We claim:

1. A lens pair that satisify the conditions:

$$\overline{D} \geq -1.0 \times ADD + 0.53$$

$$\overline{N} \geq -1.40 \times ADD$$

$$\overline{\Delta} \leq 1.65 \times ADD - 1.2$$

where $\overline{D}$ is the average maximum monocular performance value for a distant object; $\overline{N}$ is the average maximum monocular performance value for a near object, $\overline{\Delta}$ is the disparity and ADD is the add need.

2. A system of lenses made up of lens pairs of claim 1 good for patient add needs from 0.75 to 2.5D.

3. A system of lenses that satisfy the following conditions:

$$\overline{D} \geq -1.0 \times ADD + 0.53$$

$$\overline{N} \geq -1.40 \times ADD$$

$$\overline{\Delta} \leq 1.65 \times ADD - 1.2$$

where $\overline{D}$ is the average maximum monocular performance value for a distant object; $\overline{N}$ is the average maximum monocular performance value for a near object, $\overline{\Delta}$ is the disparity and ADD is the add need .

4. A lens pair selected from the system of lenses of claim 1.

5. The lens pair of claim 2, wherein the pair is elected from a set of lenses to meet add needs from about +0.75 to about +2.50 diopters and range of distance powers from about –12.00 to about + 8.00 diopters.

6. The lens pair of claim 2, wherein at least one lens of the lens pair comprises a surface that is a continuous aspheric surface.

7. The lens pair of claim 2, wherein at least one lens of the lens pair comprises a center-near design.

8. The lens pair of claim 2, wherein at least one lens of the lens pair comprises a center distance design.

9. The lens pair of claim 4, wherein at least one lens of the lens pair comprises a center distance design.

10. The lens pair of claims 8, wherein in at least one lens of the lens pair has an aspheric surface.

11. The lens pair of claim 1, wherein the lens system has lens pairs with power profile as shown in Figures 2-4.

12. A method for correcting presbyopia, comprising the steps of providing a first lens and a second lens to form a lens pair, wherein the first and second lens are selected from a family of lenses having following relationships:

$$\overline{D} \geq -1.0 \times ADD + 0.53$$
$$\overline{N} \geq -1.40 \times ADD$$
$$\overline{\Delta} \leq 1.65 \times ADD - 1.2$$

where $\overline{D}$ is the average maximum monocular performance value for a distant object; $\overline{N}$ is the average maximum monocular performance value for a near object, $\overline{\Delta}$ is the disparity and ADD is the add need of the subject.

13. The method of claim 12 wherein each lens has a power profile different from that of the other lens.

14. The method of claim 12 wherein a selected lens has the power profile as shown in Figures 2-4.

15. The method of claim 12 wherein the lens pair is elected from a set of lenses meeting an add need from about 0.75 to about 2.50 diopters and range of distance powers from about –12.00 to about + 8.00 diopters.

16. The method of claim 12, wherein at least one lens of the lens pair comprises a surface that is a continuous aspheric surface.

17. The method of claim 12, wherein at least one lens of the lens pair comprises a center-near design.

18. The method of claim 12, wherein at least one lens of the lens pair comprises a center distance design.

19. A system of lenses with each of the lens having a rotationally symmetric power profile of the following form.

$$P = P_0 + b + c_1 \cdot r \qquad r \le r_{central}$$

in central zone for ,

$$P = P_0 + c_2 \cdot r^2 \qquad r \ge r_{outer}$$

in outer zone for ,

and P is described by a piecewise cubic Hermite interpolating polynomial in the transition region $r_{central} \le r \le r_{outer}$ where the constants P_0, c_1, c_2, b, and the form of the piecewise cubic Hermite interpolating polynomial is different for each lens of the family of lenses.

b for the low, mid, and high lenses is progressively greater, varying from ~0.1D to 1.0D,

P_0 is also progressively greater, varying from 0.25D to 0.75D,

c_1 is small, with values from 0 to being slightly negative (-0.1D/mm),

c_2 is approximately -0.08D/mm^2,

r_{outer} is or about 2.0mm, and

$r_{central}$ is in the range of 0.2 to 1.0mm.

20. The lenses of claim 19, wherein the range of distance powers is from about –12.00 to about + 8.00 diopters.

21. The lenses claim 19, wherein at least one lens of the lens system comprises a surface that is a continuous aspheric surface.

22. The lenses of claim 19, wherein at least one lens of the lens system comprises a center-near design.

23. The lenses of claim 19, wherein at least one lens of the lens system comprises a center distance design.

24. A three lens system claim 19, wherein the lens system has lenses with power profile as shown in Figures 2-4.

We claim:

1. A lens pair that satisfy a predetermined set of conditions, the lens pair conditions comprising:

$\overline{D} \geq -1.0 \times ADD + 0.53$;

$\overline{N} \geq -1.40 \times ADD$; and

$\overline{\Delta} \leq 1.65 \times ADD - 1.2$,

wherein $\overline{D}$ is the mean of the monocular performance of the left and right eyes averaged over pupil size ranging from 2.5 to 6.0 mm in diameter for a distant object, $\overline{N}$ is the mean of the monocular performance of the left and right eyes averaged over pupil size ranging from 2.5 to 6.0 mm in diameter for a near object, $\overline{\Delta}$ is the mean disparity in monocular performance between the left and right eyes averaged over pupil size ranging from 2.5 to 6.0 mm in diameter, and ADD is the extra plus power that an eye care professional determined is required for seeing up close.

2. A system of lenses that satisfy a predetermined set of following conditions, the lens pair conditions comprising:

$$\overline{D} \geq -1.0 \times ADD + 0.53$$

$$\overline{N} \geq -1.40 \times ADD$$

$$\overline{\Delta} \leq 1.65 \times ADD - 1.2$$

wherein $\overline{D}$ is the mean of the monocular performance of the left and right eyes averaged over pupil size ranging from 2.5 to 6.0 mm in diameter for a distant object, $\overline{N}$ is the mean of the monocular performance of the left and right eyes averaged over pupil size ranging from 2.5 to 6.0 mm in diameter for a

near object, $\overline{\Delta}$ is the mean disparity in monocular performance between the left and right eyes averaged over pupil size ranging from 2.5 to 6.0 mm in diameter, and *ADD* is the extra plus power that an eye care professional determined is required for seeing up close.

3. The lens pair of claim 1, wherein the pair is elected from a set of lenses to meet add needs from about +0.75 to about +2.50 diopters and range of distance powers from about -12.00 to about + 8.00 diopters.

4. The lens pair of claim 1, wherein at least one lens of the lens pair comprises a surface that is a continuous aspheric surface.

5. The lens pair of claim 1, wherein at least one lens of the lens pair comprises a center-near design.

6. The lens pair of claim 1, wherein at least one lens of the lens pair comprises a center distance design.

7. The lens pair of claim 1, wherein in at least one lens of the lens pair has an aspheric surface.

8. A method for correcting presbyopia, comprising the steps of providing a first lens and a second lens to form a lens pair, wherein the first and second lens are selected from a family of lenses having following relationships:

$$\overline{D} \geq -1.0 \times ADD + 0.53;$$

$$\overline{N} \geq -1.40 \times ADD; \text{ and}$$

$$\overline{\Delta} \leq 1.65 \times ADD - 1.2,$$

wherein $\overline{D}$ is the mean of the monocular performance of the left and right eyes averaged over pupil size ranging from 2.5 to 6.0 mm in diameter for a distant object, $\overline{N}$ is the mean of the monocular performance of the left and right eyes averaged over pupil size ranging from 2.5 to 6.0 mm in diameter for a near object, $\overline{\Delta}$ is the mean disparity in monocular performance between the left and right eyes averaged over pupil size ranging from 2.5 to 6.0 mm in diameter, and ADD is the extra plus power that an eye care professional determined is required for seeing up close.

9. The method of claim 8 wherein each lens has a power profile different from that of the other lens.

10. The method of claim 8 wherein the lens pair is elected from a set of lenses meeting an add need from about 0.75 to about 2.50 diopters and range of distance powers from about -12.00 to about + 8.00 diopters.

11. The method of claim 8, wherein at least one lens of the lens pair comprises a surface that is a continuous aspheric surface.

12. The method of claim 8, wherein at least one lens of the lens pair comprises a center-near design.

13. The method of claim 8, wherein at least one lens of the lens pair comprises a center distance design.

14. A system of lenses with each of the lens having a rotationally symmetric power profile of the following form.

$P = P_0 + b + c_1 \cdot r$ $r \le r_{central}$

in central zone for ,

$P = P_0 + c_2 \cdot r^2$ $r \ge r_{outer}$

in outer zone for ,

and P is described by a piecewise cubic Hermite interpolating polynomial in the transition region $r_{central} \le r \le r_{outer}$ where the constants P_0, c_1, c_2, b, and the form of the piecewise cubic Hermite interpolating polynomial is different for each lens of the family of lenses.

b for the low, mid, and high lenses is progressively greater, varying from ~0.1D to 1.0D,

P_0 is also progressively greater, varying from 0.25D to 0.75D,

c_1 is small, with values from 0 to being slightly negative (-0.1D/mm),

c_2 is approximately $-0.08D/mm^2$,

r_{outer} is or about 2.0mm, and

$r_{central}$ is in the range of 0.2 to 1.0mm.

15. The lenses of claim 14, wherein the range of distance powers is from about -12.00 to about + 8.00 diopters.

16. The lenses claim 14, wherein at least one lens of the lens system comprises a surface that is a continuous

aspheric surface.

17. The lenses of claim 14, wherein at least one lens of the lens system comprises a center-near design.

18. The lenses of claim 14, wherein at least one lens of the lens system comprises a center distance design.