CLAIMS

1. ~~A method of improving one or more~~Use of a composition for the manufacture of a medicament for treatment or prevention of respiratory illness~~es~~ in an individual, the composition~~method~~ comprising:

~~orally administering, to an individual, a pharmaceutically effective amount of a composition comprising:~~

approximately 0.5 g to approximately 10g of R-beta-hydroxybutyrate, wherein the R-beta-hydroxybutyrate comprises at least one R-beta-hydroxybutyrate salt~~,; and~~

wherein ~~the administration of~~ the composition is to be orally administered to the~~improves respiratory illnesses in an~~ individual in a pharmaceutically effective amount.

2. The use according to~~method of~~ claim 1, wherein the composition comprises less than approximately 2 g of R-beta-hydroxybutyrate.

3. The use according to~~method of~~ claim 1, wherein the approximately 0.5 g to approximately 10g of R-beta-hydroxybutyrate comprises at least approximately 90% R-beta-hydroxybutyrate and less than approximately 1~~1~~0% L-beta-hydroxybutyrate.

4. The use according to~~method of~~ claim ~~2~~1, wherein the R-beta-hydroxybutyrate comprises at least one~~a~~ beta-hydroxybutyrate salt and at least one beta-hydroxybutyrate polymer.

5. The use according to ~~method of~~ claim 1, wherein the 0.5 to 10 g of R-beta-hydroxybutyrate comprises an R-beta-hydroxybutyrate-complex.

6. The use according to~~method of~~ claim 1, the composition further~~may~~ includinge at least one additional compound, and wherein at least one of the additional compounds comprises at least one of:

a short chain fatty acid,

an ester of short chain fatty acid,;

a medium chain fatty acid,

an ester of medium chain fatty acid,;

a long chain fatty acid, or

or an ester of long chain fatty acid.

7. The use according tomethod of claim 1, wherein the composition further comprisinges approximately 1 g to approximately 20 g of at least one of one or more medium chain fatty acids and/or one or more medium chain fatty acid esters.

8. The use according tomethod of claim 1, wherein the composition further comprising a C8 fatty acid.

9. The use according tomethod of claim 1, wherein the composition further comprisinges at least one of a flavoring, a vitamin, a mineral, or liquid carrier.

10. The use according tomethod of claim 1, wherein the composition further comprisinges at least one amino acid.

11. The use according tomethod of claim 1, wherein administration ofering the pharmaceutically effective amount of the R-beta-hydroxybutyrate increases strength and mental acuity in the individual with the at least one respiratory illness.

12. The use according tomethod of claim 1, wherein at least one of the respiratory illnesses iscomprises COVID-19.

13. The use according tomethod of claim 1, wherein at least one of the respiratory illnesses comprises COVID-19, and wherein administration of the pharmaceutically effective amount of the R-beta-hydroxybutyrate reduces or inhibits long term symptoms of COVID-19.

14. The use according to~~method of~~ claim 1, wherein administration of the composition decreases at least one of the number of symptoms or the severity of the symptoms of the ~~at least one~~ respiratory illness.

15. Use of a composition for the manufacture of a medicament for~~A method of~~ improving lung function in an individual with a respiratory illness~~es~~, the composition~~method~~ comprising:

~~orally administering, to an individual, a pharmaceutically effective amount of a composition comprising beta-hydroxybutyrate, wherein the beta-hydroxybutyrate compnses:~~

approximately 0.5 g to approximately 15 g of R-beta-hydroxybutyrate, wherein the ~~one or more~~ R-beta-hydroxybutyrate comprises at least one R-beta-hydroxybutyrate salts, ~~; and~~

wherein ~~the administration of~~ the composition is to be orally administered to the ~~improves lung function in an~~ individual in a pharmaceutically effective amount~~with at least one respiratory illness~~.

16. The use according to~~method of~~ claim 15, wherein the composition comprises less than approximately 2 g of beta-hydroxybutyrate.

17. The use according to~~method of~~ claim 15, wherein the approximately 0.5 g to approximately 10 g of beta-hydroxybutyrate comprises at least approximately 90% R-beta-hydroxybutyrate and less than approximately 10% L-beta-hydroxybutyrate.

18. Use of a composition for the manufacture of a medicament for the treatment or prevention of~~A method of improving one or more~~ respiratory illness~~es~~ in an individual, the composition~~method~~ comprising:

~~orally administering, to an individual, a pharmaceutically effective amount of a~~

~~composition comprising beta-hydroxybutyrate, wherein the beta-hydroxybutyrate compnses:~~

approximately 0.5 g to approximately 10 g of one or more beta-hydroxybutyrate salts,~~; and~~

wherein ~~the administration of~~ the composition is to be orally administered ~~improves respiratory illnesses in an~~to the individual in a pharmaceutically effective amount.

19. The use according to~~method of~~ claim 18, wherein the composition further comprises at least one beta-hydroxybutyrate polymer.

20. The use according to~~method of~~ claim 18, wherein the composition further comprises at least one amino acid.