Claims

1) A method of aligning an ophthalmic instrument with respect to a centre of a cornea of an eye, comprising the steps of:
    a) directing a beam of light from the ophthalmic instrument to the cornea of the eye along an optical axis of the eye;
    b) taking, at a plurality of locations around the beam using at least three photodiodes, measurements of intensity of the light reflected from the cornea of the eye;
    c) determining the position of the ophthalmic instrument relative to the eye from the measurements of intensity of the light reflected from the cornea of the eye in three spatial axes;
    d) moving the ophthalmic instrument relative to the eye from the determined position to a desired position in three spatial axes, wherein the desired position is a position that equalises the measurements of the intensity of the light reflected from the cornea of the eye taken at plurality of locations around the beam using the at least three photodiodes.

2) The method according to claim 1 comprising the step of aligning the ophthalmic instrument with the centre of the cornea of the eye and at a predetermined distance from the cornea.

3) The method according to claim 1 wherein the beam of light is collimated light.

4) The method according to claim 1 wherein the photodiodes are arranged symmetrically around the beam.

5) The method according to claim 1 wherein the determining step comprises calculating the difference in the intensity of light received at each of the plurality of locations.

6) The method according to claim 1 wherein the determining step comprises calculating the total amount of incident light received at each of the plurality of locations.

7) The method according to claim 1 comprising a step of providing instructions for moving the ophthalmic instrument with respect to the eye.

8) An apparatus for aligning an ophthalmic instrument relative to a centre of a cornea of an eye comprising:

- an aperture;
- a source of collimated light configured to be directed through the aperture to the cornea of the eye and positioned along an optical axis of the eye;
- at least three photodiodes arranged around the aperture to measure intensity of light reflected from the cornea of the eye;
- a control unit configured to determine, in three spatial axes, the position of the ophthalmic instrument relative to the eye, and to provide instructions to a user interface and/or an actuator for adjusting the distance of the ophthalmic instrument relative to the cornea of the eye from the determined position to a desired position, wherein the desired position is a position that equalises the measurements of the intensity of light reflected from the cornea of the eye taken at a plurality of locations around the beam using the at least three photodiodes.

9) The apparatus according to claim 8 wherein the light is infra-red light.

10) The apparatus according to claim 8 wherein the light is directed through an elongate nozzle.

11) The apparatus according to claim 8 wherein the photodiodes are arranged symmetrically around the aperture.

12) An ophthalmic instrument including the apparatus of claim 8.

13) The ophthalmic instrument according to claim 12 wherein the ophthalmic instrument is an esthesiometer.

14) The ophthalmic instrument according to claim 13 wherein the light is directed down a nozzle of the esthesiometer.