What is claimed is:

[Claim 1] ~~A method for preventing or treating neurodegenerative diseases, including Alzheimer's disease, comprising the steps of:~~

~~determining that~~ Use of pulsed electromagnetic energy for treatment or prevention of a neurodegenerative disease in an individual ~~has a~~ previously diagnosed with the neurodegenerative disease or ~~is~~ who was previously determined to be at risk of developing ~~a~~ the neurodegenerative disease;

~~providing a~~ wherein the pulsed electromagnetic energy~~, comprising~~ comprises radiofrequency or ~~microwave, having selected~~ microwaves, has select energy parameters including wavelength, ~~or~~ frequency, duty cycle, ~~and~~ pulse train duration, or a combination thereof, ~~wherein~~ the pulsed electromagnetic energy ~~parameters are selected so as to raise~~ for raising a temperature of treated tissue ~~sufficiently~~ or fluid to stimulate heat shock protein activation in the treated tissue or fluid.~~; and~~

~~applying the pulsed energy to a brain of the individual so as to prevent or treat the neurodegenerative disease.~~

[Claim 2] The use of claim 1, wherein the neurodegenerative disease is Alzheimer's disease.

[Claim ~~2~~ 3] The ~~method~~ use of claim 1 or 2, wherein the use is for direction of pulsed electromagnetic energy ~~is directed~~ to one or more of a leaky blood-

brain barrier, inflamed portions of the brain, junk proteins of the brain, beta amyloid proteins of the brain, or tangled tau proteins of the brain.

[Claim ~~3~~ 4] The ~~method~~use of ~~either~~ any one of claims ~~1 or 2~~ 1-3, wherein the pulsed electromagnetic energy comprises a radio frequency between three to six megahertz, a duty cycle between 2.5% and 5.0% and a pulse train duration between 0.2 and 0.4 seconds.

[Claim ~~4~~ 5] The ~~method~~ use of claim ~~3~~ 4, wherein the radio frequency is generated with a coil ~~have a radii~~ having a radius between 2 mm and 6 mm and between 13 and 57 amp turns.

[Claim ~~5~~ 6] The ~~method~~ use of any one of claims ~~1-4~~ 1-5, wherein the use is for application of pulsed electromagnetic energy ~~parameters are selected and applied~~ to the brain to cause resonant interactions within biomolecules within and around brain tissue.

[Claim ~~6~~ 7] The ~~method~~ use of claim ~~5~~ 6, wherein the pulsed electromagnetic energy creates resonant ~~interaction~~ interactions with conjugated pi electron systems in the biomolecules.

[Claim ~~7~~ 8] The ~~method~~ use of claim ~~6~~ 7, wherein the resonant interactions disrupt the structural integrity of beta amyloid molecules.

[Claim ~~8~~ 9] The ~~method~~ use of claim ~~5~~ 6, ~~including the step of disposing a plurality of~~ wherein the use further comprises spaced-apart electromagnetic emitters disposed adjacent a head of the individual.

[Claim ~~9~~ 10] The ~~method~~ use of claim ~~8~~ 9, wherein ~~the~~ electromagnetic fields of the spaced-apart ~~radio frequency~~ electromagnetic emitters do not overlap.

[Claim ~~10~~ 11] The ~~method~~ use of claim ~~8~~ 9, ~~including the step of setting the~~ wherein the use further comprises a power level of each emitter so that ~~a specific~~ an absorption rate in the brain is between 1.0 W/kg and 2.0 W/kg.

[Claim ~~11~~ 12] The ~~method~~ use of claim ~~8~~ 9, wherein each emitter transmits a radio frequency field at 850-950 megahertz every 4 to 5 milliseconds.

[Claim ~~12~~ 13] The ~~method~~ use of claim ~~5~~ 6, wherein the use is for application of pulsed electromagnetic energy ~~is applied~~ to the brain for multiple, spaced-apart treatments each day.

[Claim ~~13~~ 14] ~~A method for preventing or treating neurodegenerative diseases, including Alzheimer's disease, comprising the steps of:~~

~~determining that~~ Use of pulsed electromagnetic energy for the treatment or prevention of neurodegenerative diseases in an individual ~~has a~~ previously

diagnosed with a neurodegenerative disease or is at risk of developing a neurodegenerative disease;

~~providing a~~ wherein the pulsed electromagnetic energy, comprising radiofrequency or ~~microwave, having selected~~ microwaves, has energy parameters including wavelength, ~~or~~ frequency, duty cycle, ~~and~~ pulse train duration or a combination thereof, to raise a temperature of treated tissue to stimulate heat shock protein activation in the treated tissue or fluid; and

~~applying the pulsed energy to a brain of the individual so as to prevent or treat the neurodegenerative disease;~~

wherein the use is for direction of the pulsed electromagnetic energy ~~is directed~~ to one or more of a leaky blood-brain barrier, inflamed portions of the brain, junk proteins of the brain, beta amyloid proteins of the brain, or tangled tau proteins of the brain.~~; and~~

~~wherein the pulsed energy parameters are selected so as to raise a temperature of treated tissue sufficiently to stimulate heat shock protein activation in the treated tissue or fluid.~~

[Claim 15] The use of claim 14, wherein the neurodegenerative disease is Alzheimer's disease.

[Claim ~~14~~ 16] The ~~method~~ use of claim ~~13~~ 14 or 15, wherein the pulsed electromagnetic energy comprises a radio frequency between three to six

megahertz, a duty cycle between 2.5% and 5.0% and a pulse train duration between 0.2 and 0.4 seconds.

[Claim ~~15~~ 17] The ~~method~~ use of claim ~~14~~ 16, wherein the radio frequency is generated with a coil ~~have a radii~~ having a radius between 2 mm and 6 mm and between 13 and 57 amp turns.

[Claim ~~16~~ 18] A pulsed electromagnetic energy system for preventing or treating neurodegenerative diseases, ~~including Alzheimer's disease,~~ comprising:

a pulsed electromagnetic energy source ~~applied~~ for application to a brain, comprising radiofrequency or ~~microwave~~ microwaves, having selected energy parameters including wavelength, ~~or~~ frequency, duty cycle, ~~and~~ pulse train duration, or combination thereof, wherein the pulsed energy parameters ~~are selected so as to~~ are to raise a temperature of treated tissue ~~sufficiently~~ to stimulate heat shock protein activation in the treated tissue or fluid.

[Claim 19] The system of claim 18, wherein the neurogenerative disease is Alzheimer's disease.

[Claim ~~17~~ 20] The system of claim ~~16~~ 18 or 19, wherein the pulsed electromagnetic energy is ~~directed~~ for direction to one or more of a leaky

blood-brain barrier, inflamed portions of the brain, junk proteins of the brain, beta amyloid proteins of the brain, or tangled tau proteins of the brain.

[Claim ~~18~~ 21] The system of ~~either of claims 1 or 2~~ any one of claims 18-20, wherein the pulsed electromagnetic energy comprises a radio frequency between three to six megahertz, a duty cycle between 2.5% and 5.0% and a pulse train duration between 0.2 and 0.4 seconds.

[Claim ~~19~~ 22] The system of claim ~~18~~ 21, wherein the radio frequency is generated with a coil ~~have a radii~~ that has a radius between 2 mm and 6 mm and between 13 and 57 amp turns.

[Claim ~~20~~ 23] The system of any one of claims ~~16-19~~ 18-22, wherein the pulsed electromagnetic energy parameters are ~~selected and applied~~ for application to the brain to cause resonant interactions within biomolecules within and around brain tissue.

[Claim ~~21~~ 24] The system of claim ~~20~~ 23, wherein the pulsed electromagnetic energy creates resonant interaction with conjugated pi electron systems in the biomolecules.

[Claim ~~22~~ 25] The system of claim ~~21~~ 24, wherein the resonant interactions disrupt the structural integrity of beta amyloid molecules.

[Claim ~~23~~ 26] The system of claim ~~20~~ 23, wherein a plurality of spaced-apart electromagnetic emitters ~~are~~ is disposed adjacent to a head of the individual.

[Claim ~~24~~ 27] The system of claim ~~23~~ 26, wherein ~~the~~ electromagnetic fields of the spaced apart ~~radio frequency~~ electromagnetic emitters do not overlap.

[Claim ~~25~~ 28] The system of claim ~~23~~ 26, wherein the power level of each emitter is set so that a specific absorption rate in the brain is between 1.0 W/kg and 2.0 W/kg.

[Claim ~~26~~ 29] The system of claim ~~23~~ 26, wherein each emitter transmits a radio frequency field at 850-950 megahertz every 4 to 5 milliseconds.

[Claim ~~27~~ 30] The system of claim ~~20~~ 23, wherein the pulsed electromagnetic energy is ~~applied~~ for application to the brain for multiple, spaced-apart treatments each day.