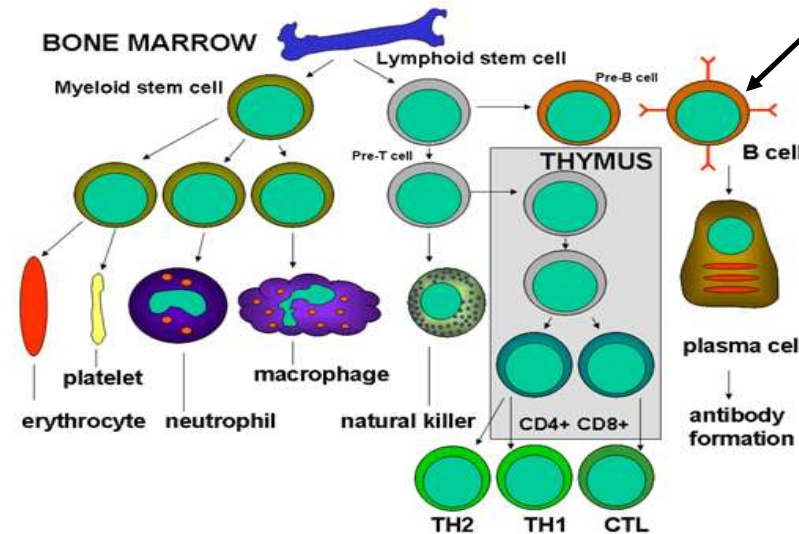
RECEPTOL[®] Radha108 & PRP
 Nano-info peptides get absorbed in the blood through buccal mucosa and crosses the Blood Brain Barrier (BBB)



Acts via



- 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 that can be true for coronavirus Spike (S) protein as well .



- 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

Common Mode of Action

Electron Micrograph Showing both HIV & Coronavirus unable to infect cells via Radha108 Nanopeptides Competitive inhibition on Cell surface with viral lock down

Receptol® Mode of Action in HIV/ AIDS

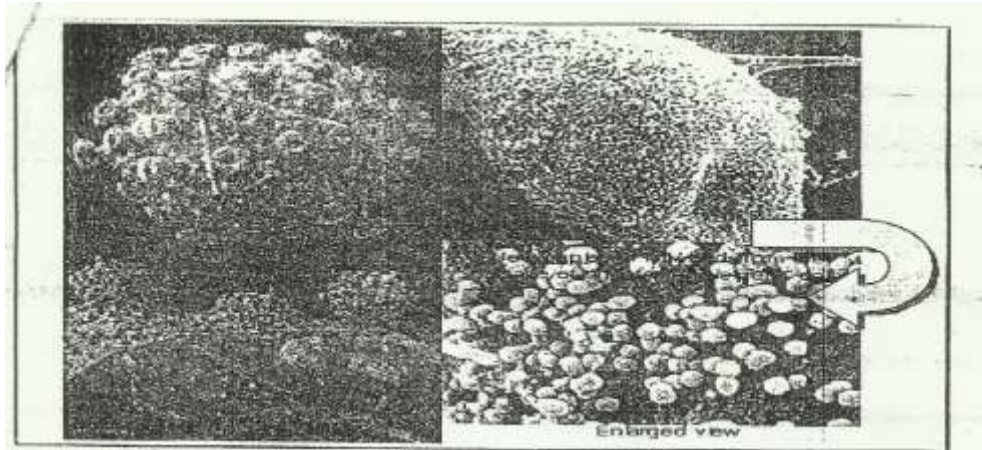
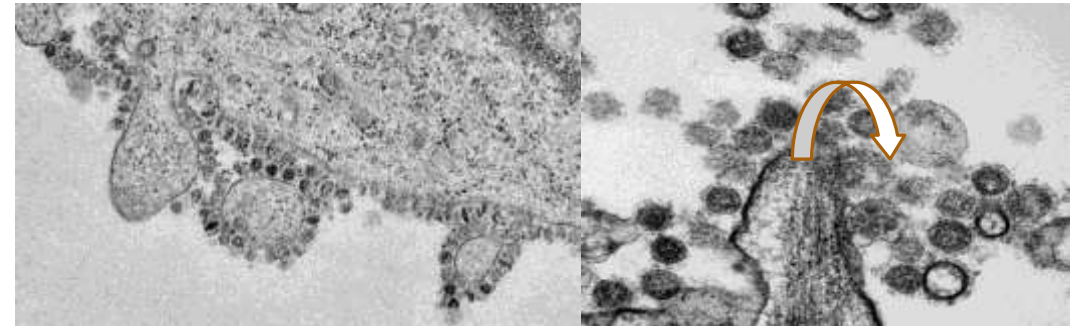


Figure 4. Pictures of HIV under a microscope.



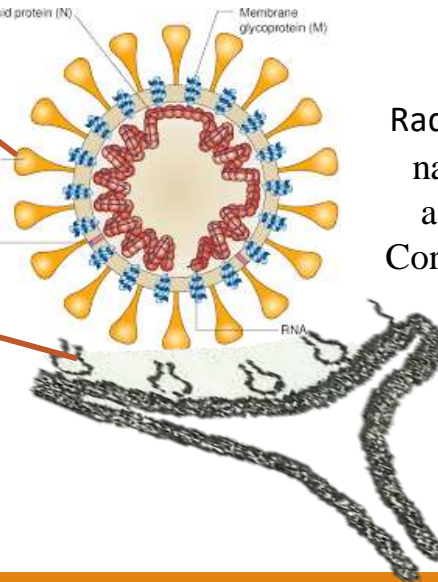
Figure 5. Graphic of how RECEPTOL® protects human T-Cells.

Receptol® Mode of Action in Coronavirus Scenario



Spike Glycoprotein (S)

Radha 108 Toll like Receptor



Radha 108 Toll like Receptor® nanopeptides can block the attachment of S protein of Coronavirus as depicted above

Product USP

Common Mode of Action for All Viral Infection

Common Immunity Booster Vaccine Potential for all communicable viral infectious like AIDS, Swine Flu, **Coronavirus**, Allergy etc.

1

Activates natural killer (NK) cells, cytotoxic cells of innate immune system Stimulating production of cytokines:IL-1 to IL-11, TNF- α , INF- γ .

2

Shield body against common infections like cough, cold, fever & diarrhoea,.
As per study on healthy subjects .

3

Helps in relief from allergies, asthma, Immunity disorders, **as per global study**

4



5

Prevent and treats all viral infection
As per study on HIV & Swine Flue.

6

Stimulates the maturation of immature thymocytes into helper or suppressor T cells to build strong immune system

7

Increase strength & endurance, accelerate healing of injuries in athletes as **IMMUNITY BOOSTER.**

8

Radha108 also functions as a molecular signalling device which works through receptors on target cell surfaces preventing viral antigens entry into cellular system.

Global Safety & Efficacy Studies on AIDS Patients

Safety and Efficacy achieved by global trials:

Phase I : 12 cohort 30 days
(completely safe) in Ohio, USA

Phase II : 30 cohort 90 days (highly effective with no side effects) in Nairobi – Kenya

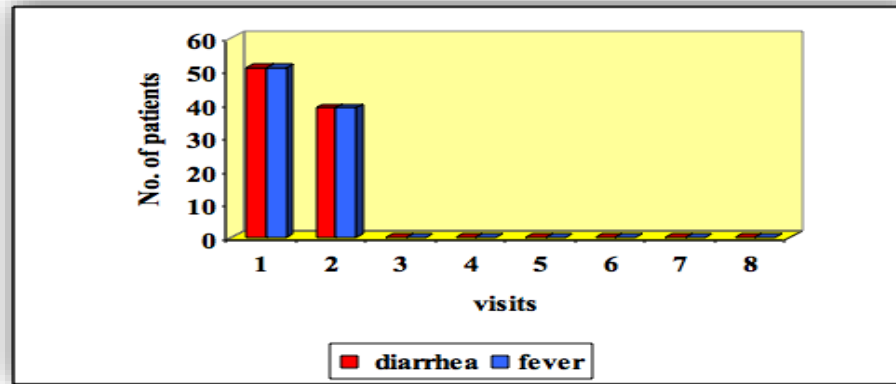
Phase III : 60 cohort for 365 days
(highly effective with no side effects) in Rwanda, Africa

Phase III Indian Safety & Efficacy Mono Therapy Clinical Trials- with Radha 108 Nano Peptide by Government of India, Ministry of Health/National AIDS Control and Monitored by Indian Council of Medical Research/NARI* by US PATH accredited org.

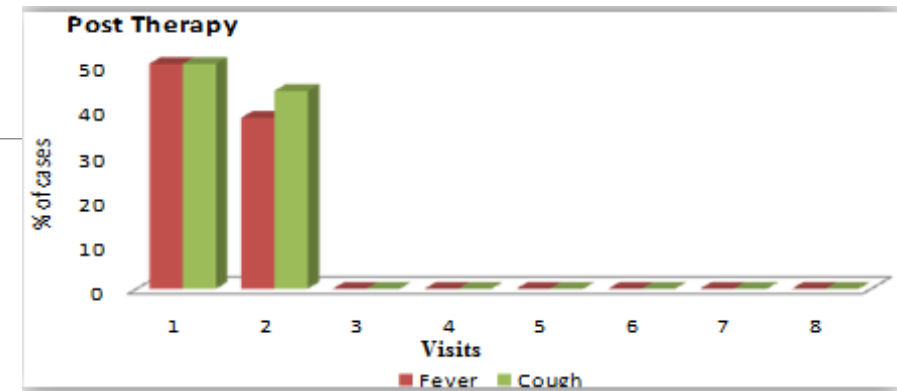
Study I : 50 HIV Positive Patients at Tertiary Care LTMG Hospital Sion, Mumbai
(Clinical trial registry No. : CTRI-2012-08-002931)

Study II : 51 HIV Positive Patients at Tertiary Care LTMG Hospital, Sion, Mumbai
(ICMR Clinical Trial registry No. : CTRI-2012-09-002959)

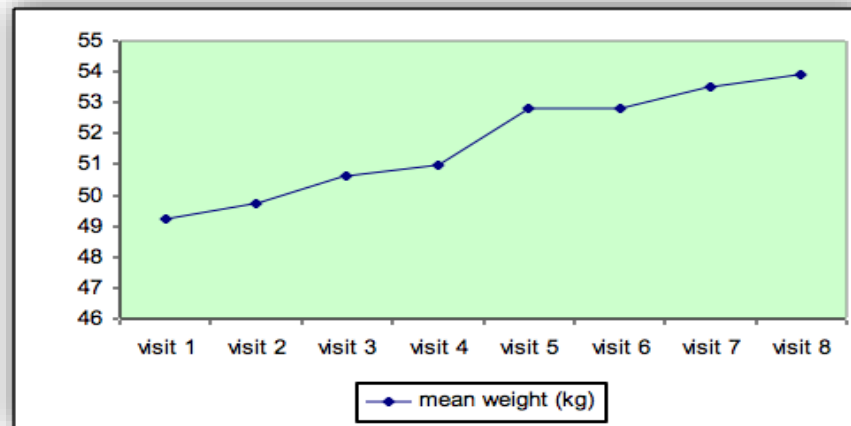
Indian Study : Stand Alone Study on AIDS Patients



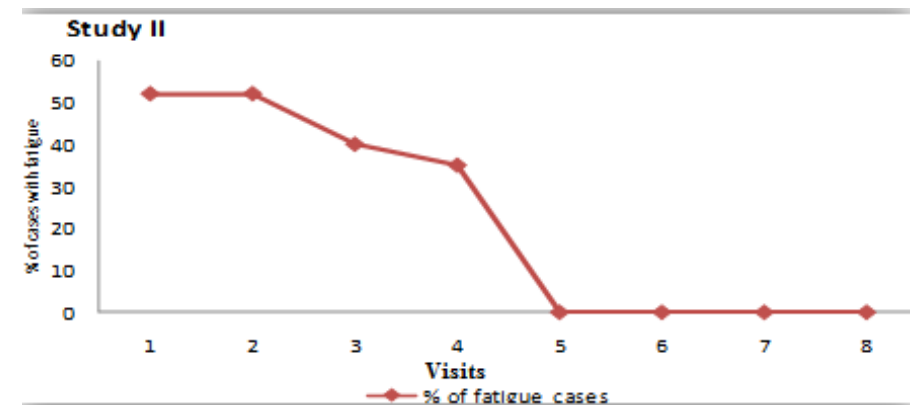
Statistically significant reduction in Diarrhoea



Statistically significant reduction in Fever & Cough



Statistically significant gain in weight $p < 0.05$



Statistically significant reduction in Fatigue / Malaise

Meta Analysis on 25000 Subjects Including healthy population

Objective: Ascertain the safety and efficacy of RECEPTOL[®]

Sample Size: 25,000 Subjects

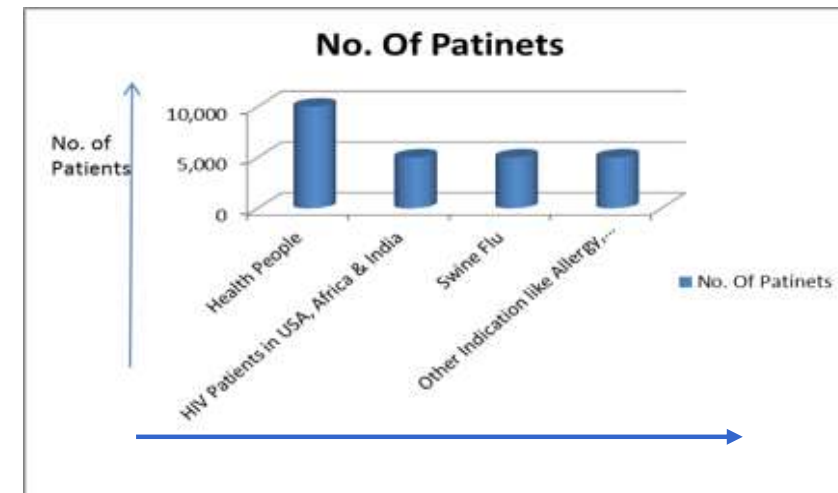
Scope: HIV, Swine Flu, Allergy/Asthma, Rheumatoid Arthritis , Endometriosis & NCD, Chronic Fatigue Syndrome

Hypothesis: Weight gain is an indication of wellness and overall health. No side effects with improved QoL showcases the safety and efficacy of the product.

Conclusion :

Study reveals that RECEPTOL[®] oral spray therapy provides **significant efficacy & safety in all groups of patients suffering from communicable & Immunity diseases** with increased Quality of Life with increased weight gain in chronic patients. The product is completely safe with no side effects per 10 years follow up.

Sr.No.	Stand Alone Receptol Therapy in Global clinical studies	No. of Patients
1	Healthy people	10,000
2	HIV Patient in USA, Africa, India	5000
3	Swine Flu	5000
4	Other Indications like allergy, asthma, Rheumatoid Arthritis, Chronic Fatigue Syndrome, Endometriosis Study etc.	5000



Stand Alone Radha 108 Therapy in
Global Clinical Studies

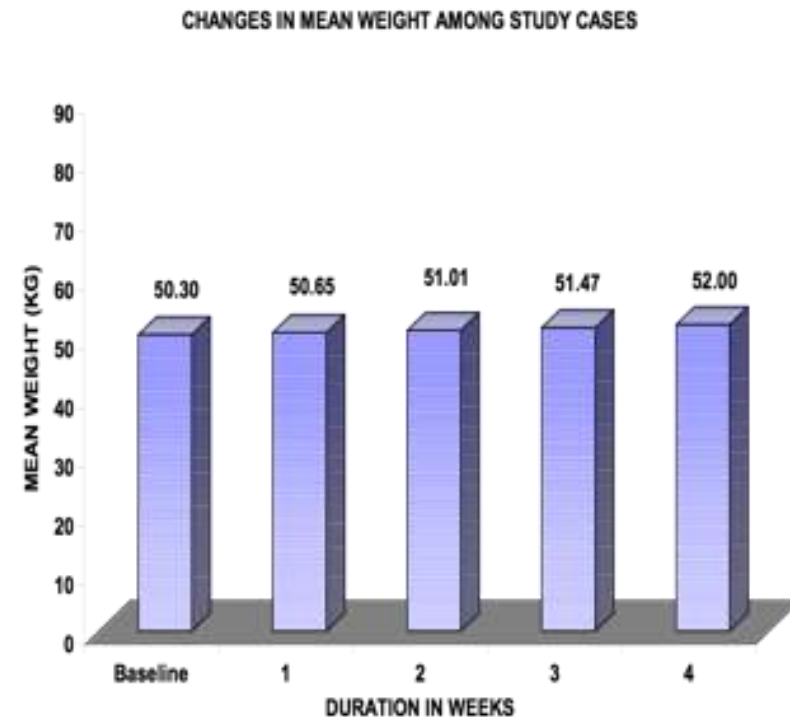
RECEPTOL[®] Efficacy & safety Global Studies on Healthy Population

CHANGES IN MEAN BODY WEIGHT AMONG STUDY CASES

Duration (Weeks)	Mean weight (\pm SD) (N = 10000)
Baseline	50.30 \pm 10.02
1	50.65 \pm 10.01
2	51.01 \pm 09.96
3	51.47 \pm 09.94
4	52.00 \pm 09.96
Mean Diff. (Baseline – Wk1) (P value)	*00.35 \pm 00.66 (0.001)
Mean Diff. (Baseline – Wk2) (P value)	*00.71 \pm 01.24 (0.001)
Mean Diff. (Baseline – Wk3) (P value)	*01.17 \pm 01.95 (0.001)
Mean Diff. (Baseline – Wk4) (P value)	*01.70 \pm 02.15 (0.001)

By ANOVA

P<0.05, * Significant

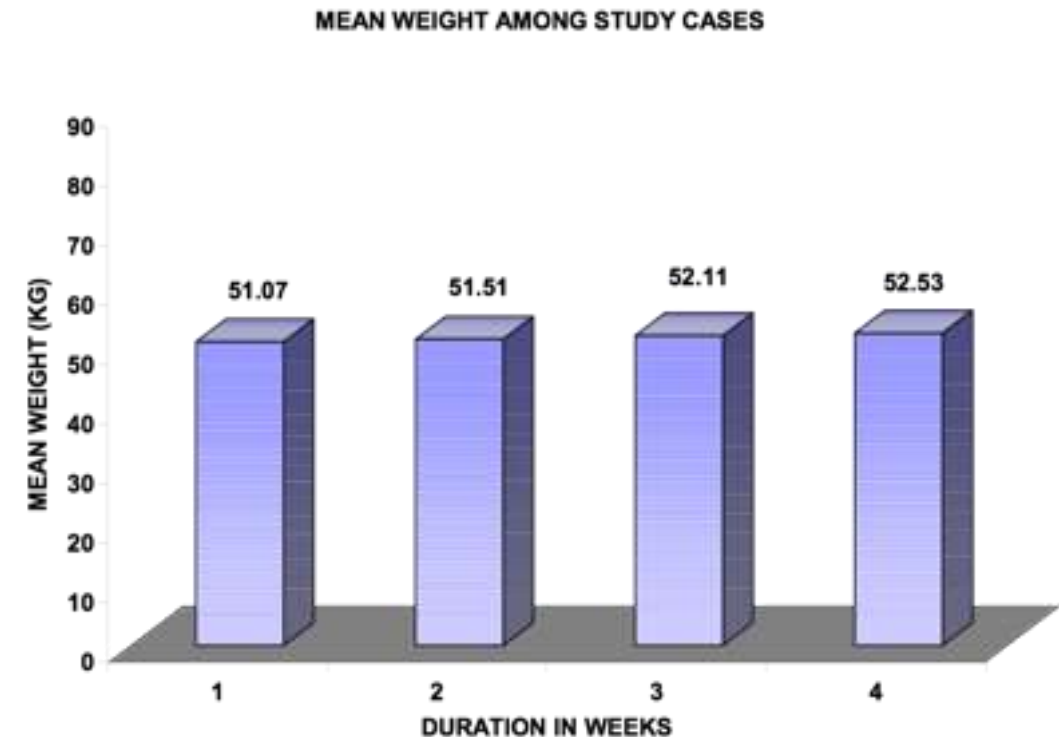


- After 1 week of treatment with Radha 108 Nano Peptide, mean weight showed a significant rise of 0.7% from baseline.
- After 2 week of treatment with Radha 108 Nano Peptide, mean weight showed a significant rise of 1.4% from baseline.
- Same trend was observed till the end of 4 weeks

Efficacy & safety in Swine flu

CHANGES IN MEAN WEIGHT AMONG STUDY CASES

Duration (Weeks)	Mean weight ($\bar{X} \pm SD$) (N = 5000)
1	51.07 \pm 9.82
2	*51.51 \pm 9.79
3	*52.11 \pm 9.75
4	*52.53 \pm 9.76



By ANOVA $P < 0.05$,

* Significant

- At the end of 2nd week, mean weight showed significant change from baseline i.e. mean change of 1.44 kg.
- At the end of 4th week mean weight increased significantly that is 1.46 kg from baseline.

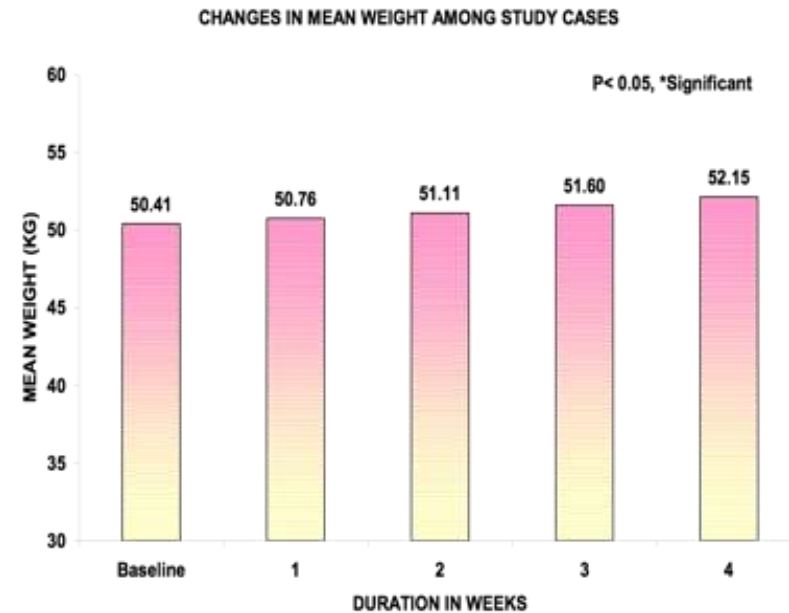
RECEPTOL[®] Efficacy & safety of other indications like Allergy, Asthma, Arthritis, Diarrhoea, Fever, Fatigue-malaise, Anemia, Endometriosis

CHANGES IN MEAN WEIGHT AMONG STUDY CASES

Duration (Weeks)	Mean weight (± SD) (N = 5000)
Baseline	50.41 ± 10.03
1	50.76 ± 10.01
2	51.11 ± 09.94
3	51.60 ± 09.91
4	52.15 ± 09.91
Mean Diff. (Baseline – Wk1) (P value)	*00.35 ± 00.57 (0.001)
Mean Diff. (Baseline – Wk2) (P value)	*00.70 ± 01.05 (0.001)
Mean Diff. (Baseline – Wk3) (P value)	*01.19 ± 01.77 (0.001)
Mean Diff. (Baseline – Wk4) (P value)	*01.74 ± 01.95 (0.001)

By ANOVA

P<0.05, * Significant

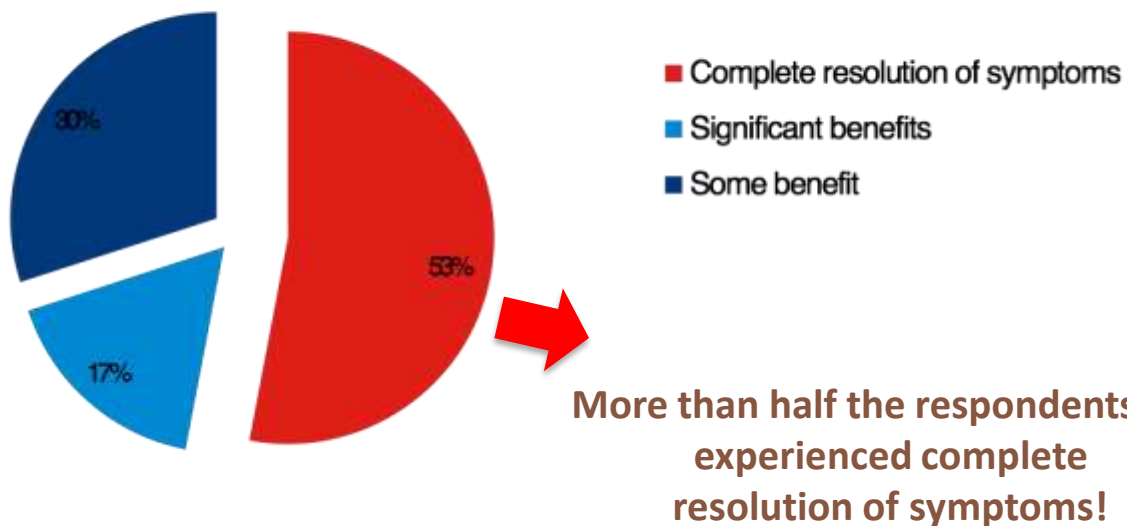


- After 1 week of treatment, mean weight showed a significant rise of 0.7% from baseline.
- After 2 week of treatment, mean weight showed a significant rise of 1.4% from baseline, similar trend was observed till the end of 4 weeks.

Global Studies on RECEPTOL[®] Immunity Disorders

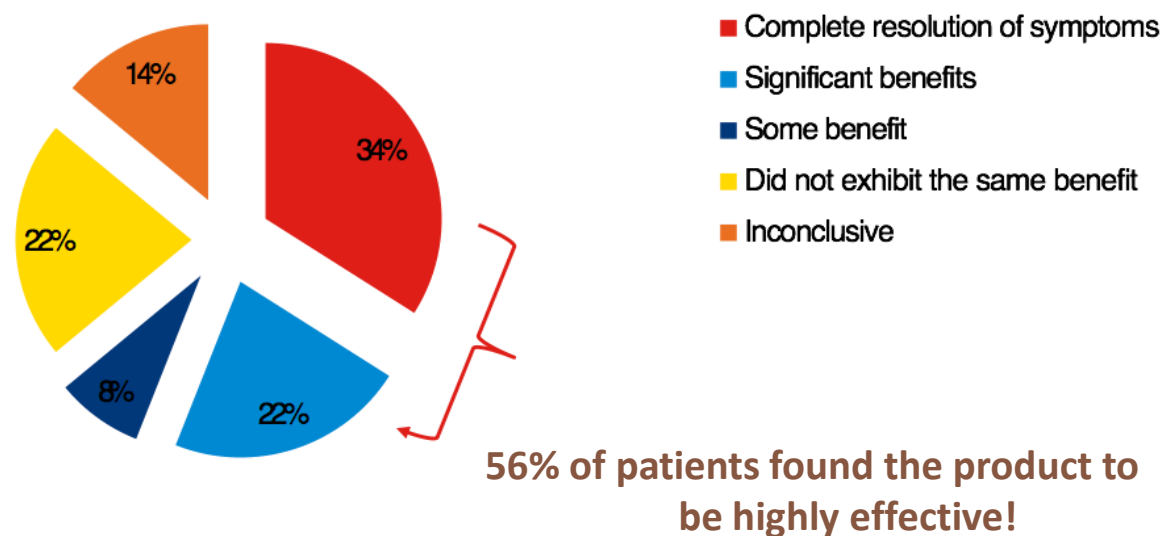
Allergies

Reporting Patients : 24
Duration of Treatment : 6 months



Rheumatoid Arthritis

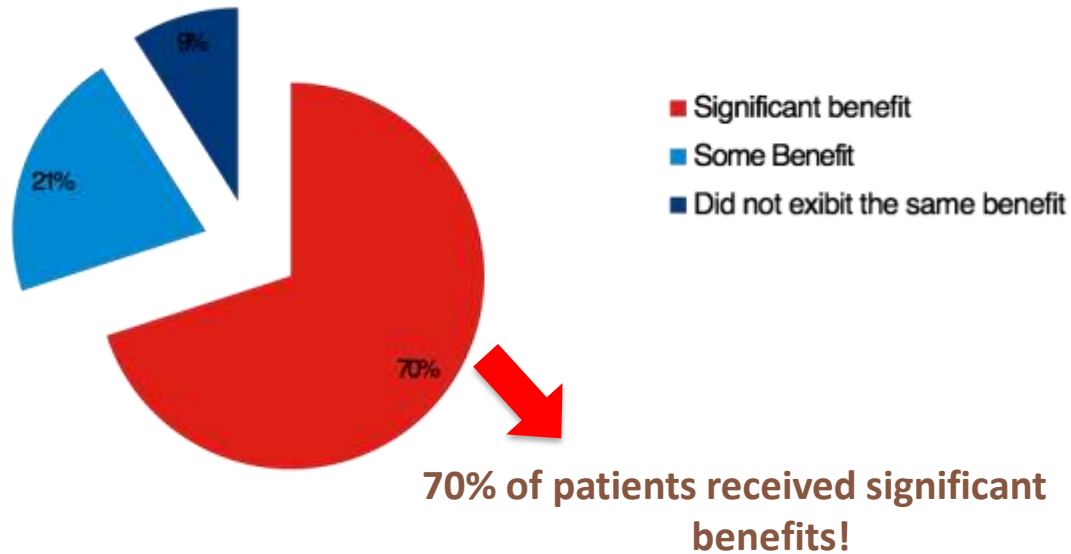
Reporting Patients : 63
Duration of Treatment : 6 months



Global Studies on RECEPTOL[®] Immunity Disorders

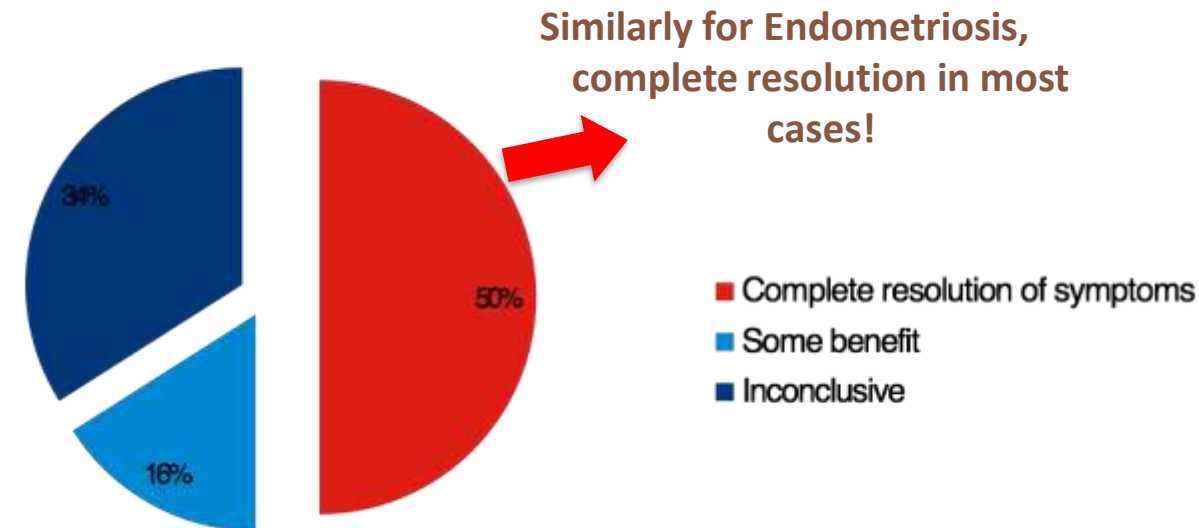
Chronic Fatigue Syndrome

Reporting Patients : 108
Duration of Treatment : 6 months



Endometriosis

Reporting Patients : 106
Duration of Treatment : 6 months



United States Patent

Patent No :-USA,249,188B2

Date of Patent :-Feb,02,2016



“RECEPTOL®’s unique Mode of Action led to US & EU Govt granting product patents for 58 indications: starting from the common cold, influenza, allergies, asthma, Rheumatoid Arthritis, Swine Flu, Endometriosis, Chronic Fatigue Syndrome, etc. to life threatening HIV, and Cancer with US Product Patent # 9,249,188 along with Canadian, European, Indian, South African & Singapore patents. RECEPTOL® has also been approved by Government of India for National Health Program.”

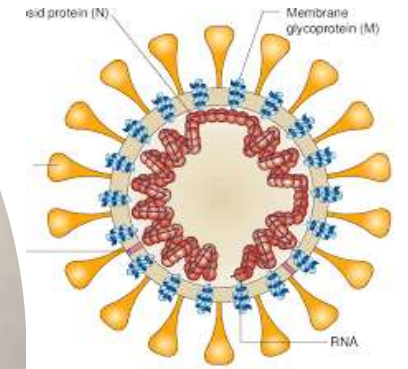
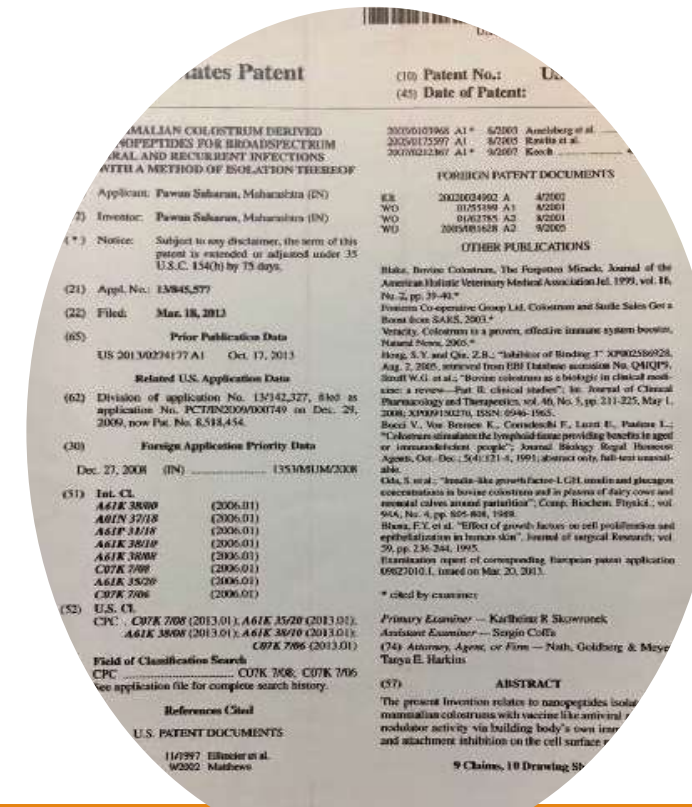
(12) United States Patent Sahasra	(10) Patent No.: (45) Date of Patent:	US 9,249,188 B2 Feb. 2, 2016
(34) MAMMALIAN COLOSTRUM DERIVED NANOPETIDES FOR BROADSPECTRUM VIRAL AND RECURRENT INFECTIONS WITH A METHOD OF ISOLATION THEREOF	2003/0103068 A1 * 2003/0175327 A1 2007/0113367 A1 *	6/2003 Anandberg et al. 424/138.1 8/2003 Basile et al. 424/185.1 9/2007 Kersch 424/185.1
(71) Applicant: Pawan Sahasra, Maharashtra (IN)	FOREIGN PATENT DOCUMENTS	
(72) Inventor: Pawan Sahasra, Maharashtra (IN)	EA 2003/024901 A 4/2002 WO 01/55109 A1 8/2001 WO 01/62783 A3 8/2001 WO 2003/041618 A2 9/2003	
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(h) by 75 days.	OTHER PUBLICATIONS	
(21) Appl. No.: 13/945,577	Blake, Bovine Colostrum, The Forgotten Miracle, Journal of the American Holistic Veterinary Medical Association Jul. 1999, vol. 18, No. 2, pp. 39-40.*	
(22) Filed: Mar. 18, 2013	Proterra Co-operative Group Ltd, Colostrum and Bifido Sales Get a Boost from SARM, 2003.*	
(85) Prior Publication Data	Vaccinity, Colostrum is a proven, effective immune system booster, Natural News, 2003.*	
US 2013/0274177 A1 Oct. 17, 2013	Hong, S.Y. and Qiu, Z.B., "Inhibitor of Binding 3" KP002180918, Aug. 2, 2005, retrieved from ESI Database accession No. Q4Q09.	
Related U.S. Application Data	Steff W.G. et al., "Bovine colostrum as a biologic in clinical medicine: a review—Part II: clinical studies", Int. Journal of Clinical Pharmacology and Therapeutics, vol. 46, No. 5, pp. 211-223, May 1, 2004; KP00519270, US2N-0946-1965.	
(62) Division of application No. 13/142,327, filed as application No. PCT/IN2009/000749 on Dec. 29, 2009, now Pat. No. 8,518,454.	Bucci V., Von Briesen K., Corradocchi F., Luzzi E., Paulsen L., "Colostrum stimulates the lymphoid thorus providing benefits in aged or immunodeficient people", Journal Biology Regul Homeost Agents, Oct.-Dec.; 5(4):121-4; 1991; abstract only, full-text unavailable.	
(30) Foreign Application Priority Data	Gda, S. et al., "Insulin-like growth factor-1, IGF, insulin and glucose concentrations in bovine colostrum and in plasma of dairy cows and neonatal calves around parturition", Comp. Biochem. Physiol., vol. 94A, No. 4, pp. 803-806, 1999.	
Dec. 27, 2008 (IN) 1333/6/UM/2008	Shen, R.Y. et al., "Effect of growth factors on cell proliferation and epithelialization in human skin", Journal of surgical Research, vol. 59, pp. 234-244, 1995.	
(31) Int. Cl.	Examination report of corresponding European patent application 09877040.1, issued on Mar. 20, 2013.	
A61K 38/00 (2006.01)	* cited by examiner	
A61P 37/02 (2006.01)	Primary Examiner — Karlheinz R. Skowronski	
A61P 37/02 (2006.01)	Assistant Examiner — Sergio Coffa	
A61K 38/00 (2006.01)	(74) Attorney, Agent, or Firm — Nath, Goldberg & Meyer;	
A61K 38/00 (2006.01)	Tanaya E. Harkins	
C07K 5/00 (2006.01)	(57) ABSTRACT	
A61K 35/00 (2006.01)	The present invention relates to nanopetides isolated from mammalian colostrum with vaccine like antiviral and immunomodulator activity via blocking body's own immune system and attachment inhibition on the cell surface receptors.	
C07K 5/00 (2006.01)	9 Claims, 19 Drawing Sheets	
(52) U.S. Cl.		
CPC : C07K 5/00 (2013.01); A61K 35/00 (2013.01); A61K 38/00 (2013.01); A61K 38/20 (2013.01); C07K 5/00 (2013.01)		
(58) Field of Classification Search		
CPC : C07K 7/00; C07K 7/00		
See application file for complete search history.		
(56) References Cited		
U.S. PATENT DOCUMENTS		
5,602,876 A 11/1997 Ellender et al.		
2003/0127279 A1 8/2003 Mathews		

GLOBAL & US PATENTS FOR TREATMENT AND PREVENTION OF ALL VIRAL & IMMUNITY DISEASE

The current invention related to mammalian colostrum provides answers to current and pipeline vaccine conjugates for preventing the majority of viral as well as bacterial communicable infections.

Abstract from US Patent 2016

The present invention relates to nanopeptides isolated from mammalian colostrums with vaccine like antiviral and immunomodulator activity via building body's own immune system and attachment inhibition on the cell surface receptors.



Receptol® Global Market Research As Immunity Booster

IPSOS, USA & IRMA, India studied Doctors & Customer's perceptions towards two concepts of the RECEPTOL® immune powder:

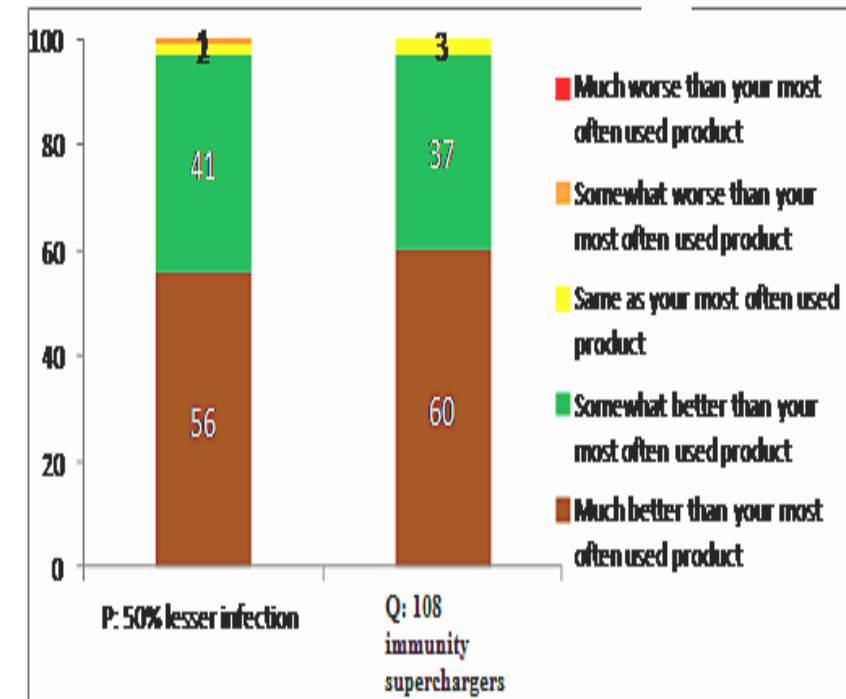
1. infection reducer for communicable viral infections.
2. immunity super charger along with their willingness to buy RECEPTOL® as stand alone & as an additive for prevention of Communicable and Immunity disorders.

Results were as follows:

RECEPTOL® met the mandate from 800 consumers in India, UK & United States in IPSOS, USA Study & 100 doctors and 120 consumers in IRMA, India study as stand-alone/additive as clinically proven immunity booster to prevent illness.

The ITP index was around 97-100%.

RECEPTOL® was added in liquid or powder form thereby differentiating and positioning them as immunity enhancing and health oriented products widening consumer base to include the rapidly growing segment of the world's population who value health and wellness by consuming life-enhancing products.



80% of the respondents surveyed liked both the product concepts to prevent illness from viral infections.

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, Govt.

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-α, INF-γ. Activates Natural Killer (NK) Cells, cytotoxic cells of the innate immune system by 5 times.

Indications - Treatment of HIV & for associated recurrent infections. Immunity enhancer for prevention of Communicable disease like **Coronavirus n-CoV**, Swine Flu, Influenza, Chronic Fatigue Syndrome.

USP - Innovative with common Mode of Action for all viral infections, affordable, globally patented, broad spectrum anti viral, immuno-modulator, 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.

GSK IPSOS Market Research: Glaxo Consumer Healthcare conducted Global Consumer Research via IPSOS on 800 families from India, UK & USA. The study concluded that 80% of the respondents surveyed were ready to pay a higher price for RECEPTOL®

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

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

TEAM

•Founder CEO

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

•Research Director

- **Dr. C. R. Bhatia, Ph.D., Post Doc. (BNL, NY, US),**
- DBT Secretary Govt. of India & Director: BARC,
- Advisor: IAEC, Vienna

•Project Director

- **Amitabh Thakore, B. Tech., MBA (IIM- Ahmadabad)**

•Research Advisor

- **Jean Zhang, Senior GSK R&D Scientist at Boston, USA**
- Pharma Drug Discovery & Therapeutic Solution since 2007

• Founder Directors include

- **Late Prof George Wald, Harvard Medical Center**
- 2 times Nobel Prize Winner
- **Prof Joseph Weizenbaum**
- Founder Chair Robotics Comp science Dept. MIT

• Business Advisor

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

•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.**

•**Dr. Ali Irani - President API, Ortho & Sports Medicine**

Former Physiotherapist of Indian Cricket Team (12 years)

Email Id: dralirani@gmail.com

• Business Development Executive

- **Hemangi Saharan, Bachelor of Management Studies**
- HR College of Commerce & Economics