

FORMULATION AND METHOD FOR ERADICATING VIRUSES AND SPIKE PROTEINS

TECHNICAL FIELD

The present disclosure relates to an eradication of viruses and related proteins. More particularly, the present disclosure relates to a formulation and a method for eradicating viruses and spike proteins.

5 BACKGROUND

A virus is a microorganism composed of a nucleic acid core, either DNA or RNA, surrounded by a protective protein coat called the capsid. In enveloped viruses, such as coronaviruses, an additional lipid envelope derived from host cell membranes is present, often embedded with spike glycoproteins. The spike protein plays a critical
10 role in viral infectivity by mediating the attachment to and entry into host cells through specific interactions with cellular receptors, such as angiotensin-converting enzyme 2 (ACE2) in the case of SARS-CoV-2. The interaction initiates a cascade of cellular events that facilitate viral replication. Beyond the role in viral entry, spike proteins are implicated in pathogenic mechanisms, including vascular endothelial damage, immune
15 dysregulation, and inflammatory responses. These processes contribute significantly to the pathology associated with viral infections, underscoring the spike protein as a key target for therapeutic interventions.

Present strategies to mitigate viral infections include vaccination, sanitation, vector control, and antiviral chemotherapeutics. However, significant limitations remain with
20 the available strategies. The vaccines, often targeting the viral spike protein, have shown pathogenic side effects, that includes inflammation, endothelial tissue damage, and potential neurological impacts. Persistent spike protein presence, such as observed in post-acute sequelae (PASC), is linked to prolonged inflammatory responses and tissue damage. Emerging data indicate spike protein persistence in critical regions like
25 bone marrow, underscoring its potential as a primary contributor to viral toxicity. The available methods to address viral spike protein pathologies, such as TNF- α -dependent pathways, focus predominantly on post-acute sequelae and fails to comprehensively

address the broader spectrum of associated toxic effects.

Therefore, there is a need for an effective formulation and method to eradicate viruses and spike proteins to overcome aforementioned problems.

SUMMARY

5 In an aspect of the present disclosure, a formulation for targeting spike protein or related protein is provided. The formulation includes one or more phyto support complexes present in a range from 15 % w/v to 25 % w/v, one or more supplements present in a range from 5% w/v to 10% w/v, and one or more excipients in a range from 50 % w/v to 60 % w/v.

10 In some aspects of the present disclosure, the phyto support complex further includes one or more chelating agents and one or more senolytic compounds.

In some aspects, the one or more phyto support complexes further includes all chelating agents and all senolytic compounds.

15 In some aspects of the present disclosure, one or more chelating agents are selected from a group including fucoidan brown algae in a range of 5% w/v to 15% w/v; humic acid in a range of 3% w/v to 7% w/v; clinoptilolite tuff in a range of 2% w/v to 5% w/v; citrus pectin in a range of 1% w/v to 4% w/v; *Spirulina maxima* in a range of 1% w/v to 3% w/v; silicon dioxide in a range of 0.5% w/v to 3% w/v; ethylenediaminetetraacetic acid (EDTA) in a range of 0.5% w/v to 3% w/v; and
20 diethylenetriaminepentaacetic acid (DTPA) in a range of 0.5% w/v to 2% w/v. These all are procured from India.

In some aspects of the present disclosure, one or more senolytic compounds are selected from a group including quercetin in a range of 1% w/v to 5% w/v; rutin in a range of 1% w/v to 4% w/v; EGCG in a range of 0.5% w/v to 3% w/v; curcumin in a
25 range of 0.5% w/v to 2% w/v; resveratrol in a range of 0.5% w/v to 2% w/v; fisetin in a range of 0.5% w/v to 2% w/v; glycyrrhizic acid in a range of 1% w/v to 4% w/v; ginkgolide/bilobalide in a range of 0.5% w/v to 2% w/v; fucoidan brown algae in a range of 5% w/v to 15% w/v; humic acid in a range of 3% w/v to 7% w/v; clinoptilolite tuff in a range of 2% w/v to 5% w/v; modified citrus pectin in a range of 1% w/v to 4%

w/v; *Spirulina maxima* in a range of 1% w/v to 3% w/v; and silicon dioxide in a range of 0.5% w/v to 3% w/v. These all are procured from India.

In some aspects of the present disclosure, the one or more supplements are selected from a group including minerals, vitamins, antioxidants, enzymes, amino acids, 5 probiotics, and pre-biotics. These all are procured from India.

In some aspects of the present disclosure, the one or more excipients is selected from a group including solvent, water, oil, drying agent, anti-caking agent, binders, stabilizers, preservatives, emulsifiers, and pH-adjusters. These all are procured from India.

10 In an aspect of the present disclosure, a method of preparing a formulation for eradicating viruses and spike proteins or related proteins is disclosed. The method includes steps: adding phyto support complex ingredients in a range 15 % w/v to 25 % w/v in a medium to obtain a homogenous mixture; adding one or more chelating agents in a range 0.1% w/v to 10% w/v and one or more senolytic compounds in a range 0.05% 15 w/v to 5% w/v, to the homogeneous mixture followed by adding one or more supplements a range 5% w/v to 10% w/v and one or more excipients (water) a range 50 % w/v to 60 % w/v, to the homogenous mixture. The method step further includes adjusting pH of the homogenous mixture a range of 3 to 5 and heating the homogenous mixture at temperature 50 to 60 degree Celsius.

20 In some aspects of the present disclosure, the method further includes mixing the homogenous mixture and milling the homogenous mixture to obtain a uniform particle size.

In an aspect of the present disclosure, a method of action of formulation for targeting spike protein or related protein is disclosed. The method includes disrupting cell 25 membranes of virus-producing cells to release viral components into the extracellular environment; and preventing viral attachment to target cells by employing agents that inhibit receptor-binding domains.

In some aspects, a method of treatment is disclosed. The method includes a. disrupting cell membranes of virus-producing cells to release viral components into the

extracellular environment; and b. preventing viral attachment to target cells by administering formulation comprising one or more phyto support complexes present in a range from 15 % w/v to 25 % w/v; one or more supplements present in a range from 5% w/v to 10% w/v; and one or more excipients in a range from 55 % w/v to 65 % w/v, to inhibit receptor-binding domains of the spike protein.

In some aspects, use of formulation comprising one or more phyto support complexes present in a range from 15 % w/v to 25 % w/v; one or more supplements present in a range from 5% w/v to 10% w/v; and one or more excipients in a range from 55 % w/v to 65 % w/v for eradicating viruses, spike proteins and related proteins is disclosed.

BRIEF DESCRIPTION OF THE DRAWING

The above and still further features and advantages of aspects of the present disclosure become apparent upon consideration of the following detailed description of aspects thereof, especially when taken in conjunction with the accompanying drawings, and wherein:

FIG. 1 illustrates a flowchart that depicts a method for preparing the formulation, in accordance with an aspect of the present disclosure.

FIG. 2 illustrates a flowchart that depicts a method of action of formulation for targeting spike proteins or related proteins, in accordance with an aspect of the present disclosure;

FIG. 3 illustrates a diagrammatic representation of a method to eradicate viruses and spike proteins or related proteins by way of the formulation.

To facilitate understanding, reference numerals have been used, where possible, to designate like elements common to the figures.

DETAILED DESCRIPTION

Various aspects of the present disclosure provide a formulation and a method for eradicating viruses and spike proteins. The following description provides specific details of certain aspects of the disclosure illustrated in the drawings to provide a thorough understanding of those aspects. It should be recognized, however, that the

present disclosure can be reflected in additional aspects and the disclosure may be practiced without some of the details in the following description.

The various aspects including the example aspects are now described more fully with reference to the accompanying drawings, in which the various aspects of the disclosure
5 are shown. The disclosure may, however, be embodied in different forms and should not be construed as limited to the aspects set forth herein. Rather, these aspects are provided so that this disclosure is thorough and complete, and fully conveys the scope of the disclosure to those skilled in the art. In the drawings, the sizes of components may be exaggerated for clarity.

10 The subject matter of example aspects, as disclosed herein, is described with specificity to meet statutory requirements. However, the description itself is not intended to limit the scope of this patent. Rather, the inventor/inventors have contemplated that the claimed subject matter might also be embodied in other ways, to include different features or combinations of features similar to the ones described in this document, in
15 conjunction with other technologies. Generally, the various aspects including the example aspects relate to the method for eradicating microorganisms.

As mentioned, there remains a need for a formulation and method for eradicating viruses, spike proteins and related proteins, to detoxify the body of an individual to overcome the limitations of available methods that require one or more steps.

20 Therefore, the present disclosure provides a formulation and a method to eradicate viruses and spike proteins or related protein.

The phrase “*Eradicating -viruses, spike proteins and related proteins*” refers to targeting and neutralizing the spike protein, which is a key structural protein found on the surface of certain viruses.

25 The term “*host cell*” refers to the cells in an individual. The examples include epithelial cells, nerve cells, red blood cells, white blood cells, spine, platelets, neuroglial cells, muscle cells, amniotic cells and other such cells related to animals or humans.

As used herein, “*spike proteins*” or “*related proteins*” refers to a glycosylated viral protein that recognizes the receptors on cell membrane to fuse in with the host cell. The

two phrases “*spike protein*” and “*related proteins*” are used interchangeably across the present specification.

The term “*productive cells*” refers to the cells including spike protein that keep on producing or replicating spike proteins.

- 5 As used herein, the term “*deposit cells*” refers to the cells including spike proteins in cell membrane but do not replicate.

As used herein, the term “*endothelial cell*” refers to the cell that line inner blood vessels and lymph vessels. The endothelial cells regulate transportation of substances between a tissue and its surroundings.

- 10 As used herein, the term “*chelating agents*” or “*binders*” refers to ingredients binding to a cell receptor or chelating a virus and/or related proteins. The examples include phenols, flavonoids, antioxidants, carbohydrates, esters, polyphenol, flavanol, glycoside or any other ingredient, metabolites that may bind or chelate to the receptors in an animal or a human. The two phrases “chelating agents” and “binders” are used
15 interchangeably across the present specification.

- As used herein “*syncytia*” or “*conglomerate*” is a cell including one or more viruses and/or related proteins. The syncytia may be formed by division of nuclei or fusion of one or more unicellular cells and may form a mass of cells. The two phrases’ “*syncytia*” and “*conglomerate*” are used interchangeably across the present
20 specification.

As used herein, the term “*senolytic compounds*” or “*mobilizers*” refers to ingredients involved in breaking/cleaving a cell to mobilize the viruses and spike protein or related protein. The two phrases “*senolytic compounds*” and “*mobilizers*” are used interchangeably across the present specification.

- 25 As used herein, the term “*Angiotensin-converting enzyme 2 (ACE2) receptor*” refers to a receptor present on a cell membrane and facilitate viral entry into a cell.

As used herein, the term “*autophagy*” refers to a process of cell to self-degrade to eliminate damaged part of a cell.

The present invention is based on the eradicating of viruses, spike proteins and related proteins from any host cell. The viral protein may infect and be persistent in host cells for a long time. The viral protein such as spike protein or related proteins, has high affinity to bind with the cell receptors resulting in formation of productive cells and deposit cells. The productive cells are cells that keep on replicating spike protein. These productive cells may further form productive cell syncytia that contains live viruses and may produce virions and/or spike proteins. Deposit cells are where spike proteins remain around the cell membrane but do not replicate. Some spike proteins tend to interact with Angiotensin-converting enzyme 2 (ACE2) receptor that are present on the host cell and activated by host enzyme proteases for fusion of one or more cells resulting in formation of syncytia or cell conglomerate. These productive cells and deposit cells do not get destroyed by themselves.

As explained above that, the persistent spike proteins may result in health impairments and neurological disorders and hence there is a need for a formulation and a method to eradicate these cells from the body of an individual.

The present invention relates to a formulation to eradicate viruses, spike proteins and related proteins from the host cell. Preferably, the microorganisms may be viruses. The formulation may include one or more phyto support complexes, one or more supplements, and one or more excipients. In some aspects, the formulation for targeting viruses, spike proteins and related proteins may include one or more phyto support complexes present in a range from 15 % w/v to 25 % w/v; one or more supplements present in a range from 5% w/v to 10% w/v; and one or more excipients (water) in a range from 55 % w/v to 65 % w/v.

In some aspects, the one or more phyto support complexes may include one or more senolytic compounds and/or one or more chelating agents.

In some aspects, the one or more phyto support complexes further includes all chelating agents and all senolytic compounds.

In some aspects, the formulation may include one or more senolytic compounds. The one or more senolytic compounds may include, but are not limited to, quercetin, rutin,

EGCG, curcumin, resveratrol, fisetin, glycyrrhizic acid, ginkgolide/bilobalide, fucoidan brown algae, humic acid, clinoptilolite tuff, modified citrus pectin, *Spirulina maxima*, silicon dioxide and the like. Aspects of the present disclosure are intended to include and/or otherwise cover any type of the senolytic compound, without deviating
5 from the scope of the present disclosure.

In some aspects, the formulation may include one or more chelating agents. The one or more chelating agents may include, but are not limited to, fucoidan brown algae, humic acid, clinoptilolite tuff, modified citrus pectin, *Spirulina maxima*, silicon dioxide, ethylenediaminetetraacetic acid (EDTA), and diethylenetriaminepentaacetic acid
10 (DTPA). Aspects of the present disclosure are intended to include and/or otherwise cover any type of the chelating agent, without deviating from the scope of the present disclosure.

In some aspects, the one or more chelating agents are selected from a group but are not limited to, fucoidan brown algae in a range of 5% w/v to 15% w/v; humic acid in a
15 range of 3% w/v to 7% w/v; clinoptilolite tuff in a range of 2% w/v to 5% w/v; citrus pectin in a range of 1% w/v to 4% w/v; *Spirulina maxima* in a range of 1% w/v to 3% w/v; silicon dioxide in a range of 0.5% w/v to 3% w/v; ethylenediaminetetraacetic acid (EDTA) in a range of 0.5% w/v to 3% w/v; and diethylenetriaminepentaacetic acid (DTPA) in a range of 0.5% w/v to 2% w/v, and the like.

In some aspects, the one or more senolytic compounds are selected from a group but are not limited to, quercetin in a range of 1% w/v to 5% w/v; rutin in a range of 1% w/v to 4% w/v; EGCG in a range of 0.5% w/v to 3% w/v; curcumin in a range of 0.5% w/v to 2% w/v; resveratrol in a range of 0.5% w/v to 2% w/v; fisetin in a range of 0.5% w/v to 2% w/v; glycyrrhizic acid in a range of 1% w/v to 4% w/v; ginkgolide/bilobalide
20 in a range of 0.5% w/v to 2% w/v; fucoidan brown algae in a range of 5% w/v to 15% w/v; humic acid in a range of 3% w/v to 7% w/v; clinoptilolite tuff in a range of 2% w/v to 5% w/v; modified citrus pectin in a range of 1% w/v to 4% w/v; *Spirulina maxima* in a range of 1% w/v to 3% w/v; and silicon dioxide in a range of 0.5% w/v to 3% w/v, and the like.
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In some aspects, the one or more supplements may be one or more bioactive supplements. In some aspects, the one or more bioactive supplements may include but are limited to minerals, vitamins, antioxidants, enzymes, amino acids, probiotics, pre-biotics, and the like. Aspects of the present disclosure are intended to include and/or
5 otherwise cover any type of the bioactive supplements, without deviating from the scope of the present disclosure.

In some aspects, the one or more excipients may include but are not limited to, solvent, water, oil, drying agent, anti-caking agent, binders, stabilizers, preservatives, emulsifiers, pH-adjusters, and the like. Aspects of the present disclosure are intended
10 to include and/or otherwise cover any type of the excipients, without deviating from the scope of the present disclosure.

Each and every ingredient of the formulation is commercially procured from India to make the formulation.

In some aspects, the quercetin may be extracted by solvent extraction method from
15 *Quercus sp.*, onions, apples, broccoli, green beans, oak and the like. Specifically, the quercetin may reduce the size of syncytia leading to a reduction of viral protein expression. Further, the quercetin may inhibit formation of S2 fragments of spike protein.

In some aspects, the rutin may be extracted by solvent extraction method from *Sophora*
20 *japonica*, *Viola tricolor*, *Styphnolobium japonicum*, *Fagopyrum esculentum* or *Morus alba*, string tree and the like.

In some aspects, the epigallocatechin gallate (EGCG) may be extracted by solvent extraction method from *Camellia sinensis*, *Cistus incanus*, tea shrub, and the like. Further, in some aspects derivatives of epigallocatechin gallate (EGCG) may be used.
25 The example of epigallocatechin gallate (EGCG) derivative may include, but not limited to, theaflavin-3,3'-di-O-digallate (TFDG).

In some aspects, the curcumin may be extracted by solvent extraction method from *Curcuma longa*, mango ginger, and the like.

In some aspects, the resveratrol may be extracted by solvent extraction method from *Polygoni cuspidati*, vine leaves, raspberries, mulberries, plums, peanuts, synthetic resveratrol, and the like.

5 In some aspects, the fisetin may be extracted by solvent extraction method from *Rhus Cotinus*, strawberries, wig bush and the like.

In some aspects, the glycyrrhizic acid, may be extracted by solvent extraction method from *Glycyrrhiza glabra*, *Citrus paradisi* and the like.

In some aspects, the ginkgolide/bilobalide, may be extracted by solvent extraction method from *Ginkgo biloba*, ginkgo tree and the like.

10 In some aspects, the formulation may be developed in the form of capsule, syrup, hydrogel, suspension and the like.

In some aspects, the use of the formulation may be for eradicating the virus and spike proteins or related proteins.

15 In some aspects, a method of treating to eradicate viruses, spike proteins and related proteins is disclosed. The method may include steps: a. disrupting cell membranes of virus-producing cells to release viral components into the extracellular environment; and b. preventing viral attachment to target cells by administering a formulation comprising agents configured to inhibit receptor-binding domains of the viruses, spike proteins and related proteins.

20 In some aspects, the formulation may be used in the treatment related to viral infection. The one or more senolytic compounds of the formulation may disrupt the cell membranes of the virus-producing cells. Further, the one or more chelating agents may be capable of binding viral receptor sites.

25 In some aspects, a method of treatment is disclosed. The method includes, a. disrupting cell membranes of virus-producing cells to release viral components into the extracellular environment; and b. preventing viral attachment to target cells by administering formulation comprising one or more phyto support complexes present in a range from 15 % w/v to 25 % w/v; one or more supplements present in a range from

5% w/v to 10% w/v; and one or more excipients in a range from 55 % w/v to 65 % w/v, to inhibit receptor-binding domains of the spike protein.

In some aspects, use of formulation comprising one or more phyto support complexes present in a range from 15 % w/v to 25 % w/v; one or more supplements present in a
5 range from 5% w/v to 10% w/v; and one or more excipients in a range from 55 % w/v to 65 % w/v for eradicating viruses, spike proteins and related proteins is disclosed.

FIG. 1 illustrates a flowchart that depicts a method (100) for preparing the formulation, in accordance with the aspect of the present disclosure. The method (100) may include:

At step 102, adding one or phyto support complex in a range 15 % w/v to 25 % w/v in
10 a medium to obtain a homogenous mixture.

At step 104, adding one or more chelating agents in a range 0.1% w/v to 10% w/v and one or more senolytic compounds in a range 0.05% w/v to 5% w/v to the homogeneous mixture.

At step 106, adding one or more supplements in a range 5% w/v to 10% w/v and one
15 or more excipients (water) in a range 50 % w/v to 60 % w/v, to the homogenous mixture.

At step 108, adjusting pH of the homogenous mixture a range of 3 to 5.

At step 110, heating the homogenous mixture at temperature 50 to 60 degree Celsius.

At step 112, mixing the homogenous mixture and milling the homogenous mixture to
20 obtain a uniform particle size.

FIG. 2 illustrates a flowchart that depicts a method (200) of action of formulation for targeting spike proteins or related proteins, in accordance with an aspect of the present disclosure. The method may include steps:

At step 202, disrupting cell membranes of virus-producing cells to release viral
25 components into the extracellular environment.

At step 204, preventing viral attachment to target cells by employing agents that inhibit receptor-binding domains. In some aspects, preventing viral attachment or spike

protein attachment to the uninfected cells by employing agents that block host cell receptor.

FIG. 3 illustrates a diagrammatic representation of a method (300) to eradicate viruses and spike proteins or related proteins by the formulation. The diagrammatic representation of the method (200) may include productive cell (A), deposit cell (B),
5 productive cell syncytia (C), endothelial cell (D), virus (E), spike protein (F), one or more senolytic compounds (G), and one or more chelating agents (H). The productive cells (A) may include actively replicating spike protein (F) that may be responsible for viral infection to multiple cells in body of host cell. The deposit cells (B) include spike
10 protein (F) deposited, with no properties of replication. The productive cell syncytia (G) may include viruses or a cell conglomerate of senescence cells that produce virions and/or spike proteins. Specifically, the productive cells(A) form the productive cell syncytia (C). The endothelial cell (D) are cells lining blood vesicles. In some aspects, the chelating agents (H) in the formulation may include binding to a host cell receptors
15 and/or fusion enzymes, further, blocking the fusion of viruses and/or spike protein to the host cell or other cells of the body. The examples of fusion enzymes may include trypsin, furin, TMPRSS2, and the like.

In some aspects, a method of treating to eradicate virus and spike protein or related proteins may be disclosed. The method may include steps: a. disrupting cell membranes
20 of virus-producing cells to release viral components into the extracellular environment; and b. preventing viral attachment to target cells by administering a formulation comprising agents configured to inhibit receptor-binding domains of the spike protein.

In an exemplary aspect, a kit (not shown) or device for eradicating virus and spike protein or related proteins is disclosed. The kit or device may include one or more
25 capsules. The one capsules of the one or more capsules may include one or more senolytic compounds. The other capsules of the one or more capsules may include one or more chelating agents.

In an exemplary aspect, the formulation for eradicating viruses and spike protein or related proteins include ingredients as shown in table 1:

30 Table 1-

Component Category	Ingredient	Concentration (% w/v)
Phyto Support Complex	Quercetin	3% to 4%
	Rutin	3% to 4%
	Epigallocatechin Gallate (EGCG)	1.5% to 2.5%
	Curcumin	1.5% to 2.5%
	Resveratrol	1.5% to 2.5%
	Fisetin	1.5% to 2.5%
	Glycyrrhizic Acid	1.5% to 2.5%
	Ginkgolide/Bilobalide	1.5% to 2.5%
Chelating Agents & Supplements	Fucoidan Brown Algae	2% to 3%
	Humic Acid	2% to 3%
	Clinoptilolite Tuff	1.5% to 2.5%
	Modified Citrus Pectin	1.5% to 2.5%
	<i>Spirulina maxima</i>	0.5% to 1.5%
	Silicon Dioxide	0.5% to 1.5%
Excipients	Water or oil (Solvent)	60% to 80%

Examples

The disclosure will now be illustrated with working examples, which is intended to illustrate the working of disclosure and not intended to take restrictively to imply any limitations on the scope of the present disclosure. Unless defined otherwise, all technical and scientific terms used herein have the same meaning as commonly understood to one of ordinary skill in the art to which this disclosure belongs. Although methods and materials similar to or equivalent to those described herein can be used in the practice of the disclosed methods and formulations, the exemplary methods, devices, and materials are described herein. It is to be understood that this disclosure is not limited to methods, and experimental conditions described, as such methods and conditions may vary.

Example 1:

In an exemplary aspects, formulation for targeting spike protein, was prepared by including the phyto support complex, contains Quercetin at 3.5% w/v, Rutin at 3.5% w/v, Epigallocatechin Gallate (EGCG) at 2.0% w/v, Curcumin at 2.0% w/v, Resveratrol at 2.0% w/v, Fisetin at 2.0% w/v, Glycyrrhizic Acid at 2.0% w/v, and Ginkgolide/Bilobalide at 2.0% w/v. The chelating agents and supplements include Fucoidan Brown Algae at 2.5% w/v, Humic Acid at 2.5% w/v, Clinoptilolite Tuff at 2.0% w/v, Modified Citrus Pectin at 2.0% w/v, *Spirulina maxima* at 1.0% w/v, and Silicon Dioxide at 1.0% w/v. The excipient used is Water or oil (Solvent) at 70.0% w/v.

Example 2:

In another exemplary aspect, the formulation was prepared by including the one or more phyto support complexes, the one or more supplements (or bioactive supplement), and the one or more excipients. Preferably, the one or more phyto support complexes include one or more senolytic compounds as shown in Table 2.

Formulation	Ingredients	Concentration %
		w/v

The one or phyto support complex	Quercetin	2.5
	Rutin	4
	EGCG	2.5
	Curcumin	2.5
	Resveratrol	2
	Fisetin	2.5
The one or more supplements	Selenium	4
	Soluble vitamin	
The one or more Excipient	Drying agent	80
	Anti-caking agents	
	Solvent- such as water or oil	

Table 2

Example 3:

In another exemplary aspect, the formulation was prepared by the one or more phyto support complexes in the formulation include the one or more senolytic compounds
5 and one or more chelating agents, as shown in Table 3.

Ingredients	Function	Concentration % w/v
Quercetin	Cell cleaving and chelating	3
Rutin	Cell cleaving and chelating	3
EGCG	Cell cleaving and chelating	2
Curcumin	Cell cleaving and chelating	2
Resveratrol	Cell cleaving	2
Fisetin	Cell cleaving	2
Fucoidan brown algae	Chelating agent	3
Humic acid	Chelating agent	3
Clinoptilolite tuff	Chelating agent	2
Modified citrus pectin	Chelating agent	2
<i>Spirulina maxima</i>	Chelating agent	1

Water	Excipient	75
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Table 3

Example 4:

In a clinical trial, a 43-year-old male patient (or can be referred as patient X), who had been able to work after contracting COVID-19 in 2022, continued to experience mild neurological complaints, primarily concentration disorders. The patient underwent treatment for two years by several other treatments. Despite this, the intracellular load of spike proteins in the PBMCs (immune cells) remained unusually high after two years of treatment, with no severe re-infection recalled.

After 8 weeks of administration of supporting dietary supplements, the second check-up revealed a 90% reduction in intracellular spike protein levels in the PBMCs. The therapy with nutritional supplements continued, with adjustments to the dose based on clinical improvement (the reduction in the concentration of spike protein is given below from Table 4 to Table 6).

Table 4- This depicts the presence of Spike protein in Immunzellen (PBMC) in the initial tests.

Spike protein in plasma/serum	Negative
Spike protein in Exosomen	Negative
Spike protein in Immunzellen (PBMC)	Positive- 188.04 pg/2.5x 10⁶ Zellen
Impf-mRNA in Immunzellen (PBMC)	Negative
SARS-Cov-2 RNA in Immunzellen (PBMC) (Persistenz)	Negative

Observation- In July 2024, Patient X began a treatment regimen with the present formulation, a Liquid Spectrum formulation obtained from a blend of phytoactive compounds, chelating agents, and excipients formulated in an aqueous medium.

The initial prescribed dosage was 25 ml, taken orally twice daily. Over the course of seven weeks, substantial clinical and laboratory improvements were observed.

Table 5- This depicts the presence of Spike protein in Immunzellen (PBMC) after 8 weeks of administration of supporting dietary supplements.

Spike protein in plasma/serum	Negative
Spike protein in Exosomen	Negative
Spike protein in Immunzellen (PBMC)	Positive- 17.28 pg/2.5x 10⁶ Zellen

5 **Observation-** By September 2024, after eight weeks of therapy, the intracellular spike protein levels in PBMCs had reduced by 90% to 17.28 pg/2.5 × 10⁶ cells.

Table 6- This depicts the presence of Spike protein in Immunzellen (PBMC) is reduced to almost zero further after 1 month.

Spike protein in plasma/serum	Negative
Spike protein in Exosomen	Negative
Spike protein in Immunzellen (PBMC)	Positive- 5.18 pg/2.5x 10 ⁶ Zellen

10 **Observation-** The therapeutic effects continued, and by October 2024, the levels had further decreased to 5.18 p g/2.5 × 10⁶ cells.

Final Result: The present formulation led to notable improvements over time.

- 15 • In July 2024, the baseline spike protein level in PBMCs was recorded at 188 pg/2.5 × 10⁶ cells.
- By September 2024, 7 weeks post-therapy, the spike protein level had reduced to 17.28 pg/2.5 × 10⁶ cells, marking a 90% reduction, with therapeutic apheresis showing no effect on PBMC spike protein levels.
- 20 • In October 2024, 12 weeks post-therapy, the spike protein level further decreased to 5.18 pg/2.5 × 10⁶ cells, and microthrombi were resolved without the use of blood-thinning agents, though this data was not shown.

- Additionally, neurological symptoms significantly improved, and concentration abilities were restored.
- By November 2024, continued use of the formulation resulted in sustained improvements in both symptoms and laboratory markers.

5 Further, the formulation was also provided in cases were mainly employed in situations where there was a suspicion of heavy metal toxicity, but standard tests failed to show elevated levels. It was also used when patients displayed symptoms potentially linked to spike exposure, such as neurological problems or organ dysfunction. The goal of this approach was to offer a more accurate assessment of metal accumulation in the body
10 by stimulating the release of spike from storage sites, including fat and other tissues where they had been deposited due to prior exposures.

Example 5: In another clinical trial, a 41-year-old female patient (or can be referred as patient Y) with long COVID/Postvac and persistent symptoms, including chronic inflammation (ISG/joints), underwent a check-up in September after taking supporting
15 dietary supplements for four weeks. The results showed a negative spike in quantification (the reduction in concentration of spike protein is given below in Table 7 and Table 8).

Prior to initiating therapy with the formulation, laboratory tests conducted in October 2024 revealed elevated levels of spike protein in exosomes (228.82 pg/ml) and elevated
20 microthrombi (flow cytometry). However, spike protein levels in plasma and PBMCs were not detected at that time. She began taking the formulation supplements on December 1, 2024, and subsequently underwent her first inuspheresis treatment on December 10, 2024. Despite work-related stress and frequent travel, slight improvements have been observed.

25 **Table 7-** This depicts the presence of Spike protein in Exosomen and Spike protein in Immunzellen (PBMC) in the initial tests.

Spike protein in plasma/serum	Negative
Spike protein in Exosomen	Positive- 228.82 pg/ml

Spike protein in Immunzellen (PBMC)	Negative
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Observation- The spike protein in Exosomen was observed to be Positive- 228.82 pg/ml.

Table 8- This depicts the presence of Spike protein in Exosomen and Spike protein in Immunzellen (PBMC) after the 4-week intake of the present formulation.

Spike protein in plasma/serum	Negative
Spike protein in Exosomen	Positive- 14.25 pg/ml
Spike protein in Immunzellen (PBMC)	Positive- 9.80 pg/2.5 x 10⁶ zellen

Observation- The spike protein was not observed after the 4-week intake of the formulation along with the dietary supplements.

Final Result:

- In October 2024 (Baseline), spike protein levels in exosomes were 228.82 pg/ml, while spike protein was undetectable in plasma and PBMCs. Microthrombi were elevated. On December 1, 2024, the therapy was initiated.
- By December 11, 2024, spike protein levels in exosomes had decreased to 14.25 pg/ml (i.e., approximate 94% reduction), and spike protein levels in PBMCs were newly detected at 9.80 pg/2.5 × 10⁶ cells.

The case of Patient X highlighted the therapeutic potential of the formulation in addressing persistent spike protein-associated pathologies observed in Long COVID. Persistent spike protein expression was implicated in chronic inflammation, immune dysregulation, and endothelial damage, which are central to the pathology of Long COVID.

In the case of Patient X, the introduction of the formulation resulted in a remarkable reduction in intracellular spike protein levels within seven weeks, decreasing from 188 pg/2.5 × 10⁶ cells to 17.28 pg/2.5 × 10⁶ cells—a 90% reduction. This was accompanied by significant improvements in neurological symptoms, particularly concentration difficulties.

The sustained reduction of intracellular spike protein levels to 5.18 pg/ 2.5×10^6 cells after 12 weeks suggests that the formulation may provide long-term benefits, unlike prior interventions.

Improvement in both the patients underscores the likely multifactorial mechanism of action of the formulation. The formulation appeared to have resolved microthrombi, as evidenced by microscopic evaluations, without the use of conventional anticoagulants. The outcome was related to the anti-inflammatory and anti-thrombotic properties of the natural compounds within the formulation.

The clinical trials of these findings were further reinforced by the rapid and sustained symptomatic improvements observed in both patients. Within seven weeks of therapy, the patient reported significantly improved concentration abilities, a common yet debilitating symptom of Long COVID. These improvements were maintained and even enhanced at 12 weeks, with continued use of the formulation. Such outcomes highlight the potential of targeting intracellular spike protein as a cornerstone of Long COVID management. The use of the formulation demonstrated a remarkable reduction in spike protein levels in exosomes, with a 94% decrease within six weeks of treatment initiation.

Advantages of the present invention include:

- Enhanced Effectiveness: Integration of one or more pluripotent compounds and an abundance of binders and mobilizers increase the effectiveness of the method.
- Enhanced Sensitivity: Integration of one or more senolytic compounds and chelating/binding agents increase sensitivity of the method.
- The present formulation prevents the formation of cell fusion by Spike proteins which is important during detox as organ protection.

The foregoing discussion of the present disclosure has been presented for purposes of illustration and description. It is not intended to limit the present disclosure to the form or forms disclosed herein. In the foregoing Detailed Description, for example, various features of the present disclosure are grouped together in one or more

aspects, configurations, or aspects for the purpose of streamlining the disclosure. The features of the aspects, configurations, or aspects may be combined in alternate aspects, configurations, or aspects other than those discussed above. This method of disclosure is not to be interpreted as reflecting an intention, the present disclosure

5 requires more features than are expressly recited in each claim. Rather, as the following claims reflect, inventive aspects lie in less than all features of a single foregoing disclosed aspect, configuration, or aspect. Thus, the following claims are hereby incorporated into this Detailed Description, with each claim standing on its own as a separate aspect of the present disclosure.

10 Moreover, though the description of the present disclosure has included a description of one or more aspects, configurations, or aspects and certain variations and modifications, other variations, combinations, and modifications are within the scope of the present disclosure, e.g., as may be within the skill and knowledge of those in the art, after understanding the present disclosure. It is intended to obtain

15 rights that include alternative aspects, configurations, or aspects to the extent permitted, including alternate, interchangeable, and/or equivalent structures, functions, ranges, or steps to those claimed, whether or not such alternate, interchangeable and/or equivalent structures, functions, ranges, or steps are disclosed herein, and without intending to publicly dedicate any patentable subject

20 matter.

We Claim:

1. A formulation for targeting viruses, spike proteins and related proteins, comprising:
one or more phyto support complexes present in a range from 15 % w/v to 25 % w/v;
5 one or more supplements present in a range from 5% w/v to 10% w/v; and
one or more excipients in a range from 55 % w/v to 65 % w/v.
2. The formulation as claimed in claim 1, wherein the one or more phyto support complexes further comprising one or more chelating agents and/or one or more senolytic compounds.
- 10 3. The formulation as claimed in claim 1, wherein the one or more phyto support complexes further comprising all chelating agents and all senolytic compounds.
4. The formulation as claimed in claim 2, wherein the one or more chelating agents are selected from a group comprising fucoidan brown algae in a range of 5% w/v to 15% w/v; humic acid in a range of 3% w/v to 7% w/v; clinoptilolite tuff in a range
15 of 2% w/v to 5% w/v; citrus pectin in a range of 1% w/v to 4% w/v; *Spirulina maxima* in a range of 1% w/v to 3% w/v; silicon dioxide in a range of 0.5% w/v to 3% w/v; ethylenediaminetetraacetic acid (EDTA) in a range of 0.5% w/v to 3% w/v; and diethylenetriaminepentaacetic acid (DTPA) in a range of 0.5% w/v to 2% w/v.
5. The formulation for targeting spike protein as claimed in claim 2, wherein the one
20 or more senolytic compounds are selected from a group comprising quercetin in a range of 1% w/v to 5% w/v; rutin in a range of 1% w/v to 4% w/v; EGCG in a range of 0.5% w/v to 3% w/v; curcumin in a range of 0.5% w/v to 2% w/v; resveratrol in a range of 0.5% w/v to 2% w/v; fisetin in a range of 0.5% w/v to 2% w/v; glycyrrhizic acid in a range of 1% w/v to 4% w/v; ginkgolide/bilobalide in a range
25 of 0.5% w/v to 2% w/v; fucoidan brown algae in a range of 5% w/v to 15% w/v; humic acid in a range of 3% w/v to 7% w/v; clinoptilolite tuff in a range of 2% w/v to 5% w/v; modified citrus pectin in a range of 1% w/v to 4% w/v; *Spirulina maxima*

in a range of 1% w/v to 3% w/v; and silicon dioxide in a range of 0.5% w/v to 3% w/v.

6. The formulation as claimed in claim 2, wherein the one or more chelating agents blocks receptors on cells, viruses, and spike proteins or related proteins.
- 5 7. The formulation as claimed in claim 2, wherein the one or more senolytic compounds break down cells and mobilize viruses and spike proteins or related proteins.
8. The formulation as claimed in claim 1, wherein the one or more supplements are selected from a group comprising minerals, vitamins, antioxidants, enzymes, amino
10 acids, probiotics, and pre-biotics.
9. The formulation as claimed in claim 1, wherein the one or more excipients are selected from a group comprising water, oil, drying agents, anti-caking agents, binders, stabilizers, preservatives, emulsifiers, and pH-adjusters.
- 15 10. The formulation as claimed in claim 1, wherein the formulation is developed as a capsule, syrup, hydrogel, or suspension.
11. A method (100) of preparing formulation, comprising steps:
 - a. at step 102, adding one or more phyto support complex in a range 15 % w/v to 25 % w/v in a medium to obtain a homogenous mixture;
 - 20 b. at step 104, adding one or more chelating agents in a range 0.1% w/v to 10% w/v and one or more senolytic compounds in a range 0.05% w/v to 5% w/v to the homogeneous mixture;
 - c. at step 106, adding one or more supplements in a range 5% w/v to 10% w/v and one or more excipients (water) in a range 50 % w/v to 60 % w/v
25 to the homogenous mixture;
 - d. at step 108, adjusting pH of the homogenous mixture a range of 3 to 5; and

- e. at step 110, heating the homogenous mixture at temperature 50 to 60 degree Celsius.
12. The method (100) as claimed in claim 11, wherein the method (100) further comprising step (112) of mixing the homogenous mixture and milling the homogenous mixture to obtain a uniform particle size.
13. A method (200) of mechanism of acting of formulation for targeting spike protein, comprising:
- disrupting (202) cell membranes of virus-producing cells to release viral components into the extracellular environment; and
- preventing (204) viral attachment to target cells by employing agents that inhibit receptor-binding domains.
14. The method (200) as claimed in claim 13, wherein one or more senolytic compounds disrupt the cell membranes of the virus-producing cells.
15. The method (200) as claimed in claim 13, wherein one or more chelating agents capable of binding viral receptor sites.
16. The method (200) as claimed in claim 13, wherein the disruption of cell membranes involves targeting cells harboring viral particles or viral proteins.
17. A method of treatment of viruses, spike proteins and related proteins, the method comprising:
- a. disrupting cell membranes of virus-producing cells to release viral components into the extracellular environment; and
- b. preventing viral attachment to target cells by administering formulation comprising one or more phyto support complexes present in a range from 15 % w/v to 25 % w/v; one or more supplements present in a range from 5% w/v to 10% w/v; and one or more excipients in a range from 55 % w/v to 65 % w/v, to inhibit receptor-binding domains of the spike protein.
18. The method as claimed in claim 17, wherein one or more senolytic compounds disrupt the cell membranes of the virus-producing cells.

19. The method as claimed in claim 17, wherein one or more chelating agents capable of binding viral receptor sites.
20. Use of a formulation comprising one or more phyto support complexes present in a range from 15 % w/v to 25 % w/v; one or more supplements present in a range
5 from 5% w/v to 10% w/v; and one or more excipients in a range from 55 % w/v to 65 % w/v for eradicating viruses, spike proteins and related proteins.