CLAIMS

What is claimed is:

1. A supplement in form of an effervescent tablet for treating a symptom or disorder associated with calcium imbalance comprising an effective amount of apoaequorin and an effervescent couple, the couple comprising an acidic component and an alkaline component;

wherein the effervescent component comprises about 5% to about 85% of the total weight of the effervescent tablet.

2. The supplement of claim 1 wherein the supplement further includes at least one stimulant.

3. A therapeutic effervescent composition for treating a symptom or disorder associated with calcium imbalance comprising:

an effective amount of apoaequorin;

an effective amount of vitamin D;

at least one stimulant; and

an effervescent system including at least one acid and at least one alkali compound;

wherein the effervescent component comprises about 5% to about 85% of the total weight of the composition.

4. The supplement or therapeutic effervescent composition of claim 2 or 3 wherein the at least one stimulant is selected from caffeine, yerba maté, ephedrine, guarana, or ginseng.

5. The supplement or therapeutic effervescent composition of any one of claims 1-4 wherein the acidic component is selected from citric acid, tartaric acid, malic acid, fumaric acid, adipic acid, succinic acids, or their salts.

6. The supplement or therapeutic effervescent composition of any one of claims 1-5 wherein the alkaline component is selected from sodium carbonate, sodium bicarbonate, sodium sesquicarbonate, potassium carbonate, potassium bicarbonate, potassium sesquicarbonate, magnesium carbonate, sodium glycine carbonate, L-lysine carbonate, arginine carbonate, amorphous calcium carbonate, ammonium carbonate, or ammonium bicarbonate.

7. A supplement according to any one of claims 1, 2 or 4-6, wherein the supplement further includes vitamin D.

8. A therapeutic effervescent composition according to any one of claims 3-6, or a supplement according to claim 7, wherein the vitamin D is in the form of D3 cholecalciferol.

9. A supplement or therapeutic effervescent composition according to any one of claims 1 to 8, for use in medicine.

10. A supplement or therapeutic effervescent composition according to any one of claims 1 to 8, for use in treating a symptom or disorder associated with calcium imbalance in a subject in need of such treatment, wherein in said use said apoaequorin is not administered with its cofactor, coelenterazine.

11. A supplement or therapeutic effervescent composition for use according to claim 10, wherein:
i) the symptom or disorder associated with calcium imbalance is sleep-related and the administration of apoaequorin to said subject improves sleep quality in the subject; or
ii) the symptom or disorder associated with calcium imbalance is energy-related and administration of apoaequorin to said subject improves energy quality in the subject; or
iii) the symptom or disorder associated with calcium imbalance is mood-related and administration of apoaequorin to said subject improves mood quality in the subject; or
iv) the symptom or disorder associated with calcium imbalance is pain-related and administration of apoaequorin to said subject alleviates pain in the subject; or
v) the symptom or disorder associated with calcium imbalance is memory-related and administration of apoaequorin to said subject improves memory, as indicated by improved scores on a standardized cognitive assessment.

12. A supplement or effervescent composition according to any one of claims 1-8 for use in improving sleep quality, energy quality, mood quality, or memory in a subject in need thereof.

13. A supplement or effervescent composition according to any one of claims 1-8 for use in alleviating pain in a subject in need thereof.

14. A supplement or effervescent composition according to any one of claims 1-8 for use in treating a symptom or disorder associated with calcium imbalance related to neuronal excitability, muscle contraction, membrane permeability, cell division, hormone secretion, bone mineralization, or cell death following ischemia.