We claim:

1. Use of a pharmaceutical composition in the manufacture of a medicament for treating, preventing, and/or delaying the progression and/or onset of neurodegeneration in a subject in need, wherein the pharmaceutical composition comprises a therapeutically effective amount of Aminosterol 1436 or a pharmaceutically acceptable salt or derivative thereof.

2. The use of claim 1, wherein the neurodegeneration:

(a) is age-related; and/or

(b) is correlated with one or more conditions or diseases selected from the group consisting of age-related dementia, Alzheimer's disease, Parkinson's disease, Lewy Body dementia, fronto temperal dementia, vascular dementia, amyotrophic lateral sclerosis (ALS), multiple sclerosis (MS), multiple system atrophy (MSA), progressive supranuclear palsy (PSP)), olivo-ponto-cerebellar degeneration, and age related cognitive decline without a specific diagnosis from the group above.

3. The use of claim 1 or 2, wherein:

(a) progression or onset of the neurodegeneration is slowed, halted, or reversed over a defined time period following administration of the pharmaceutical composition, as measured by a medically-recognized technique; and/or

(b) the neurodegeneration is positively impacted by administration of the pharmaceutical composition; and/or

(c) the neurodegeneration is positively impacted by administration of the pharmaceutical composition and the positive impact and/or progression of neurodegeneration is measured quantitatively or qualitatively by one or more techniques selected from the group consisting of electroencephalogram (EEG), neuroimaging, functional MRI, structural MRI, diffusion tensor imaging (DTI), [18F]fluorodeoxyglucose (FDG) PET, agents that label amyloid, [18F]F-dopa PET, radiotracer imaging, volumetric analysis of regional tissue loss, specific imaging markers of abnormal protein deposition, multimodal imaging, and biomarker analysis; and/or

(d) progression or onset of the neurodegeneration is slowed, halted, or reversed over a defined time period following administration of the pharmaceutical composition, as measured by

a medically-recognized technique, and the progression or onset of neurodegeneration is slowed, halted, or reversed by about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, or about 100%; and/or

(e) the neurodegeneration is correlated with abnormal α-synuclein (αS) pathology and/or dopaminergic dysfunction.

4. The use of any one of claims 1-3, wherein the neurodegeneration is correlated with:

(a) neural cell death caused by septic shock, intracerebral bleeding, subarachnoidal hemorrhage, multiinfarct dementia, inflammatory diseases, neurotrauma, peripheral neuropathies, polyneuropathies, metabolic encephalopathies, and infections of the central nervous system; or

(b) a neurodegenerative disease selected from the group consisting of synucleopathies, Alzheimer's disease, Parkinson's disease, dementia with Lewy bodies, multiple system atrophy, Huntington's disease, multiple sclerosis, parkinsonism, amyotrophic lateral sclerosis (ALS), schizophrenia, Friedreich's ataxia, vascular dementia, spinal muscular atrophy, frontotemporal dementia, supranuclear palsy, progressive supranuclear palsy, progressive nuclear palsy, degenerative processes associated with aging, dementia of aging, Guadeloupian parkinsonism, spinocerebellar ataxia, hallucinations, stroke, traumatic brain injury, down syndrome, Gaucher's disease, Krabbe's disease (KD), lysosomal conditions affecting glycosphingolipid metabolism, cerebral palsy, and epilepsy; or

(c) a psychological or behavioral disorder; or

(d) a psychological or behavioral disorder which is selected from the group consisting of aberrant motor and obsessive–compulsive behaviors, sleep disorders, REM sleep behavior disorder (RBD), depression, major depressive disorder, agitation, anxiety, delirium, irritability, ADHD, apathy, bipolar disorder, disinhibition, addiction, illusion and delusions, amnesia, and autism; or

(e) a cerebral ischemic disorder or a general ischemic disorder; or

(f) a cerebral ischemic disorder which is selected from the group consisting of cerebral microangiopathy, intrapartal cerebral ischemia, cerebral ischemia during/after cardiac arrest or resuscitation, cerebral ischemia due to intraoperative problems, cerebral ischemia during carotid surgery, chronic cerebral ischemia due to stenosis of blood-supplying arteries to

the brain, sinus thrombosis or thrombosis of cerebral veins, cerebral vessel malformations, and diabetic retinopathy; or

(g) a general ischemic disorder which is selected from the group consisting of high blood pressure, high cholesterol, myocardial infarction, cardiac insufficiency, cardiac failure, congestive heart failure, myocarditis, pericarditis, perimyocarditis, coronary heart disease, angina pectoris, congenital heart disease, shock, ischemia of extremities, stenosis of renal arteries, diabetic retinopathy, thrombosis associated with malaria, artificial heart valves, anemias, hypersplenic syndrome, emphysema, lung fibrosis, and pulmonary edema.

5. Use of a pharmaceutical composition comprising a therapeutically effective amount of Aminosterol 1436 or a pharmaceutically acceptable salt or derivative thereof in the manufacture of a medicament for reversibly slowing or delaying the growth, maturation, and/or aging of a subject, and/or extending the potential lifespan of the subject.

6. The use of claim 5, wherein:

(a) the slowed or delayed growth is measured by height and/or weight, as compared to a subject the same age and sex, who is not administered the pharmaceutical composition comprising a therapeutically effective amount of Aminosterol 1436 or a pharmaceutically acceptable salt or derivative thereof; and/or

(b) the subject administered a pharmaceutical composition according to the invention has delayed or slowed growth, as measured by height and/or weight, as compared to a subject the same age and sex and who is not treated with a method of the invention, by about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, or about 100%; and/or

(c) the delayed maturation is measured by showing a delay in skeletal maturation; and/or

(d) the subject administered the pharmaceutical composition has delayed maturation, as measured by skeletal maturation, as compared to an untreated subject which is the same age and sex, by about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, or about 100%.

7. The use of any one of claims 5-6, where the treatment is administered during a critical "developmental window" of the subject, which is optionally prior to the onset of maturity of the subject.

8. The use of any one of claims 5-7, wherein:

(a) the characteristics of aging impacted by administration of the pharmaceutical composition are selected from the group consisting of muscle endurance, coordination, social behavior and cognitive ability; and/or

(b) administration of the pharmaceutical composition improves impaired muscle endurance, as compared to an untreated subject which is the same sex and age, by about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, or about 100%; and/or

(c) administration of the pharmaceutical composition improves impaired coordination, as compared to an untreated subject which is the same sex and age, by about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, or about 100%; and/or

(d) administration of the pharmaceutical composition improves impaired cognitive ability, as compared to an untreated subject which is the same sex and age, by about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, or about 100%.

9. A use of treating, preventing, or delaying the onset of age-related diseases, conditions or health problems in a subject, comprising administering a pharmaceutical composition comprising a therapeutically effective amount of Aminosterol 1436 or a pharmaceutically acceptable salt or derivative thereof to the subject.

10. The use of claim 9, wherein the age-related disease, condition, or health problem is selected from the group consisting of atherosclerosis and cardiovascular disease, cancer, arthritis, cataracts, osteoporosis, diabetes, hypertension, Alzheimer's disease, arthritis, and osteoporosis.

11. The use of any one of claims 1-10 wherein:

(a) the aminosterol 1436 or a salt or derivative thereof is a pharmaceutically acceptable grade of the aminosterol 1436 or a salt or derivative thereof; and/or

(b) the pharmaceutical composition is administered via any pharmaceutically acceptable method; and/or

(c) the pharmaceutical composition is administered intravenously, intradermally, subcutaneously, orally, rectally, sublingually, intrathecally, intranasally, or by inhalation; and/or

(d) the pharmaceutical composition is administered intranasally; and/or

(e) the pharmaceutical composition is formulated for oral administration in a composition which is a liquid, capsule, or tablet designed to disintegrate in either the stomach, upper small intestine, or more distal portions of the intestine; and/or

(f) the pharmaceutical composition is formulated for intranasal administration in a composition which is a dry powder nasal spray or liquid nasal spray; and/or

(g) the pharmaceutical composition is formulated into a dosage form selected from the group consisting of liquid dispersions, gels, aerosols, lyophilized formulations, tablets, and capsules; and/or

(h) the pharmaceutical composition is formulated into a dosage form selected from the group consisting of controlled release formulations, fast melt formulations, delayed release formulations, extended release formulations, pulsatile release formulations, and mixed immediate release and controlled release formulations.

12. The use of any one of claims 1-11, wherein:

(a) the dosage of Aminosterol 1436 or a derivative or salt thereof is selected from the group consisting of 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, 30, 35, 40, 45, and 50 mg/kg; and/or

(b) the dosage of Aminosterol 1436 or a derivative or salt thereof is selected from the group consisting of 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, or 110 mg/m^2; and/or

(c) the dosage of Aminosterol 1436 or a derivative or salt thereof is selected from the

group consisting of about 10 mg to about 400 mg, or about 50 mg to about 350 mg, or about 100 mg to about 300 mg, or about 100 mg to about 200 mg.

13. The use of any one of claims 1-12, further comprising:

(a) determining a dose of the aminosterol 1436 or a salt or derivative thereof for the subject, wherein the aminosterol 1436 dose is determined based on the effectiveness of the aminosterol 1436 dose in improving or resolving a symptom being evaluated, wherein the symptom is related to neurodegeneration, age-related diseases, and/or growth, maturation, and/or aging of the subject; and

(b) followed by administering the dose of the aminosterol 1436 or a salt or derivative thereof to the subject for a defined period of time, wherein the method comprises:

(i) identifying a symptom to be evaluated;

(ii) identifying a starting dose of the aminosterol 1436 or a salt or derivative thereof for the subject; and

(iii) administering an escalating dose of the aminosterol 1436 or a salt or derivative thereof to the subject over a defined period of time until an effective dose is identified, wherein the effective dose is the dose where improvement of the symptom is observed, and fixing the aminosterol 1436 dose at that level in that particular subject.

14. The use of claim 13, wherein:

(a) the dose of the aminosterol 1436 or a salt or derivative thereof reverses dysfunction caused by the neurodegeneration and treats, prevents, improves, and/or resolves the symptom being evaluated; and/or

(b) the improvement or resolution of the symptom is measured using a clinically recognized scale or tool; and/or

(c) the improvement or resolution of the symptom is measured using a clinically recognized scale or tool and the clinical scale or tool is selected from the group consisting of Uniformed Parkinson's Disease Scale (UPDRS), Mini Mental State Examination (MMSE), Mini Mental Parkinson (MMP), Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE), The 7-Minute Screen, Abbreviated Mental Test Score (AMTS), Cambridge Cognitive Examination (CAMCOG), Clock Drawing Test (CDT), General Practitioner Assessment of Cognition (GPCOG), Mini-Cog, Memory Impairment Screen (MIS), Montreal

Cognitive Assessment (MoCA), Rowland Universal Dementia Assessment (RUDA), Self-Administered Gerocognitive Examination (SAGE), Short and Sweet Screening Instrument (SAS-SI), Short Blessed Test (SBT), St. Louis Mental Status (SLUMS), Short Portable Mental Status Questionnaire (SPMSQ), Short Test of Mental Status (STMS), Time and Change Test (T&C), Test Your Memory (TYM) test, and Addenbrooke's Cognitive Examination-Revised (ACER); and/or

(d) the improvement in the symptom is at least about 3%, at least about 5%, at least about 10%, at least about 15%, at least about 20%, at least about 25%, at least about 30%, at least about 35%, at least about 40%, at least about 45%, at least about 50%, at least about 55%, at least about 60%, at least about 65%, at least about 70%, at least about 75%, at least about 80%, at least about 85%, at least about 90%, at least about 95%, or at least about 100%, as measured using a clinically recognized scale or tool.

15. The use of claim 13 or 14, wherein the aminosterol 1436 or a salt or derivative thereof is administered orally and:

(a) the starting dose ranges from about 1 mg up to about 175 mg/day;

(b) the starting oral dose is about 25 mg/day;

(c) the dose of the for the subject following dose escalation is fixed at a range of from about 1 mg up to about 500 mg/day;

(d) the dose of the following dose escalation is fixed at a dose of about 1, about 5, about 10, about 15, about 20, about 25, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95, about 100, about 105, about 110, about 115, about 120, about 125, about 130, about 135, about 140, about 145, about 150, about 155, about 160, about 165, about 170, about 175, about 180, about 185, about 190, about 195, about 200, about 205, about 210, about 215, about 220, about 225, about 230, about 235, about 240, about 245, about 250, about 255, about 260, about 265, about 270, about 275, about 280, about 285, about 290, about 295, about 300, about 305, about 310, about 315, about 320, about 325, about 330, about 335, about 340, about 345, about 350, about 355, about 360, about 365, about 370, about 375, about 380, about 385, about 390, about 395, about 400, about 405, about 410, about 415, about 420, about 425, about 430, about 435, about 440, about 445, about 450, about 455, about 460, about 465, about 470, about 475, about 480, about 485, about 490, about 495, or about 500 mg/day;

(e) the starting oral aminosterol 1436 dose is about 10, about 15, about 20, about 25, about 30, about 35, about 40, about 45, about 60, about 65, about 70, or about 75 mg/day; and/or

(f) the dose of the aminosterol 1436 or a salt or derivative thereof is escalated in about 25 mg increments.

16. The use claim 13 or 14, wherein the aminosterol 1436 or a salt or derivative thereof is administered intranasally and:

(a) the starting dose ranges from about 0.001 mg to about 3 mg/day;

(b) the dose for the subject following escalation is fixed at a range of from about 0.001 mg up to about 6 mg/day;

(c) the dose following escalation is a dose which is subtherapeutic when administered orally or by injection; and/or

(d) the dose is escalated in increments of about 0.1, about 0.2, about 0.25, about 0.3, about 0.35, about 0.4, about 0.45, about 0.5, about 0.55, about 0.6, about 0.65, about 0.7, about 0.75, about 0.8, about 0.85, about 0.9, about 0.95, about 1, about 1.1, about 1.2, about 1.3, about 1.4, about 1.5, about 1.6, about 1.7, about 1.8, about 1.9, or about 2 mg.

17. The use of any one of claims 13-16, wherein the dose of the aminosterol 1436 or a salt or derivative thereof:

(a) is escalated every about 3 to about 5 days; and/or

(b) is escalated every about 1 to about 14 days; and/or

(c) is escalated every about 1, about 2, about 3, about 4, about 5, about 6, about 7, about 8, about 9, about 10, about 11, about 12, about 13, or about 14 days; and/or

(d) is escalated about 1x/week, about 2x/week, about every other week, or about 1x/month; and/or

(e) the dose, including the starting or fixed dose, of the aminosterol 1436 or a salt or derivative thereof is administered once per day, every other day, once per week, twice per week, three times per week, four times per week, five times per week, six times per week, every other week, or every few days; and/or

(f) the dose, including the starting or fixed dose, of the aminosterol 1436 or a salt or derivative thereof is administered for a first defined period of time of administration, followed by a cessation of administration for a second defined period of time, followed by resuming

administration upon recurrence of neurodegeneration or a symptom of neurodegeneration; and/or

(g) the dose, including the starting or fixed dose, of the aminosterol 1436 or a salt or derivative thereof is incrementally reduced after the fixed dose of aminosterol or a salt or derivative thereof has been administered to the subject for a defined period of time; and/or

(h) the dose, including the starting or fixed dose, of the aminosterol 1436 or a salt or derivative thereof is varied plus or minus a defined amount to enable a modest reduction or increase in the fixed dose; and/or

(i) the dose, including the starting or fixed dose, of the aminosterol 1436 or a salt or derivative thereof is varied plus or minus a defined amount to enable a modest reduction or increase in the fixed dose, and the fixed aminosterol 1436 dose is increased or decreased by about 1%, about 2%, about 3%, about 4%, about 5%, about 6%, about 7%, about 8%, about 9%, about 10%, about 11%, about 12%, about 13%, about 14%, about 15%, about 16%, about 17%, about 18%, about 19%, or about 20%; and/or

(j) the starting dose of the aminosterol 1436 or a salt or derivative thereof is higher if the symptom being evaluated is severe, as measured using a clinically recognized scale or tool; and/or

(k) the starting aminosterol 1436 dose is based on a baseline score of a cognitive test or tool, wherein if the baseline score correlates with an assessment of mild neurodegeneration, then the starting aminosterol 1436 dose is lower than if the baseline score correlates with an assessment of severe neurodegeneration; and/or

(l) the subject experiences moderate or mild neurodegeneration as determined by a clinical scale or test, and wherein the starting oral aminosterol 1436 dose is from about 10 to about 75 mg/day; and/or

(m) the subject experiences severe neurodegeneration as determined by a clinical scale or test, and wherein the starting oral aminosterol 1436 dose is greater than about 75 mg/day.

18. The use of any one of claims 13-17, wherein the symptom is selected from the group consisting of:

(a) cognitive impairment as determined by an IQ score;

(b) cognitive impairment as determined by a memory or cognitive function test;

(c) decline in thinking and reasoning skills;

(d) confusion;

(e) poor motor coordination;

(f) loss of short term memory;

(g) loss of long term memory;

(h) identity confusion;

(i) impaired judgement;

(j) forgetfulness;

(k) depression;

(l) anxiety;

(m) irritability;

(n) obsessive-compulsive behavior;

(o) apathy and/or lack of motivation;

(p) emotional imbalance;

(q) problem solving ability;

(r) impaired language;

(s) impaired reasoning;

(t) impaired decision-making ability;

(u) impaired ability to concentrate;

(v) impaired communication;

(w) impaired ability to conduct routine tasks such as cooking;

(x) self-care, including feeding and dressing;

(y) constipation;

(z) neurodegeneration;

(aa) sleep problem, sleep disorder, and/or sleep disturbance;

(bb) hypertension;

(cc) hypotension;

(dd) sexual dysfunction;

(ee) cardiovascular disease;

(ff) cardiovascular dysfunction;

(gg) difficulty with working memory;

(hh) gastrointestinal (GI) disorders;

(ii) attention deficit and hyperactivity disorder;

(jj) seizures;

(kk) urinary dysfunction;

(ll) difficulty with mastication;

(mm) vision problems; and

(nn) muscle weakness.

19. The use of claim 18, wherein the symptom to be evaluated is:

(a) cognitive impairment as determined by an IQ score or as determined by a memory or cognitive function test and wherein:

(i) progression or onset of the CI is slowed, halted, or reversed over a defined period of time following administration of the fixed escalated dose of the aminosterol 1436 or a salt or derivative thereof, as measured by a medically-recognized technique;

(ii) the CI is positively impacted by the fixed escalated dose of the aminosterol 1436 or a salt or derivative thereof, as measured by a medically-recognized technique;

(iii) the CI is positively impacted by the fixed escalated dose of the aminosterol 1436 or a salt or derivative thereof, as measured by a medically-recognized technique and the positive impact on and/or progression of cognitive decline is measured quantitatively or qualitatively by one or more medically-recognized techniques selected from the group consisting of ADASCog, Mini-Mental State Exam(MMSE), Mini-cog test, Woodcock–Johnson Tests of Cognitive Abilities, Leiter International Performance Scale, Miller Analogies Test, Raven's Progressive Matrices, Wonderlic Personnel Test, IQ tests, or a computerized tested selected from Cantab Mobile, Cognigram, Cognivue, Cognision, and Automated Neuropsychological Assessment Metrics Cognitive Performance Test (CPT); and/or

(iv) the progression or onset of CI is slowed, halted, or reversed by about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, or about 100%, as measured by a medically-recognized technique; or

(b) depression, wherein:

(i) the method results in improvement in a subject’s depression, as measured by one or more clinically-recognized depression rating scale;

(ii) the method results in improvement in a subject’s depression, as measured

by one or more clinically-recognized depression rating scale and the improvement is in one or more depression characteristics selected from the group consisting of mood, behavior, bodily functions such as eating, sleeping, energy, and sexual activity, and/or episodes of sadness or apathy; and/or

(iii) the method results in improvement in a subject's depression, as measured by one or more clinically-recognized depression rating scale, and the improvement a subject experiences following treatment is about 5, about 10, about 15, about 20, about 25, about 30, about 35, about 40, about 45, about 50, about 55, about 60, about 65, about 70, about 75, about 80, about 85, about 90, about 95 or about 100%,

and optionally wherein the one or more clinically-recognized depression rating scale is selected from the group consisting of the Patient Health Questionnaire-9 (PHQ-9); the Beck Depression Inventory (BDI); Zung Self-Rating Depression Scale; Center for Epidemiologic Studies-Depression Scale (CES-D); and the Hamilton Rating Scale for Depression (HRSD);

(c) constipation, wherein:

(i) treating the constipation prevents and/or delays the onset and/or progression of the neurodegeneration;

(ii) the fixed escalated aminosterol 1436 dose causes the subject to have a bowel movement;

(iii) the method results in an increase in the frequency of bowel movement in the subject;

(iv) the method results in an increase in the frequency of bowel movement in the subject and the increase in the frequency of bowel movement is defined as:

(1) an increase in the number of bowel movements per week of about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, and about 100%; and/or

(2) a percent decrease in the amount of time between each successive bowel movement selected from the group consisting of about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, or about 100%;

(v) as a result of the method the subject has the frequency of bowel movement recommended by a medical authority for the age group of the subject; and/or

(vi) the starting aminosterol 1436 dose is determined by the severity of the constipation, wherein:

(1) if the average complete spontaneous bowel movement (CSBM) or spontaneous bowel movement (SBM) is one or less per week, then the starting aminosterol 1436 dose is at least about 150 mg; and

(2) if the average CSBM or SBM is greater than one per week, then the starting aminosterol 1436 dose is about 75 mg or less;

(d) a sleep problem, sleep disorder, or sleep disturbance and:

(i) the sleep problem, sleep disorder, or sleep disturbance comprises a delay in sleep onset, sleep fragmentation, REM-behavior disorder, sleep-disordered breathing including snoring and apnea, day-time sleepiness, micro-sleep episodes, narcolepsy, circadian rhythm dysfunction, REM disturbed sleep, or any combination thereof;

(ii) the sleep problem, sleep disorder, or sleep disturbance comprises REM-behavior disorder, which comprises vivid dreams, nightmares, and acting out the dreams by speaking or screaming, or fidgeting or thrashing of arms or legs during sleep;

(iii) treating the sleep problem, sleep disorder, or sleep disturbance prevents or delays the onset and/or progression of the CI;

(iv) the method results in a positive change in the sleeping pattern of the subject; wherein the positive change is defined as:

(1) an increase in the total amount of sleep obtained of about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, and about 100%; and/or

(2) a percent decrease in the number of awakenings during the night selected from the group consisting of about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, or about 100%; and/or

(v) as a result of the method the subject obtains the total number of hours of sleep recommended by a medical authority for the age group of the subject.

(e) the method of any one of subsections (a)-(d), wherein each defined period of time is independently selected from the group consisting of about 1 day to about 10 days, about 10 days to about 30 days, about 30 days to about 3 months, about 3 months to about 6 months, about 6 months to about 12 months, and about greater than 12 months.

20. The use of any one of claims 1-19, wherein the subject is a human.