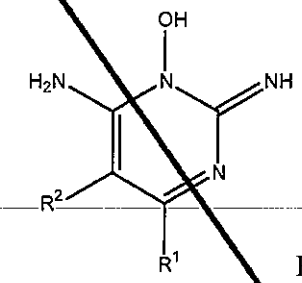
What is claimed is:

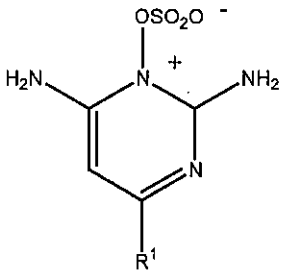
1. A hair growth and/or regrowth compositions comprising;

a. at least one compound selected from the group consisting of compounds represented by the formulae:



Formula I

and



Formula II,

and mixtures thereof,

wherein R^1 is a moiety selected from the group consisting of moieties of the formula $-N(R^3)(R^4)$,

wherein R^3 and R^4 are selected from the group consisting of hydrogen, lower alkyl, lower alkenyl, lower aralkyl, and lower cycloalkyl, and taken together R^3 and R^4 may be a heterocyclic moiety selected from the group consisting of

aziridinyl, azetidinyl, pyrrolidinyl, piperidino, hexahydroazepinyl, heptamethylenimino, octamethylenimino, morpholino, and 4-lower-alkylpiperazinyl, each of said heterocyclic moieties having attached as substituents on the carbon atoms 0 to 3 lower alkyl groups, hydroxy or alkoxy; and wherein R^2 is selected from the group consisting of hydrogen, lower alkyl, lower alkenyl, lower alkoxyalkyl, lower cycloalkyl, lower aryl, lower aralkyl, lower alkaryl, lower alkaralkyl, lower alkoxyaralkyl, and lower haloaralkyl and the pharmacologically acceptable acid addition salts thereof; and

b. from about 0.1% to about 99% by weight of an admixture, comprising:

i. from about 0.01% to about 99.98% by weight of the admixture of an acid selected from the group consisting of intermediates of the Kreb cycle, non-Kreb cycle intermediate alpha-keto acid, derivatives thereof, salts thereof and mixtures thereof;

ii. from about 0.01% to about 99.98% by weight of the admixture of an antioxidant; and

iii. from about 0.01% to about 99.98% by weight of the admixture of a fatty acid mixture or fatty acid mixture source comprising at least 7 unsaturated or saturated fatty acids selected from the group consisting of butyric acid, caproic acid, caprylic acid, capric acid, lauric acid, myristic acid, myristoleic acid, palmitic acid, palmitoleic acid, stearic acid, oleic acid, linoleic acid, linolenic acid, arachidic acid, gadoleic acid, pentadecanoic acid, margaric acid, margaroleic acid, behenic acid, dihomolinoleic acid, arachidonic acid and lignoceric acid.

2. The composition of claim 1, wherein the compound is minoxidil.

3. The composition of claim 2, wherein the compound is minoxidil sulfate.

4. The composition of claim 1, wherein the acid is an alpha-keto acid.

5. The composition of claim 4, wherein the alpha-keto acid is selected from the group consisting of pyruvic acid, alpha-ketoglutaric acid, alpha-ketoisovaleric acid, alpha-ketoisocaproic acid, salts thereof and mixtures thereof.

6. The composition according to claim 5, wherein the alpha-keto acid is a pyruvic acid selected from the group consisting of pyruvic acid, lithium pyruvate, sodium pyruvate, potassium pyruvate, magnesium pyruvate, calcium pyruvate, zinc pyruvate, manganese pyruvate, methyl pyruvate, salts thereof, prodrugs thereof, and mixtures thereof.

7. The composition according to claim 6, wherein the pyruvic acid is sodium pyruvate.

8. The composition according to claim 1, wherein the antioxidant is selected from the group consisting of a Vitamin A; Vitamin C; a tocopherol; a prodrugs of Vitamin A, a prodrugs of Vitamin C, and a prodrugs of Vitamin E; salts of Vitamin A, salts of Vitamin C, and salts of Vitamin E; flavonoids; polyphenols; and mixtures thereof.

9. The composition according to claim 8, wherein the antioxidant is a Vitamin E selected from the group consisting of alpha-tocopherol, beta-tocopherol, gamma-tocopherol, delta-tocopherol, tocoquinone, tocotrienol, esters thereof and mixtures thereof.

10. The composition according to claim 9, wherein the Vitamin E is selected from the group consisting of esters of tocopherol, esters of beta-tocopherol, esters of gamma-tocopherol, esters of delta-tocopherol, esters of tocoquinone, esters of tocotrienol and mixtures thereof.

11. The composition according to claim 10, wherein the Vitamin E is selected from the group consisting of an acetate ester of tocopherol, acetate ester of beta-tocopherol, acetate ester of gamma-tocopherol, acetate ester of delta-tocopherol, acetate ester of tocoquinone, acetate ester of tocotrienol and mixtures thereof.

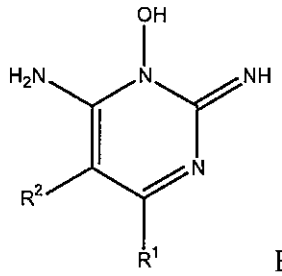
12. The composition according to claim 1, which further comprises a lactate.

13. The composition according to claim 1, being in the form of a suitable topical carrier.

14. The compositions according to claim 13, wherein the topical carrier is in the form of an ointment, paste, gel, jelly, serum, aerosol spray, non-aerosol spray, foam, cream, lotion, solution, or suspension.

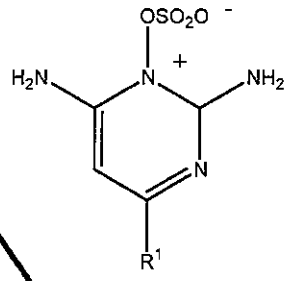
15. A hair growth or regrowth composition comprising;

a. at least one compound selected from the group consisting of compounds represented by the formulae:



Formula I

and



Formula II,

and mixtures thereof,

wherein R^1 is a moiety selected from the group consisting of moieties of the formula $-N(R^3)(R^4)$,

wherein R^3 and R^4 are selected from the group consisting of hydrogen, lower alkyl, lower alkenyl, lower aralkyl, and lower cycloalkyl, and taken together R^3 and R^4 may be a heterocyclic moiety selected from the group consisting of aziridinyl, azetidinyl, pyrrolidinyl, piperidino, hexahydroazepinyl, heptamethylenimino, octamethylenimino, morpholino, and 4-lower-alkylpiperazinyl, each of said heterocyclic moieties having attached as substituents on the carbon atoms 0 to 3 lower alkyl groups, hydroxy or alkoxy; and wherein R^2 is selected from the group consisting of hydrogen, lower alkyl, lower alkenyl, lower alkoxyalkyl, lower cycloalkyl, lower aryl, lower aralkyl, lower alkaryl, lower alkaralkyl, lower alkoxyaralkyl, and lower haloaralkyl and the pharmacologically acceptable acid addition salts thereof; and

b. from about 5% to about 50% of an admixture, comprising:

i) from about 0.01% to about 99.98% by weight of the admixture of an acid selected from the group consisting of pyruvic acid, a salt thereof and mixtures thereof;

ii) from about 0.01% to about 99.98% by weight of the admixture of an antioxidant; and

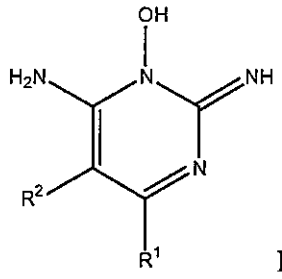
iii) from about 0.01% to about 99.98% by weight of the admixture of a fatty acid mixture or fatty acid mixture source

wherein the ratio of the pyruvic acid component to the fatty acid mixture is from 0.01:1 (or about 0.01:1) to 1:0.01 (about 1:0.01); the ratio of the pyruvic acid component to the antioxidant component is from 0.01:1 (or about 0.01:1) to 1:0.01 (or about 1:1.01); and the ratio of the fatty acid mixture component to the antioxidant component is from 0.01:1 (or about 0.01:1) to 1:0.01 (or about 1:0.01).

16. The composition of according to claim 15 wherein the ratio of the pyruvic acid component or the fatty acid component to the antioxidant component is from 1:1 to 1:0.5.

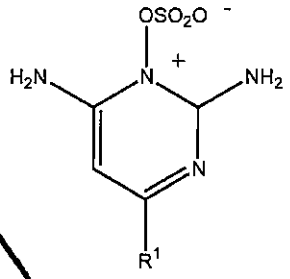
17. A hair growth and/or regrowth compositions comprising;

a. at least one compound selected from the group consisting of compounds represented by the formulae:



Formula I

and



Formula II,

and mixtures thereof,

wherein R^1 is a moiety selected from the group consisting of moieties of the formula $-N(R^3)(R^4)$,

wherein R^3 and R^4 are selected from the group consisting of hydrogen, lower alkyl, lower alkenyl, lower aralkyl, and lower cycloalkyl, and taken together R^3 and R^4 may be a heterocyclic moiety selected from the group consisting of aziridinyl, azetidinyl, pyrrolidinyl, piperidino, hexahydroazepinyl, heptamethylenimino, octamethylenimino, morpholino, and 4-lower-alkylpiperazinyl, each of said heterocyclic moieties having attached as substituents on the carbon atoms 0 to 3 lower alkyl groups, hydroxy or alkoxy; and wherein R^2 is selected from the group consisting of hydrogen, lower alkyl, lower alkenyl, lower alkoxyalkyl, lower cycloalkyl, lower aryl, lower aralkyl, lower alkaryl, lower alkaralkyl, lower alkoxyaralkyl, and lower haloaralkyl and the pharmacologically acceptable acid addition salts thereof; and

b. from about 0.1% to about 99% of an admixture, comprising:

   i. from about 0.01% to about 99.98% by weight of the admixture of an acid selected from the group consisting of pyruvic acid, a salt thereof and mixtures thereof;

   ii. from about 0.01% to about 99.98% by weight of the admixture of a tocopherol or an ester thereof; and

iii. from about 0.01% to about 99.98% by weight of the admixture of a fatty acid mixture source, wherein the fatty acid mixture is an oil mixture comprising:

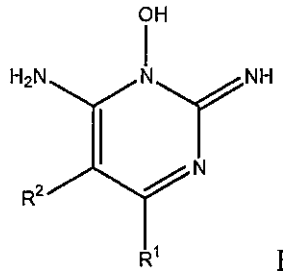
1. from about 0.01% to about 99.98% by weight of the fatty acid mixture of olive oil;

2. from about 0.01% to about 99.98% by weight of the fatty acid mixture of cocoa butter; and

3. from about 0.01% to about 99.98% by weight of the fatty acid mixture of cottonseed oil.

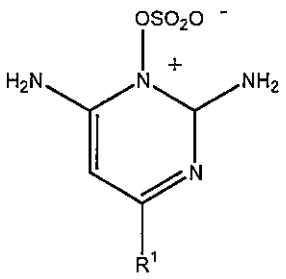
18. A hair growth or hair regrowth composition comprising:

a. at least one compound selected from the group consisting of compounds represented by the formulae:



Formula I

and



Formula II,

and mixtures thereof,

wherein R^1 is a moiety selected from the group consisting of moieties of the formula $-N(R^3)(R^4)$,

wherein R^3 and R^4 are selected from the group consisting of hydrogen, lower alkyl, lower alkenyl, lower aralkyl, and lower cycloalkyl, and taken together R^3 and R^4 may be a heterocyclic moiety selected from the group consisting of aziridinyl, azetidinyl, pyrrolidinyl, piperidino, hexahydroazepinyl, heptamethylenimino, octamethylenimino, morpholino, and 4-lower-alkylpiperazinyl, each of said heterocyclic moieties having attached as substituents on the carbon atoms 0 to 3 lower alkyl groups, hydroxy or alkoxy; and wherein R^2 is selected from the group consisting of hydrogen, lower alkyl, lower alkenyl, lower alkoxyalkyl, lower cycloalkyl, lower aryl, lower aralkyl, lower alkaryl, lower alkaralkyl, lower alkoxyaralkyl, and lower haloaralkyl and the pharmacologically acceptable acid addition salts thereof; and

b. from about 0.1% to about 99% by weight of an admixture, comprising:

i. optionally, from about 0.01% to about 99.98% by weight of the admixture of an alpha keto acid;

ii. optionally, from about 0.01% to about 99.98% by weight of the admixture of an antioxidant; and

iii. from about 0.01% to about 99.98% by weight of the admixture of a fatty acid mixture or fatty acid mixture source comprising at least 7 unsaturated or saturated fatty acids selected from the group consisting of, but not limited to, butyric acid, caproic acid, caprylic acid, capric acid, lauric acid, myristic acid, myristoleic acid, palmitic acid, palmitoleic acid, stearic acid, oleic acid, linoleic acid,

linolenic acid, arachidic acid, gadoleic acid, pentadecanoic acid, margaric acid, margaroleic acid, behenic acid, dihomolinoleic acid, arachidonic acid and lignoceric acid.

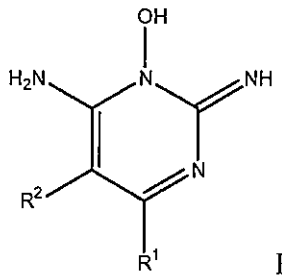
19. The composition of according to claim 18 wherein each the fatty acids are present in the fatty acid mixture by weight as follows: about 0.2%-0.4% butyric acid, about 0.1% caproic acid, about 0.3%-0.8% caprylic acid, about 2.2%-3.5% capric acid, about 0.9%-5.5% lauric acid, about 2.8%-8.5% myristic acid, about 0.1%-0.6% myristoleic acid, about 23.2%-24.6% palmitic acid, about 1.8%-3.0% palmitoleic acid, about 6.9%-9.9% stearic acid, about 36.0%-36.5% oleic acid, about 20%-20.6% linoleic acid, about 7.5-7.8% linolenic acid, about 1.1%-4.9% arachidic acid, and about 3.3%-6.4% gadoleic acid.

20. The composition of according to claim 18 wherein each the fatty acids are present in the fatty acid mixture by weight as follows: about 0.3% myristic acid, about 19% palmitic acid, about 0.5% palmitoleic acid, about 13% stearic acid, about 44.4% oleic acid, about 21.3% linoleic acid, and about 0.5% linolenic acid.

21. The composition of according to claim 18, further comprising an alpha-keto acid.

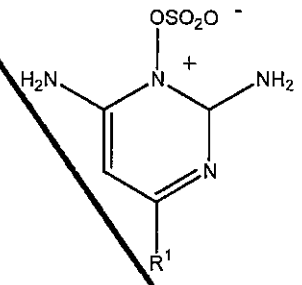
22. A hair growth or hair regrowth composition comprising:

a. from about 0.1% to about 20%, by weight of the composition, of at least one compound selected from the group consisting of compounds represented by the formulae:



Formula I

and



Formula II,

and mixtures thereof,

wherein R^1 is a moiety selected from the group consisting of moieties of the formula $-N(R^3)(R^4)$, wherein R^3 and R^4 are selected from the group consisting of hydrogen, lower alkyl, lower alkenyl, lower aralkyl, and lower cycloalkyl, and taken together R^3 and R^4 may be a heterocyclic moiety selected from the group consisting of aziridinyl, azetidinyl, pyrrolidinyl, piperidino, hexahydroazepinyl, heptamethylenimino, octamethylenimino, morpholino, and 4-lower-alkylpiperazinyl, each of said heterocyclic moieties having attached as substituents on the carbon atoms 0 to 3 lower alkyl groups, hydroxy or alkoxy; and wherein R^2 is selected from the group consisting of hydrogen, lower alkyl, lower alkenyl, lower alkoxyalkyl, lower cycloalkyl, lower aryl, lower aralkyl, lower alkaryl, lower alkaralkyl, lower alkoxyaralkyl, and lower haloaralkyl and the pharmacologically acceptable acid addition salts thereof; and

b. from 5% to 10%, by weight of the composition of an acid;
c. from 5% to 10%, by weight of the composition of an antioxidant; and
d. from 5% to 10%, by weight of the composition of a fatty acid mixture or fatty acid mixture source, the fatty acid mixture or fatty acid mixture source being an oil mixture comprising:

i) from 0.01% to 99.98%, by weight of the fatty acid mixture of a first oil;

ii) from 0.01% to 99.98%, by weight of the fatty acid mixture of a second oil; and

iii) from 0.01% to 99.98%, by weight of the fatty acid mixture of a third oil.

23. A method for accelerating the onset of the anagen phase of hair growth in a mammal comprising topically applying an amount effective to induce hair growth of a composition according to claim 1.

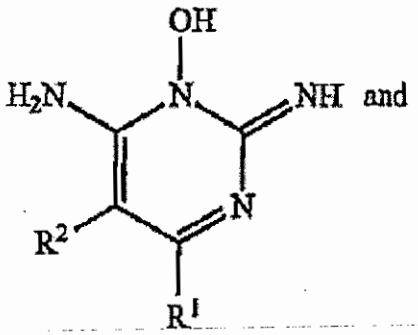
24. A method for increasing the rate at which terminal hair appears on the skin of a mammal comprising topically applying an amount effective to induce hair growth of a composition according to claim 1.

25. The method of claim 23, wherein the compound is minoxidil, the mammal is a human and the site of application is the human scalp.

What is claimed is:

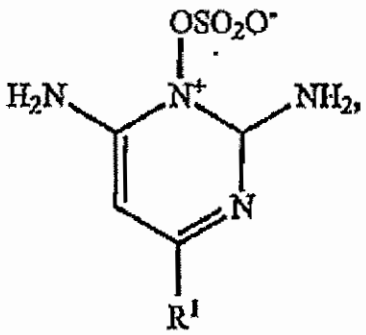
1. A hair growth and/or regrowth composition comprising;
a. at least one compound selected from the group consisting of compounds represented by the formulae:

Formula I



and

Formula II



and mixtures thereof,
wherein R^1 is a moiety selected from the group consisting of moieties of the formula—$N(R^3)(R^4)$,
wherein R^3 and R^4 are selected from the group consisting of hydrogen, lower alkyl, lower alkenyl, lower aralkyl, and lower cycloalkyl, and taken together R^3 and R^4 may be a heterocyclic moiety selected from the group consisting of aziridinyl, azetidinyl, pyrrolidinyl, piperidino, hexahydroazepinyl, heptamethylenimino, octamethylenimino, morpholino, and 4-lower-alkylpiperazinyl, each of said heterocyclic moieties having attached as substituents on the carbon atoms 0 to 3 lower alkyl groups, hydroxy or alkoxy; and wherein R^2 is selected from the group consisting of hydrogen, lower alkyl, lower alkenyl, lower alkoxyalkyl, lower cycloalkyl, lower aryl, lower aralkyl, lower alkaryl, lower alkaralkyl, lower alkoxyaralkyl, and lower haloaralkyl and the pharmacologically acceptable acid addition salts thereof; and

b. from about 1% to about 5% of a lactic acid or lactate selected from the group consisting of lactic acid, salts of lactic acid, prodrugs of lactic acid, and mixtures thereof for solubilizing the compounds of formula I, formula II and mixtures thereof;
c. from about 0.1% to about 99% by weight of an admixture, comprising:
   i. from about 0.01% to about 99.98% by weight of the admixture of an acid selected from the group consisting of pyruvic acid selected from the group consisting of pyruvic acid, lithium pyruvate, sodium pyruvate,

potassium pyruvate, magnesium pyruvate, calcium pyruvate, zinc pyruvate, manganese pyruvate, methyl pyruvate, salts thereof, prodrugs thereof, and mixtures thereof;

ii. from about 0.01% to about 99.98% by weight of the admixture of an antioxidant; and

iii. from about 0.01% to about 99.98% by weight of the admixture of a fatty acid mixture or fatty acid mixture source comprising at least 7 unsaturated or saturated fatty acids selected from the group consisting of butyric acid, caproic acid, caprylic acid, capric acid, lauric acid, myristic acid, myristoleic acid, palmitic acid, palmitoleic acid, stearic acid, oleic acid, linoleic acid, linolenic acid, arachidic acid, gadoleic acid, pentadecanoic acid, margaric acid, margaroleic acid, behenic acid, dihomolinoleic acid, arachidonic acid and lignoceric acid

wherein the composition accelerates the onset of the anagen phase of hair growth in mammals.

2. The composition of claim 1, wherein the compound is minoxidil.

3. The composition of claim 2, wherein the compound is minoxidil sulfate.

4. The composition according to claim 1, wherein the pyruvic acid is sodium pyruvate.

5. The composition according to claim 1, wherein the antioxidant is selected from the group consisting of a Vitamin A; Vitamin C; a tocopherol; a prodrugs of Vitamin A, a prodrugs of Vitamin C, and a prodrugs of Vitamin E; salts of Vitamin A, salts of Vitamin C, and salts of Vitamin E; flavonoids; polyphenols; and mixtures thereof.

6. The composition according to claim 5, wherein the antioxidant is a Vitamin E selected from the group consisting of alpha-tocopherol, beta-tocopherol, gamma-tocopherol, delta-tocopherol, tocoquinone, tocotrienol, esters thereof and mixtures thereof.

7. The composition according to claim 6, wherein the Vitamin E is selected from the group consisting of esters of tocopherol, esters of beta-tocopherol, esters of gamma-tocopherol, esters of delta-tocopherol, esters of tocoquinone, esters of tocotrienol and mixtures thereof.

8. The composition according to claim 7, wherein the Vitamin E is selected from the group consisting of an acetate ester of tocopherol, acetate ester of beta-tocopherol, acetate ester of gamma-tocopherol, acetate ester of delta-tocopherol, acetate ester of tocoquinone, acetate ester of tocotrienol and mixtures thereof.

9. The composition according to claim 1, being in the form of a suitable topical carrier.

10. The compositions according to claim 9, wherein the topical carrier is in the form of an ointment, paste, gel, jelly, serum, aerosol spray, non-aerosol spray, foam, cream, lotion, solution, or suspension.