

A new coronavirus, declared as Global Health Emergency (PHEIC) by WHO, Covid-19 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. Covid-19 has spread to over 150 countries and entire humanity is under lockdown. While social distancing can help in near future but a solution to frequent outbreaks is to find a Broad spectrum Anti Viral like Receptol®️.

1st PHEIC was declared by WHO for Swine Flue (H1N1 Influenzas) in 2009 with 284,500 deaths with 763 million cases reported in 214 countries and was successfully contained by Receptol®️ used at 3 domestic & international airports in Mumbai by Mumbai International Airports Ltd. The Patented Receptol®️ oral spray (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 preventative vaccine in dealing with current 2019-nCoV epidemic.

Receptol®️ consists of cell to cell communicator Nano informational peptides (Radha108) & Proline-Rich Polypeptides (PRPs) from Mammalian colostrum, Mother’s 1st milk after birth of the child. Numerous Studies have shown that Receptol®️ spray will deliver nanopeptide crossing blood brain barrier and have great effectiveness in treating many immunity disease including all viral infections with in 3 months. As a natural product, Radha-108 Nanopeptides have no side effects which can be taken safely by all age groups and are not species specific.

Receptol®️ showed great effectiveness in treatment of retrovirus such as HIV, Swine Flu and SARS like conditions caused by Coronavirus. An accelerated, prospective Phase III global efficacy and safety studies for Receptol®️ Monotherapy was conducted for HIV Positive patients with 10 years follow up showed significant resolution of all symptoms within 3 weeks including consistent week after week weight gain and pharmacological effects with low to undetectable Viral Load and increased Absolute CD4 Counts.

Coronaviruses is enveloped positive- RNA viruses characterized by club-like spikes that project from their surface. It has unusually large RNA genome, four main structural proteins. spike (S), membrane (M), envelope (E), and nucleocapsid (N) proteins as virus particles. S protein is cleaved by a host cell furin-like protease into two separate polypeptides noted S1 and S2. The initial attachment of the virion to the host cell is initiated by interactions between the S protein and its receptor. 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®️ nano- peptides can block the attachment of S protein like in case of well-studied mode of action in treatment of other retrovirus infection such as HIV over the last 12 years.

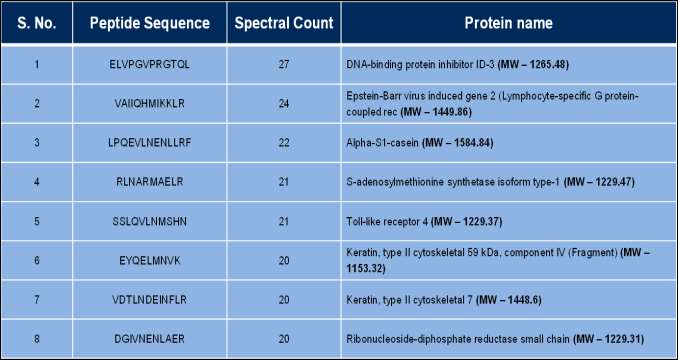
Receptol®️ oral spray can be an answer to prevent & treat current epidemic of 2019-nCoV as its Mode of Action is similar to that of AIDS for which global studies with 10 years follow were done. Receptol®️’s nano-peptide will not only dock on S glycoprotein receptor on the cell surface to mitigate cell fusion though competitive inhibition, closing doors and windows for all viral entry but will also stimulate the maturation of immature thymocytes into helper & suppresser T cells. T helper cells will help produce antibodies against 2019nCoA. Suppressor T cells, on the other hand, deactivate other lymphocytes after an infection has been cleared to avoid damage to healthy tissues. Receptol®️ will help to produce memory T cells, in order to expedite the production of antibodies for future infection in all human hosts like a vaccine.

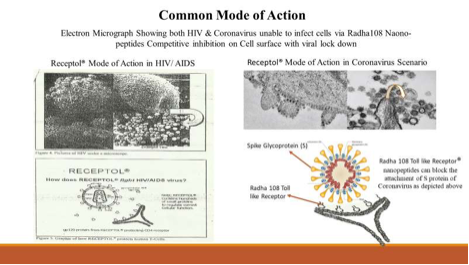
Once RADHA108 series get absorbed in the blood stream through buccal mucosa or transdermal route and crosses the Blood Brain Barrier (BBB), they act on Pituitary gland in brain and cell to cell communicator informational proteins (RADHA108) in RECEPTOL®️ will active in mitigating cell fusion. RADHA108 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.

Receptol® Mode of Action

* The informational proteins in RECEPTOL® are active in mitigating cell fusion by docking on glycoprotein receptor on the cell surface and thus closing doors and windows for all viral entry into the human cells.
* Fusion of viral particles with human white blood cells, particularly CD4 cells occurs with the aid of glycoprotein epitopes on the viral wall.
* Radha108 nano-peptide gets absorbed in the blood stream through buccal mucosa and crosses the Blood Brain Barrier (BBB) to act on Pituitary for endocrine action.
* The levels of Interleukins & Cytokines are increased substantially.
* Supports regulation of thymus via producing functionally active NK cells
* Augments cell-mediated immunity & activates T-cell precursors to produce helper & suppresser T-cells increasing CD4/8 counts.
* Promotes differentiation of B cells, differentiation and maturation of macrophages and monocytes.
* Activates natural killer (NK) cells, cytotoxic cells of the innate immune system
* Promotes NK function and activity as well as supporting a healthy immune system for all patients. The immune system plays a great role in the quality of our health. Strong, active and optimally functioning NK cells promote optimal health and deter foreign substances from affecting immune function.
* Stimulates production of cytokines IL-1 to IL-11, TNF-α, INF–γ.
* Finally it functions as a molecular signalling device which works through receptors.

Receptol® API contains Unique SEQ ID1- 8 (USA Patent # US 9,249,188 B2)





The previously unknown, "SARS-associated coronavirus" or SARS-CoV was similar to Covid-19. Middle East respiratory syndrome coronavirus (MERS-CoV) was also new coronavirus in humans that replicates in both the lungs and gastrointestinal tract tissues. However, tissue samples show the most damage occurs in the lung alveoli where lung function is compromised producing a severe breathing disorder often termed acute respiratory distress syndrome (ARDS) like in Global Covid-19 which can be reversed by Receptol®

**References:**

1. “Health for All via Receptol-A Paradigm shift in healthcare: treatment to prevention” Book released by Health Minister of India.
2. Dr Pawan Saharan, MS, Ph.D., Receptol® Oral Spray Shield for Coronavirus Proposed Treatment & Prevention as Demonstrated in AIDS, American Journal of Biotechnology & Immunology, Research Article, Volume 2 Issue 1 – 2020 <https://escientificpublishers.com/receptol-oral-spray-shield-for-coronavirus-proposed-treatment-prevention-as-demonstrated-in-aids-JBI-02-0007>
3. Dr Pawan Saharan, MS, Ph.D., Dr Sushil Indoria, MD -Medicine Dr Sandhya Saharan, MD-OBGY Dr Girish Rajadhyaksha, MD-Medicine Receptol® Oral Spray Shield For Corona Virus Proposed Treatment & Prevention as demonstrated in an Interventional Phase III Accelerated Study with 8 years follow up with Stand Alone Therapy In AIDS Patients With Multiple Symptoms similar to 2019-nCoV. (In Press with International peer reviewed Journal)
4. Paradigm shift in discovery & secretion of biosimilars via path breaking Innovation,Pawan Saharan, Biomix Network Inc. USA 5th European Biosimilars Congress, June 27-29,2016, Valencia, Spain.
5. United States Patent : Pawan Saharan, Mammalian Colostrum derived Nano peptides for broad spectrum viral and recurrent infection with a method of isolation thereof: Granted product patent #: US 9,249,188 B2 (Year 2016) & US 8518454 B2 (Year 2013).
6. Pawan Saharan, Paradigm shift in discovery & secretion of Biosimilars via path breaking innovation: Radha108 Nanopeptides extracted from bovine Colostrum, American Journal of bioanalysis & biomedicine, by, JBABM, ISSN:1948-593x, Volume 8, Issue 3, 2016
7. Dr Pawan Saharan, Dr Sushil Indoria, Dr Sandhya Saharan, Dr Girish Rajadhyaksha

An accelerated, prospective Phase III Efficacy & Safety Study on Novel Broad Spectrum Antiviral Immunomodulator, Receptol® : RADHA (108) Nano peptides extracted from Bovine colostrum for Treatment of HIV on stand alone basis.

(In Press with International peer reviewed Journal)

1. Dr Pawan Saharan, Dr Sushil Indoria, Dr Sandhya Saharan, Kailash Gandewar-TCS Biostatistician

Meta Analysis of observational Study of Healthy Population with frequent recurrent infections & weight loss past history to determine the Efficacy & Safety Of RECEPTOL® Oral Spray Used as a Stand-Alone Mono Therapy with vaccine like effect: Creating a Paradigm Shift from Treatment to Prevention of Communicable Disease in India with over 10 years follow up of HIV Patients that could be an Answer to Covid-19.

(In Press with International peer reviewed Journal)

1. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease-2019 (COVID-19): The epidemic and the challenges. Lai CC, et al. Int J Antimicrob Agents 2020 - Review. PMID 32081636
2. Straining the System: Novel Coronavirus (COVID-19) and Preparedness for Concomitant Disasters. Smith N and Fraser M. Am J Public Health 2020. PMID 32053389
3. Time Course of Lung Changes On Chest CT During Recovery From 2019 Novel Coronavirus (COVID-19) Pneumonia. Pan F, et al. Radiology 2020. PMID 32053470
4. The Novel Coronavirus: A Bird's Eye View. Habibzadeh P and Stoneman EK. Int J Occup Environ Med 2020 - Review. PMID 32020915 Free article.
5. COVID-19, Australia: Epidemiology Report 2 (Reporting week ending 19:00 AEDT 8 February 2020). COVID-19 National Incident Room Surveillance Team . Commun Dis Intell (2018) 2020. PMID 32050080.
6. The reproductive number of COVID-19 is higher compared to SARS coronavirus. Liu Y, et al. J Travel Med 2020. PMID 32052846
7. The epidemiological characteristics of an outbreak of 2019 novel coronavirus diseases (COVID-19) in China. Novel Coronavirus Pneumonia Emergency Response Epidemiology Team . Zhonghua Liu Xing Bing Xue Za Zhi 2020. PMID 32064853 Chinese.
8. Case of the Index Patient Who Caused Tertiary Transmission of COVID-19 Infection in Korea: the Application of Lopinavir/Ritonavir for the Treatment of COVID-19 Infected Pneumonia Monitored by Quantitative RT-PCR. Lim J, et al. J Korean Med Sci 2020. PMID 32056407 Free PMC article.
9. Potential Interventions for Novel Coronavirus in China: A Systematic Review. Zhang L and Liu Y. J Med Virol 2020 - Review. PMID 32052466
10. The SARS, MERS and novel coronavirus (COVID-19) epidemics, the newest and biggest global health threats: what lessons have we learned? Peeri NC, et al. Int J Epidemiol 2020. PMID 32086938
11. Delayed induction of proinflammatory cytokines and suppression of innate antiviral response by the novel Middle East respiratory syndrome coronavirus: implications for pathogenesis and treatment.Lau SK, Lau CC, Chan KH, Li CP, Chen H, Jin DY, Chan JF, Woo PC, Yuen KY.J Gen Virol. 2013 Dec;94(Pt 12):2679-90. doi: 10.1099/vir.0.055533-0. Epub 2013 Sep 28
12. Active Replication of Middle East Respiratory Syndrome Coronavirus Replication and Aberrant Induction of Inflammatory Cytokines and Chemokines in Human Macrophages: Implications for Pathogenesis.Zhou J, Chu H, Li C, Wong BH, Cheng ZS, Poon VK, Sun T, Lau CC, Wong KK, Chan JY, Chan JF, To KK, Chan KH, Zheng BJ, Yuen KY.J Infect Dis. 2013 Oct 21.
13. Severe acute respiratory syndrome coronavirus envelope protein regulates cell stress response and apoptosis.DeDiego ML, Nieto-Torres JL, Jiménez-Guardeño JM, Regla-Nava JA, Alvarez E, Oliveros JC, Zhao J, Fett C, Perlman S, Enjuanes L.PLoS Pathog. 2011 Oct;7(10):e1002315. doi: 10.1371/journal.ppat.1002315. Epub 2011 Oct 20.
14. Induction of interferon-gamma-inducible protein 10 by SARS-CoV infection, interferon alfacon 1 and interferon inducer in human bronchial epithelial Calu-3 cells and BALB/c mice.Kumaki Y, Day CW, Bailey KW, Wandersee MK, Wong MH, Madsen JR, Madsen JS, Nelson NM, Hoopes JD, Woolcott JD, McLean TZ, Blatt LM, Salazar AM, Smee DF, Barnard DL.Antivir Chem Chemother. 2010 Mar 9;20(4):169-77. doi: 10.3851/IMP1477
15. Interferon and cytokine responses to SARS-coronavirus infection.Thiel V, Weber F.Cytokine Growth Factor Rev. 2008 Apr;19(2):121-32. doi: 10.1016/j.cytogfr.2008.01.001. Epub 2008 Mar 5.
16. Dr. Pawan Saharan, Dr. Sushil Indoria, Dr. Sandhya Saharan, Kailash Gandewar-TCS Biostatistician

Meta Analysis of observational Studies on HIV positive patients to determine the Efficacy & Safety of

RECEPTOL® Oral Spray Used as a Stand-Alone Mono Therapy. Creating a Paradigm Shift from Treatment to Prevention of Communicable Disease in India with over 10 years follow up of HIV Patients that could be an Answer to Covid-19. (In Press with International peer reviewed Journal)

1. Dr. Pawan Saharan, Dr Ali Irani, Kailash Gandewar-TCS Biostatistician

Meta Analysis of observational Study of Swine Flu like symptoms observed at Mumbai International Airport during 2009-2010 Swine Flu pandemic with 10 year follow up to determine the Efficacy & Safety Of RECEPTOL® Oral Spray Used as a Stand-Alone Mono Therapy.

(In Press with International peer reviewed Journal)

1. Dr. Pawan Saharan, Dr. Sushil Indoria, Dr. Sandhya Saharan, Kailash Gandewar-TCS Biostatistician

Meta Analysis of global observational Studies of NCDs : Allergy, Asthma, Arthritis, Diarrhoea, Fever, Fatigue-malaise, Anaemia, Endometriosis to determine Efficacy & Safety Of RECEPTOL® Oral Spray Used As a Stand-Alone Mono Therapy.

(In Press with International peer reviewed Journal)

1. Dr. Pawan Saharan, Dr. Sushil Indoria, Dr. Ali Irani, Kailash Gandewar-TCS Biostatistician

Meta analysis of interventional / Prospective Phase III (1 Year Duration) Accelerated Studies to Determine the Efficacy & Safety of RECEPTOL® Liquid Spray used as A Stand- Alone Mono Therapy in HIV / AIDS Patients with multiple symptoms. (In Press with International peer reviewed Journal)

1. Landmark study: PRPs it‘s clinical applications, Steven J Block,MD, International journal of integrative medicine.(Article has 44 additional ref.)
2. Lawrence HS, Borkowsky W:Transfer factor:Current status and future prospects,Biotherapy9:1:5,1996.
3. Granitov, VM et al...Usage of RECEPTOL®️ in treatment of HIV – Infected patients. Russian Journal of HIV AIDS and Related Problems 2002, 1, 79-80 5. World Health Organization. Progress on global access to HIV antiretroviral therapy: a report on "3 by 5" and beyond. 2006.
4. Granitov, VM et al...Usage of RECEPTOL in treatment of HIV – Infected patients. Russian Journal of HIV AIDS and Related Problems 2002, 1, 79-80
5. Brahmbhatt H, Kigozi G, Wabwire-Mangen F, Serwadda D, Lutalo T, Nalugoda F, Sewankambo N, Kiduggavu M, Wawer M, Gray R. Mortality in HIV-infected and 11 uninfected children of HIV-infected and uninfected mothers in rural Uganda. J Acquire Immune Defic Snyder 2006;41(4):504-8.
6. Newell ML, Coovadia H, Cortina-Borja M, Rollins N, Gaillard P, Dabis F. Mortality of infected and uninfected infants born to HIV-infected mothers in Africa: A pooled analysis. Lancet 2004; 364(9441):1236-43.
7. Taha TE, Dallabetta GA, Canner JK, Chiphangwi JD, Liomba G, Hoover DR, Miotti PG. The effect of human immunodeficiency virus infection on birth weight and infant and child mortality in urban Malawi. Int J Epidemiol 1995; 24(5):102
8. Janusz M., Staroscik K., Zimeckt M., Wieczorek Z., Lisowski J., Aproline-rich polypeptide (PRP) with immunoregulatory properties isolated from ovine colostrums. Archivum immulologiac therapies experimentalis (Warszawa) 34(4): 427-436 (1986).
9. Wieczorec Z., Zimecki M., Spiegel K., Lisowski J., Janusz M., Differentiation of T- Cells from immature precursors: identification of a target cell for a proline rich polypeptide (PRP) Archivum immunological therapies experimentalists (Warszawa) 37(3-4):313-322(1989).
10. Kubis A., Marcinkowska E., Janusz M., Lisowski J. Studies on mechanism of action of a proline-rich polypeptide complex (PRP): Effect on stage of cell differentiation peptides 26(11) : 2188-2192 (2005).
11. Modulation of 4HNE-mediated signaling by proline-rich polypeptides from ovine colostrums. Journal of Molecular Neuroscience 20(2):125-134 (2003).
12. Zibiocka A., Janusz M., Rybka K., Wirkus – Romanowska I. Kupryszewski G., Lisowski J. Cytoline inducing activity of a proline-rich polypeptide (PRP) from ovine colostrum and its active nanopeptide fragment analogs. European Cytokine Network 12(3) :462-467 (2001).
13. Fernadez- ortega C. Dubed M. Ruibal O. Vilarruba OL. Menendez de San Pedro JC. Navea L. Ojeda M. Arana MJ. Inhibition of in vitro HIV infection by dialyzable leucocyte extracts, Biotherapy 9(1-3)33-40 (1996).
14. Zimecki M,Staroscik K, Janusz M, Lisowski J, Wieczorek Z. The inhibitory activity of proline-rich polypeptide on the immune response to polyvinyl pyrrolidone (PVP). Arch Immunol Ther Exp (Warsz)1983;31(6):895-903.
15. Julius MH, Janusz M, Lisowski J. A colostral protein that induces the growth and differentiation of resting B lymphocytes. J Immunol, 1988; 140(5):1366-371.
16. Boldogh I, Liebenthal D, Hughes TK, Juelich TL, Georgiades JA, Kruzel ML, Stanton GJ. Modulation of 4HNE-mediated signaling by a proline-rich polypeptides from ovine colostrum. J Mol Neurosci. 2003;20(2):125-134.
17. Pizza G, Chiodo F, Colangeli V, Gritti F, Raise E, Fudenberg HH. Preliminary observations using HIV-specific transfer factor in AIDS. Biotherapy. 1996;9(1-3):4-47.
18. Eggena MP, Barugahare B, Jones N, Okello M, Mutalya S, Kityo C, Mugyenyi P, Cao H. Depletion of regulatory T cells in HIV infection is associated with immune activation. J Immunol. 2005; 174(7):4407-4414.
19. Shi M, Hao S, Chan T, Xiang J. CD4+ T cells stimulate memory CD8+ T cell expansion via acquired pMHC I complexes and costimulatory molecules, and IL-2 secretion. J Leuco Biol, 2006; 80(6):1354-1363.