of photosensitive paper. The red laser diode beam should fall exactly on the mark on the photosensitive paper, i.e., the center of the excimer beam. If it does not fall exactly on the mark, the orientation of the red laser diode is adjusted in the x-y coordinates direction and/or in angular inclination until the beam falls exactly on the mark. Since two points determine a straight line, the adjustment is performed at two different distances to confirm that the aiming beam is parallel to and centered with the excimer beam.

The energy released to the eye by this very low powered laser beam is well within the limits set by FDA. Dr. Nevyas has confirmed this with the appropriate department at the FDA. Thus, the new fixation device poses no additional risk to the patient and has several significant advantages over current fixation systems which are in use. The advantages include:

- The surgeon can ascertain that the light on which the patient is fixating is exactly centered in and parallel to the laser beam. This can be checked between each case and can be easily adjusted if necessary to assure that optimal centration is obtained.

- The fixation laser beam can be seen clearly by the patient no matter what the refractive error since it is a single, fine beam which travels along the optical axis and is not refracted.

- The fixation beam can be seen clearly by the patient even when the corneal flap is lifted, a circumstance which ordinarily makes visualization of a larger incandescent or LED light source more difficult.

- When the eye is looking exactly at the beam with his/her fovea, the eye sees a very characteristic "chrysanthemum" of halo around the light not just a red light. As soon as the eye's fixation is removed at all from that point, the eye sees only a red light without the "chrysanthemum." It is easy to demonstrate this to the patient before each procedure. Thus, the patient (not just the surgeon) knows that the eye is looking at exactly the right point during the procedure by the continued presence of the characteristic "chrysanthemum" around the red target fixation light.

Dr. Nevyas is currently in negotiation with a company which has developed a small green