2007 Research Days Abstract Form – Department of Ophthalmology – UNIFESP/EPM

2. SCIENTIFIC S ECTION PREFERENCE (REQUIRED): Review the Scientific section Descriptions. Select and enter the two -letter Code for the one (1) Section best sullied to review your abstract
(RS)

3. PRESENTATION PREFERENCE (REQUIRED) Check one (1)
Paper

4. The signature of the First (Presenting) Author, (REQUIRED) acting as the authorized agent for all authors, hereby certifies.
That any research reported was conducted in com pliance with the Declaration of Heisinki and the "UNIFESP Ethical Committee"

Telma Pereira Barreiro
Signature of First

Scientific Section Descriptions

(OR) ORBIT
(PL) OCULAR PLASTIC SURGERY
(RE) RETINA AND VITREOUS
(RX) REFRACTION-CONTACT LENSES
(NO) NEURO-OPHTHALMOLOGY
(TU) TUMORS AND PATHOLOGY
(ST) STRABISMUS
(UV) UVEITIS
(LS) LACRIMAL SYSTEM
(LV) LOW VISION
(CO) CORNEA AND EXTERNAL DISEASE
(GL) GLAUCOMA
(RS) REFRACTIVE SURGERY
(CA) CATARACT
(US) OCULAR ULTRASOUND
(TR) TRAUMA
(LA) LABORATORY
(BE) OCULAR BIOENGINEERING
(EP) EPIDEMIOLOGY
(EF) ELECTROPHYSIOLOGY

Deadline: 29/10/2007

FORMAT:
Abstract should contain:
Title, Name of Authors, Name of other authors (maximum 6), Purpose, Methods, Results, Conclusions.
Example: ARVO (1.10 x 1.70)
Abstract Book

1. FIRST (PRESENTING) AUTHOR (REQUIRED)
Must be author listed first in body of abstract

( ) R1 ( ) R2 ( ) R3
( ) PG0 (X) PG1 ( ) Estagiário ( ) Tecnólogo ( ) PIBIC

Barreiro	Telma	Pereira
Last Name	First Name	Middle

REFRACTIVE SURGERY
Service (sector)

0520/06
Nº CEP
(Comitê de Ética em Pesquisa da Universidade Federal de São Paulo– UNIFESP)

5. ABSTRACT (REQUIRED)

Wavefront-guided laser in situ keratomileusis with the Alcon CustomCornea and the Zyoptix: Six-month results.

Purpose: To evaluate and compare the visual and clinical outco mes of Wavefront-guided laser in situ keratomileusis (Lasik) with the Alcon CustomCornea and Zyoptix systems.
Methods: Prospective, randomized, masked and bilateral study is being conducted. Fifty patients with preoperative spherical equivalent (SE) rangin g from –1.00 to –6.00 D were enrolled for customized ablation in both eyes. All of them were submitted to LASIK CustomCornea treatment in one eye and Zyoptix in the other eye. Uncorrected visual acuity (UCVA), best correct visual acuity (BCVA), manifest refraction, wavefront measurements, contrast sensitivity testing and subjective vision questionnaire were performed preoperatively and postoperatively at 1, 3 and 6 months.
Results: Preoperatively, the CustomCornea group had a mean manifest sphere of -3,07 ± 1,56 diopters (D) (range: -0.75 to -6.00), cylinder of -0.42 ± 0.42 D (range: 0.00 to -1.25 D), and manifest refractive spherical equivalent (MRSE) of -3,29 ±1.56 D (range: -1.00 to -6.50). The Zyoptix group had a mean manifest sphere of -3,00 ± 1,51 D (range: -0.75 to -6.00), cylinder of -0.44 ± 0.36 D (range: 0.00 to -1.25 D), and manifest refractive spherical equivalent (MRSE) of -3,22 ±1.50 D (range: -0.88 to -6.00). At 6 months, 86 % of CustomCornea eyes and 70 % of Zyoptix eyes had UCVA ? 20/20. Twenty -two percents of CustomCornea eyes and 20 % of Zyoptix eyes gained 1 line of BCVA. One hundred of the CustomCornea group and 88 % of the eyes in the Zyoptix, were within 0.50 D of emmetropia. In both groups, the contrast sensitivity improved. Spherical aberration and higher order aberration increased in both groups, the CustomCornea group showed lower values (p< 0,001).
Conclusion: Wavefront-guided Lasik with both systems is safe and effective. The CustomCornea platform showed lower higher order aberration and spherical aberration.