I/WE CLAIM:

1. A medical device for an eye of a subject, the eye having a pupil, the medical device comprising:

a central region having a first power;

a transition region surrounding the central region and having a width at most equal to 1.5 mm; and

a peripheral region surrounding the transition region, the peripheral region having a second power chosen based on the first power to achieve a target net power associated with the peripheral region, the target net power being the addition of the first power and the second power,

wherein a surface area of each one of the central and peripheral regions is chosen as a function of a surface area of the pupil of the eye, and

wherein a variation of a third power within the transition region is steep between the first power and the second power so that the transition region generates no optically usable power.

2. The medical device of claim 1, wherein the central and peripheral regions are adapted to treat at least one of myopia and astigmatism, and wherein a surface area of the central region and the transition region is comprised between about 20% and about 40% of the surface area of the pupil of the eye.

3. The medical device of claim 2, wherein the first power of the central region is comprised between about −0.25 diopter and about −30 diopters for said myopia and between about −0.25 diopter and about −10 diopters for said astigmatism.

4. The medical device of claim 3, wherein the target net power is comprised between about +3.5 diopters and about +10 diopters, and the second power is comprised between about +3.75 diopters and about +20 diopters.

5. The medical device of claim 4, wherein the target net power is equal to about +5 diopters.

6. The medical device of claim 1, wherein the central and peripheral regions are adapted to treat presbyopia.

7. The medical device of claim 6, wherein the medical device corresponds to a distance-centered device, and a surface area of the central portion and the transition portion is comprised between about 20% and about 30% of the surface area of the pupil of the eye.

8. The medical device of claim 7, wherein the first power of the central region is comprised between about −30 diopters and about +25 diopters, and the peripheral region is provided with an add-power comprised between about +0.25 diopter and about +5 diopters.

9. The medical device of claim 8, wherein the add-power of the peripheral region is equal to about +2.5 diopters.

10. The medical device of claim 6, wherein the medical device corresponds to a near-centered device, and a surface area of the central portion and the transition portion is comprised between about 10% and about 30% of the surface area of the pupil of the eye.

11. The medical device of claim 10, wherein the second power of the peripheral region is comprised between about −30 diopters and +25 diopters, and the central region is provided with an add-power comprised between about +0.25 diopters and about +5 diopters.

12. The medical device of claim 11, wherein the add-power of the central region is equal to about +2.5 diopters.

13. The medical device of claim 1, wherein the peripheral region comprises a plurality of angular sections each having a respective power and two adjacent ones of the plurality of angular sections are provided with different powers.

14. The medical device of claim 13, wherein the respective power is equal to one of the first power of the central region and the second power of the peripheral region.

15. The medical device of claim 1, further comprising an external region surrounding the peripheral region.

16. The medical device of claim 15, further comprising a transition region comprised between the peripheral region and the external region, a width of the transition region being at most equal to about 1.5 mm.

17. The medical device of claim 15, wherein the external region comprises a plurality of angular sections each having a respective power, and wherein two adjacent ones of the plurality of angular sections are provided with different powers.

18. The medical device of claim 17, wherein the respective power is equal to one of the first power of the central region and the second power of the peripheral region.

19. The medical device of claim 17, wherein the external region is divided into an even number of said angular sections.

20. The medical device of claim 1, wherein the medical device is a corrective lens, the corrective lens being one of a contact lens and an intraocular lens.