CLAIMS:

1. Use of PLD or a pharmaceutically acceptable salt or stereoisomer thereof, for use in the manufacture of a medicament treatment of coronavirus (CoV) infection, wherein PLD or a pharmaceutically acceptable salt or stereoisomer thereof is used in combination with one or more further CoV antiviral agent(s).

2. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to claim 1, wherein the one or more further CoV antiviral agents is selected from an agent that inhibits viral entry, inhibits viral-cell fusion, inhibits endocytosis or inhibits viral replication.

3. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to any preceding claim, wherein the one or more further CoV antiviral agent(s) is/are selected from calpain, cathepsin or calpain/cathepsin inhibitors, RNA polymerase inhibitors, clathrin-mediated endocytosis inhibitors, HIV-1 protease inhibitors, serine protease inhibitors, TMPRSS2 inhibitors, IFN stimulated antiviral proteins, PPARα receptor agonists, cholesterol transporter inhibitors, intracellular cholesterol transport inhibitors, ganglioside biosynthesis pathway inhibitors, cholesterol depleting agents, glucocorticoids, agents that inhibits viral fusion with host cell membranes and JAK inhibitors.

4. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to any preceding claim, wherein the one or more further CoV antiviral agent(s) is/are selected from calpain, cathepsin or calpain/cathepsin inhibitors, RNA polymerase inhibitors, clathrin-mediated endocytosis inhibitors, HIV-1 protease inhibitors, serine protease inhibitors, TMPRSS2 inhibitors, IFN stimulated antiviral proteins and PPARα receptor agonists.

5. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to any one of claims 1 to 4, wherein the one or more further CoV antiviral agents is a cathepsin inhibitor, a cathepsin B inhibitor, a cathepsin L inhibitor, a calpain inhibitor, a combined calpain and cathepsin B inhibitor, a pan cathepsin B/L inhibitor; wherein the agent may preferably be selected from MDL28170, E64d or CA-074; preferably MDL28170; or

wherein the one or more further CoV antiviral agents is an RNA polymerase inhibitor; wherein the agent may preferably be selected from remdesivir or favipiavir; preferably remdesivir; or

wherein the one or more further CoV antiviral agents is a clathrin-mediated endocytosis inhibitor; wherein the agent may preferably be selected from hydroxychloroquine, chloroquine, amantadine or chlorpromazine; preferably hydroxychloroquine or chloroquine; further preferably hydroxychloroquine; or

wherein the one or more further CoV antiviral agents is a HIV-1 protease inhibitor; wherein the agent may preferably be selected from nelfinavir mesylate hydrate, lopinavir, tipranavir, amprenavir or darunavir, preferably nelfinavir mesylate hydrate; or

wherein the one or more further CoV antiviral agents is a serine protease inhibitor, wherein the agent may preferably be selected from camostat, bromhexine, aprotinin or nafamostat, preferably camostat; or

wherein the one or more further CoV antiviral agents is a TMPRSS2 inhibitor; wherein the agent may preferably be selected from camostat, bromhexine, aprotinin or nafamostat, preferably camostat; or

wherein the one or more further CoV antiviral agents is an IFN stimulated antiviral protein; wherein the agent may preferably be selected from interferon 2 alfa or interferon gamma; or

wherein the one or more further CoV antiviral agents is a PPARα receptor agonist; wherein the agent may preferably be fenofibrate; or

wherein the one or more further CoV antiviral agents inhibits a cholesterol transporter to inhibit intracellular cholesterol transport; wherein the agent may preferably be itraconazole; or

wherein the one or more further CoV antiviral agents is a ganglioside biosynthesis pathway inhibitor; wherein the agent may preferably be NB-DNJ; or

wherein the one or more further CoV antiviral agents is a cholesterol depleting agent; wherein the agent may preferably be methyl-beta cyclodextrin; or

wherein the one or more further CoV antiviral agents is a glucocorticoid; wherein the agent may preferably be ciclesonide; or

wherein the one or more further CoV antiviral agents is an agent that inhibits viral fusion with host cell membranes; wherein the agent may preferably be arbidol; or

wherein the one or more further CoV antiviral agents is a JAK inhibitor; wherein the agent may preferably be tofacitinib.

6. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to any preceding claim, wherein the one or more further CoV antiviral agent(s) is selected from MDL 28170, remdesivir, hydroxychloroquine, nelfinavir mesylate hydrate, chloroquine, interferon 2α, interferon-γ, and fenofibrate.

7. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to any preceding claim, wherein PLD or a pharmaceutically acceptable salt or stereoisomer thereof and the one or more further CoV antiviral agent(s) are administered concurrently, sequentially or separately.

8. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to any preceding claim, wherein the molar ratio of PLD or a pharmaceutically acceptable salt or stereoisomer thereof and the one or more further CoV antiviral agent(s) is from 1:1000 to 1000:1, 1:700 to 700:1, 1:500 to 500:1, 1:300 to 300:1, 1:100 to 100:1, or 1:50 to 50:1.

9. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to any preceding claim, wherein, in addition to PLD or a pharmaceutically acceptable salt or stereoisomer thereof and the one or more further CoV antiviral agent(s), a corticosteroid, preferably dexamethasone, is also administered.

10. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to claim 9, wherein the corticosteroid is administered concurrently, sequentially or separately to PLD or a pharmaceutically acceptable salt or stereoisomer thereof and the one or more further CoV antiviral agent(s).

11. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to any preceding claim, wherein the patient additionally receives the following medications, preferably 20 to 30 minutes prior to starting treatment with PLD or a pharmaceutically acceptable salt or stereoisomer thereof:

- Ondansetron 8 mg IV (or equivalent);
- Diphenhydramine hydrochloride 25 mg IV (or equivalent); and
- Ranitidine 50 mg IV (or equivalent).

12. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to any preceding claim, wherein the treatment of coronavirus (CoV) infection is prophylactic treatment.

13. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to any preceding claim, wherein the CoV is SARS-CoV-2.

14. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to any preceding claim, for use in the treatment of COVID-19 and/or for use in the treatment of pneumonia caused by COVID-19.

15. ~~PLD or a pharmaceutically acceptable salt or stereoisomer thereof for use~~The use according to any preceding claim, wherein the CoV infection is mild infection; and/or wherein the CoV infection is moderate infection; and/or wherein the CoV infection is severe infection.

16. ~~A compound~~The use according to any preceding claim, wherein the CoV infection is acute CoV infection, preferably wherein the CoV infection is acute COVID-19 infection; and/or wherein the CoV infection is ongoing symptomatic CoV infection, preferably wherein the CoV infection is ongoing symptomatic COVID-19 infection; and/or wherein the CoV infection is post-CoV syndrome, CoV persistent or long CoV; preferably wherein the CoV infection is post-COVID-19 syndrome, COVID persistent or long COVID.

17. ~~A compound~~The use according to claim 16, wherein the post-CoV syndrome, CoV persistent or long CoV include one or more symptoms arising from the cardiovascular, respiratory, gastrointestinal, neurological, musculoskeletal, metabolic, renal, dermatological, otolaryngological, haematological and autonomic systems; psychiatric problems, generalised pain, fatigue and/or persisting fever.

18. ~~A compound~~The use according to any preceding claim, for use in the treatment of a patient with signs and symptoms of CoV infection (preferably COVID-19) for up to 4 weeks; and/or for use in the treatment of a patient with signs and symptoms of CoV infection (preferably COVID-19) from 4 weeks to 12 weeks; and/or for use in the treatment of a patient with signs and symptoms of CoV infection, preferably COVID-19, for more than 12 weeks.

19. ~~A compound~~The use according to any preceding claim, for use in the prophylaxis, reduction or treatment of COVID persistent, long COVID or post-COVID syndrome; preferably wherein the prophylaxis, reduction or treatment minimises the likelihood that a patient suffers from COVID persistent, long COVID or post-COVID syndrome symptoms; and/or reduces the severity of such symptoms; further preferably wherein the treatment minimising the symptoms of CoV infection.

20. ~~A compound~~The use according to any preceding claim, wherein the treatment reduces the infectivity of CoV patients; including wherein the patient is asymptomatic or not very symptomatic patients yet has a high viral load.

~~21. The use of PLD or a pharmaceutically acceptable salt or stereoisomer thereof, in the manufacture of a medicament for the treatment of coronavirus (CoV) infection, wherein in said treatment one or more further CoV antiviral agent(s) is also administered; wherein the use may optionally be in accordance with any one of claims 1-20.~~

~~22. A method of treating coronavirus (CoV) infection, comprising administering to a patient in need thereof a combination of PLD or a pharmaceutically acceptable salt or stereoisomer thereof, and one or more further CoV antiviral agent(s); wherein the method may optionally be in accordance with any one of claims 1-20.~~

~~23~~21. A combination of PLD or a pharmaceutically acceptable salt or stereoisomer thereof, and one or more further CoV antiviral agent(s).

~~24~~22. A combination according to claim ~~23~~21, for use as a medicament; wherein the use may optionally be in accordance with any one of claims 1-20.

~~25~~23. A pharmaceutical composition comprising a pharmaceutically acceptable diluent and a combination according to claim ~~23~~ 21 or claim ~~24~~22.

~~26~~24. A kit comprising a combination according to claim ~~23~~21; said kit optionally further comprising instructions for treating a patient; said instructions optionally providing instructions for the use of combination(s) according to the present invention for use in the treatment of coronavirus (CoV) infection; wherein the use may optionally be in accordance with any one of claims 1-20.

~~27~~25. ~~A~~ Use of a CoV antiviral agent, ~~for use in~~in the manufacture of a medicament for the treatment of coronavirus (CoV) infection, wherein the CoV antiviral agent is used in combination with PLD or a pharmaceutically acceptable salt or stereoisomer thereof; wherein the use may optionally be in accordance with any one of claims 1-20.

~~28~~26. Use of a~~A~~ CoV antiviral agent, in the manufacture of a medicament for ~~for use in~~ the treatment of coronavirus (CoV) infection according to claim ~~27~~25, wherein the CoV antiviral agent is selected from a calpain, cathepsin or calpain/cathepsin inhibitor, an RNA polymerase inhibitor, a clathrin-mediated endocytosis inhibitor, a HIV-1 protease inhibitor, a serine protease inhibitor, a TMPRSS2 inhibitor, an IFN stimulated antiviral protein, a PPARα receptor agonist, a cholesterol transporter inhibitor, an intracellular cholesterol transport inhibitor, a ganglioside biosynthesis pathway inhibitor, a cholesterol depleting agent, a glucocorticoid, an agents that inhibits viral fusion with host cell membranes or a JAK inhibitor.

~~29~~27. Use of a~~A~~ CoV antiviral agent, in the manufacture of a medicament for ~~for use in~~ the treatment of coronavirus (CoV) infection according to claim ~~27~~ 25 or claim ~~28~~26, wherein the treatment is the treatment of COVID-19.