

CLAIMS

1. A peroral composition comprising procyanidins originated from a plant extract selected
5 from the group consisting in extracts of pine bark, grape seed, apples, cocoa, peanut skin, cranberry or a combination thereof and at least one suitable excipient, wherein said peroral composition is a source of constituents selected from the group consisting of δ -(3,4-dihydroxyphenyl)-g-valerolactone, δ -(3-Methoxy-4-hydroxy-phenyl)- γ -valerolactone, catechin, epicatechin, ferulic acid, gallic acid, 4-hydroxybenzoic acid, caffeic acid, protocatechuic acid,
10 taxifolin and mixtures thereof, which are responsible for mediating the anti-inflammatory effects on the endothelium, for use in the treatment of endothelial inflammation and/or endothelial systemic dysfunction triggered by Corona virus disease 2019 (COVID-19) induced by Severe Acute Respiratory Syndrome Corona Virus 2 (SARS-CoV-2) infection.
- 15 2. A peroral composition comprising procyanidins originated from a plant extract selected from the group consisting in extracts of pine bark, grape seed, apples, cocoa, peanut skin, cranberry or a combination thereof and at least one suitable excipient, wherein said peroral composition is a source of constituents selected from the group consisting of δ -(3,4-dihydroxyphenyl)-g-valerolactone, δ -(3-Methoxy-4-hydroxy-phenyl)- γ -valerolactone, catechin,
20 epicatechin, ferulic acid, gallic acid, 4-hydroxybenzoic acid, caffeic acid, protocatechuic acid, taxifolin and mixtures thereof, which are responsible for mediating the anti-inflammatory effects on the endothelium, for use in the treatment of endothelial inflammation and/or endothelial systemic dysfunction triggered by Corona virus disease 2019 (COVID-19) induced by Severe Acute Respiratory Syndrome Corona Virus 2 (SARS-CoV-2) infection,
25 characterized in that said peroral composition is administered to symptomatic post-COVID-19 subjects recovering from COVID-19.
3. The peroral composition for use according to claim 1 or 2, wherein said peroral composition comprises from 20 % to 95 % w/w of procyanidins and is administered at a
30 dosage from 25 mg per day to 300 mg per day.
4. The peroral composition for use according to any of claims 1-3, wherein said peroral composition comprises from 65 % to 75 % w/w of procyanidins.

5. The peroral composition for use according to any of claims 1-4, wherein said endothelial systemic dysfunction is selected from the group comprising endothelial blood flow and microcirculation or endothelial coagulation function troubles.
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6. The peroral composition for use according to claim 5, wherein said endothelial blood flow and microcirculation function troubles, is selected from the group comprising kidney function troubles, lung function troubles, liver function troubles, brain cognition function troubles, endothelial dysfunction related blood pressure troubles endothelial dysfunction blood velocity
- 10 troubles.
7. The peroral composition for use according to claim 5, wherein said endothelial coagulation function troubles is selected from the group comprising thrombosis, platelet aggregation.
- 15 8. The peroral composition for use according to any of claims 1-7, wherein said endothelial inflammation is selected from the group comprising endotheliitis, myocarditis or vasculitis.
9. The peroral composition for use according to claim 8, wherein said vasculitis is a Kawasaki-like disease.
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10. The peroral composition for use according to claim 8, wherein said endotheliitis is a severe endotheliitis.
11. The peroral composition for use according to any of any of claims 1 to 10, wherein the
- 25 pine bark extract is Pycnogenol ®.
12. The peroral composition for use according to any of claims 1 to 11, wherein the suitable excipient is a pharmaceutically acceptable excipient.
- 30 13. The peroral composition for use according any of claims 1 to 12, wherein the peroral composition is in the form of a food preparation, a dietary supplement, a nutraceutical, or a beverage.

14. A medicament comprising the peroral composition for use according to any of claims 1 to 12.
15. The medicament of claim 14 or the dietary supplement of claim 13, characterized in that said medicament or dietary supplement is administered at a dosage from 25 mg per day to 300 mg per day.
16. A method of treating or preventing endothelial inflammation and/or endothelial systemic dysfunction triggered by Corona virus disease 2019 (COVID-19) induced by Severe Acute Respiratory Syndrome Corona Virus 2 (SARS-CoV-2) infection comprising orally administering to a subject in need thereof an effective amount of the peroral composition for use according to any of claims 1 to 13 or the medicament according to claim 14 and wherein the subject in need thereof is a symptomatic post-COVID-19 subject recovering from COVID-19.
17. The method of claim 16, wherein the peroral composition for use according to any of claims 1 to 13 or the medicament according to claim 14 is administered at a dosage from 25 mg per day to 300 mg per day.
18. A peroral composition comprising a source of constituents selected from the group consisting of δ -(3,4-dihydroxyphenyl)- γ -valerolactone, δ -(3-Methoxy-4-hydroxy-phenyl)- γ -valerolactone, catechin, epicatechin, ferulic acid, gallic acid, 4-hydroxybenzoic acid, caffeic acid, protocatechuic acid, taxifolin and mixtures thereof, for use in the treatment of endothelial inflammation and/or endothelial systemic dysfunction triggered by Corona virus disease 2019 (COVID-19) induced by Severe Acute Respiratory Syndrome Corona Virus 2 (SARS-CoV-2) infection.
19. A peroral composition comprising a source of constituents selected from the group consisting of δ -(3,4-dihydroxyphenyl)- γ -valerolactone, δ -(3-Methoxy-4-hydroxy-phenyl)- γ -valerolactone, catechin, epicatechin, ferulic acid, gallic acid, 4-hydroxybenzoic acid, caffeic acid, protocatechuic acid, taxifolin and mixtures thereof, for use in the treatment of endothelial inflammation and/or endothelial systemic dysfunction triggered by Corona virus disease 2019 (COVID-19) induced by Severe Acute Respiratory Syndrome Corona Virus 2 (SARS-CoV-2)

infection, characterized in that said peroral composition is administered to symptomatic post-COVID-19 subjects recovering from COVID-19.

20. The peroral composition for use according to claims 18 or 19, wherein said source of
5 constituents is originating from a preparation comprising from 20 % to 95 % w/w of
procyanidins.

21. The peroral composition for use according to claims 18 or 19, wherein said source of
constituents is originating from a preparation comprising from 65 % to 75 % w/w of
10 procyanidins.