CLAIMS

We claim:

1. ~~A s~~Seed of a transgenic *Brassica juncea* line designated NUBJ1207, ~~a~~ representative ~~sample of~~ seed of ~~which was~~ said NUBJ1207 having been deposited under ATCC Accession No. PTA-125954.

2. A *Brassica* plant, or part thereof, ~~comprising the genome of the seed of claim 1,~~ produced by growing the seed of claim 1.

~~3. Pollen of the plant of claim 2.~~

~~4. An ovule of the plant of claim 2.~~

~~5. A *Brassica* plant, or parts thereof, having all the physiological and morphological characteristics of the plant of claim 2.~~

~~6. A tissue culture of regenerable cells produced from the *Brassica* plant of claim 2.~~

~~7. A tissue culture according to claim 6, the cells or protoplasts being of a tissue selected from the group consisting of leaves, pollen, embryos, roots, root tips, pods, flowers, ovules, and stalks.~~

~~8. A tissue culture of regenerable cells of the *Brassica* plant according to claim 2, wherein the tissue regenerates plants capable of expressing all the morphological and physiological characteristics of the plant according to claim 2.~~

3. The *Brassica* plant, or part thereof, of claim 2, wherein said part is at least one of seed, leaf, pollen, embryo, root, root tip, pod, flower, ovule, stalk, cell, protoplast, or tissue culture.

4. A method of producing Omega-3 docosapentaenoic acid (DPA) in the seed of the plant of claim 2, comprising cultivating the plant.

~~9~~5. A method of producing *Brassica* seed, comprising ~~growing~~ cultivating the plant of claim 2 to produce seed and harvesting said seed.

6. The seed of the plant harvested as in claim 5.

~~10. The method of claim 9, wherein said growing is done in a greenhouse.~~

~~11. The method of claim 9, wherein said growing is done in a tent.~~

~~12. The method of claim 9, wherein said growing is done in an open field.~~

~~13~~7. A method of producing Omega-3 docosapentaenoic acid (DPA)-containing oil, comprising obtaining seed ~~of the plant of claim 2 and processing the seed~~ from inbred *Brassica* line NUBJ1207 or progeny thereof, representative seed of said inbred *Brassica* line having been deposited under ATCC Accession Number PTA-125954, to obtain DPA-containing oil.

8. The method of claim 7, further comprising the step of producing a foodstuff that comprises the oil for human or animal consumption.

9. The method of claim 7, further comprising the step of producing a nutritional supplement that comprises the oil.

10. The method of claim 7, wherein said seed oil comprises about 5% to about 16% (wt.% of total fatty acids in oil), inclusive, Omega-3 docosapentaenoic acid.

~~14. The *Brassica* plant, or parts thereof, of claim 5, wherein the plant or parts thereof have been transformed so that its genetic material contains one or more transgenes, operably linked to one or more regulatory elements, in addition to the transgenes present in *Brassica juncea* line NUBJ1207.~~

~~15. A method for producing a *Brassica* plant that contains in its genetic material at least one transgene in addition to the transgenes of line NUBJ1207, comprising crossing the plant of claim 14 with either a second plant of another *Brassica* line, or a plant of line NUBJ1207, so that the genetic material of the progeny that result from the cross expresses the additional at least one transgene.~~

~~16. The method of claim 15, wherein the additional transgene confers herbicide resistance, insect resistance, bacterial disease resistance, fungal disease resistance, viral disease resistance, or sterility.~~

~~17. The *Brassica* plant, or parts thereof, of claim 5, wherein the plant or parts thereof is the product of traditional breeding techniques and has not been modified by recombinant, mutagenic or other genetic modification other than the elite event associated with NUBJ1207.~~

~~18. A method for producing a *Brassica* plant disposed with at least one desired trait in addition to the trait of inbred *Brassica* line NUBJ1207, comprising crossing the plant of claim 17 with either a plant of another *Brassica* line, or a plant of inbred line NUBJ1207, so that the genetic material of progeny that result from the cross expresses the desired additional trait.~~

~~19. The method of claim 18, wherein the additional transgene confers herbicide resistance, insect resistance, bacterial disease resistance, fungal disease resistance, viral disease resistance, or sterility.~~

~~20~~11. A method for producing a *Brassica* line NUBJ1207-derived ~~canola~~ plant comprising:

(a) crossing a plant of *Brassica juncea* line NUBJ1207, deposited under ATCC Number PTA-125954, with a second ~~canola~~ *Brassica* plant to yield progeny canola seed; and

(b) growing said progeny ~~canola~~ *Brassica* seed, under plant growth conditions, to yield said *Brassica* line NUBJ1207-derived ~~canola~~ *Brassica* plant.

12. The method of claim 11, characterized by said NUBJ1207-derived progeny plant comprises at least one characteristic selected from herbicide resistance, insect resistance, bacterial disease resistance, fungal disease resistance, viral disease resistance, or sterility.

~~21. The method of claim 20, further comprising:~~

~~(c) crossing said NUBJ1207-derived canola plant with itself or another canola plant to yield additional NUBJ1207-derived progeny canola seed;~~

~~(d) growing said progeny canola seed of step (a) under plant growth conditions, to yield additional NUBJ1207-derived canola plants; and~~

~~(e) repeating the crossing and growing steps of (a) and (b) from zero (0) to seven (7) times to generate further NUBJ1207-derived canola plants, wherein said NUBJ1207-derived canola plants express least two NUBJ1207-traits selected from DPA production and at least one additional agronomically desirable trait.~~

~~22. A *Brassica* line NUBJ1207-derived canola plant, or parts thereof, produced by the method of claim 20.~~

~~23. A canola NUBJ1207-derived canola plant, or parts thereof, produced by the method of claim 21.~~

~~24. A method for producing *Brassica* seed comprising crossing a first parent *Brassica* plant with a second parent *Brassica* plant and harvesting the resultant first generation *Brassica* seed, wherein said first or second parent *Brassica* plant is the *Brassica* plant of claim 2.~~

~~25. The method according to claim 24, wherein said first parent *Brassica* plant is different from said second parent *Brassica* plant, and wherein said resultant seed is a first generation (Fl) hybrid *Brassica* seed.~~

~~26. A method for obtaining a canola inbred line comprising:~~

~~(a) planting a collection of seed comprising seed of a hybrid, one of whose parent is the *Brassica* plant according to claim 2, said collection also comprising seed of said inbred line;~~

~~(b) growing canola plants from said collection of seeds;~~

~~(c) identifying an inbred plant from said inbred line;~~

~~(d) selecting said inbred plant; and~~

~~(e) controlling pollination in a manner which preserves the homozygosity of said inbred plant.~~

~~27. The method according to claim 26, wherein said one parent has all the physiological and morphological characteristics of inbred *Brassica* line NUBJ1207, seed of said line having been deposited under ATCC Accession No. PTA-125954.~~

~~28. The method of claim 26, wherein the canola inbred line is *B. juncea* or *B. napus.*~~

~~29. A cell of *Brassica juncea* line NUBJ1207, representative sample of seed of which was deposited under ATCC accession number PTA-125954.~~

~~30~~13. The plant or plant part of claim 2, or a progeny, derivative, or hybrid of said plant, ~~A nucleic acid molecule~~ comprising a DNA molecule or a combination of ~~two or three~~ DNA molecules selected from:

(a) ~~a nucleic acid molecule comprising a nucleic acid sequence of~~ SEQ ID NO:1 and a nucleic acid sequence of SEQ ID NO:2, sequences at least 95% identical to either or both of these, or complements thereof;

(b) ~~a nucleic acid molecule comprising a nucleic acid sequence of~~ SEQ ID NO:3 and a nucleic acid sequence of SEQ ID NO:4, sequences at least 95% identical to either or both of these, or complements thereof; or

(c) ~~a nucleic acid molecule comprising a nucleic acid sequence of~~ SEQ ID NO:5 and a nucleic acid sequence of SEQ ID NO:6, sequences at least 95% identical to either or both of these, or complements thereof;

wherein the derivative or hybrid of said plant exhibits the trait of the seed of *Brassica juncea* line NUBJ1207 of claim 1.

~~31. A plant, seed, plant part or seedmeal comprising the nucleic acid molecule of claim 30.~~

~~32. The plant, seed, plant part or seedmeal of claim 31, wherein the plant, seed, plant part or seedmeal is a *Brassica juncea* plant, seed, plant part or seedmeal.~~

~~33. A cell comprising one, two, or three DNA molecules selected from:~~

~~(a) a nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO:1 and a nucleic acid sequence of SEQ ID NO:2;~~

~~(b) a nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO:3 and a nucleic acid sequence of SEQ ID NO:4;~~

~~(c) a nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO:5 and a nucleic acid sequence of SEQ ID NO:6; or~~

~~(d) the complement of (a), (b) or (c).~~

~~34. The cell of claim 33, wherein the cell is a *Brassica juncea* cell.~~

~~35. The cell of claim 33, wherein the cell is present in a plant, seed, plant part or seedmeal.~~

~~36. A method of identifying the presence of at least one of the loci characteristic of event NUBJ1207 in a sample comprising a plant DNA, wherein said method comprises~~

~~(a) contacting said sample with at least one of the nucleic acid molecule of claim 30 or a portion thereof;~~

~~(b) subjecting said sample to polymerase chain reaction; and~~

~~(c) assaying for amplicons that contain a nucleic acid molecule that comprises of at least 20 consecutive nucleotides from one of SEQ ID NO:1 to SEQ ID NO:6.~~

~~37. The method of claim 36, wherein said method is a KASP™ genotyping assay.~~

~~38. The method of claim 36, wherein a single stranded portion of any one of the nucleic acid molecule of SEQ ID NO:1 to SEQ ID NO:6 is used as a primer or a probe.~~

~~39~~14. A method of detecting the presence of event NUBJ1207, the seed of which has been deposited under ATCC Accession No. PTA-125954, in a sample comprising plant DNA, wherein said method comprises contacting said sample with at least one primer or probe that binds to at least one transgene-flanking junction region of the *Brassica* genome as shown in SEQ ID NO:1 to SEQ ID NO:6.

~~40. The method of claim 39, wherein said method is a KASP™ genotyping assay.~~

~~41. A plant, plant material, or plant-derived material identified by the method of claim 39 or claim 40.~~

~~42. A kit comprising components to carry out the method of claim 39 or claim 40.~~

~~43. A method of detecting the presence of event NUBJ1207 in a sample comprising plant DNA, wherein said method comprises (a) contacting said sample with a first primer that binds to a flanking junction region of *Brassica* genome of NUBJ1207 and a second primer that binds to a transgene of NUBJ1207; (b) subjecting said sample to polymerase chain reaction; and (c) characterizing the amplicons generated between said primers.~~

~~44. Genomic DNA of inbred *Brassica* line NUBJ1207, representative seed of said inbred canola line having been deposited under ATCC Accession Number PTA-125954.~~

~~45. A plant cell comprising (a) DNA having the sequence shown in at least one of SEQ ID NO:1 to SEQ ID NO:6, (b) DNA having at least 95% identity with at least one of SEQ ID NO:1 to SEQ ID NO:6, or (c) the complement of (a) or (b).~~

~~46. A seed of *Brassica juncea* line NUBJ1207 comprising 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%, inclusive, DPA (as % of total fatty acid in seed oil).~~

15~~47~~. A collection of seed comprising at least 95% seed of ~~*Brassica juncea* line NUBJ1207~~ the plant of claim 2 or a progeny, derivative, or hybrid thereof, wherein said seed comprises ~~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~~ to 20%, inclusive, Omega-3 docosapentaenoic acid (DPA) (as wt. % of total fatty acids in seed oil).

~~48~~16. Seed oil, seed meal, or seed meal protein obtained from ~~the seed of claim 46 or~~ the collection of seed of claim ~~47~~15.

~~49. Meal obtained from the seed of claim 46 or the collection of seed of claim 47.~~

~~50. Meal protein obtained from the seed of claim 46 or the collection of seed of claim 47.~~

~~51. A method of obtaining DPA-containing *Brassica* grain comprising the steps of~~

~~(a) introgressing the DPA trait of *B. juncea* line NUBJ1207 into an elite *Brassica* line that is male sterile;~~

~~(b) introgressing the DPA trait of line NUBJ1207 into a second elite *Brassica* line that is fertile;~~

~~(c) crossing the two lines (a) and (b) to obtain a hybrid progeny;~~

~~(d) cultivating the seed of the hybrid progeny;~~

~~(e) harvesting the grain produced by the cultivated hybrid progeny.~~

~~52~~17. The method of claim 7, wherein the oil comprises ~~An extracted seed oil, comprising~~ fatty acids in an esterified form, the fatty acids comprising palmitic acid (C16), steric acid (C18), oleic acid (C18:1), cis-vaccenic acid (C18:1n7c), linoleic acid (C18:2n6c), α-linolenic acid (C18:3n3), stearidonic acid (C18:4n3), gondoic acid (C20:1n9c), eicosatetraenoic acid (C20:4n3), ω3 docosatrienoic acid (C22:4n3), and ω3 docosapentaenoic (C22:5n3),

wherein in the total fatty acid content of said seed oil:

the level of palmitic acid is less than 5%, the level of steric acid is less than 4%, the level of oleic acid is 35%-48%, the level of cis-vaccenic acid is less than 4%, the level of linoleic acid is less than 9%, the level of α-linolenic acid is 15%-20%, the level of stearidonic acid is less than 2%, the level of gondoic acid is less than 2%, the level of eicosatetraenoic acid is less than 4.5%, the level of ω3 docosatrienoic acid is 1%-3%, and the level of ω3 docosapentaenoic acid is 8%-15%, inclusive.

~~53. The extracted seed oil of claim 52, wherein the seed oil is from *Brassica juncea*.~~

18. An *in vitro* method of detecting the presence of at least one transgenic locus characteristic of event of *Brassica juncea* NUBJ1207 or progeny thereof in a sample comprising plant DNA, wherein said method comprises:

(a) contacting said sample with:

a primer that binds to a 5' transgenic junction region on chromosome A08, wherein said at least one first junction region comprises SEQ ID NO:1, a sequence at least 95% identical to SEQ ID NO:1, or complement thereof;

a primer that binds to a 3' transgenic junction region on chromosome A08, wherein said at least one first junction region comprises SEQ ID NO:2, a sequence at least 95% identical to SEQ ID NO:2, or complement thereof;

a primer that binds to a 5' transgenic junction region on chromosome A06, wherein said at least one first junction region comprises SEQ ID NO:3, a sequence at least 95% identical to SEQ ID NO:3, or complement thereof;

a primer that binds to a 3' transgenic junction region on chromosome A06, wherein said at least one first junction region comprises SEQ ID NO:4, a sequence at least 95% identical to SEQ ID NO:4, or complement thereof;

a primer that binds to a 5' transgenic junction region on chromosome B07, wherein said at least one first junction region comprises SEQ ID NO:5, a sequence at least 95% identical to SEQ ID NO:5, or complement thereof; or

a primer that binds to a 3' transgenic junction region on chromosome B07, wherein said at least one first junction region comprises SEQ ID NO:6, a sequence at least 95% identical to SEQ ID NO:6, or complement thereof;

(b) subjecting said sample to polymerase chain reaction; and

(c) assaying for amplicons,

wherein said method is, optionally, a competitive allele-specific PCR-based genotyping assay, and wherein said method is diagnostic of elite event NUBJ1207, seed characteristic of which has been deposited under ATCC Accession No. PTA-125954.

19. A plant, plant part, or seed that has been identified by the method of claim 14 or claim 18.