CLAIMS

1. A set, kit or stock of pre-manufactured lenses for use in the provision of an anti-myopia lens for an eye of a myopic patient, wherein:

each lens of the set, kit or stock has a central optical axis and a central optical zone surrounding and including said axis,

said central optical zone has a corrective refractive power between plano and -6.00,

each lens has a peripheral optical zone surrounding said central zone,

said peripheral zone includes an incident angle with respect to the optical axis of about 30 degrees,

said peripheral zone of each lens has a positive peripheral refractive power relative to the refractive power of the central zone of that lens to thereby provide myopic peripheral defocus,

said peripheral defocus of any lens within the set, kit or stock of lenses is not greater than about 3.50, and

the lenses of the set, kit or stock are arranged in an orderly manner;

whereby a clinician is enabled, by selecting a lens for corrective power to provide or procure a lens to inhibit progression of myopia in the patient's eye without needing to first measure peripheral refractive error in the eye and to order a lens with customized peripheral power;

2. A set, kit or stock of pre-manufactured lenses according to claim 1, wherein:

said central optical zone has a negative refractive power for correcting the positive central refractive error of a myopic eye,

said negative refractive power varies in increments of central refractive power within the set, kit or stock of lenses,

said peripheral refractive power increases with increase of central refractive power within the set, kit or stock of lenses, and

the lenses of the set, kit or stock of lenses are arranged in an orderly

manner according to central refractive power, peripheral refractive power and/or peripheral defocus.

3. A set, kit or stock of pre-manufactured lenses according to claim 2, wherein:

the increment of central refractive power is about -0.250,

the central refractive powers of the lenses fall within the range of about -0.250 to about -6.00, and

the peripheral defocus of the lenses varies substantially proportionally with variation of the central refractive powers of the lenses within the range of +0.50 to +3.00.

4. A set, kit or stock of pre-manufactured lenses according to claim 2 or 3, wherein:

the peripheral defocus of the lenses of the set, kit or stock of lenses increases in steps with increasing central power such that multiple lenses with adjacent increments of central power have the same peripheral defocus,

whereby understanding or use of the set, kit or stock of lenses is facilitated by the clinician, manufacturer and/or the patient.

5. A set, kit or stock of pre-manufactured lenses according to anyone of claims 2 - 4, wherein:

there are multiple subsets of lenses such that each subset comprises a plurality of lenses having the same central refractive power but different levels of peripheral defocus;

whereby, a clinician who knows the positive central refractive error of the myopic eye is enabled to conveniently (i) select the subset of lenses having the central refractive power judged to best correct said measured central error, (ii) select the lens from within the selected subset judged to have the level of peripheral power most appropriate to the patient's propensity for progressive myopia having regard to patient history, and (iii) try the selected

lens on the eye to assess the patient's tolerance to peripheral blur caused by the selected lens.

6. A set, kit or stock of pre-manufactured lenses according to claim 5, wherein: there are three levels of peripheral power in each said subset of lenses comprising low, medium and high levels of peripheral defocus;

whereby the clinician who has found that a selected lens having medium or high level of peripheral defocus is not acceptable to a patient is enabled to then select a lens with the same central power but a lower level of peripheral defocus.

7. A set, kit or stock of pre-manufactured lenses according to anyone of claims 2 - 6, wherein:

the lenses of the set, kit or stock are contact lenses for trial or dispensing,

there are about 24 increments of central refractive power,

said central refractive power of the lenses in the set, kit or stock ranges from -0.250 to about -6.00,

each increment of central power is about -0.250,

each lens of the set, kit or stock of lenses has a unique peripheral defocus, and

the amount of peripheral defocus of the lenses in the set, kit or stock of lenses increases substantially proportionally with increasing central refractive power of the lenses in the set, kit or stock of lenses.

8. A set, kit or stock of pre-manufactured lenses according to anyone of claims 2 - 6, wherein:

the lenses of the set, kit or stock are contact lenses for trial or dispensing,

there are about 24 increments of central refractive power,

said central refractive power of the lenses in the set, kit or stock ranges

from -0.250 to about -6.00,

each increment of central power is about -0.250,

there are at least three steps of peripheral refractive power or defocus, and

each of said steps is about +0.50.

9. A set, kit or stock of pre-manufactured lenses according to claim 1, wherein the patient uses a habitual lens that has a negative refractive power for correcting central refractive error in the myopic eye:

the lenses of set, kit or stock are trial spectacle lenses for use together with the patient's habitual lens,

each lens of the set, kit or stock has plano central refractive power and a different peripheral power from other lenses of the set, kit or stock,

each lens of the set, kit or stock is adapted for location in juxtaposed axial alignment with the habitual lens when fitted to the eye, and

the lenses of the set, kit or stock are arranged in an orderly manner according to peripheral power,

whereby a clinician is enabled to conveniently (i) select a lens from the set, kit or stock judged to have the level of peripheral power most appropriate to the patient's propensity for progressive myopia having regard to patient history, and (ii) try the selected lens in conjunction with the habitual lens on the eye to assess the patient's tolerance to peripheral blur.

10. A set, kit or stock of pre-manufactured lenses according to claim 9, wherein:

the peripheral defocus of the lenses ranges between about +0.50 and about +2.00, and

the peripheral power of the lenses of the set, kit or stock of lenses varies in increments not greater than about +0.50.

11. A set, kit or stock of pre-manufactured lenses according to any

preceding claim wherein the lenses are substantially rotationally symmetric in that the peripheral defocus is substantially the same for each peripheral quadrant of the lens.

12. A set, kit or stock of pre-manufactured lenses according to anyone of claims 1 - 10 wherein:

the peripheral defocus of the lenses of the set, kit or stock of lenses applies to the nasal quadrant or to the temporal quadrant of the lens so that, when a lens of the set, kit or stock of lenses is in use by a patient, the measured peripheral defocus of the lens affects the temporal or the nasal quadrant of the patient's retina, respectively.

13. An anti-myopia spectacle lens for a myopic eye of a patient, comprising:

a base lens having an optic axis, a central optical zone of at least normal pupil diameter around said optic axis and having a negative central refractive power within said central zone for correcting central refractive error of the eye and providing good central vision to the eye, and

a therapeutic lens attached to said base lens, said therapeutic lens having a plano central zone of at least normal pupil diameter that is substantially coaxial with said optic axis and having an annular peripheral zone surrounding said plano zone, said peripheral zone including an incident angle of 30 degrees relative to said axis and said peripheral zone having a peripheral refractive power that is more positive than said central refractive power so that the anti-myopia spectacle lens has peripheral defocus.

14. An anti-myopia spectacle lens according to claim 13 wherein: said therapeutic lens is adhered to the surface of the base lens.

15. An anti-myopia spectacle lens according to claim 13 or 14, wherein: the therapeutic lens is ring-like, being formed from transparent material

that does not extend into the plano central zone.

16. A method of supplying, prescribing or selecting an anti-myopia lens for a myopic eye of a patient, comprising the steps of:

measuring the central refractive error of the myopic eye,

assessing the level of propensity of the patient for progressive myopia by having regard to the patent history,

selecting from a set, kit or stock of pre-manufactured lenses a first selected lens having (i) a central corrective refractive power that best matches the measured central refractive error and (ii) a level of peripheral myopic defocus that best matches the assessed propensity for progressive myopia,

trying said first selected lens on the myopic eye and determining from the response of the patient whether or not peripheral blur associated with said myopic defocus of the first selected lens is acceptable,

if the level of myopic defocus is determined to be acceptable, then supplying or prescribing an anti-myopia lens having the central power and the peripheral defocus of the first selected lens for the patient,

if the level of myopic defocus of the first selected lens is determined to be unacceptable, then selecting a further lens from said set, kit or stock of lenses having the same the same central corrective power as the first selected lens but having a reduced level of peripheral myopic defocus, and supplying or prescribing for the patient an anti-myopia lens having the central corrective refractive power and the reduced level of peripheral myopic defocus of said further selected lens.

17. A method of supplying, prescribing or selecting for a myopic eye of a patient an anti-myopia lens from a pre-manufactured set, kit or stock of lenses, the set, kit or stock of lenses having multiple lenses with the same central corrective refractive power but with different levels of myopic peripheral defocus, the method comprising the steps of:

measuring the central refractive error of the myopic eye,

taking the patient's history to assess the patient's propensity for progressive myopia, and

supplying, prescribing or selecting a lens from said set, kit or stock having (i) a central refractive power to correct the measured refractive error and (ii) the level of myopic peripheral defocus corresponding to assessed propensity for progressive myopia.

18. A method according to claim 16 or 17 wherein;

said set, kit or stock of lenses is as claimed in anyone of claims 1 - 12.

19. method of supplying, prescribing or selecting an anti-myopia lens for a myopic eye of a patient who wears habitual spectacles, the method comprising the steps of:

measuring the central refractive error of the myopic eye,

taking the patient's history to assess the patient's propensity for progressive myopia, and

supplying, prescribing or selecting a lens from said set, kit or stock having (i) a central refractive power to correct the measured refractive error and (ii) the level of myopic peripheral defocus corresponding to assessed propensity for progressive myopia.

20. A method of providing an anti-myopia spectacle lens for a myopic eye of a patient, the method comprising the steps of:

measuring the central refractive error of the eye,

judging the propensity of the patient for progressive myopia by having regard to patient history,

prescribing and fitting a conventional spectacle lens for the eye to correct said refractive error and to provide good central vision, said conventional lens having an optic axis,

selecting an auxiliary lens having a plano central zone of at least normal pupil diameter and having a central axis, said plano zone being

surrounded by a peripheral zone having a positive peripheral power appropriate to said judged propensity of the patient for progressive myopia, and

adhering said auxiliary lens to the conventional lens so that the central axis of the auxiliary lens is substantially coaxial with said optic axis, whereby the combination of the conventional and auxiliary lens generates a peripheral defocus for inhibiting the progression of myopia in the eye.

21. An ophthalmic device for reducing the progression of myopia of an eye, said device comprising:

a predetermined central sphere power, wherein the central sphere power is defined by an amount of myopia of an eye;

a predetermined peripheral power profile, said peripheral power profile effects a relative peripheral refraction of a corrected eye, the peripheral power profile defining a peripheral defocus; and

wherein, said peripheral defocus is a differential between the central sphere power and the peripheral power along the peripheral power profile, wherein said peripheral defocus is a function of the central sphere power.

22. An ophthalmic device for reducing the progression of myopia of an eye, said device comprising:

a predetermined central sphero-cylindrical power, wherein the central sphero-cylindrical power is defined by an amount of myopia of an eye;

a predetermined peripheral power profile, wherein the peripheral power profile effects a relative peripheral refraction of a corrected eye; and

a peripheral defocus of the peripheral power profile;

wherein said peripheral defocus is a differential between the central power and the peripheral sphere power along the peripheral power profile, and wherein said peripheral defocus is a function of the central power.

23. The ophthalmic device according to claim 21 or claim 22, wherein the peripheral defocus is defined by the average amount of relative peripheral refraction in a population.

24. The ophthalmic device according to any of the preceding claims, wherein the ophthalmic device is part of a series of ophthalmic devices comprising:

an ophthalmic device having an average peripheral defocus, an ophthalmic device having an above average peripheral defocus and an ophthalmic device having a below average peripheral defocus;

said average peripheral defocus is determined by a mean from a defined population.

25. The ophthalmic device according to any of the preceding claims, wherein the peripheral defocus is approximately first order linear as a constant function of the central sphere power.

26. The ophthalmic device according to any of claims 21-24, wherein the peripheral defocus is non-linear as a function of the central sphere power.

27. The ophthalmic device according to claim 26, wherein the peripheral defocus increases non-linearly or decreases non-linearly as a function of the central sphere power.

28. The ophthalmic device according to any of the preceding claims, wherein the peripheral defocus up to 30 degrees from the central axis is approximately between 0.250 and 4.000.

29. A method for reducing the progression of myopia of an eye, said method comprising:

placing an ophthalmic device on an eye, said device comprising:

a predetermined central sphere power, wherein the central sphere power is defined by an amount of myopia of an eye;

a predetermined peripheral power profile, wherein the peripheral power profile effects a myopic defocus; and

a peripheral defocus of the peripheral power profile;

wherein said peripheral defocus is a differential between the central sphere power and a peripheral power value along the peripheral power profile, and wherein said peripheral defocus is a function of the central sphere power.

30. The method according to claim 30, wherein the ophthalmic device is part of a series comprising:

an ophthalmic device having an average peripheral defocus, an ophthalmic device having an above average peripheral defocus, and an ophthalmic device having a below average peripheral defocus; and

wherein said average peripheral defocus is determined by a defined population.

31. The method according to claim 30 or claim 31, wherein the peripheral defocus is approximately first order linear as a constant function of the central sphere power.

32. The method according to claim 30 or claim 31, wherein the peripheral defocus is non- linear as a function of the central sphere power.

33. The method according to claim 33, wherein the peripheral defocus increases non-linearly or decreases non-linearly as a function of the central sphere power.

34. The method according to any of claims 30-34, wherein the peripheral defocus up to 30 degrees from the central axis is approximately between

0.250 and 4.000.

35. The method according to any of claims 30-34, wherein the peripheral defocus up to 40 degrees from the central axis is approximately between 0.50 and 6.000.

The invention claimed is:

1. A set, kit or stock of pre-manufactured lenses for use in the provision of an anti-myopia lens for an eye of a myopic patient, wherein:

each lens of the set, kit or stock has a central optical axis and a central optical zone surrounding and including said axis,

said central optical zone has a negative corrective refractive power between plano and −6.0 D, for correcting a positive central refractive error of a myopic eye,

said negative corrective refractive power varying in increments of a central refractive power within said set of lenses,

each lens has a peripheral optical zone surrounding said central zone,

said peripheral zone includes an incident angle with respect to the optical axis of about 30 degrees,

said peripheral zone of each lens has a positive peripheral refractive power relative to the refractive power of the central zone of that lens to thereby provide myopic peripheral defocus, said peripheral refractive power increases with increase of central refractive power within the set of lenses,

said peripheral defocus of any lens within the set, kit or stock of lenses is not greater than about 3.5 D, and

the lenses of the set, kit or stock are arranged in an orderly manner according to central refractive power, peripheral refractive power and/or peripheral defocus;

whereby a clinician is enabled, by selecting a lens for corrective power to provide or procure a lens to inhibit progression of myopia in the patient's eye without needing to first measure peripheral refractive error in the eye and to order a lens with customized peripheral power.

2. A set, kit or stock of pre-manufactured lenses according to claim 1, wherein:

the increment of central refractive power is about −0.25 D,

the central refractive powers of the lenses fall within the range of about −0.25 D to about −6.0 D, and

the peripheral defocus of the lenses varies substantially proportionally with variation of the central refractive powers of the lenses within the range of +0.5 D to +3.0 D.

3. A set, kit or stock of pre-manufactured lenses according to claim 2, wherein:

the peripheral defocus of the lenses of the set, kit or stock of lenses increases in steps with increasing central power such that multiple lenses with adjacent increments of central power have the same peripheral defocus,

whereby understanding or use of the set, kit or stock of lenses is facilitated by the clinician, manufacturer and/or the patient.

4. A set, kit or stock of pre-manufactured lenses according to claim 1, wherein:

there are multiple subsets of lenses such that each subset comprises a plurality of lenses having the same central refractive power but different levels of peripheral defocus;

whereby, a clinician who knows the positive central refractive error of the myopic eye is enabled to conveniently (i) select the subset of lenses having the central refractive power judged to best correct said measured central error, (ii) select the lens from within the selected subset judged to have the level of peripheral power most appropriate to the patient's propensity for progressive myopia having regard to patient history, and (iii) try the selected lens on the eye to assess the patient's tolerance to peripheral blur caused by the selected lens.

5. A set, kit or stock of pre-manufactured lenses according to claim 4, wherein: there are three levels of peripheral power in each said subset of lenses comprising low, medium and high levels of peripheral defocus;

whereby the clinician who has found that a selected lens having medium or high level of peripheral defocus is not acceptable to a patient is enabled to then select a lens with the same central power but a lower level of peripheral defocus.

6. A set, kit or stock of pre-manufactured lenses according to claim 1, wherein:

the lenses of the set, kit or stock are contact lenses for trial or dispensing,

there are about 24 increments of central refractive power,

said central refractive power of the lenses in the set, kit or stock ranges from −0.25 D to about −6.0 D,

each increment of central power is about −0.25 D,

each lens of the set, kit or stock of lenses has a unique peripheral defocus, and

the amount of peripheral defocus of the lenses in the set, kit or stock of lenses increases substantially proportionally with increasing central refractive power of the lenses in the set, kit or stock of lenses.

7. A set, kit or stock of pre-manufactured lenses according to claim 1, wherein:

the lenses of the set, kit or stock are contact lenses for trial or dispensing,

there are about 24 increments of central refractive power,

said central refractive power of the lenses in the set, kit or stock ranges from −0.25 D to about −6.0 D,

each increment of central power is about −0.25 D,

there are at least three steps of peripheral refractive power or defocus, and

each of said steps is about +0.5 D.

8. A set, kit or stock of pre-manufactured lenses according to claim 1, wherein the patient uses a habitual lens that has a negative refractive power for correcting central refractive error in the myopic eye:

the lenses of set, kit or stock are trial spectacle lenses for use together with the patient's habitual lens,

each lens of the set, kit or stock has plano central refractive power and a different peripheral power from other lenses of the set, kit or stock,

each lens of the set, kit or stock is adapted for location in juxtaposed axial alignment with the habitual lens when fitted to the eye, and

the lenses of the set, kit or stock are arranged in an orderly manner according to peripheral power,

whereby a clinician is enabled to conveniently (i) select a lens from the set, kit or stock judged to have the level of peripheral power most appropriate to the patient's propensity for progressive myopia having regard to patient history, and (ii) try the selected lens in conjunction with the habitual lens on the eye to assess the patient's tolerance to peripheral blur.

9. A set, kit or stock of pre-manufactured lenses according to claim **8**, wherein:

the peripheral defocus of the lenses ranges between about +0.5 D and about +2.0 D, and

the peripheral power of the lenses of the set, kit or stock of lenses varies in increments not greater than about +0.5 D.

10. A set, kit or stock of pre-manufactured lenses according to claim 1 wherein the lenses are substantially rotationally symmetric in that the peripheral defocus is substantially the same for each peripheral quadrant of the lens.

11. A set, kit or stock of pre-manufactured lenses according to claim 1 wherein:

the peripheral defocus of the lenses of the set, kit or stock of lenses applies to the nasal quadrant or to the temporal quadrant of the lens so that, when a lens of the set, kit or stock of lenses is in use by a patient, the measured peripheral defocus of the lens affects the temporal or the nasal quadrant of the patient's retina, respectively.