

**STATE BOARD OF OPTOMETRY**

2450 DEL PASO ROAD, SUITE 105, SACRAMENTO, CA 95834  
P (916) 575-7170 F (916) 575-7292 www.optometry .ca.gov



Continuing Education Course  
Approval Checklist

Title:

Provider Name:

☒ Completed Application

Open to all Optometrists? ☒ Yes ☐ No

Maintain Record Agreement? ☒ Yes ☐ No

☒ Correct Application Fee

☒ Detailed Course Summary

☒ Detailed Course Outline

☒ PowerPoint and/or other Presentation Materials

☒ Advertising (optional)

☒ CV for EACH Course Instructor

☒ License Verification for Each Course Instructor

Disciplinary History? ☒ Yes ☐ No

**Dr. Tom Tooma has a Public Letter of Reprimand (attached)**



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## CONTINUING EDUCATION COURSE APPROVAL APPLICATION

### \$50 Mandatory Fee

Pursuant to California Code of Regulations (CCR) § 1536, the Board will approve continuing education (CE) courses after receiving the applicable fee, the requested information below and it has been determined that the course meets criteria specified in CCR § 1536(g).

In addition to the information requested below, please attach a copy of the course schedule, a detailed course outline, and presentation materials (e.g., PowerPoint presentation). Applications must be submitted 45 days prior to the course presentation date.

Please type or print clearly.

Course Title <u>Introduction to Topography</u> <u>Guided LASIK</u>	Course Presentation Date <u>10/13/2016</u>
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### Course Provider Contact Information

Provider Name <u>Leslie</u> <u>Kuhlman</u> <u>Ann</u> (First) (Last) (Middle)	
Provider Mailing Address Street <u>75 Enterprise</u> City <u>Aliso Viejo</u> State <u>CA</u> Zip <u>92673</u>	
Provider Email Address <u>Leslie.Kuhlman@nvisioncenters.com</u>	
Will the proposed course be open to all California licensed optometrists?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Do you agree to maintain and furnish to the Board and/or attending licensee such records of course content and attendance as the Board requires, for a period of at least three years from the date of course presentation?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

### Course Instructor Information

Please provide the information below and attach the curriculum vitae for each instructor or lecturer involved in the course. If there are more instructors in the course, please provide the requested information on a separate sheet of paper.

Instructor Name <u>See Attachment</u> (First) (Last) (Middle)		
License Number _____	License Type _____	
Phone Number (____) _____	Email Address _____	

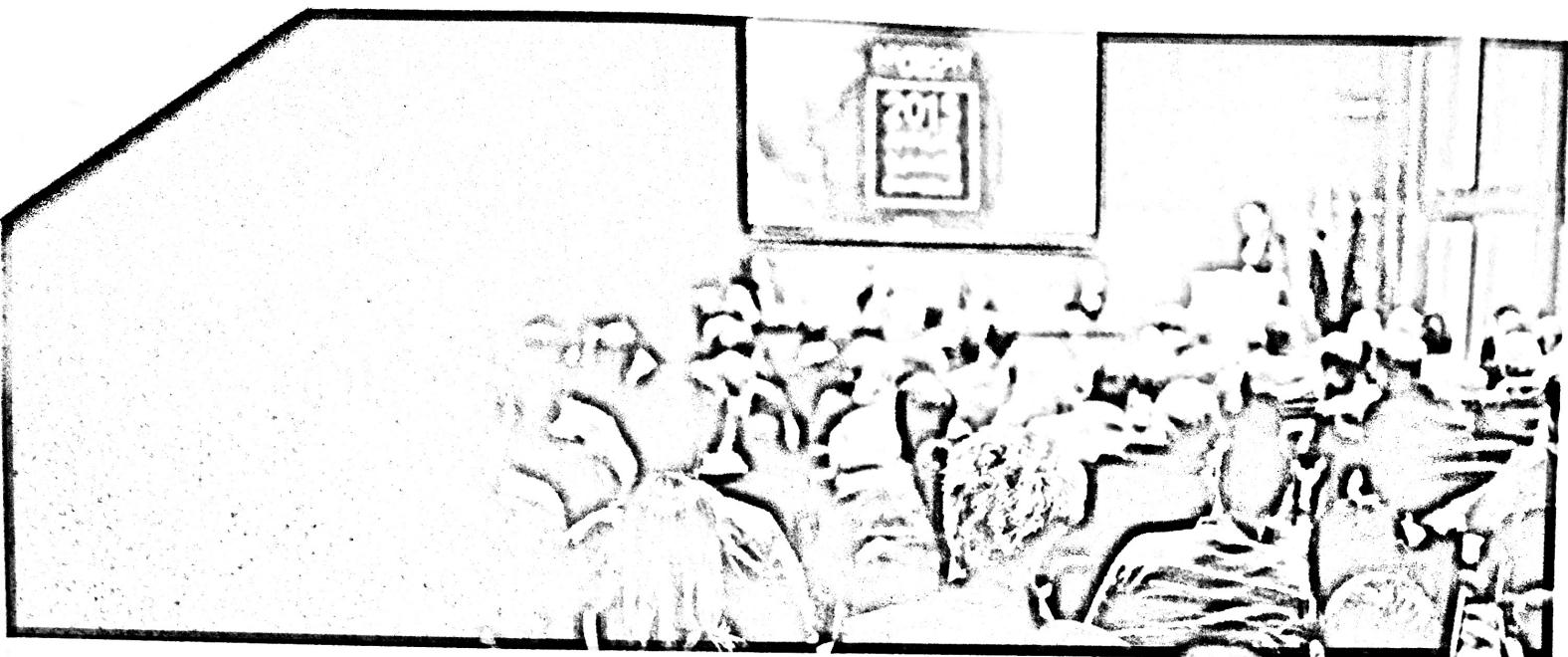
I declare under penalty of perjury under the laws of the State of California that all the information submitted on this form and on any accompanying attachments submitted is true and correct.

[Signature]  
Signature of Course Provider

10.1.16  
Date

**NVISION ORGANIZATION**
**Providers List with NPI And Medical License #'s**

Center	Doctor	Medical License #	Degree	Phone	Email Address	CE Provider?	State	Personal NPI #	dic are
Torrance	Amarprett Brar, M.D.	A77993	MD	310-714-7494	amar.brar@nvisionce	Yes	CA	1356361109	Y
Fullerton	Franklin Lusby, M.D.	G41830	MD	858-449-9867	fwlmdd@gmail.com	Yes	CA	Need NPI #	N
Torrance	Franklin Lusby, M.D.	G41830	MD	858-449-9867	fwlmdd@gmail.com	Yes	CA	Need NPI #	N
Laguna Hills	George Baerveldt, M.D.	A39678	MD	Newport	george.baerveldt@nv	Yes	CA	1316027493	y
San Francisco	George V Simon M.D.	G23786	MD	Concord		Yes	CA	1225251697	
San Francisco	Jeffery Machat, M.D.	C139286	MD	San Francisco	Jeff.Machat@nvisio	Yes	CA	1255790085	
Camarillo	John Davidson, M.D.	G71316	MD	Camarillo	doctorjohn@johndav	Yes	CA	1205870748	Y
Ontario	Jonathan R. Pirnazar	A72632	MD	Laguna Hills	raminp5@hotmail.co	Yes	CA	1962436410	Y
Laguna Hills	Jonathan R. Pirnazar, M.D.	A72632	MD	Laguna Hills	raminp5@hotmail.co	Yes	CA	1962436410	Y
La Jolla	Mihir Parikh, M.D.	A68508	MD	858-558-6000	max.parikh@nvisionc	Yes	CA	1740392695	Y
Palm Desert	Patrick Lydon, OD	OPT 7263T	OD	Palm Desert		Yes	CA	1710006465	
Sacramento	Richard B Meister, M.D.	A40566	MD	916-425-1507	richard.meister@nv	Yes	CA	1972552321	Y
Murrieta	Richard Burns, M.D.	G45246	MD	Murrieta	richard.burns@nvis	Yes	CA	1902856818	Y
Palm Desert	Richard Burns, M.D.	G45246	MD	Murrieta	richard.burns@nvis	Yes	CA	1902856818	Y
Fullerton	Sheri L Rowen	C131504	MD	714-257-0560	sherri.rowen@nvisio	Yes	CA	1548203904	Y
Newport Beach	Sheri L Rowen, M.D.	C131504	MD	714-257-0560	sherri.rowen@nvisio	Yes	CA	1548203904	Y
Newport Beach	Thomas S. Tooma, M.D.	G42262	MD	Newport	tom.tooma@nvisior	Yes	CA	1508980525	Y



# NVISION Eye Centers FREE 4-HOUR CE\*

**Thursday, October 13, 2016**

Crowne Plaza Redondo Beach & Marina Hotel | 300 N. Harbor Dr. | Redondo Beach, CA 90277

**CE Speakers Includes: Franklin Lusby, MD | Ron Gallemore, MD | Amarpreet Brar, MD and more...**

**CE Topics: Refractive Surgery, Retina, Cataract, more details to follow...**

## **Event Schedule:**

Join NVISION Eye Centers and Retina Macula Institute for an exciting evening of continuing education, networking, dinner, libations, and raffles. We are offering four hours of COPE accredited education to regional ODs.

5:00 – 5:30pm Registration

5:30 – 10:00pm CE Program

*Early bird registration ends Sept. 19, 2016  
Early bird registrants will receive extra raffle tickets!  
Pending California State and COPE Approval*

## **CE Schedule**

Limited Spots | For event updates, Contact **Stephanie Andrews**  
E • [Stephanie.Andrews@nvisioncenters.com](mailto:Stephanie.Andrews@nvisioncenters.com) | P • 310.531.3625

**NVISION**  
— EYE CENTERS —



**DINNER**

**VENDOR  
BOOTHS**



**RAFFLES**

**[redondobeachfree4hrce.eventbrite.com](http://redondobeachfree4hrce.eventbrite.com)**



October 1, 2016

On behalf of NVISION Eye Centers, we are writing to request approval of Continuing Education to doctors of optometry. The education will be delivered by Board Certified Ophthalmologists, clinical investigators and experts in technology and patient consultation.

**Program Date:** October 13, 2016, and additional dates thereafter.

**Location:** Crowne Plaza, Redondo Beach

**Conditions of Availability:** This course will be open to all licensed ODs. They will be notified through flyers, Eventbrite, and fax by request.

**Records:** NVISION Eye Centers to maintain and furnish to the Board and/or attending licensee such records of course content and attendance as required for a minimum of three years.

**Program Name and Description:**

**Introduction to Topography Guided LASIK**

This course will review the history, development and pros/cons of the most prevalent strategies for excimer refractive ablation including conventional, wavefront-guided, wavefront-optimized and the recently available topography-guided.

**Course Objective:**

To help practicing optometrists to understand the differences between conventional, wavefront-guided, wavefront-optimized (prolate), and topography-guided excimer ablations.

We are seeking a total of 1 hour of continuing education credit for these courses. The contact person for this program is myself, and I can be reached at 949.234.8129 or Leslie.Kuhlman@nvisioncenters.com.

Sincerely,

Leslie Kuhlman  
NVISION Laser Eye Centers  
Continuing Education and Special Projects Coordinator

**Presenter** –Franklin Lusby, MD

**Course Title** – Introduction to Topography Guided LASIK

**Course Outline –**

Current Excimer Formats

**Traditional Nomogram:**

Refraction entered and adjusted by nomogram

**Wavefront Guided:**

A wavefront-sensing aberrometer is used to program the ablation to treat both lower-order (myopia, hyperopia, astigmatism) and higher-order Zernike aberrations.

**Wavefront Optimized:**

A nomogram adjusted refraction is used to program the ablation, adding peripheral pulses to maintain the prolate cornea and minimize the induction of higher-order aberrations.

**Wavefront Guided Ablation**

- Evolved from topography guided ablation
- Developed to address quality of vision issues
- -ghosting, monocular diplopia, glare/halo
- Result of (induced) conditions not quantifiable or correctable with conventional optics
- Hence, the need for a new means of assessing the ocular optical pathway
- “Side effect” of >20/20 VA

**What is a Wavefront?**

- Cross section of the light rays exiting an optical system
- Constructed by lines perpendicular to rays
- Photons ahead of or behind reference plane

**The Reversible Nature of Light Propagation**

**Wavefront Displays for Ideal Vision**

**Wavefront Displays for Near-Sightedness**

**Unoperated Eye**

**2 Years Post-LASIK: Night Vision Problems**

**Post-8 Incision RK**

**The Hartmann-Shack Sensor**

**Lenslet array and CCD camera**

**Measures wavefront slope at many points**

**Reconstructs wavefront from slope data**

**Hartmann-Shack (HS) spot pattern**

When viewed on the monitor, the HS pattern shows how light exits the pupil

This is compared to a perfect spot pattern, and the resultant wavefront error is calculated

**Hartmann-Shack**

**Image quality**

In an optimal image, the Hartmann-Shack spots will appear round and sharply focused

**Hartmann-Shack Image**

## Hartmann-Shack

### Limitations of acquisition

Dry eye and an irregular cornea can make acquisition difficult

Cataracts can make acquisition difficult

or virtually impossible (shown here)

This provides a qualitative assessment of the optical path, much like a placido ring view on a topographer

The Root-Mean-Square (RMS) Wavefront Error

### Wavefront Analysis

Wavefront measurements look at the deviation from a perfect optical system and uses Zernike Polynomials to mathematically assess the aberration.

More Terms = Better Fit

Zernike Coefficients

How far should we go?

Zernike Tree

0 to 5th order

### Wavefront High Order RMS

- May be the best predictor for need of Wavefront ablation
- Not dependent on low order aberrations
- HO RMS > 0.50 is always visually significant
- HO RMS > 0.30 often visually significant
- HO RMS < 0.30 may not be visually significant\*

### Platform Comparison

#### Definitions

- Prolate: steeper in the center, flattens toward the periphery – “end” of an ellipse
- Oblate: flatter in the center, steepens toward the periphery – “side” of an ellipse

### Mathematics of corneal shape

e : eccentricity

p : shape factor

Q : asphericity

### Mathematics of corneal shape

$$p = 1 - e^2$$

$$p = Q + 1$$

$$e^2 = -Q$$

### Mathematics of corneal shape

e : best to describe prolate surface

Shape factor “p” developed because “e” becomes meaningless for oblate surface

$$e = \sqrt{(1-b^2/a^2)}$$

### Mathematics of corneal shape

### Mathematics of corneal shape

Circle: shape values

$$e = 0$$

$$p = 1$$

$$Q = 0$$

Normal cornea: shape values

$e = 0.5$

$p = 0.75$

$Q = -0.25$

Prolate ellipse

Mathematics of corneal shape

Topography

May calculate  $e$ ,  $p$  or  $Q$

Will vary with meridian and chord length

Proprietary

Most reliable for normal corneas

Mathematics: shortcomings

Will vary with meridian

Hemi-meridional differences

Topographic calculations based on averages

Refractive Surgery

Tends to create an oblate surface

Pupil diameter (chord length) is significant

Short chord length may calculate prolate; with long, may calculate oblate

Refractive Surgery

Prolate ablation (less oblate) a component of custom ablations

Wavefront data not necessarily necessary

Allegretto Wave by Wavelight

The development objective was to fulfill the demands of the modern refractive surgeon and design a laser that would be optimal for custom treatments, while eliminating problems in conventional lasik

Allegretto Wave: Design goals

- Work at high speed
- Ablate with maximum precision
- Rely on superior safety and accuracy
- Prevent problems with night vision, contrast sensitivity
- Provide each patient with a higher level of customization in the standard treatment
- Achieve predictable, superior results

Allegretto Wave: Design goals

- Developed during initial wavefront research
- Aims to prevent the induction of higher order spherical aberrations (C12) following standard refractive surgery
- In order to compensate for energy losses in the periphery, additional pulses are placed
- Results in large, true optical zones
- Reduces the possibility of night vision problems

Prolate ablation

Prolate ablation

Current Excimer Technologies

**B & L Technolas: Wavefront Guided Scanning Spot**



Carl Zeiss Meditec MEL 80: Wavefront Optimized Scanning Spot  
Nidek EC 500: Traditional Scanning Slit  
AMO Visx Star S4: Wavefront Guided Variable Spot  
Alcon Allegretto Wavelight: Wavefront Optimized Scanning Spot

Allegretto Vario Topolyzer

Accuracy of the TopolyzerVario

Accuracy of the Topolyzer Vario

### Topo Guided Treatment

#### Advantages of Topo Guided Treatments

- Higher level of **personalized** treatment planning
- Treatments are centered on the **corneal apex**, not the center of the pupil
- Measurements are not restricted to the pupillary area
- Simultaneous flattening and steepening of corneal irregularities **maintains prolate nature** of cornea
- Will not treat lenticular wave related abnormalities
- Potential to re-treat patients not happy with original Lasik
- Advanced iris registration/centration/cyclotorsion improves outcomes on all treatments

#### Smoothing of Topographic Asymmetry

#### Smoothing of Topographic Asymmetry

#### Pre-op Scan Analysis

#### Pre-op Scan Analysis

#### Pre-op Total Ablation

#### Pre-op HOA Ablation

#### IR

#### Potential Applications

- Suspicions of ectasia
- Keratoconus (with CXL)
- Irregular or asymmetric astigmatism
- Post-refractive surgery
- Hyperopia
- 20/20 unhappy patient
- Normal eyes

#### FDA Study Parameters

- 9 clinical sites
- 249 eyes of 212 patients
- 18-65 years old
- Up to -9.00 SEQ
- Up to 6D astigmatism
- BCVA 20/25 or better
- Normal topographies and corneal thickness
- Patients with prior refractive surgery excluded
- Follow up at 1d, 1w, 3mo, 6mo, 9mo, 12mo

#### Contoura Clinical Trials—Post Op Visual Symptoms

#### Patient Reported Outcomes With Lasik (PROWL)

- FDA designed **Quality of Life** study

- Evolved from a 2008 public hearing on Lasik safety
- Developed without input from physicians or industry
- 2 cohorts, 574 patients, military and civilian centers
- Post op detailed questionnaires and Oxford Dry Eye scoring
- Patients reported on visual symptoms arising post op uncorrected compared to pre op BCVA
- Conclusions
  - Satisfaction with Lasik results > 98%
  - In most patients, glare, halos, night driving problems as well as dry eye problems decreased at 6 months over preoperative levels

#### Summary

- **Best Visual Results** to date of any LASIK technology
- Continued to improved most common symptoms associated with LASIK
- **Labelled Usage**
  - Normal eyes with normal topographies
    - Highest percent > 20/20 outcomes
    - Improve subtle visual irregularities
    - Improved iris registration and cyclotorsion adjustment
- **Off Label**
  - Irregular topographies
  - Inferior steepening
  - High, oblique and ATR cyl
  - Hyperopia

# Introduction to Topography Guided Lasik

Franklin W. Lusby, MD  
Medical Director  
NVISION Fullerton  
NVISION Torrance







# Current Excimer Formats

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# Wavefront Guided Ablation

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- Developed to address quality of vision issues
  - -ghosting, monocular diplopia, glare/halo
- Result of (induced) conditions not quantifiable or correctable with conventional optics
- Hence, the need for a new means of assessing the ocular optical pathway
  - “Side effect” of  $>20/20$  VA



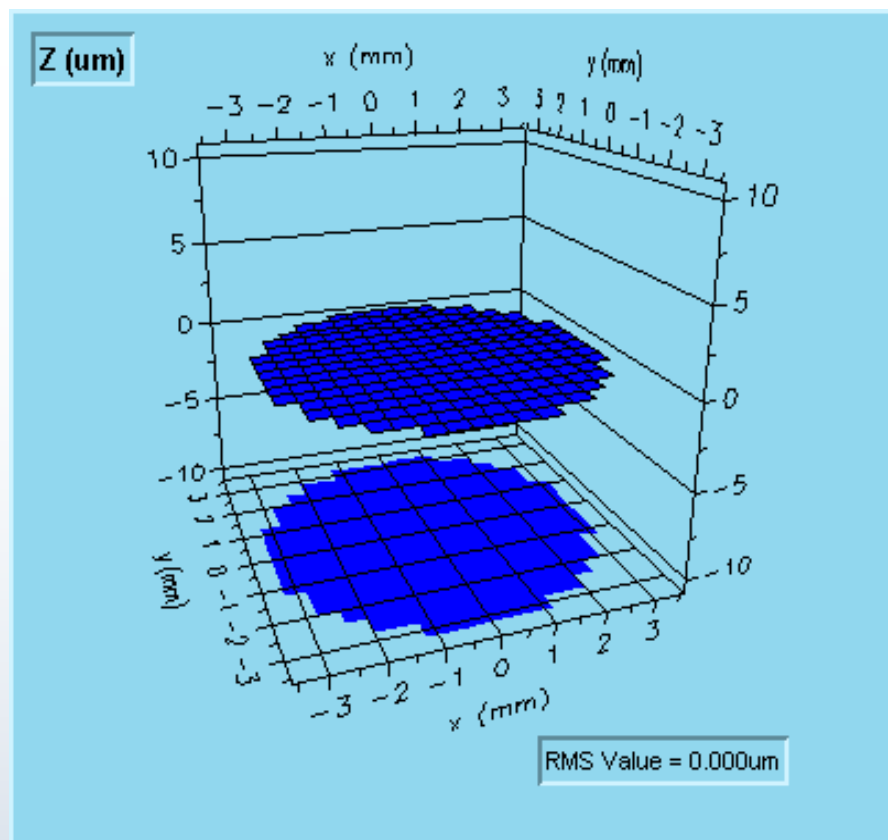
# What is a Wavefront?

- Cross section of the light rays exiting an optical system
- Constructed by lines perpendicular to rays
- Photons ahead of or behind reference plane

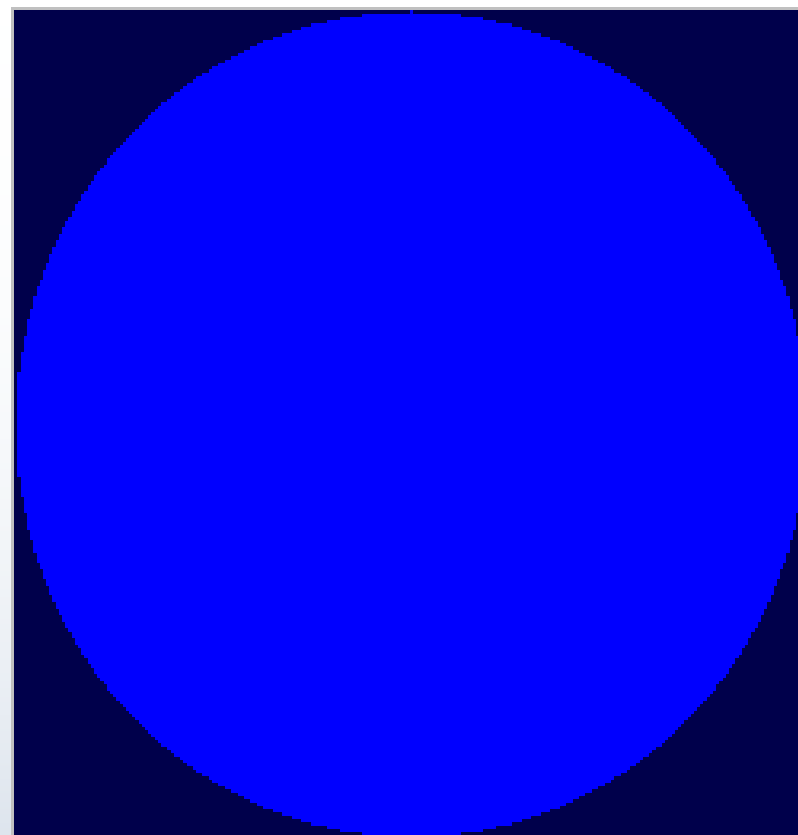
# The Reversible Nature of Light Propagation



# Wavefront Displays for Ideal Vision

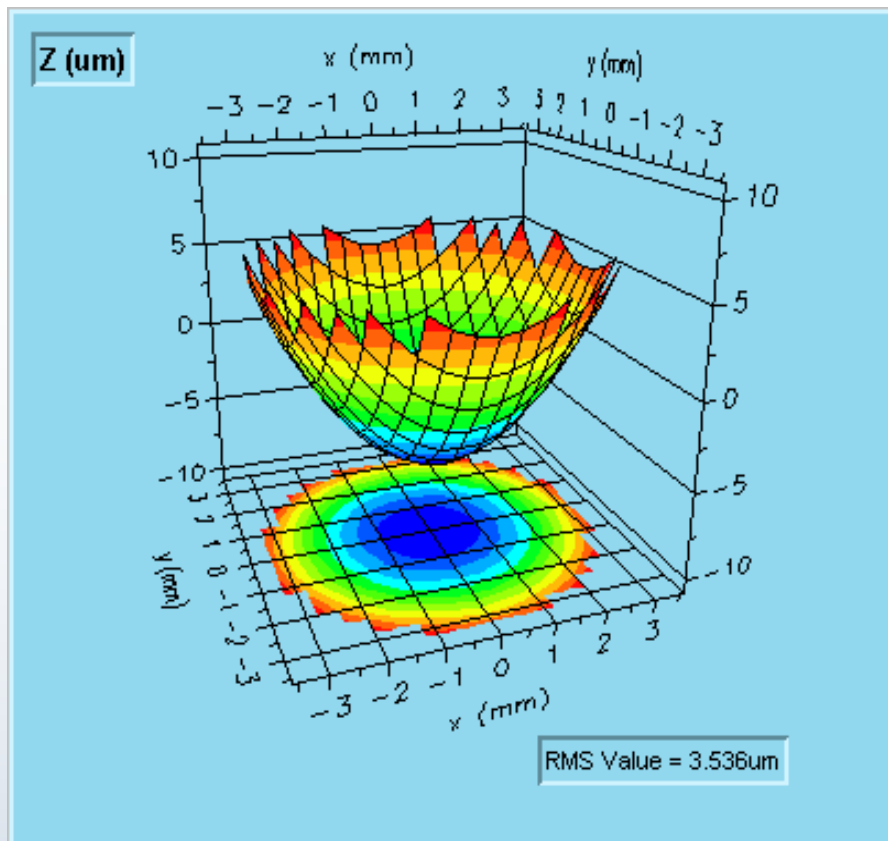


3-D Representation

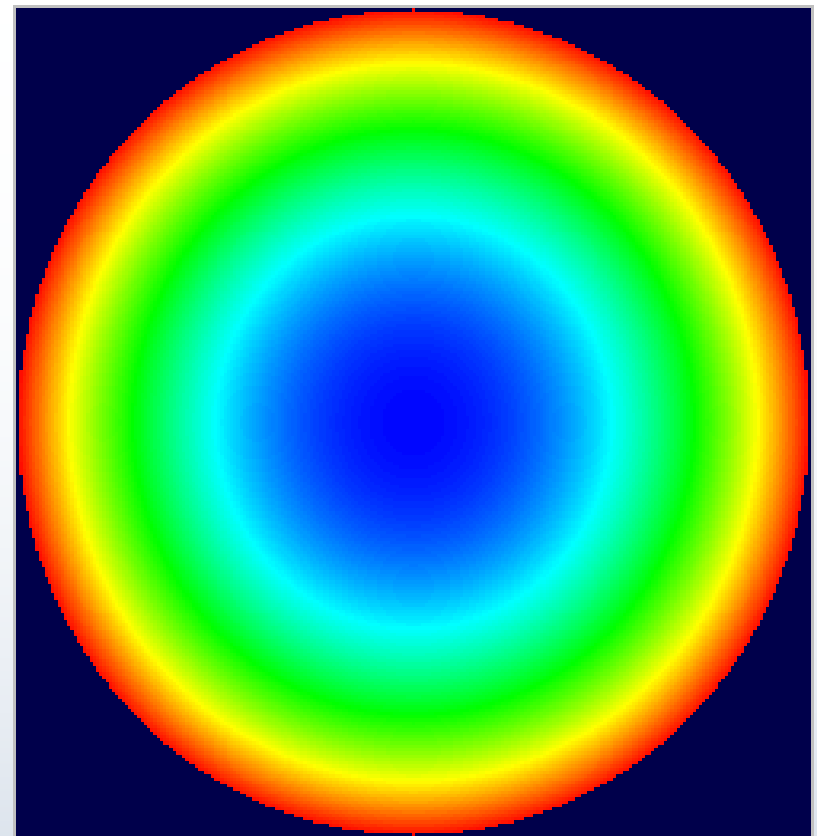


2-D Color Map

# Wavefront Displays for Near-Sightedness

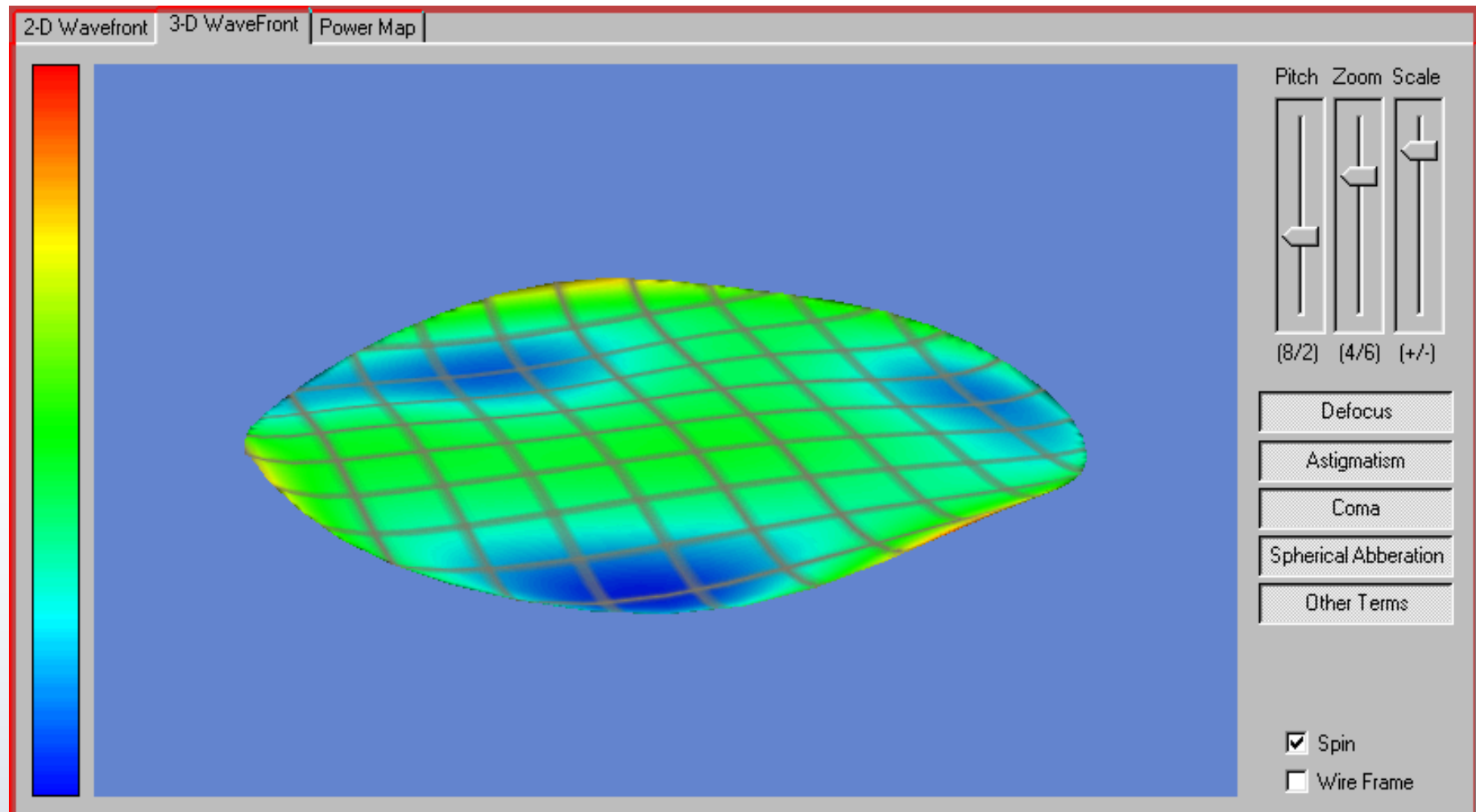


3-D Representation



2-D Color Map

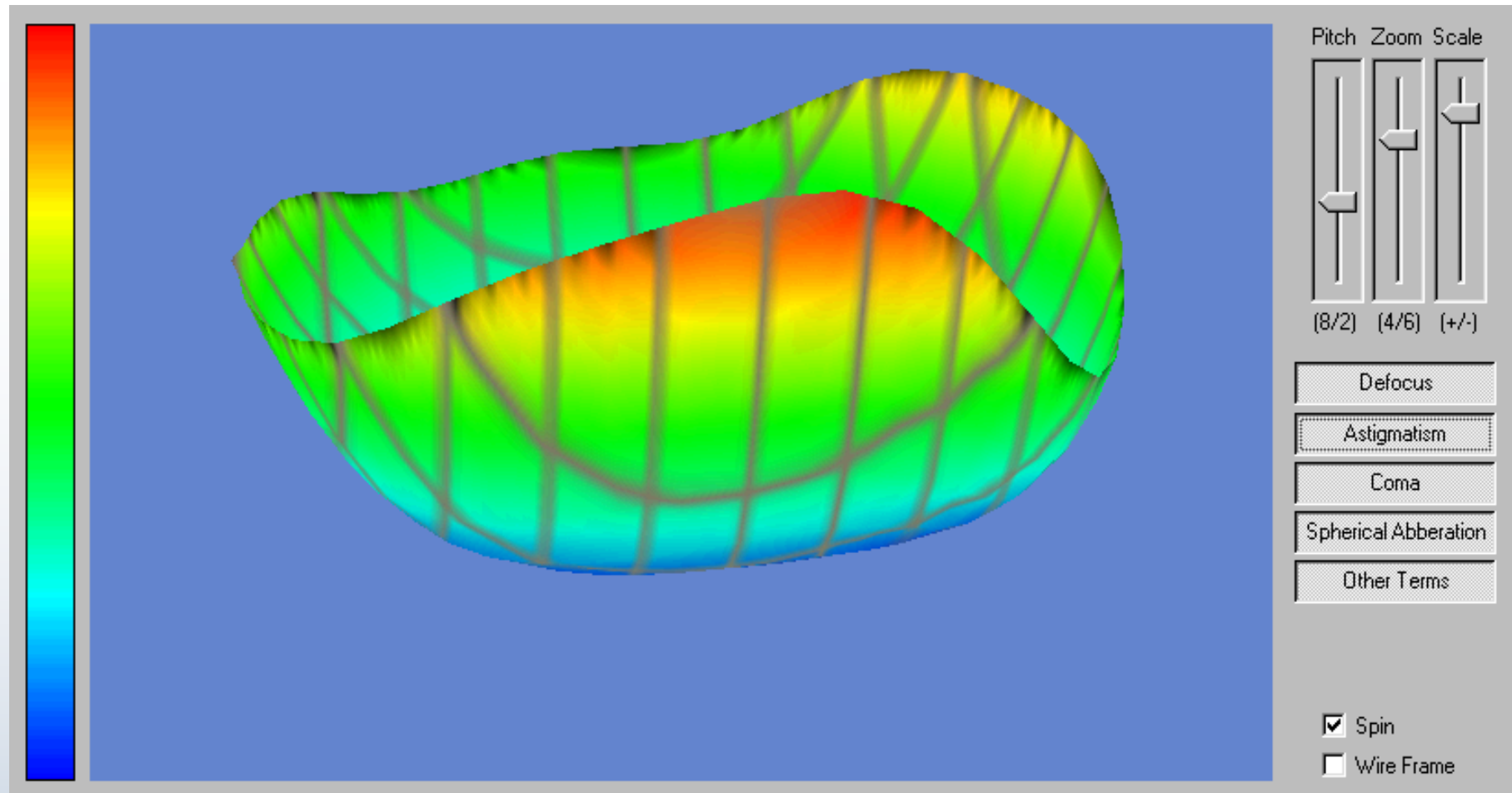
# Unoperated Eye



Rx: -1.25/-0.25x96, VA: 20/100, 20/16 , HOA RMS: 0.24um, D: 6.5mm

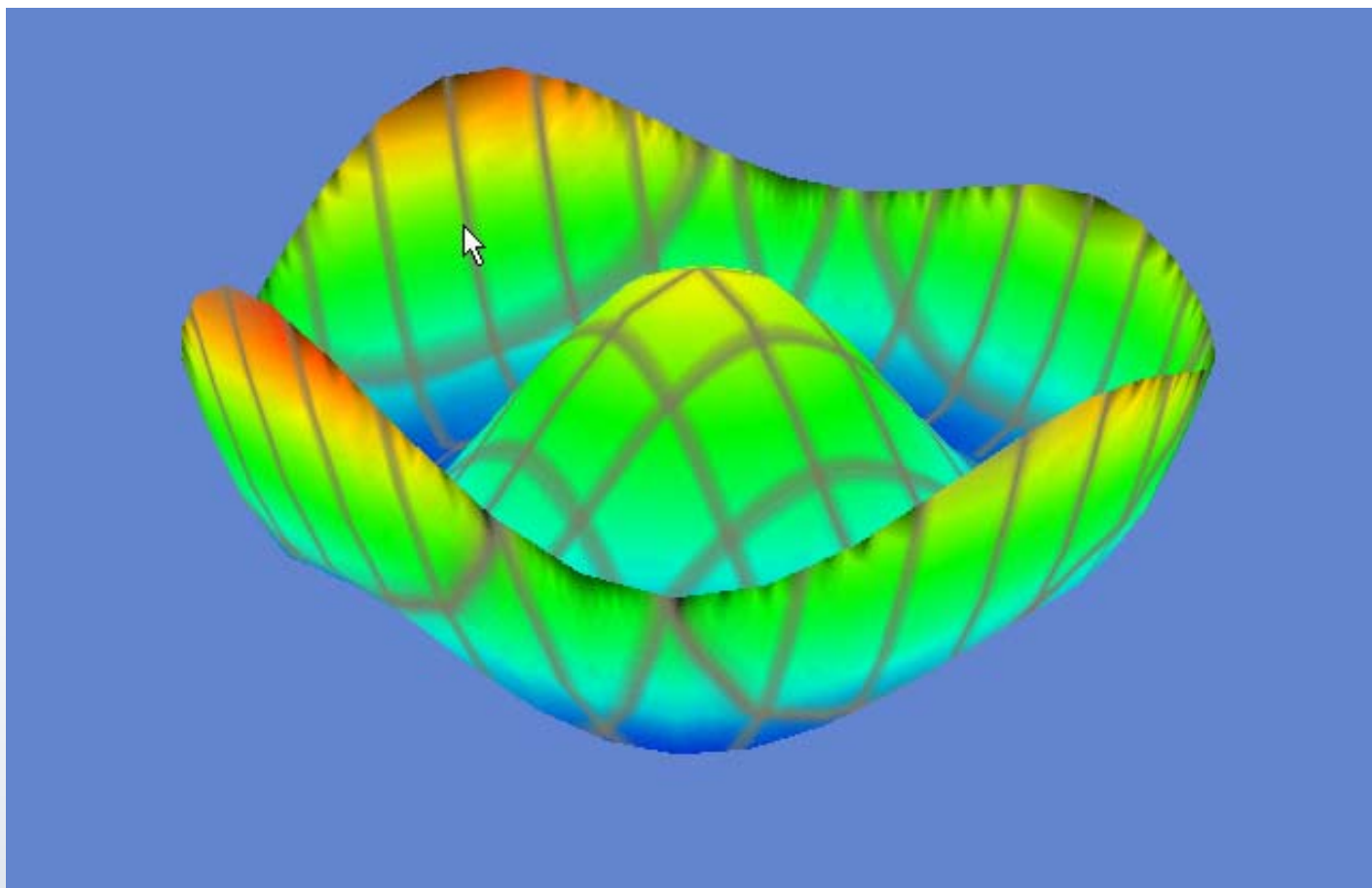


# 2 Years Post-LASIK: Night Vision Problems



Rx: -1.5/-0.5x71, VA: 20/25, 20/20, HOA RMS: 1.12um, D: 6.5mm

# Post-8 Incision RK

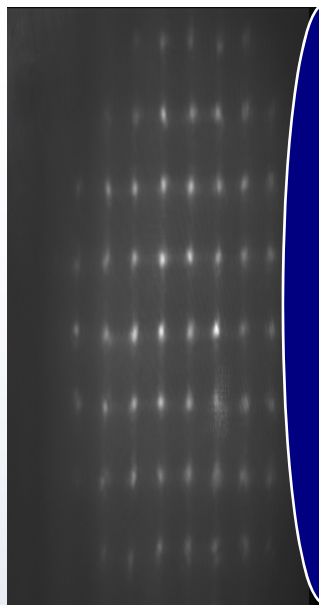


Rx: 0.75/-0.25x134, VA: 20/60, 20/20 , HOA RMS: 3.47um, D: 8.8mm

# Hartmann Shack Aberrometer

Measures the ray pattern as it emerges from the eye to see what changes in the cornea will make those rays absolutely straight.

CCD-Image

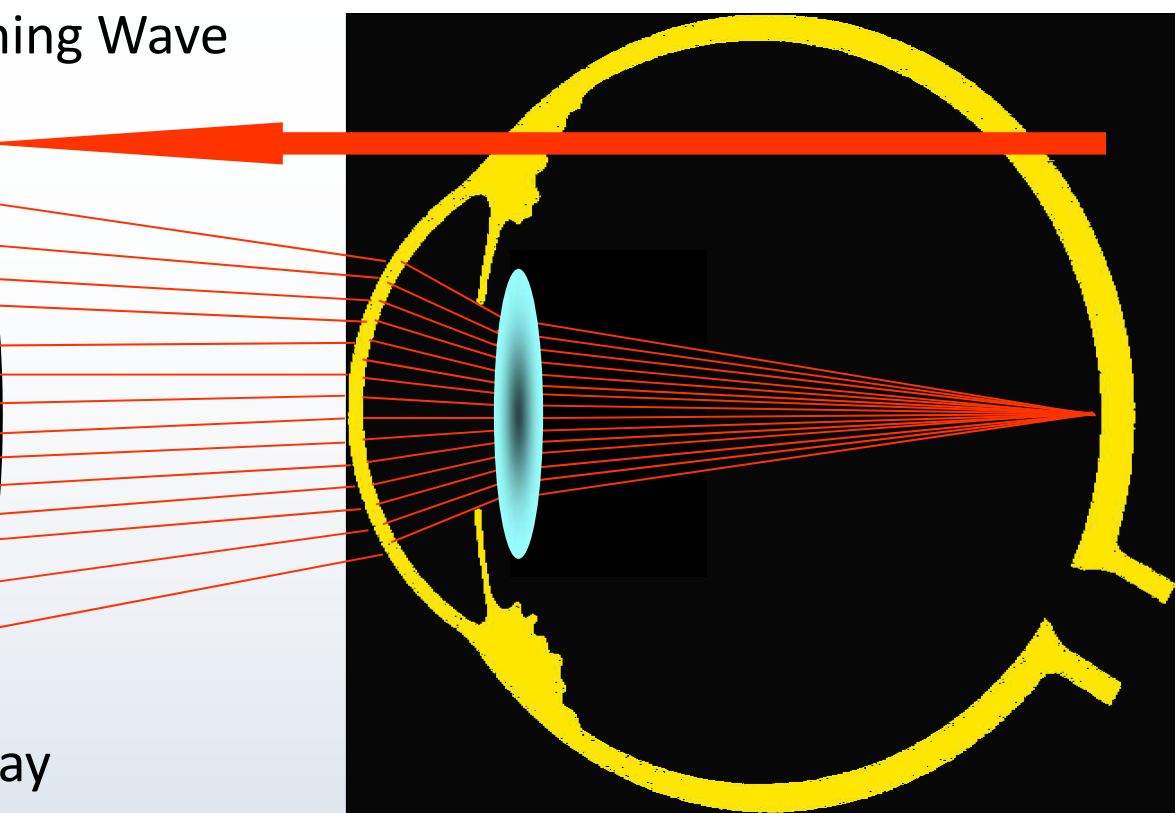
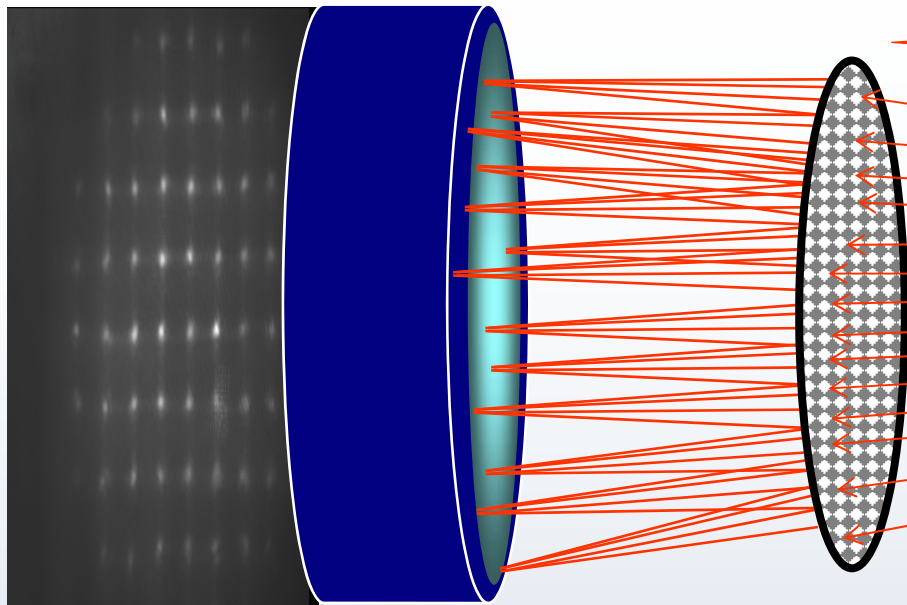


CCD-Camera

Outcoming Wave



Lens Array

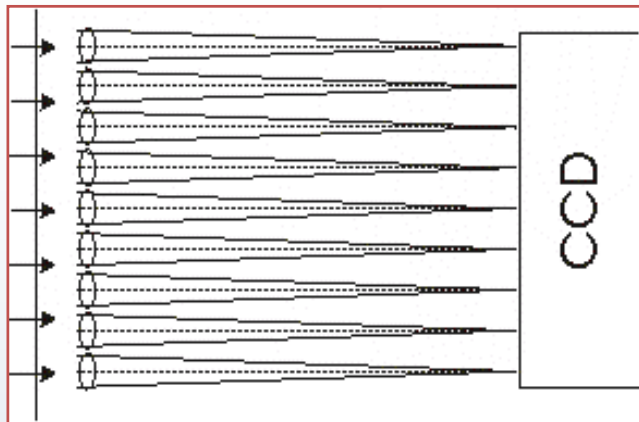


# The Hartmann-Shack Sensor

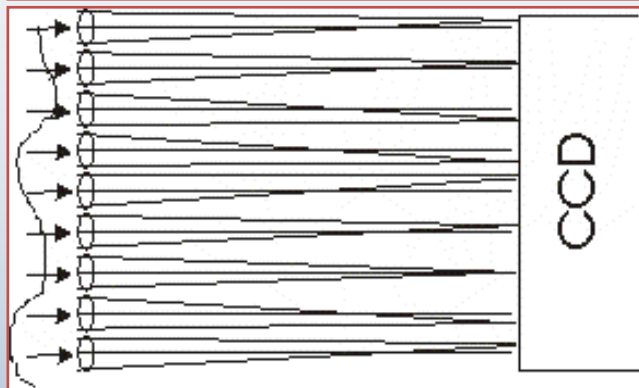
Lenslet array and CCD camera

Measures wavefront slope at many points

Reconstructs wavefront from slope data



- A perfect wavefront gives a perfect spot pattern

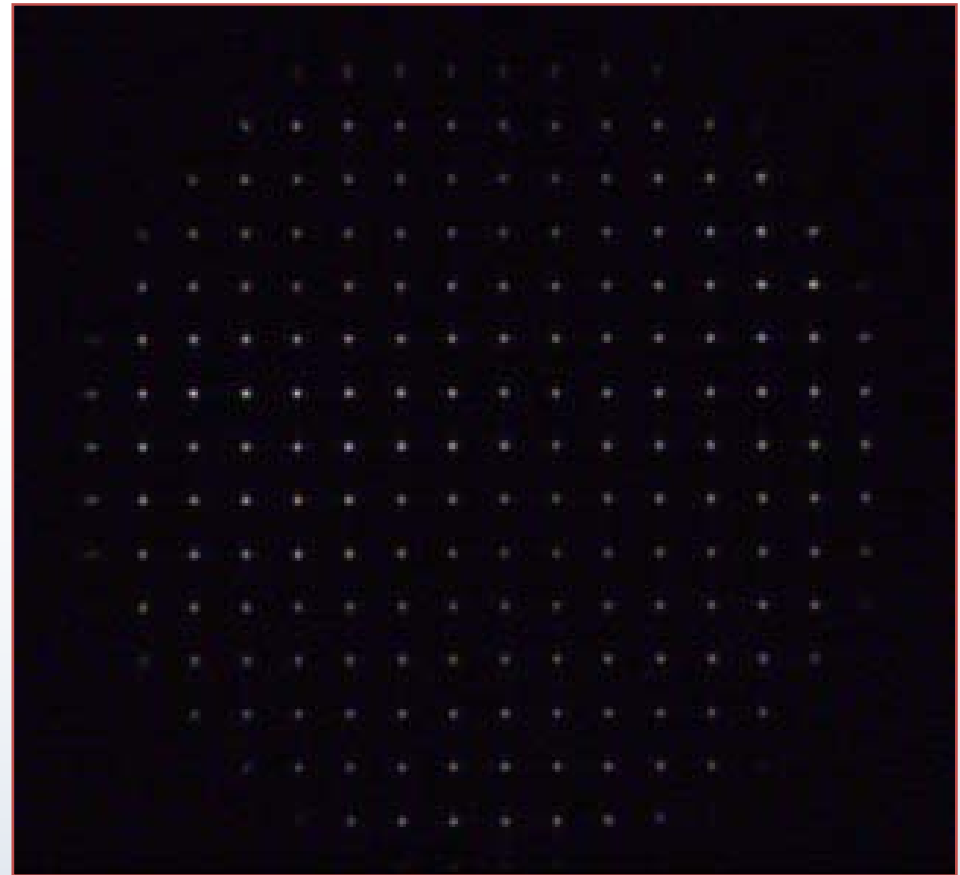


- An aberrated wavefront gives an irregular spot pattern
- This measured spot pattern is compared to the perfect pattern, and the aberrations are calculated

# Hartmann-Shack (HS) spot pattern

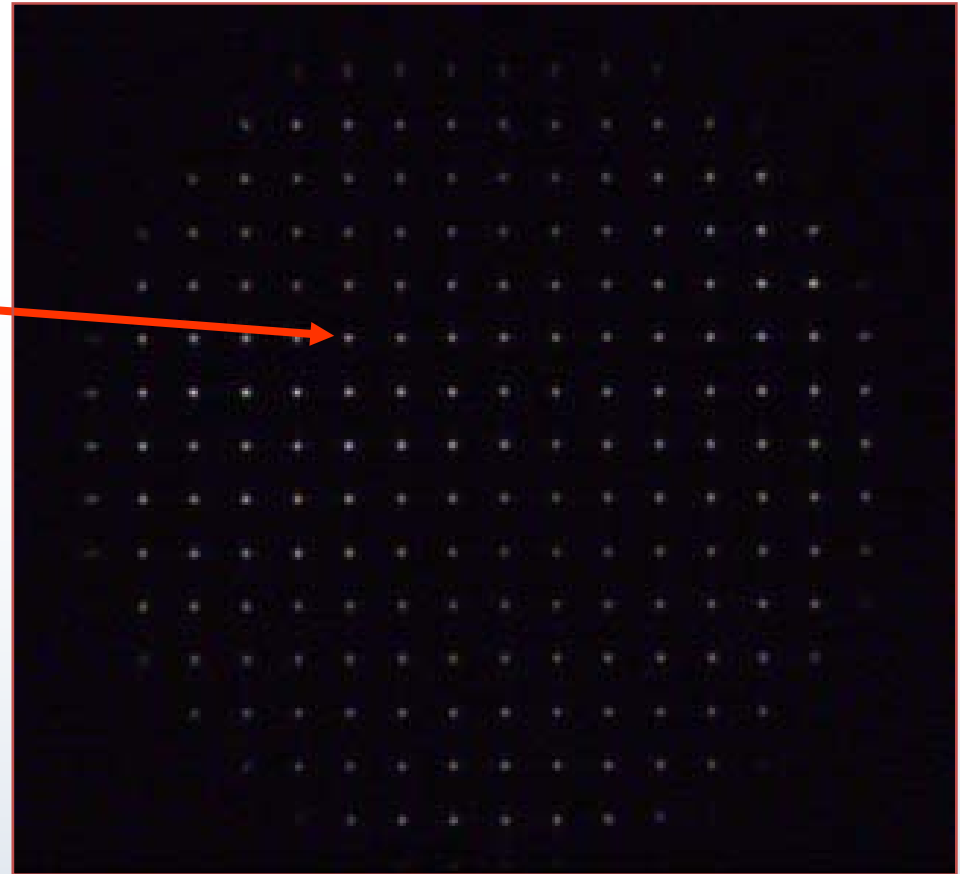
When viewed on the monitor, the HS pattern shows how light exits the pupil

This is compared to a perfect spot pattern, and the resultant wavefront error is calculated



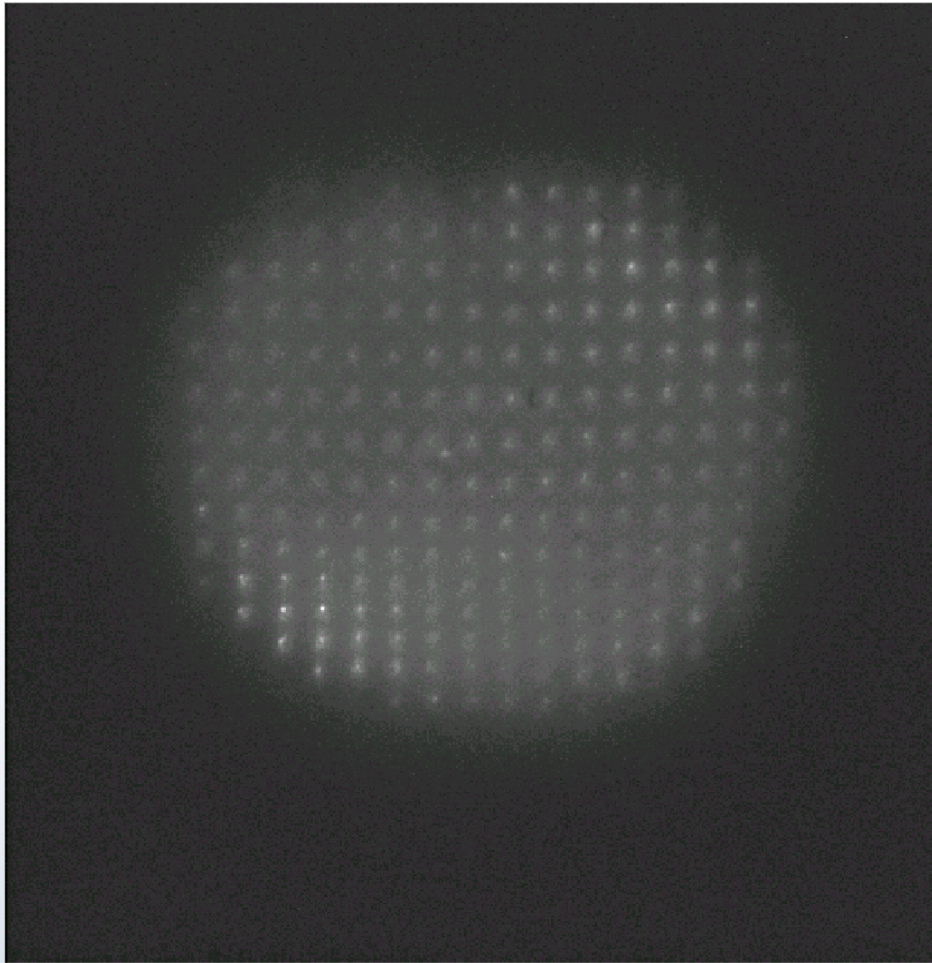
# Hartmann-Shack Image quality

In an optimal image, the Hartmann-Shack spots will appear round and sharply focused

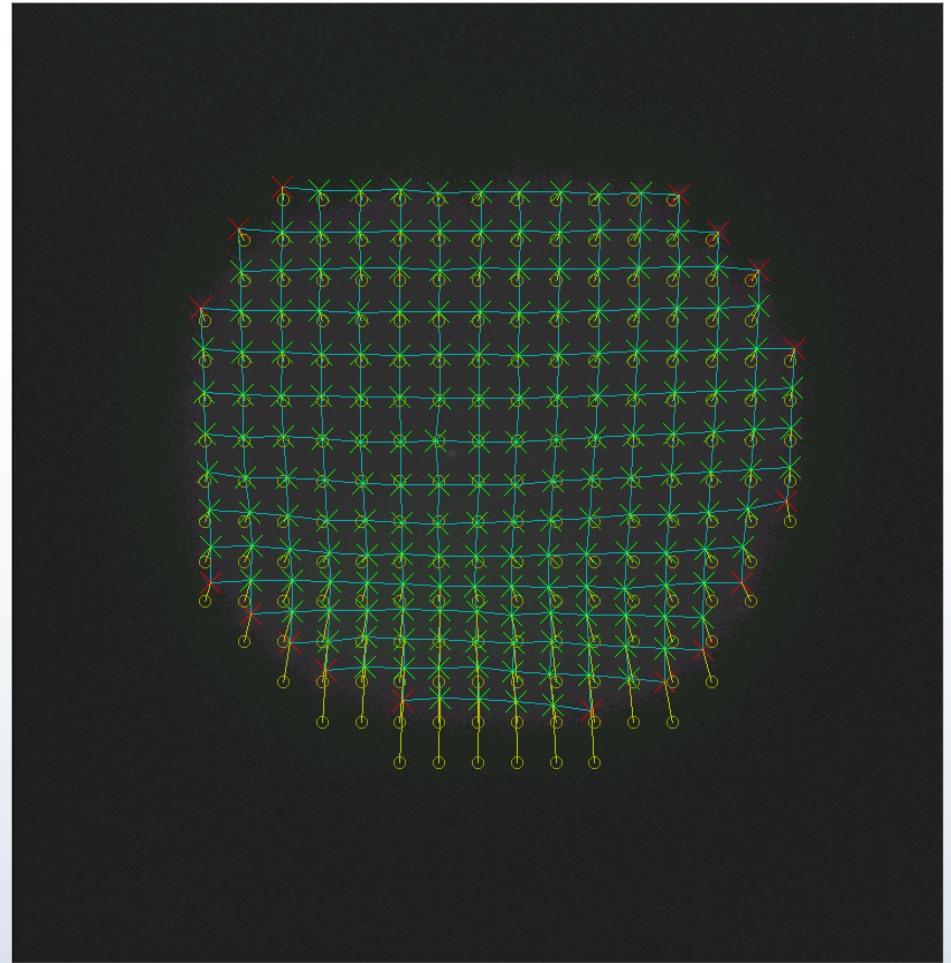




# Hartmann-Shack Image



Must be able to correlate  
spots with lenslets



Must be able to measure  
small spot displacements



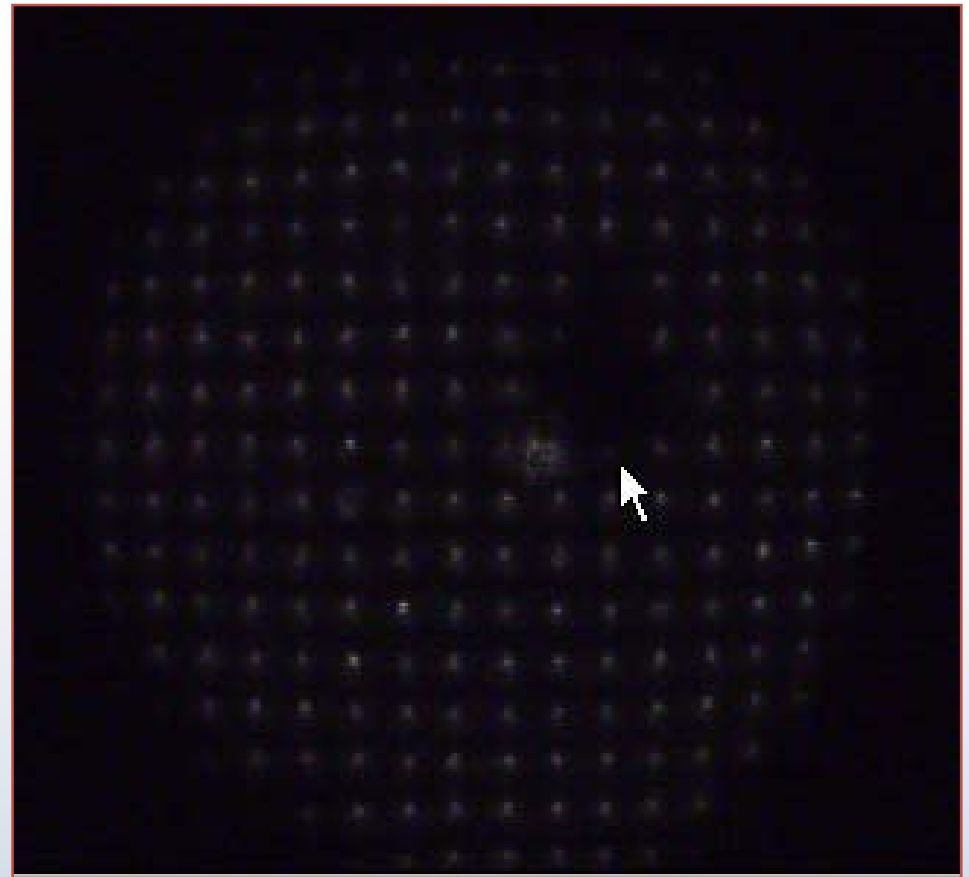
Hartmann-Shack

# Limitations of acquisition

Dry eye and an irregular cornea can make acquisition difficult

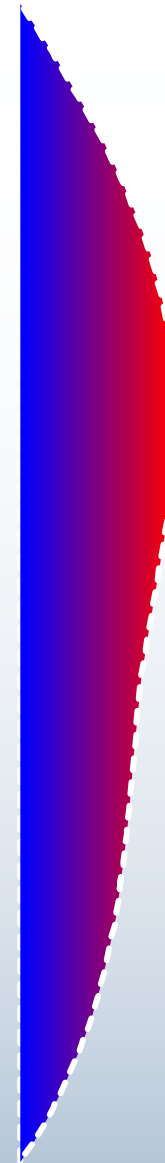
Cataracts can make acquisition difficult or virtually impossible (shown here)

This provides a qualitative assessment of the optical path, much like a placido ring view on a topographer



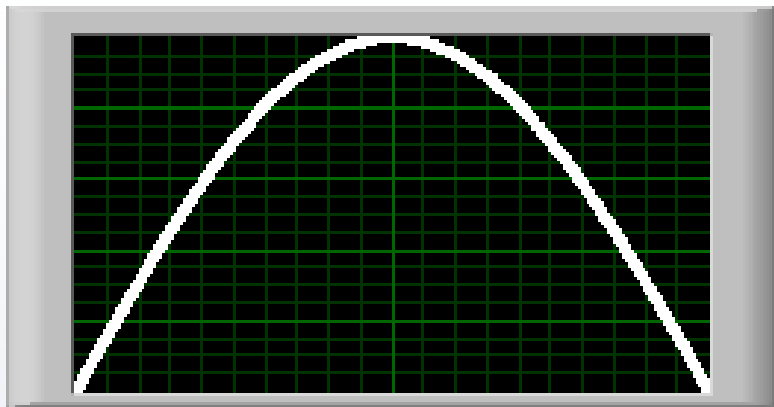
# The Root-Mean-Square (RMS) Wavefront Error

The Root Mean Square Error (RMS) is a measure of the difference between the measured and ideal wavefronts.

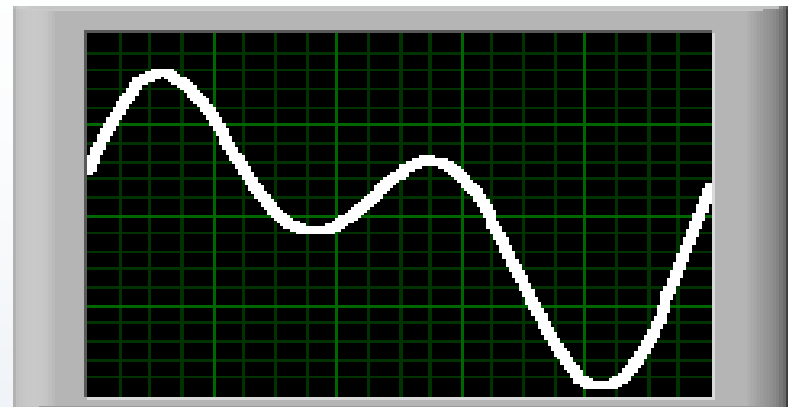


# Wavefront Analysis

Wavefront measurements look at the deviation from a perfect optical system and uses Zernike Polynomials to mathematically assess the aberration.



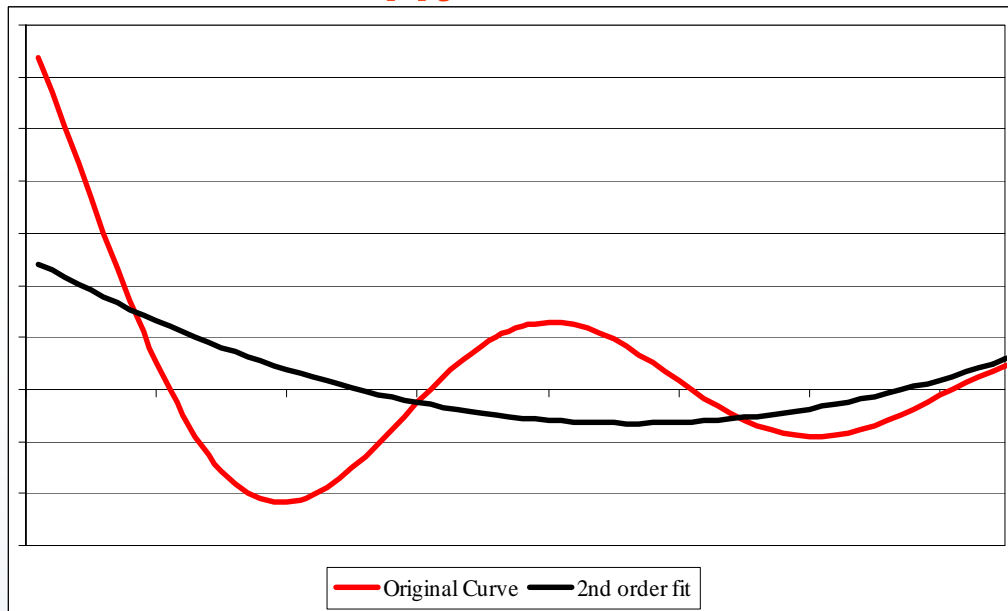
Simple slice of a  
sphero-cylindrical shape  
(parabola)  
Modeled by  $(y = x^2)$



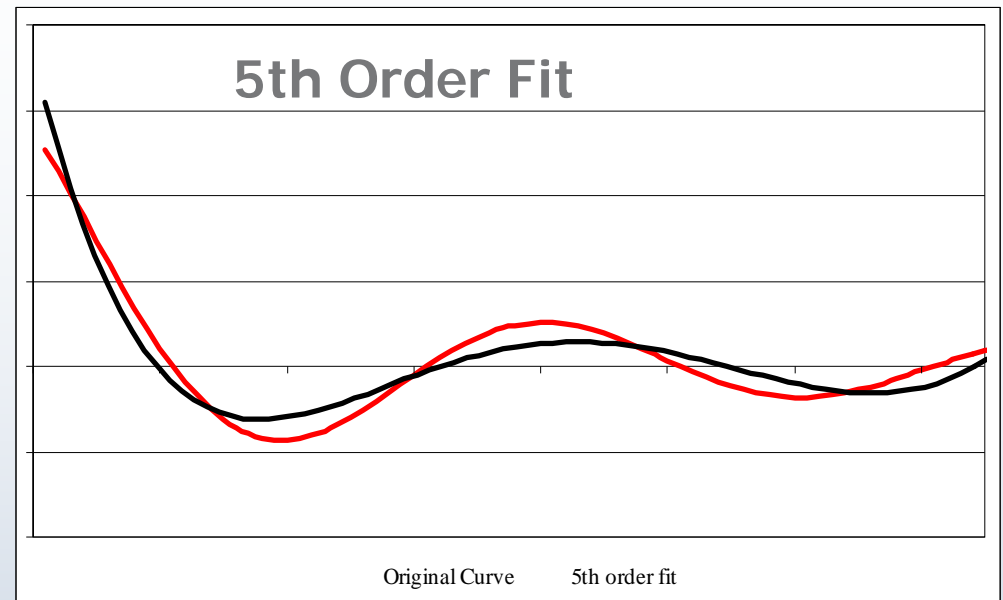
Slice of a more  
complex, higher order shape.  
Modeled with higher order  
terms, *i.e.*,:  $(y=a^4+b^3+c^2+d)$

# More Terms = Better Fit

2nd Order  
Fit



5th Order Fit



Start with a shape which we want to model using polynomials.  
For this example, a profile is used instead of a 3D surface.

# Zernike Coefficients

About

Acquire

Review

Utilities

WaveScan™

Zernike Coefficients

Patient Name:

58, 58

Patient ID:

58

Notes:

not in study  
no  
pathologies/surgery/etc  
tested for subject interest  
only

Pupil Size for Rx Calc

☐ 3 mm
 ☒ 4 mm
 ☐ 5 mm
 ☐ Max Pupil

OD: +0.78 DS +1.52 DC x 16° @ 12.5 mm (4.0 Pupil)  
 10-Aug-2001 15:58    Pupil: 5 mm    Hi Order: 20.6 %  
 Eff. Blur (D): 1.69    Total Rms Err (μ): 1.53

OS: +1.50 DS +2.52 DC x 53° @ 12.5 mm (4.0 Pupil)  
 10-Aug-2001 15:59    Pupil: 5 mm    Hi Order: 12.2 %  
 Eff. Blur (D): 3.41    Total Rms Err (μ): 3.08

Zernike Coefficients Table

J	Term	Value	Coefficient Name
3	$Z_2^{-2}$	0.474917	Astigmatism
4	$Z_2^0$	-1.154386	Defocus
5	$Z_2^2$	0.823283	Astigmatism
6	$Z_3^{-3}$	0.018915	Trefoil 30°
7	$Z_3^{-1}$	-0.278642	Vertical Coma
8	$Z_3^1$	-0.026825	Horizontal Coma
9	$Z_3^3$	0.000065	Trefoil 0°
10	$Z_4^{-4}$	0.001761	
11	$Z_4^{-2}$	-0.081793	
12	$Z_4^0$	-0.003981	Spherical Aberration
13	$Z_4^2$	0.063422	
14	$Z_4^4$	-0.040405	
15	$Z_5^{-5}$	-0.008400	
16	$Z_5^{-3}$	-0.029521	
17	$Z_5^{-1}$	0.006370	
18	$Z_5^1$	-0.015512	
19	$Z_5^3$	0.020449	
20	$Z_5^5$	0.049166	
21	$Z_6^{-6}$	0.001699	
22	$Z_6^{-4}$	0.016426	
23	$Z_6^{-2}$	-0.001895	
24	$Z_6^0$	-0.003186	
25	$Z_6^2$	-0.007897	
26	$Z_6^4$	0.002407	
27	$Z_6^6$	-0.056688	

Zernike Coefficients Table

J	Term	Value	Coefficient Name
3	$Z_2^{-2}$	1.670390	Astigmatism
4	$Z_2^0$	-2.511816	Defocus
5	$Z_2^2$	-0.492187	Astigmatism
6	$Z_3^{-3}$	-0.109167	Trefoil 30°
7	$Z_3^{-1}$	-0.254761	Vertical Coma
8	$Z_3^1$	0.208162	Horizontal Coma
9	$Z_3^3$	-0.063393	Trefoil 0°
10	$Z_4^{-4}$	-0.027548	
11	$Z_4^{-2}$	-0.019262	
12	$Z_4^0$	0.082140	Spherical Aberration
13	$Z_4^2$	-0.004037	
14	$Z_4^4$	-0.035880	
15	$Z_5^{-5}$	-0.031549	
16	$Z_5^{-3}$	-0.035527	
17	$Z_5^{-1}$	0.007198	
18	$Z_5^1$	0.001938	
19	$Z_5^3$	-0.047719	
20	$Z_5^5$	0.034732	
21	$Z_6^{-6}$	0.023343	
22	$Z_6^{-4}$	-0.026634	
23	$Z_6^{-2}$	-0.002554	
24	$Z_6^0$	-0.005736	
25	$Z_6^2$	-0.011198	
26	$Z_6^4$	0.001613	
27	$Z_6^6$	-0.026046	

Patient

58, 5.

...

2

...

3

...

4

...

5

Prev

Next

Print

Remove

WavePrint Export...

Export...

Help

visx®

WE MAKE THINGS CLEAR

For Help, press F1

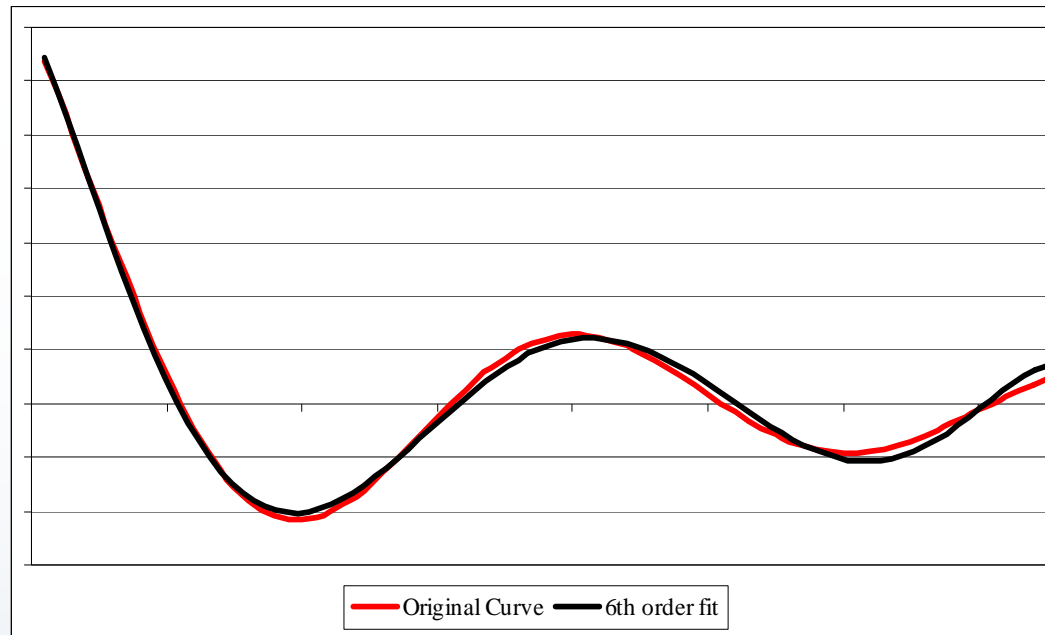
11-Jan-2002 10:25

Hardware: Ready

27!

# How far should we go?

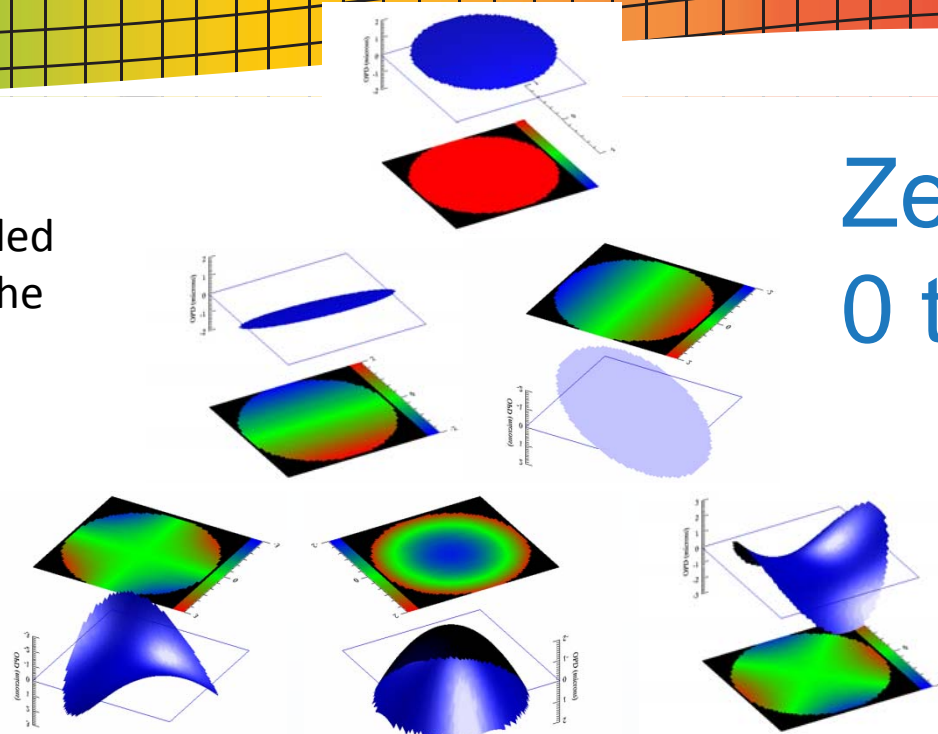
6th Order Fit



Debate exists to the order of terms the eye can appreciate ... 4<sup>th</sup> to 6<sup>th</sup> order is expected

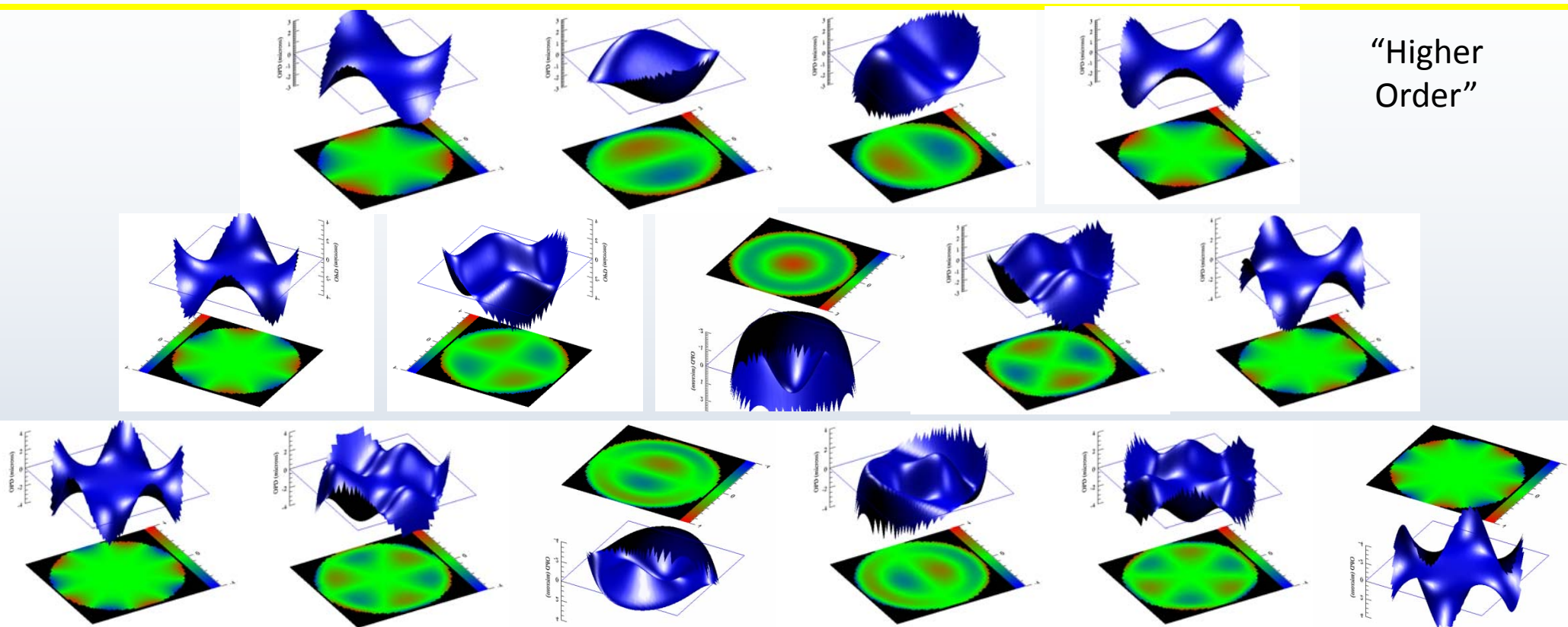
Polynomial surfaces are added together to create a fit for the surface error.

# Zernike Tree 0 to 5th order



“Lower Order”

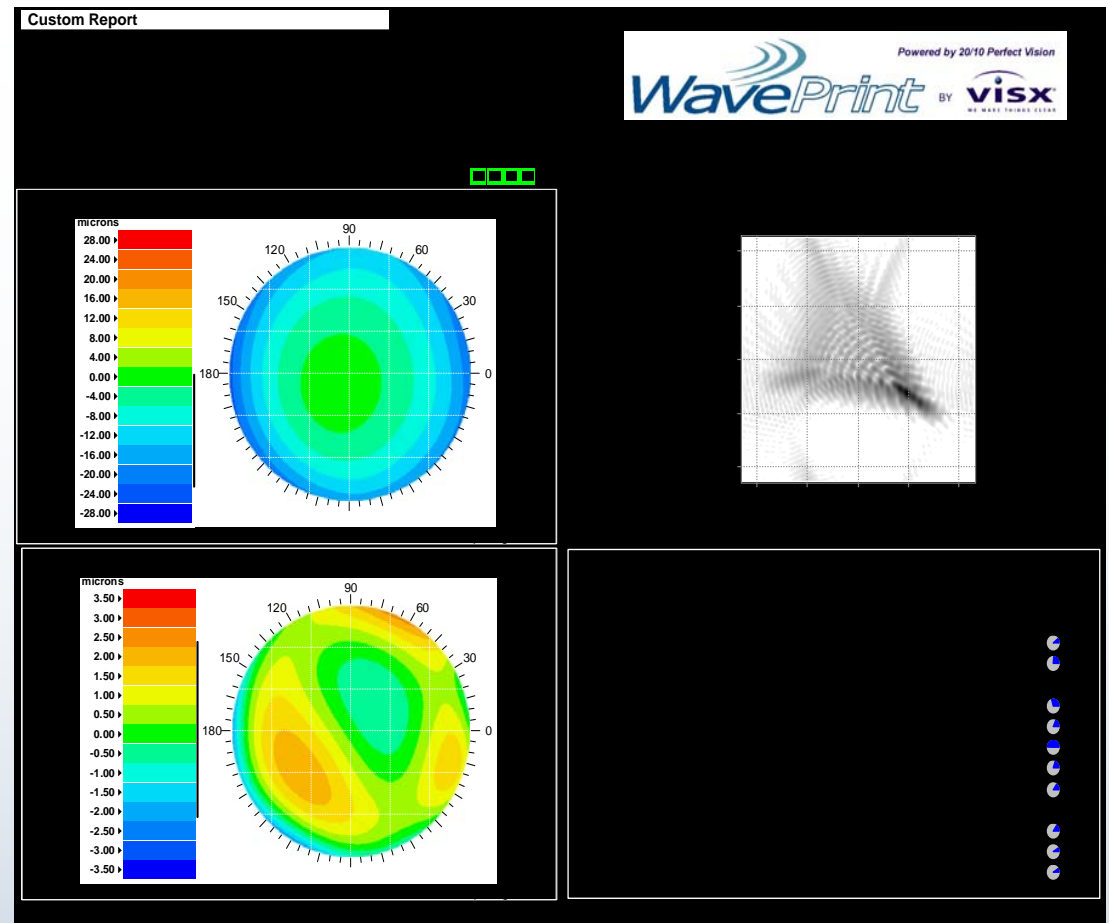
“Higher Order”



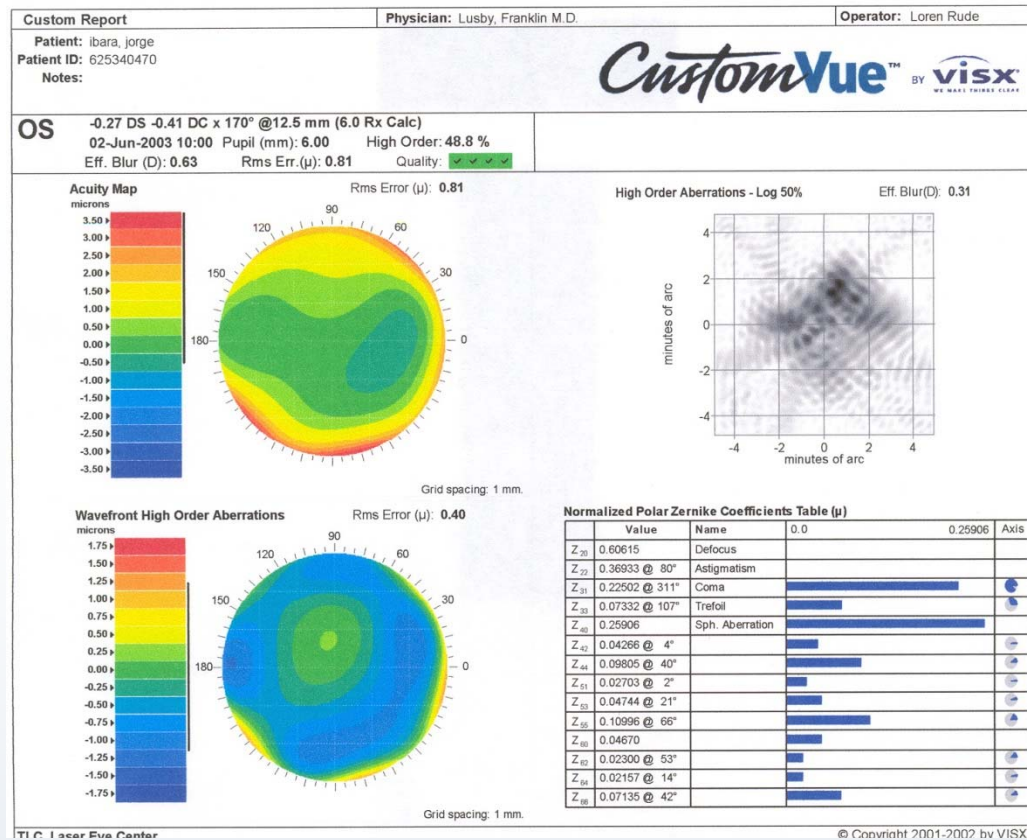
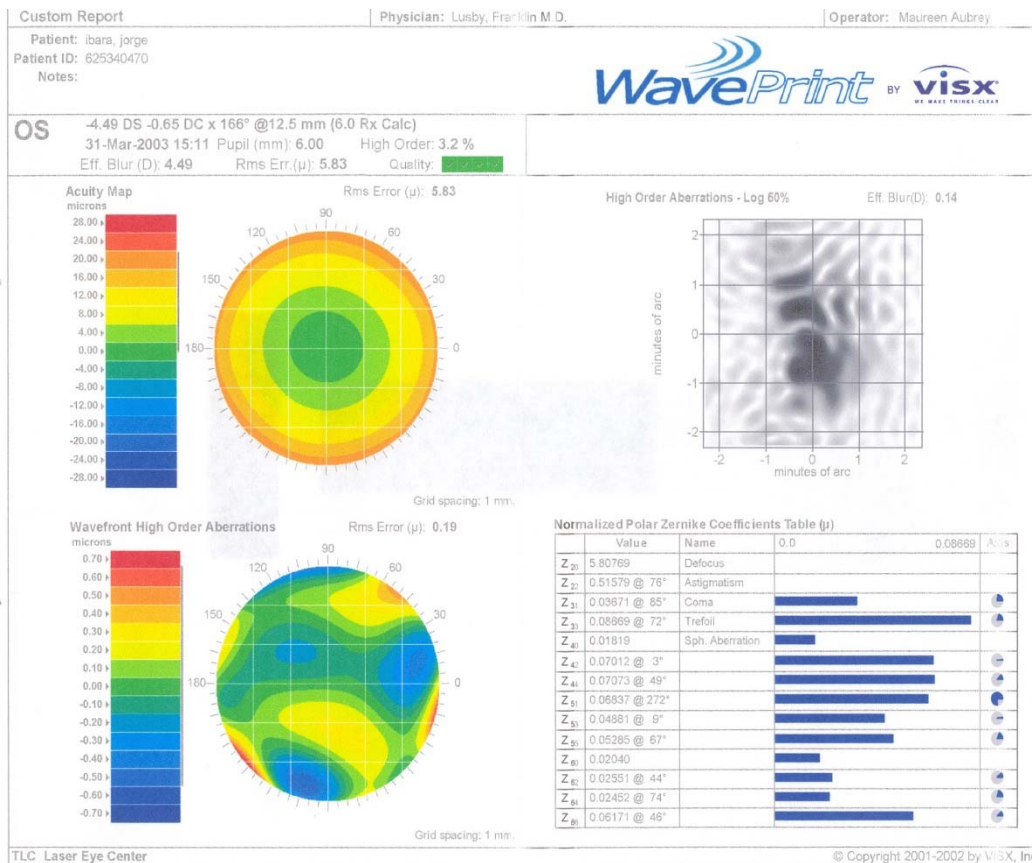


# Wavefront High Order RMS

- May be the best predictor for need of Wavefront ablation
- Not dependent on low order aberrations
- HO RMS > 0.50 is always visually significant
- HO RMS > 0.30 often visually significant
- HO RMS < 0.30 may not be visually significant\*



# Post-op: pl sph 20/20



Pre HOA

0.19

Post HOA

0.40

## Surgical Treatment Plan Report

Physician: Lusby, Franklin M.D.

Operator: Flor Vazquez

Patient: ralston, amy

Patient ID: 9246

Notes:

**CustomVue™** BY **visx**  
WE MAKE THINGS CLEAR

**OD** -4.74 DS -0.46 DC x 159° @12.5 mm (4.0 Rx Calc)  
24-Jun-2003 10:59 Pupil (mm): 6.00 High Order: 6.9 %  
Eff. Blur (D): 4.93 Rms Err.(μ): 6.41 Quality: ✓✓✓✓

Manifest: -4.75 DS -0.50 DC x 163° @ 12.50 mm

Cycloplegic:

Auto:

Auto+Cyclo:

K1 (D): 48.00 K2 (D): 46.75 K2 axis(°): 14

Corneal Thickness (μ): 590

Scotopic Pupil Size (mm): 7.00

Treatment Type: LASIK Correction Type: Wavefront

Physician Adjustments - SPH (D): -0.50 CYL (D): +0.00 Axis(°): VTX(mm): 0.00

Total Correction - SPH (D): -4.98 CYL (D): -0.40 Axis(°): 159 VTX(mm): 0.00

## Treatment Parameters

Optical Zone (mm): 7.00 x 7.22

Ablation Zone (mm): 9.00

Max. Ablation Depth (μ): 120.7

No. of Tissue Pulses: 657

Treatment Time (sec): 66

## Surgical Parameters

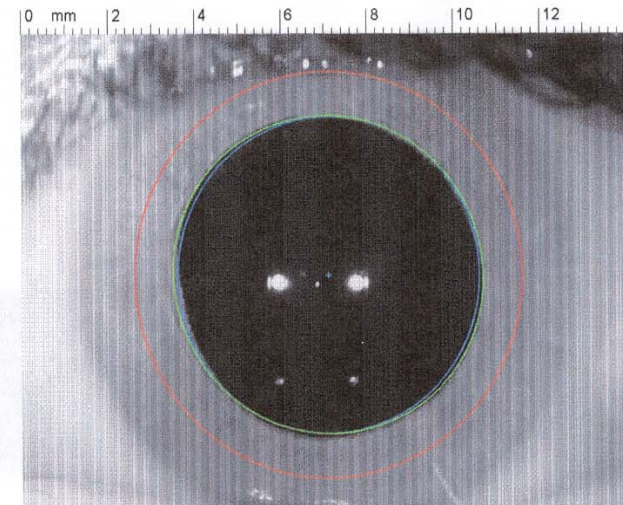
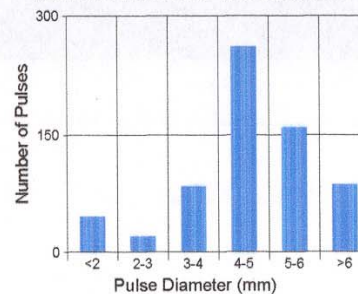
Flap Diameter (mm): 9.00

Flap Thickness (μ): 160

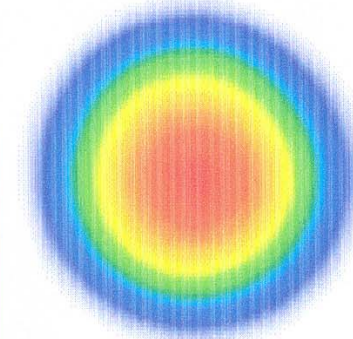
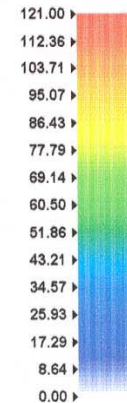
Residual Bed (μ): 309

## Additional Information

Distribution of VSS Pulse Diameters

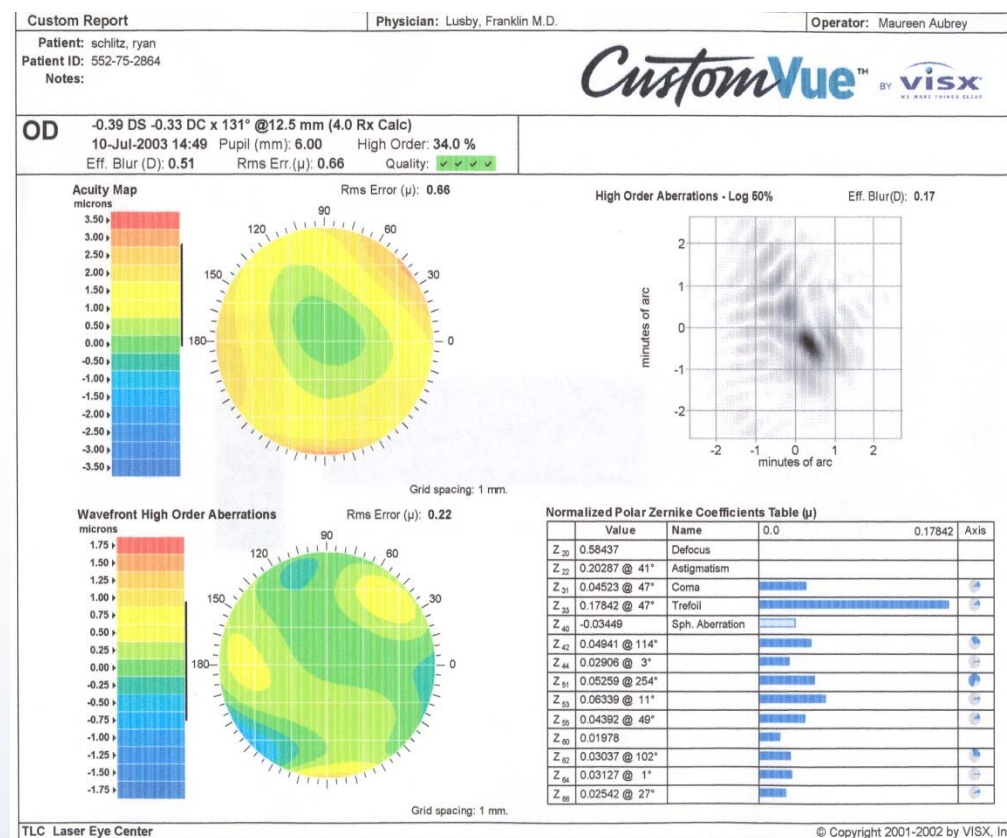
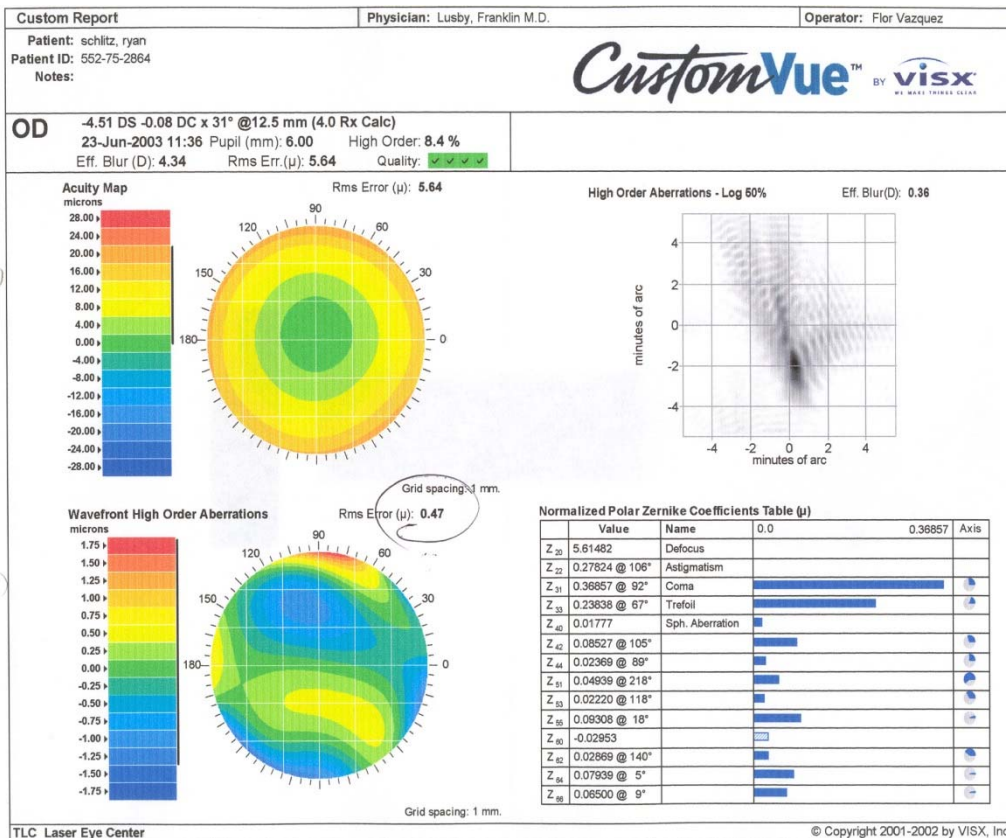


Ablation Depth (microns)





# Post-op: (RS) 20/10 sc



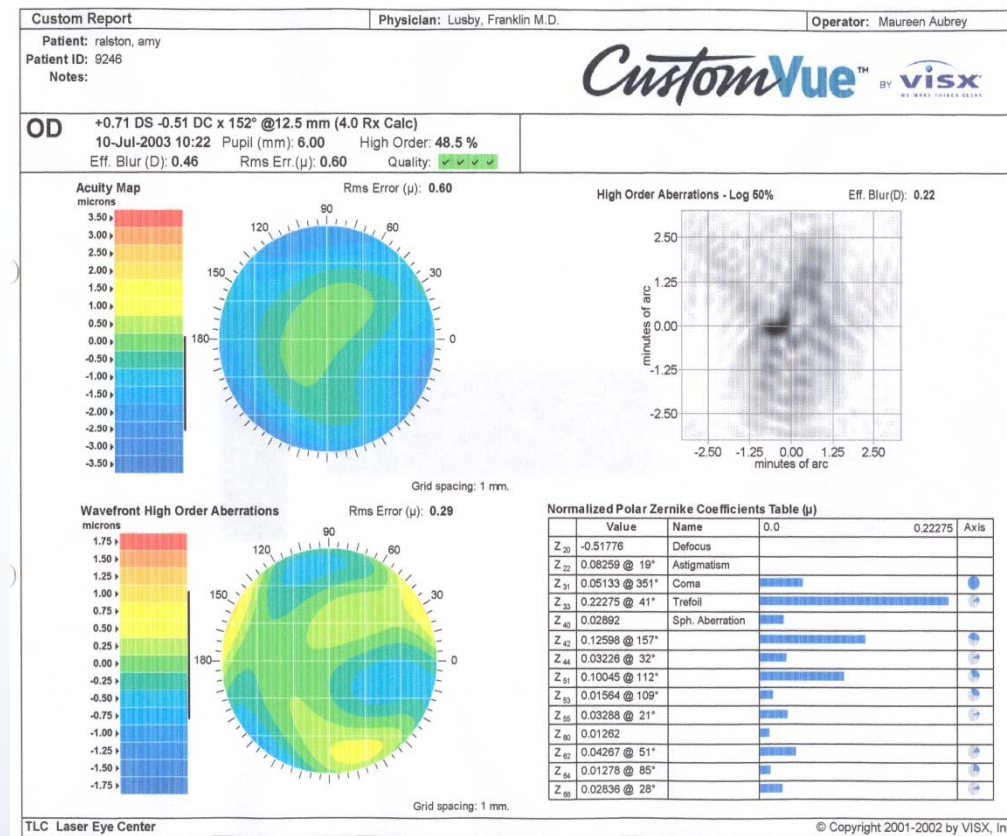
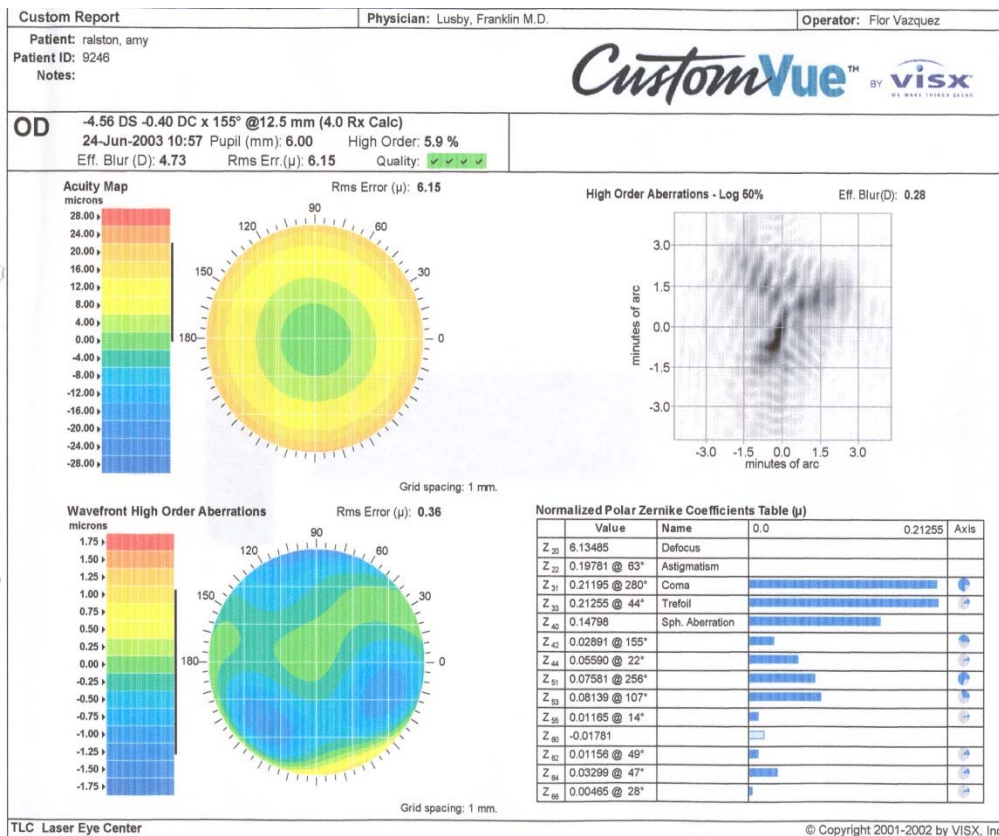
Pre HOA

0.47

Post HOA

0.22

# Post-op: (AR) 20/15 sc



Pre HOA

0.36

Post HOA

0.29

# Platform Comparison

Platform	#	MSE	Mesopic (worse)	Mesopic (better)	%20/20
VISX	258	-3.21	7	28	93
Alcon	147	-3.00	7	18	90
B&L	340	-3.65	4	25	92



# **The Significance of Prolate Ablation**

**Franklin W. Lusby, M.D.  
Medical Director, TLC-Fullerton at SCCO  
February 13, 2006**



## Definitions

- Prolate: steeper in the center, flattens toward the periphery – “end” of an ellipse
- Oblate: flatter in the center, steepens toward the periphery – “side” of an ellipse





# Mathematics of corneal shape

$e$  : eccentricity

$p$  : shape factor

$Q$  : asphericity



# Mathematics of corneal shape

$$p = 1 - e^2$$

$$p = Q + 1$$

$$e^2 = -Q$$



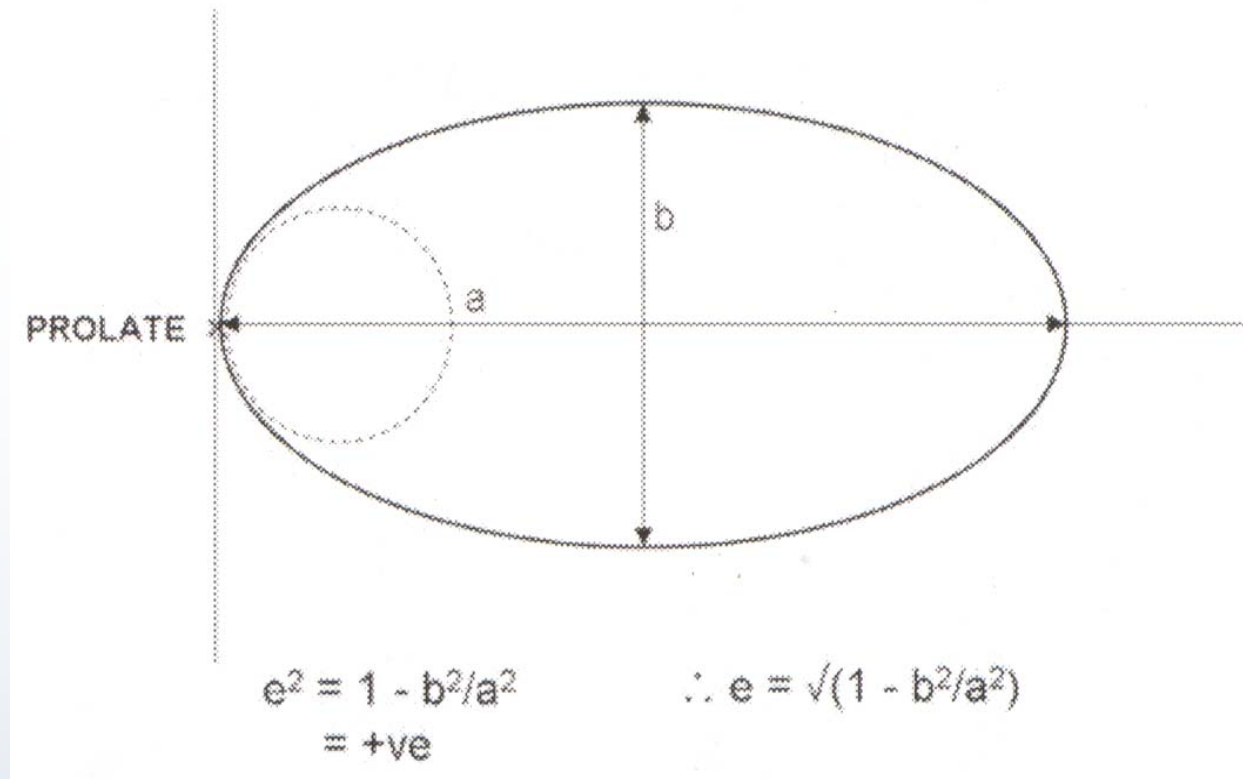
# Mathematics of corneal shape

e : best to describe prolate surface

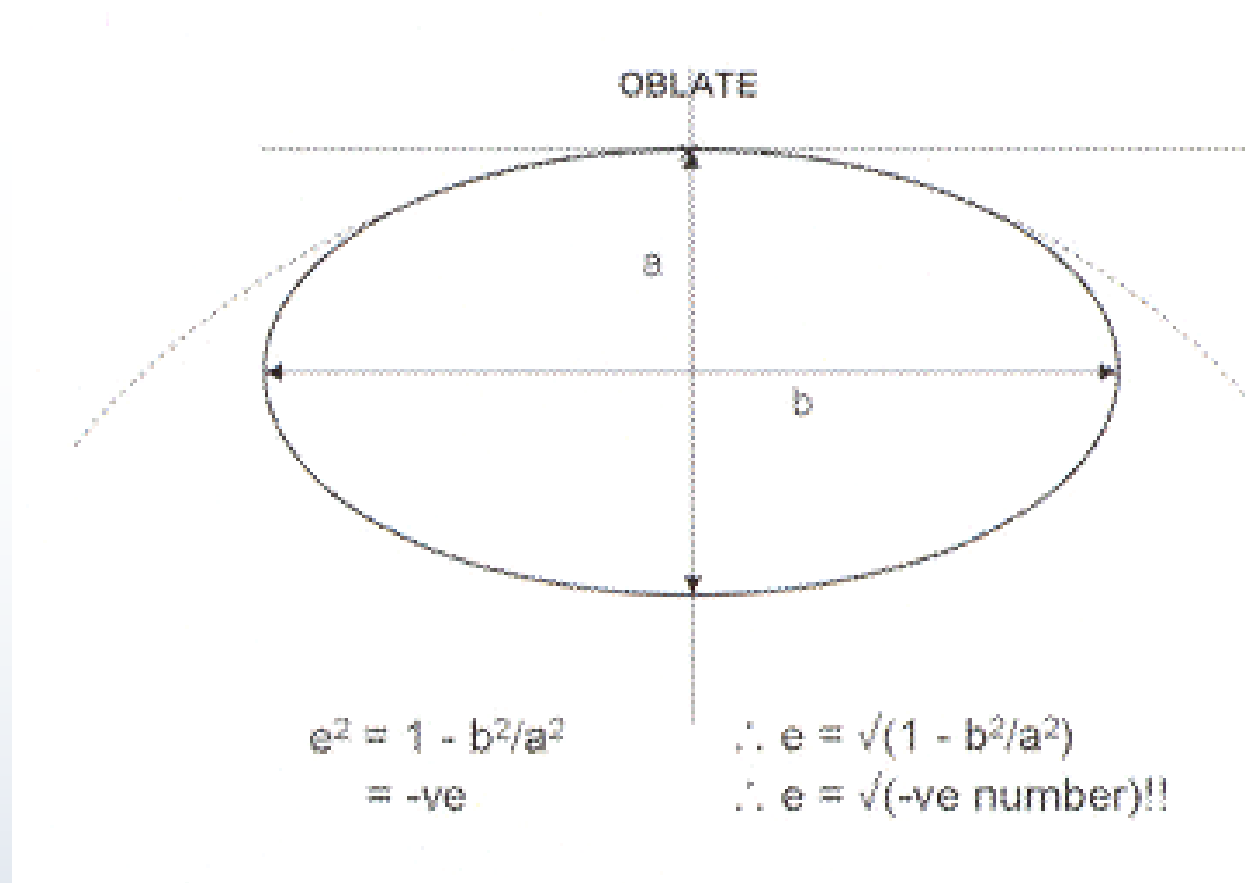
Shape factor “p” developed because “e” becomes meaningless for oblate surface

$$e = \sqrt{1-b^2/a^2}$$

# Mathematics of corneal shape



# Mathematics of corneal shape





# Circle: shape values

$$e = 0$$

$$p = 1$$

$$Q = 0$$



## Normal cornea: shape values

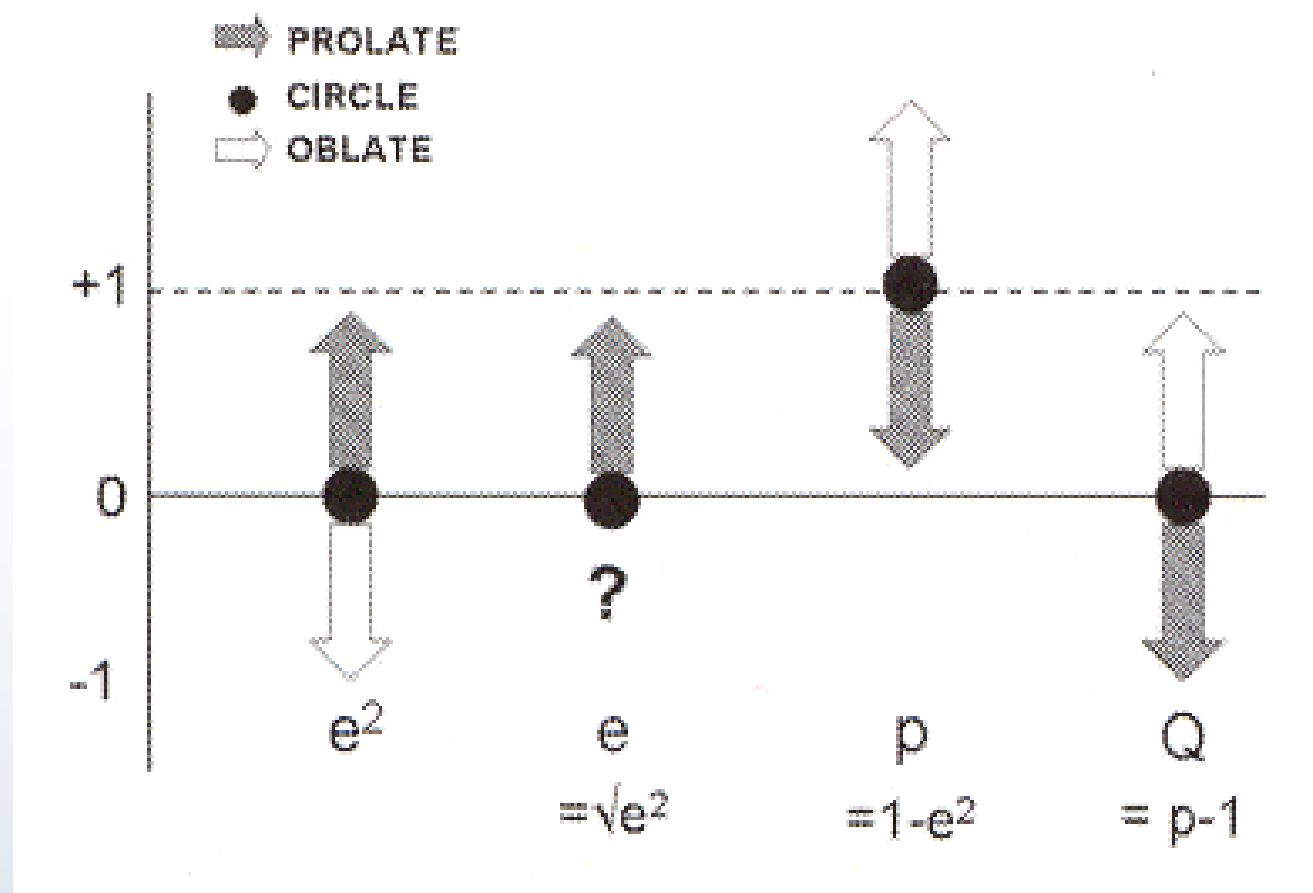
$$e = 0.5$$

$$p = 0.75$$

$$Q = -0.25$$

Prolate ellipse

# Mathematics of corneal shape







# Topography

May calculate  $e$ ,  $p$  or  $Q$

Will vary with meridian and chord length

Proprietary

Most reliable for normal corneas



# Mathematics: shortcomings

Will vary with meridian

Hemi-meridional differences

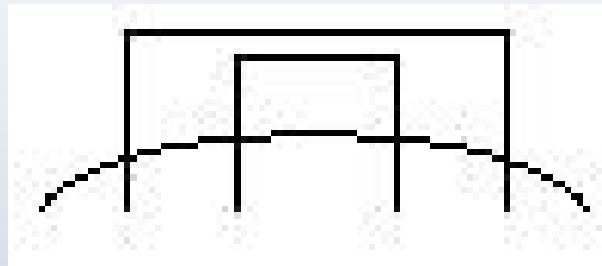
Topographic calculations based on averages

# Refractive Surgery

Tends to create an oblate surface

Pupil diameter (chord length) is significant

Short chord length may calculate prolate; with long, may calculate oblate





# Refractive Surgery

Prolate ablation (less oblate) a component of custom ablations

Wavefront data not necessarily necessary



# Allegretto Wave by Wavelight

The development objective was to fulfill the demands of the modern refractive surgeon and design a laser that would be optimal for custom treatments, while eliminating problems in conventional lasik



# Allegretto Wave: Design goals

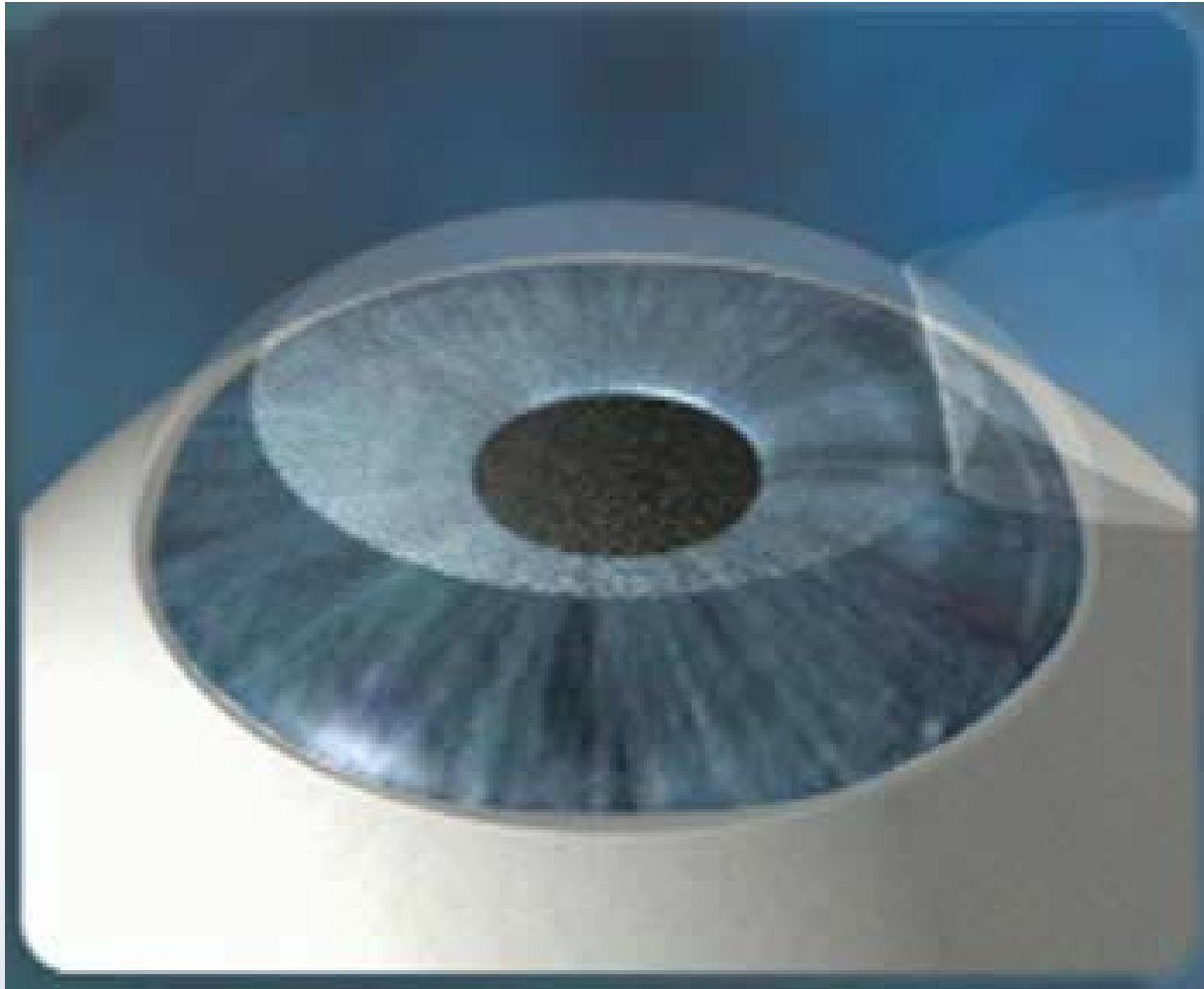
- Work at high speed
- Ablate with maximum precision
- Rely on superior safety and accuracy
- Prevent problems with night vision, contrast sensitivity
- Provide each patient with a higher level of customization in the standard treatment
- Achieve predictable, superior results



# Allegretto Wave: Design goals

- Developed during initial wavefront research
- Aims to prevent the induction of higher order spherical aberrations (C12) following standard refractive surgery
- In order to compensate for energy losses in the periphery, additional pulses are placed
- Results in large, true optical zones
- Reduces the possibility of night vision problems

## Prolate ablation



Peripheral pulses have lower energy density



## Prolate ablation



Additional pulses placed in periphery



# Current Excimer Technologies

**B & L Technolas:**

**Carl Zeiss Meditec MEL 80:**

**Nidek EC 500:**

**AMO Visx Star S4:**

**Alcon Allegretto Wavelight:**

**Wavefront Guided Scanning Spot**

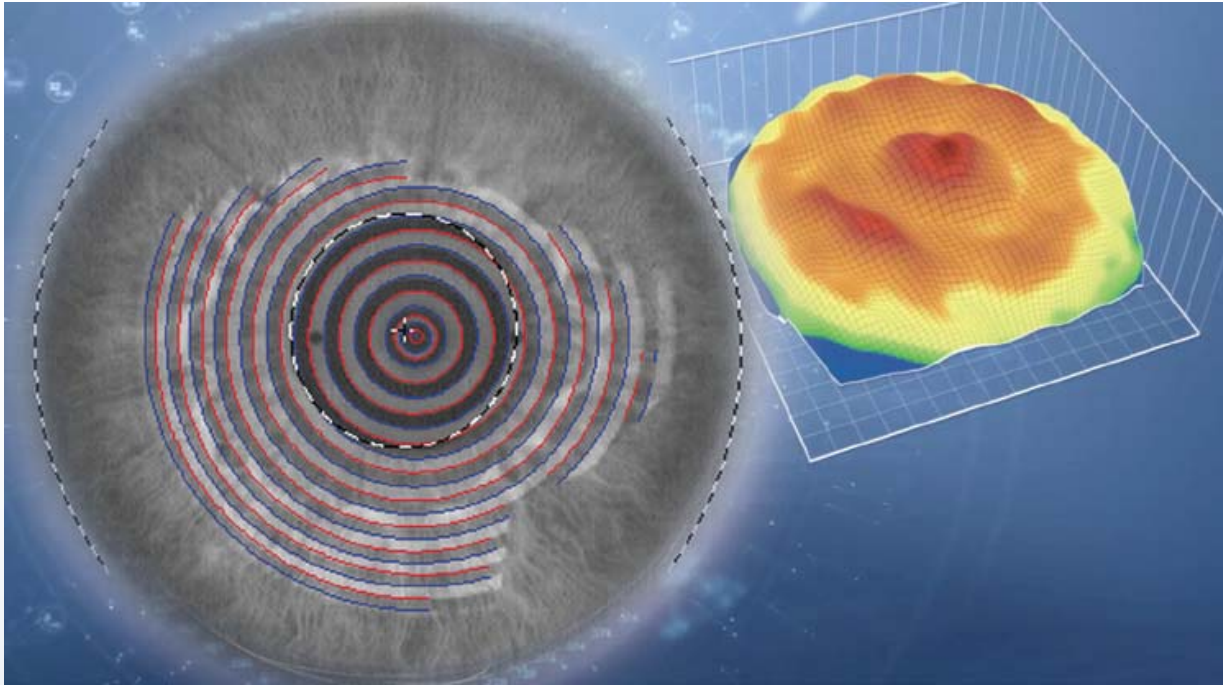
**Wavefront Optimized Scanning Spot**

**Traditional Scanning Slit**

**Wavefront Guided Variable Spot**

**Wavefront Optimized Scanning Spot**

# Allegretto Topo Guided Treatment



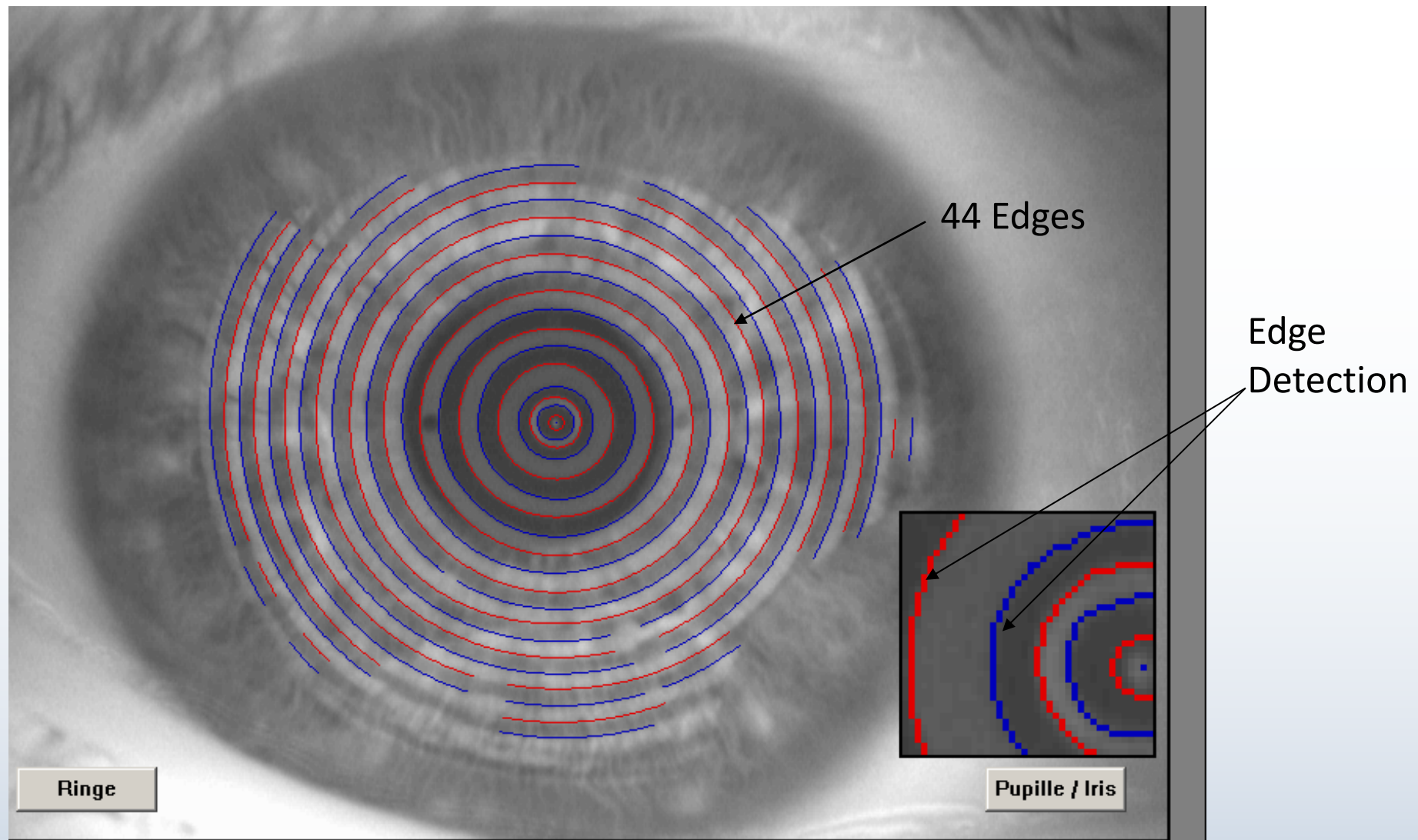
Laser pulses adjusted to topographic changes in  
corneal power

# Allegretto Vario Topolyzer

- **Placido disc** corneal topographer
- Measures **22,000 data points** (Wavescan = 240)
- Images tear film, cornea, pupil and iris
- Detects pupil margins, **corneal apex** and limbus
- **Calculates the location of the pupil area centroid and centroid shift**
- **Built in keratometer adds true keratometric data**
- Data maps include sagittal, tangential, dioptric, Zernike and Fourier polynomials
- **Measures asphericity (Q-value) which can be adjusted to improve depth of field and contrast sensitivity.**



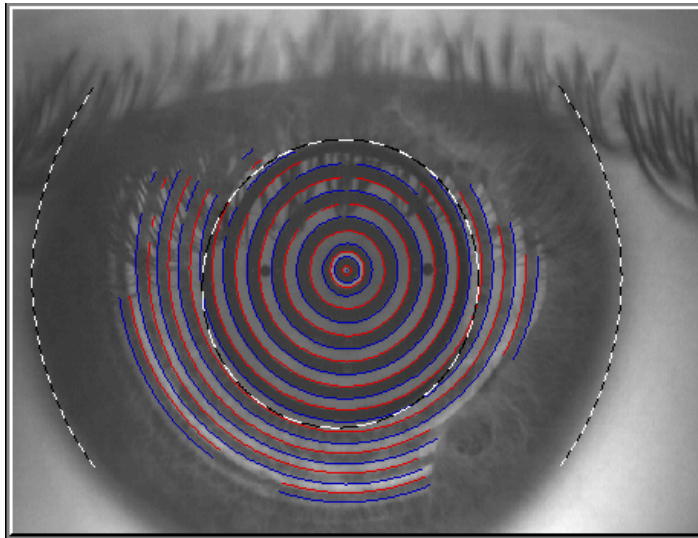
# Topolyzer Image



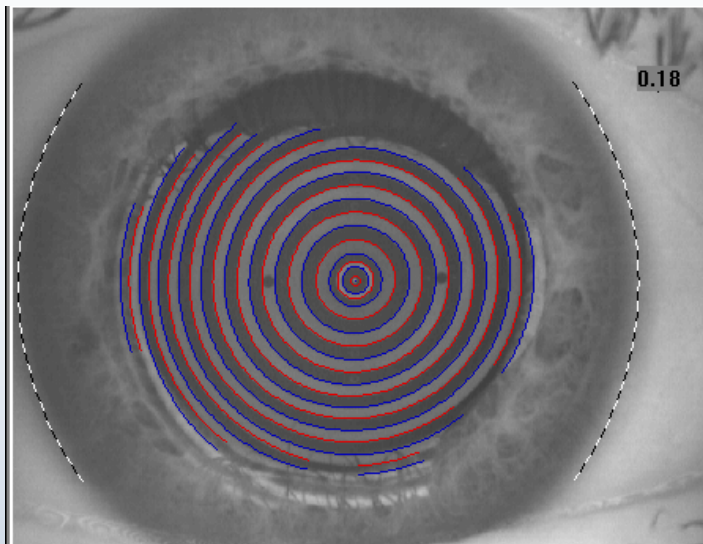
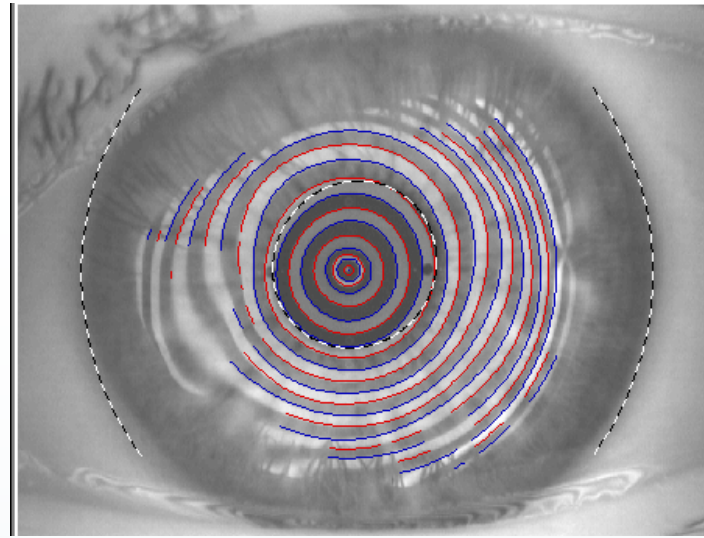
**500 Samples on 44 Edges = 22,000 Data Points**

# Accuracy of the Topolyzer Vario

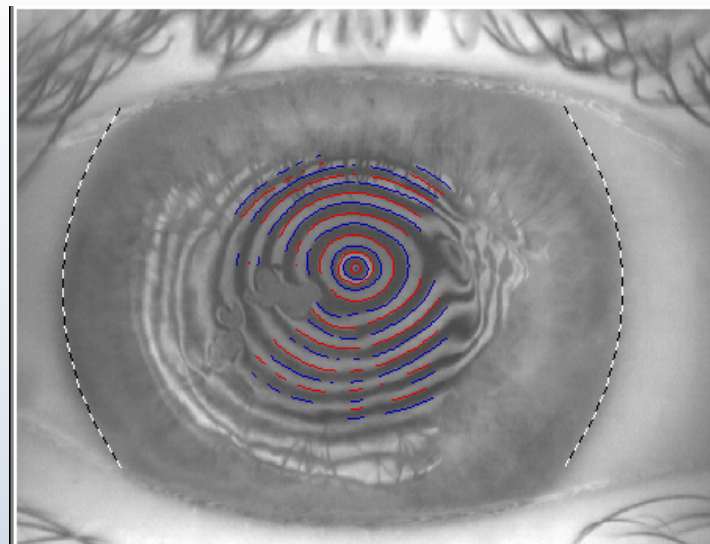
Eye lashes, lid & nose



Topographic irregularities



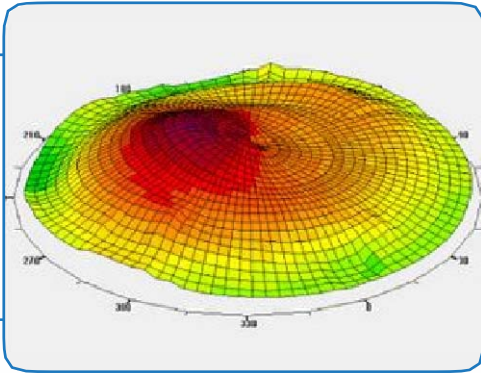
Pupil detection



Corneal surface / tear film

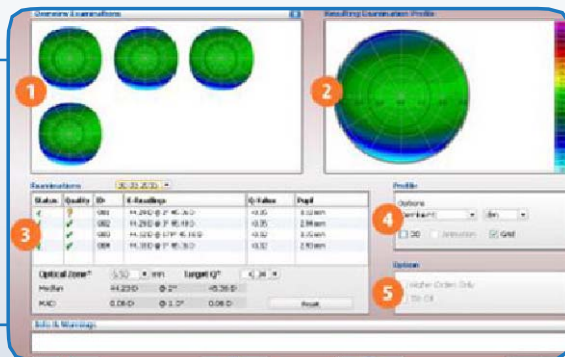
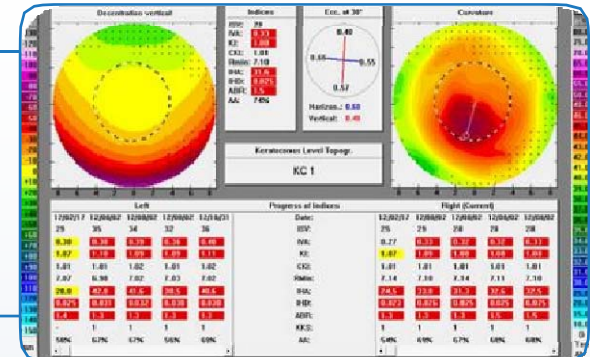


# Topo Guided Treatment



The patient's eye is imaged and analyzed using **22,000 unique elevation points** on the cornea.

This data is sent to the surgical planning computer to create an **individualized ablation profile**.



The Laser **automatically adjusts laser pulse placement** to match the topography-guided treatment.

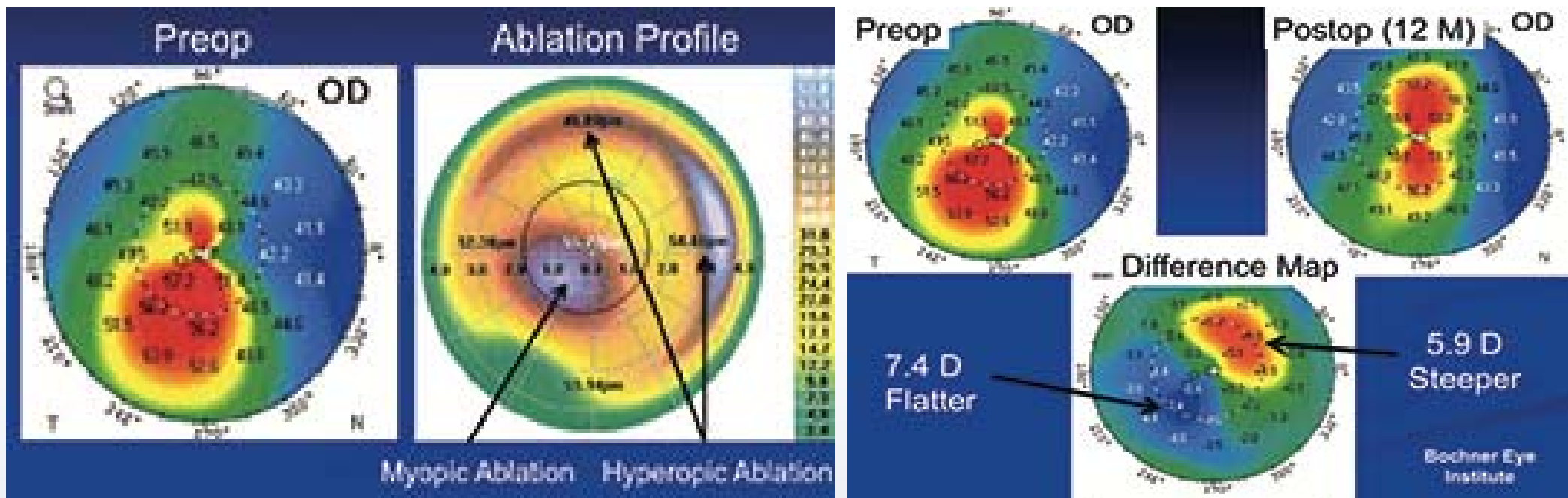


## Advantages of Topo Guided Treatments

- Higher level of **personalized** treatment planning
- Treatments are centered on the **corneal apex**, not the center of the pupil
- Measurements are not restricted to the pupillary area
- Simultaneous flattening and steepening of corneal irregularities **maintains prolate nature** of cornea
- Will not treat lenticular wave related abnormalities
- Potential to re-treat patients not happy with original Lasik
- Advanced iris registration/centration/cyclotorsion improves outcomes on all treatments

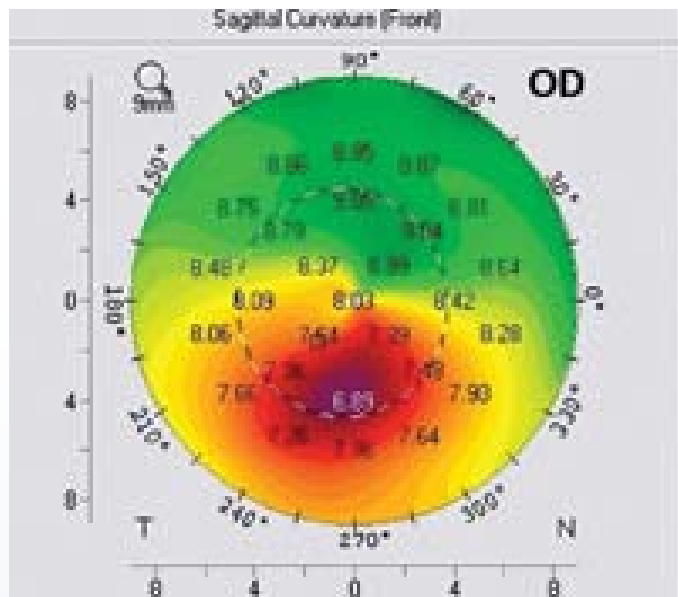


# Smoothing of Topographic Asymmetry

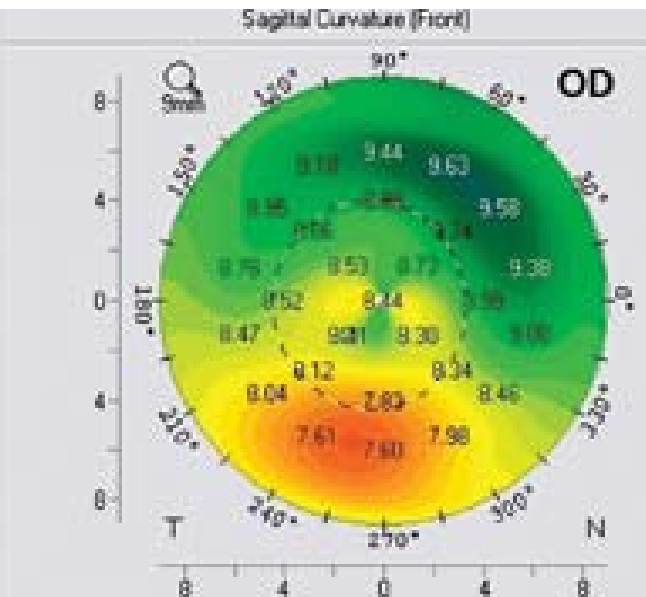


# Smoothing of Topographic Asymmetry

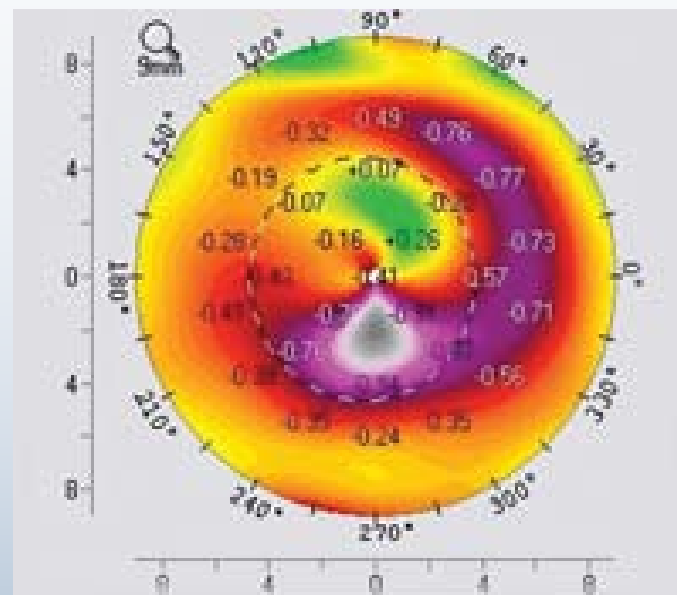
Pre



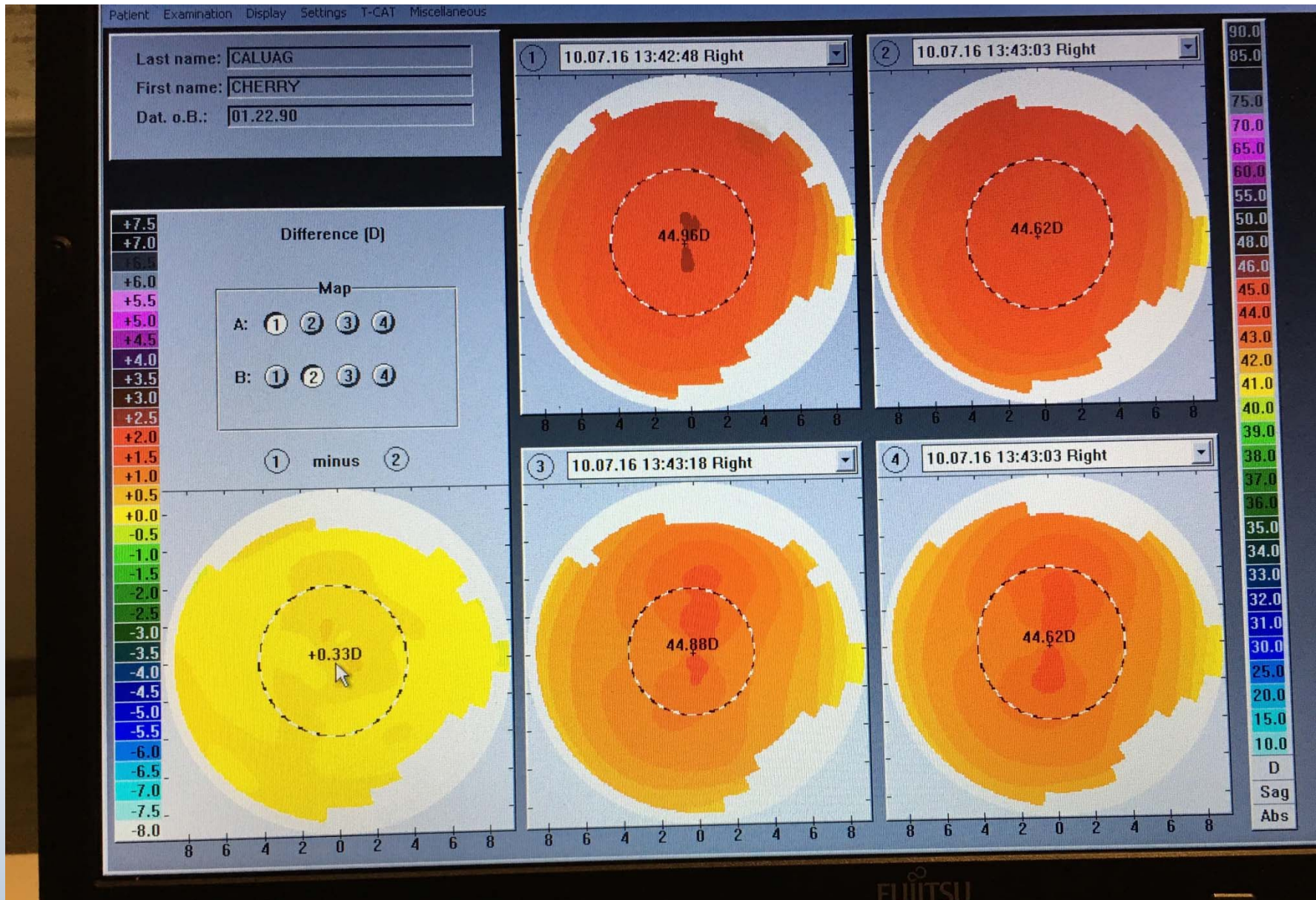
Post



Difference



# Pre-op Scan Analysis






# Pre-op Scan Analysis

1 2 3 4 5 Assign Examinations - Wavefront Optimized

**Refraction**

Method: Subjective Sphere\*: -3.50 D Cylinder\*: 0.00 D Axis\*: 0° VD\*: 12.5 mm

**Reference Image for Registration**



Measured Data for 10/07/2016

ID	K-Readings	Q-Value	Pupil	Pupil Dec. X/Y
001	43.72 D @ 170° 44.58 D	-0.31	3.47 mm	-30/-30 μm
002	43.72 D @ 170° 44.58 D	-0.32	4.97 mm	-170/-40 μm
003	43.77 D @ 170° 44.58 D	-0.32	3.63 mm	-60/-20 μm
004	43.77 D @ 170° 44.64 D	-0.32	4.00 mm	-160/-10 μm
005	43.95 D @ 170° 44.76 D	-0.32	3.44 mm	-70/-10 μm
006	43.72 D @ 171° 44.58 D	-0.31	4.97 mm	-230/-100 μm
007	43.77 D @ 169° 44.64 D	-0.32	3.46 mm	-150/-20 μm
Median	43.77 D @ 170° 44.61 D	-0.32	3.81 mm	-110/-20 μm
MAD	0.03 D @ 0.0° 0.03 D	0.00	0.35 mm	50/10 μm

Reset

**Attention:**

Selected Topolyzer data set older than last treatment.  
Entered cylinder differs from Topolyzer calculated cylinder.  
Entered axis differs from Topolyzer calculated axis.

☒ Use averaged K-Readings and Q-Values for planning.

☐ Enable Registration even less than 3 valid Measurements available

**Info & Warnings**

Green cross in image indicates apex position.



# Pre-op Total Ablation

Edit Treatment

Refractive Parameters

	Sphere	Cylinder	Axis	VD
Clinical	-3.50 D	0.00 D	0 °	12.5 mm
Measured	-0.51 D	-0.99 D	170 °	
Modified*	-3.50 D	0.00 D	0 °	

Reset

Nomogram S 101

Corneal Parameters

Optical Zone*	6.50 mm	Planned Flap*	120 µm
Trans. Zone*	1.25 mm	Cornea	510 µm
		Res. Stroma	335 µm

Attention:  
Tilt is switched off!

Option

☐ Higher Orders off☒ Tilt off

Zernike

Info & Warnings

X

✓

Ablation Profile

max: 54.70µm cen: 54.66µm

Display Profile

☐ 3D☐ Animation☒ Grid



# Pre-op HOA Ablation

Edit Treatment

Refractive Parameters

	Sphere	Cylinder	Axis	VD
Clinical	-3.50 D	0.00 D	0 °	12.5 mm
Measured	-0.51 D	-0.99 D	170 °	
Modified*	0.00 ▾ D	0.00 ▾ D	0 ▾ °	

Reset

Nomogram S 101

Corneal Parameters

Optical Zone*	6.50 ▾ mm	Planned Flap*	120 ▾ μm
Trans. Zone*	1.25 ▾ mm	Cornea	510 μm
		Res. Stroma	385 μm

Attention:

Tilt is switched off!

Option

☐ Higher Orders off☒ Tilt off

Zernike

Info & Warnings

Ablation Profile

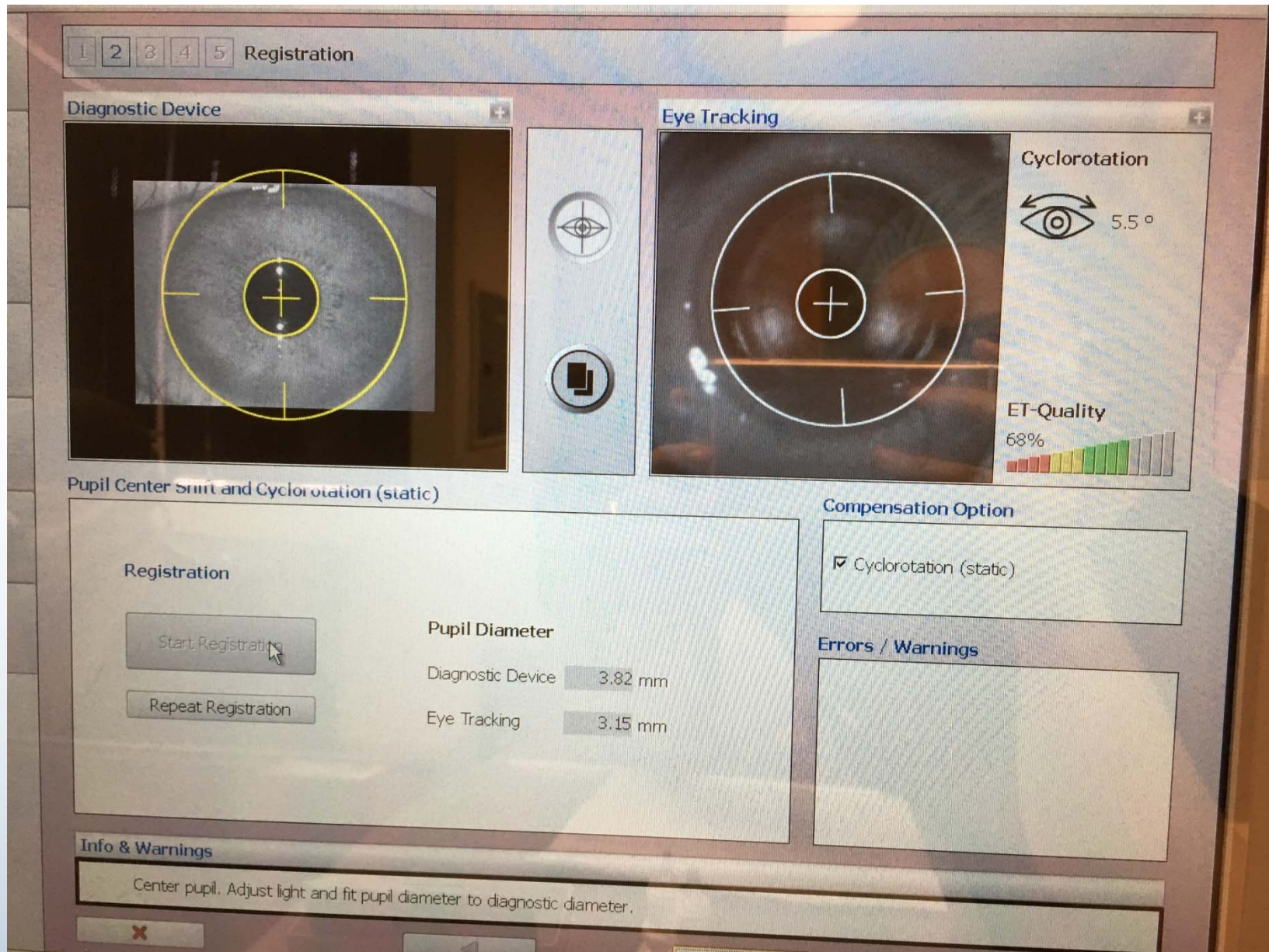
max: 4.10 μm cen: 2.03 μm

Display Profile

☐ 3D☐ Animation☒ Grid



# IR





# Potential Applications

- Suspicions of ectasia
- Keratoconus (with CXL)
- Irregular or asymmetric astigmatism
- Post-refractive surgery
- Hyperopia
- 20/20 unhappy patient
- Normal eyes

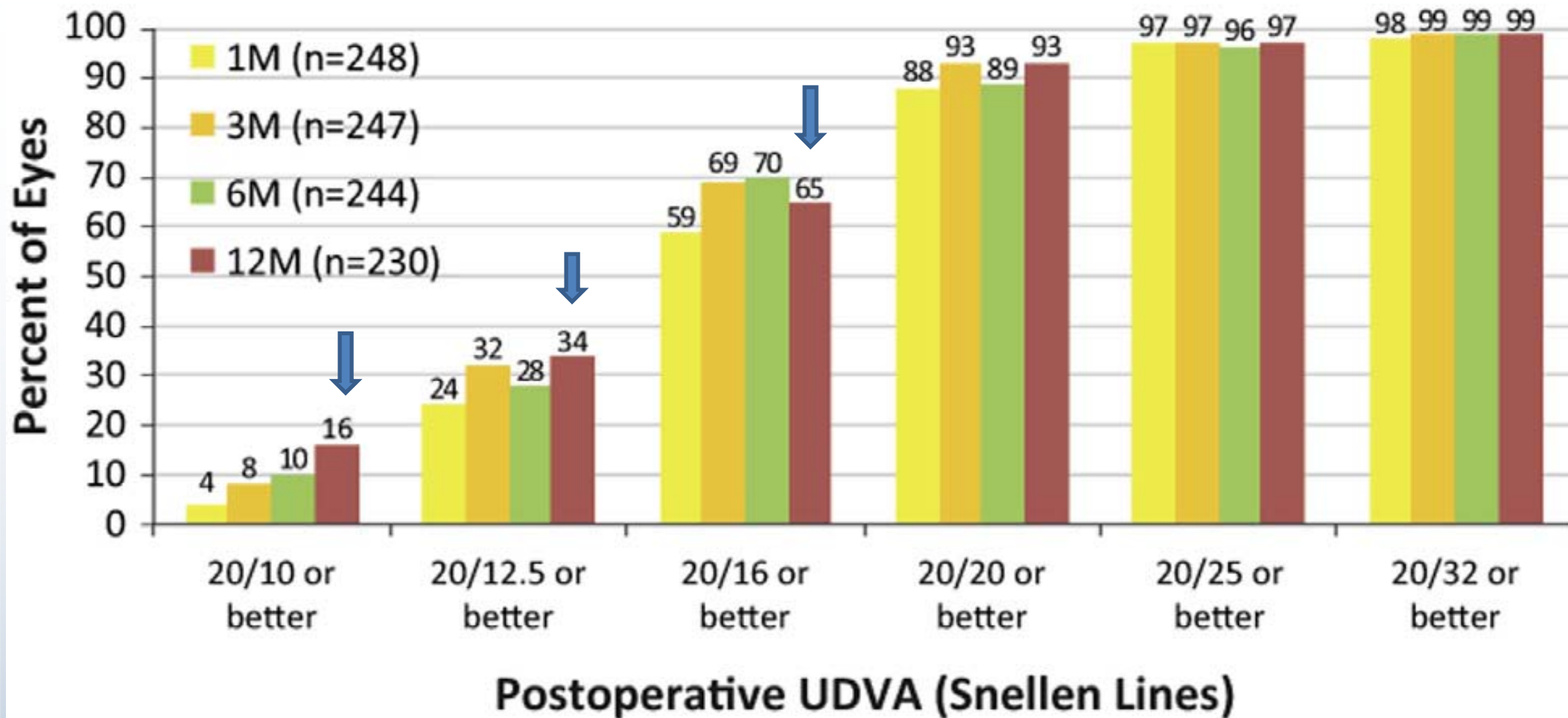




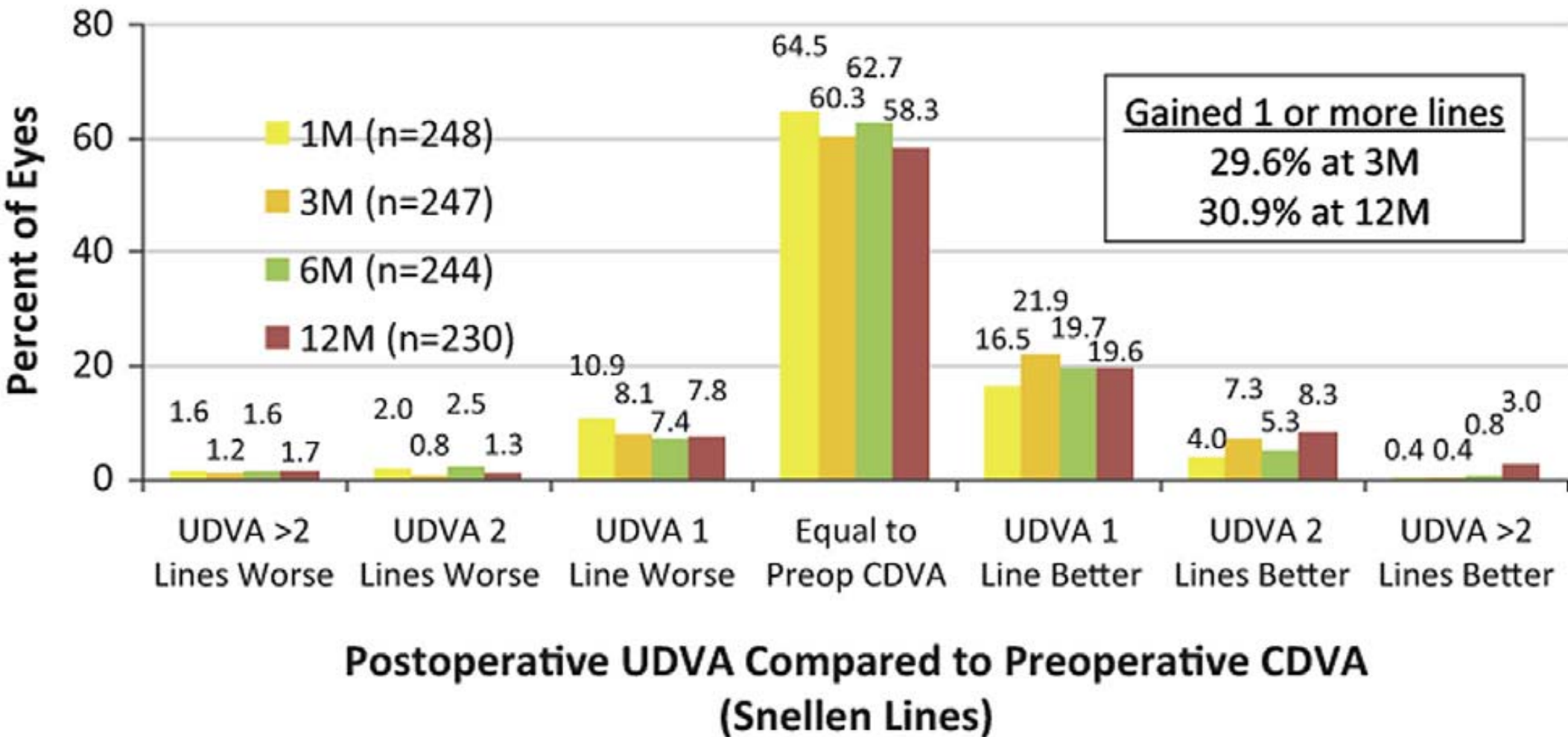
# FDA Study Parameters

- 9 clinical sites
- 249 eyes of 212 patients
- 18-65 years old
- Up to -9.00 SEQ
- Up to 6D astigmatism
- BCVA 20/25 or better
- Normal topographies and corneal thickness
- Patients with prior refractive surgery excluded
- Follow up at 1d, 1w, 3mo, 6mo, 9mo, 12mo

# Visual Acuities



# Lines Lost or Gained



**>30% Saw Better Uncorrected Post-Op Than Best Corrected Vision Pre-Op**



## Contoura Clinical Trials—Post Op Visual Symptoms

Light sensitivity	<b>3.6% decrease</b>
Difficulty driving at night	<b>4.4% decrease</b>
Reading difficulty	<b>6.4% decrease</b>
Complaints of glare	<b>2.4% reduction</b>

---

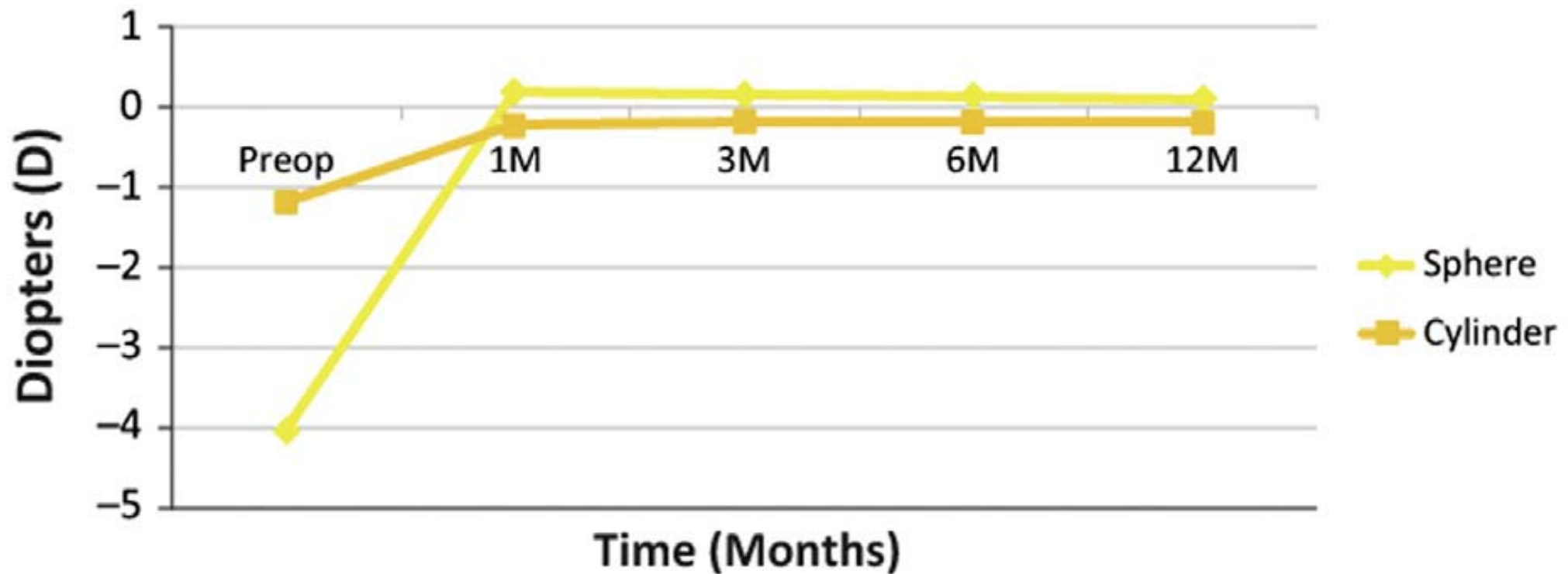
**\*Confirms findings of the PROWL Study**



## Patient Reported Outcomes With Lasik (PROWL)

- FDA designed **Quality of Life** study
- Evolved from a 2008 public hearing on Lasik safety
- Developed without input from physicians or industry
- 2 cohorts, 574 patients, military and civilian centers
- Post op detailed questionnaires and Oxford Dry Eye scoring
- Patients reported on visual symptoms arising post op uncorrected compared to pre op BCVA
- Conclusions
  - Satisfaction with Lasik results > 98%
  - In most patients, glare, halos, night driving problems as well as dry eye problems **decreased at 6 months over preoperative levels**

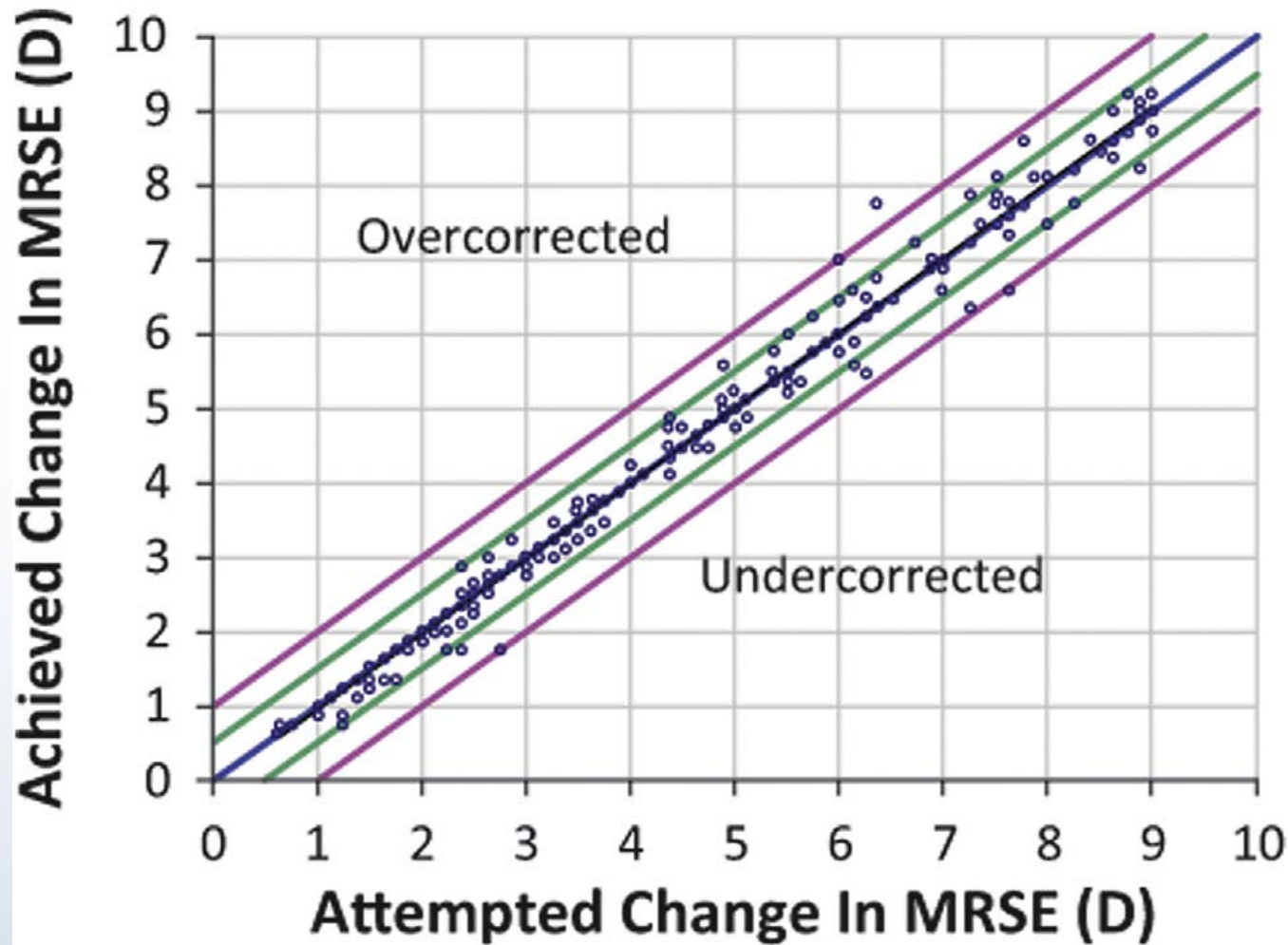
# Stability



	Preop, n=249	1M, n=248	3M, n=247	6M, n=244	12M, n=230
MRSE (D)	-4.61	0.06	0.06	0.01	0.00
Std Dev (D)	2.43	0.36	0.33	0.35	0.27

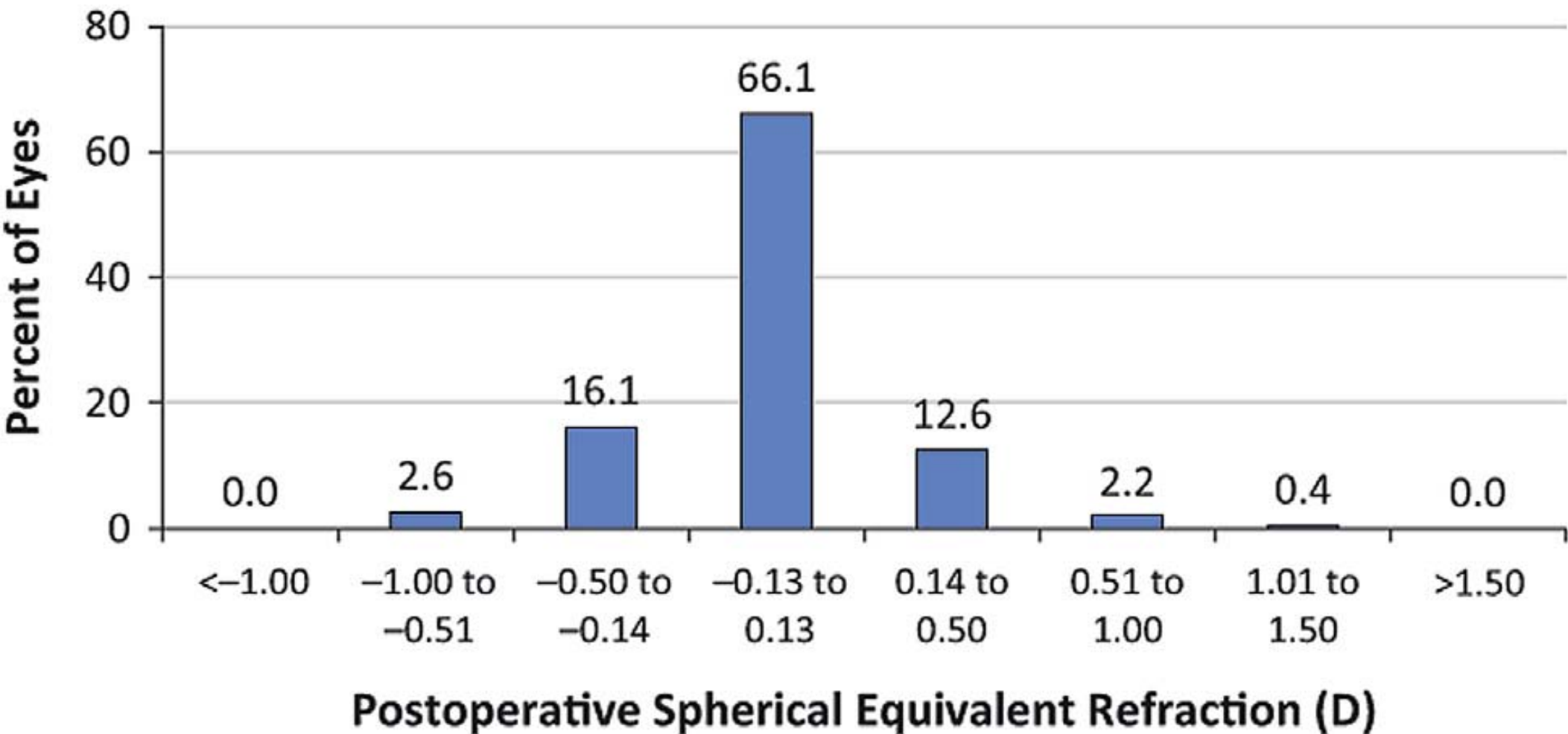
No Regression Up To 1 Year

# Accuracy



Accuracy  $\pm 0.5D$

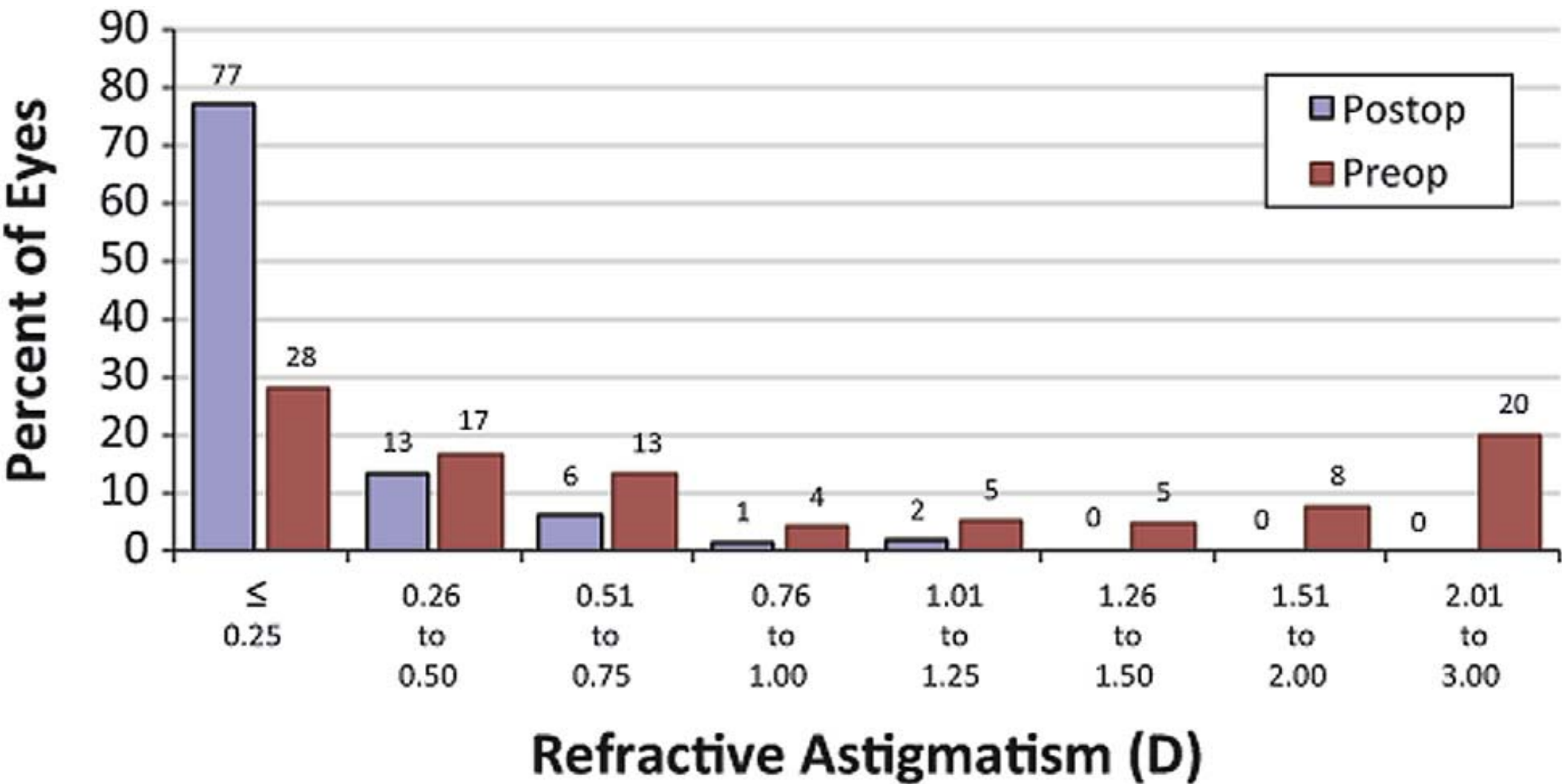
## Post Op SEQ



66% Plano, 95% within 0.5D



## Resolution of Astigmatism



Up to 6D, 77% plano cyl, 96% within 0.5D

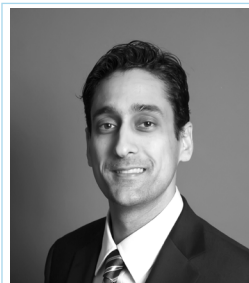


# Summary

- **Best Visual Results** to date of any LASIK technology
- Continued to improved most common symptoms associated with LASIK
- **Labelled Usage**
  - Normal eyes with normal topographies
    - Highest percent > 20/20 outcomes
    - Improve subtle visual irregularities
    - Improved iris registration and cyclotorsion adjustment
- **Off Label**
  - Irregular topographies
  - Inferior steepening
  - High, oblique and ATR cyl
  - Hyperopia



Thank You



## Amarpreet S. Brar, M.D.

A local Southern California native, Dr. Brar grew up skiing, playing basketball, swimming and he always knew he wanted to be a doctor. He found his true calling in Ophthalmology, and today, Dr. Brar is devoted to doing the most advanced types of cataract and LASIK surgeries. After graduating from Baylor College of Medicine in Houston, Texas, Dr. Brar completed his residency in ophthalmology at the University of Oklahoma's Dean McGee Eye Institute in Oklahoma City, then he decided to come home to his beloved Southern California.

Board certified for more than 10 years, Dr. Brar has performed more than 4,000 eye surgeries. He specializes in LASIK, PRK, LASEK, Cataracts, intraocular lenses, Custom LASIK and Wavefront technology. He is also an expert in implanting multifocal, accommodating, TORIC and monofocal intraocular lenses.

Dr. Brar is a member of respected professional societies, including the American Academy of Ophthalmology and the American Society of Cataract and Refractive Surgery. He has also been published in respected medical journals on topics related to Optic Neuritis in Children and Subfoveal Surgery for Removal of Choroidal Neovascular Membranes in submission to Ophthalmology. In addition, Dr. Brar is a frequent lecturer on topics related to refractive surgeries.

In his spare time, Dr. Brar likes to spend time with his wife and two children.

# Biography

## Education

- 1993 BS in Neuroscience, Magna Cum Laude, University of California, San Diego
- 1997 M.D., Baylor College of Medicine, Houston, Texas

## Professional Training

- 1998 Baylor College of Medicine, Transitional Internship
- 2001 Residency in Ophthalmology, University of Oklahoma  
Dean McGee Eye Institute

## Board Certification

- 2001 American Board of Ophthalmology  
Visx Laser Certification  
C-Lasik Certification  
Allegretto Laser Certification  
Intralase Laser Certification

## Professional Affiliations

- American Academy of Ophthalmology
- American Society of Cataract and Refractive Surgery

## University & Hospital Affiliations

- Little Company Of Mary Hospital Torrance
- Torrance Memorial Hospital
- South Bay Surgery Center
- Volunteer faculty at Harbor UCLA Hospital Ophthalmology, Jules Stein Eye Institute

## CURRICULUM VITAE

Franklin W. Lusby, Jr., M.D.

### Personal Information

Business Address: 9850 Genesee Avenue, Suite 220  
La Jolla, CA 92037  
(858) 459-6200

Web address: [www.drlusby.com](http://www.drlusby.com)

Medical License: G-41830 (California)

UPIN: A48707

DEA: AL9233634

### Education:

High School: High Point High School  
Beltsville, Maryland (1971)

College: Columbia Union College  
Takoma Park, Maryland (1974)  
B.A. – Chemistry – Magna cum Laude

Medical School: Loma Linda University  
School of Medicine  
Loma Linda, California (1978)  
M.D.

Internship: Flexible  
Malden Hospital  
Malden, Massachusetts  
Boston University School of Medicine  
(1978-1979)

Pre-Residency Study: Basic and Clinical Sciences for Ophthalmology  
Massachusetts Eye and Ear Infirmary  
Harvard Medical School  
(September-December 1979)



Residency: White Memorial Medical Center  
Los Angeles, California  
Ophthalmology (1980-1983)

Fellowship: Extracapsular Cataract Extraction and  
Intraocular Lens Implantation  
James M. McCaffery, M.D.  
Glendale Eye Medical Group (1983-1984)

Examinations: National Board of Medical Examiners (1979)

Board Certification: American Board of Ophthalmology (1985)

**Certifications:**

Refractive Surgery: -A System of Precise, Predictable Keratorefractive Surgery:  
J. Charles Casebeer, M.D., May, 1992  
-Fellowship in Advanced Incisional Keratotomy: Lee Nordan,  
M.D., June-August, 1995  
-ExciMed UV200 Certification, Summit Technology, October,  
1995  
-Automated Lamellar Keratoplasty: J. Charles Casebeer, M.D.,  
Stephen G. Slade, M.D., November, 1995  
-Mini Fellowship in Lamellar Refractive Surgery: Stephen G.  
Slade, M.D., January, 1996  
-CHIRON VISION Advanced Mini Fellowship in C-LASIK:  
Shanghai, China, January, 1996  
-VISX Excimer Laser System PRK Training Course: VISX, July,  
1996  
-VISX Excimer Laser System Astigmatism Training Course:  
VISX, May, 1997  
-VISX Excimer Laser System PRK with Astigmatism & High  
Myopia Training Course: VISX, March, 1998  
-VISX Excimer Laser System Hyperopia Training Course: VISX,  
November, 1998  
-VISX Excimer Laser System LASIK Training Course: VISX,  
January, 2000  
-VISX Excimer Laser System Blend Zone with Variable Spot  
Scanning Training Course: VISX, April, 2001  
-LADARVision Excimer Laser Workstation Certification: Alcon,  
October, 2001

*Franklin N. Nishida*

- VISX Excimer Laser System LASIK for the Treatment of Mixed Astigmatism Training Course: VISX, March, 2002
- VISX Excimer Laser System Custom CAP Training Course: VISX, June, 2002
- LADARVision Ladarwave Customcornea Certification: Alcon, February, 2003
- VISX Excimer Laser System CustomVue Training Course: VISX, June 2003
- IntraLASIK Training Course: Intralase, January, 2004
- VISX Excimer Laser System Fourier Algorithm Training Course: VISX, November, 2004
- Allegretto Excimer Laser Certification: Wavelight, November, 2004
- VISX Excimer Laser System CustomVue Hyperopia and Hyperopic Astigmatism: VISX, December, 2004
- VISX Excimer Laser System CustomVue Mixed Astigmatism: VISX, March, 2005
- VISX Excimer Laser System Iris Registration: VISX, March, 2005
- VISX Excimer Laser System CustomVue High Myopia: VISX, October, 2005
- VISX Excimer Laser System CustomVue Treatments for Monovision in Presbyopic Patients with Low to Moderate Myopia and Myopic Astigmatism: VISX, March, 2008

**Professional Activity:**

Private Practice:      Glendale Eye Medical Group  
                                  607 North Central Avenue, Suite 105  
                                  Glendale, California 91203  
                                  (818) 956-1010  
                                  (1984-1989)  
                                  (1991-1997)

Franklin W. Lusby, M.D., Inc.  
 655 North Central Avenue, Suite 209  
 Glendale, California 91203  
 (818) 546-2020  
 (1989-1990)

Franklin W. Lusby, M.D., Inc.  
 (dba Lusby Eye Medical Group)





205 W. Mission Avenue, Suite M  
Escondido, California 92025  
(760) 746-6900  
(1991-1993)  
700 West El Norte Parkway  
Escondido, California 92026  
(760) 738-7800  
(1993-1997)

Franklin W. Lusby, M.D., Inc.  
(dba La Jolla Eye and Laser Surgery Medical Center, Inc.)  
6523 La Jolla Boulevard  
La Jolla, California 92037  
(858) 459-6200  
(1994-1996)  
7825 Fay Avenue, Suite 140  
La Jolla, California 92037  
(858) 459-6200  
(1996-2006)  
(dba Lusby Vision Institute)  
9850 Genesee Avenue, Suite 220  
La Jolla, California 92037  
(858) 459-6200  
(2006-current)

Franklin W. Lusby, M.D., Inc.  
330 North Brand Boulevard, Suite 110  
Glendale, California 91203  
(818) 409-0900  
(1997-2002)

TLC Laser Eye Center – Newport Beach  
3501 Jamboree Road, Suite 1100  
Newport Beach, California 92660  
(949) 854-7400  
(2001-2008)

Medical

Directorships:

Pacific Laser Eye Center  
Medical Director  
4330 Barranca Parkway, Suite 101  
Irvine, California 92604  
(949) 733-3937



(1998-2000)

Maloney-Lusby Vision Institute  
Medical Director  
4330 Barranca Parkway , Suite 101  
Irvine, California 92604  
(949) 733-3937  
(2000)

F. W. Lusby, M.D., Inc.  
(dba Lusby Vision Institute-Irvine)  
Medical Director  
4330 Barranca Parkway , Suite 101  
Irvine, California 92604  
(949) 733-3937  
(2000-2001)  
910 East Birch Street, Suite 350  
Brea, California 92821  
(949) 733-3937  
(2001-2005)  
2575 Yorba Linda Blvd.  
Fullerton, California 92831  
(714) 257-0560  
(2005-2008)

TLC Laser Eye Centers – Brea  
Medical Director  
910 East Birch Street, Suite 350  
Brea, California 92821  
(714) 257-0560  
(2001-2005)

TLC Laser Eye Centers – Fullerton @ SCCO  
Medical Director  
2575 Yorba Linda Blvd.  
Fullerton, California 92831  
(714) 257-0560  
(2005-2008)

ClearSight Laser Center  
Medical Director  
2121 E. Coast Highway, Suite 200  
Corona del Mar, California 92625



(949) 600-4668  
(2008-2011)  
10 Pointe Dr., Suite 310  
Brea, California 92821  
(714) 880-8808  
(2008-2011)  
1680 E. Herndon Ave., Suite 101  
Fresno, California 93720  
(559) 473-4053  
(2008-current)  
9850 Genesee Ave. Suite 220  
La Jolla, California 92037  
(858) 926-4664  
(2008 – 2011)  
2575 Yorba Linda Blvd  
Fullerton, CA 92831  
(714) 257-0560  
(2011-current)

NVISION Laser Eye Centers Fullerton  
Medical Director  
2575 Yorba Linda Blvd  
Fullerton, CA 92831  
(714) 257-0560  
(2011-current)

NVISION Laser Eye Centers Torrance  
Medical Director  
23550 Hawthorne Blvd., Suite 220  
Torrance, CA 90505  
(310) 784-2020  
(2011- current)

Society Memberships: Member - San Diego County Medical Society  
Fellow- American Academy of Ophthalmology  
Member- American Society of Cataract and Refractive Surgery  
Member- International Society of Refractive Surgery  
Charter Member- American College of Eye Surgeons  
Member- David Paton Society  
Member- Research to Prevent Blindness Ophthalmological Soc.



Hospital Affiliations: Scripps Memorial Hospital-La Jolla (1994-Current)  
Cedars Sinai Medical Center (1999-2001)  
Glendale Adventist Medical Center (1984-2002)  
Memorial Hospital of Glendale (1984-2002)  
Verdugo Hills Hospital (1984-2002)  
Arcadia Outpatient Surgery Center (1984-1988)  
Victor Valley Community Hospital (1989-1997)  
Palomar Medical Center (1991-1994)  
Pomerado Hospital (1991-1997)  
Escondido Surgery Center (1991-1997)  
Premiere Surgery Center (1993-2001)  
Healthsouth Surgery Center (1994-Current)  
Glendale Eye Surgery Center (1989-2002)

Section Chief  
Division of Ophthalmology  
Department of Surgery  
Glendale Adventist Medical Center  
(1990-1996)

Laser Center  
Affiliations: Mericos Eye Institute  
San Diego Excimer Laser Center  
TLC Laser Eye Centers

**Publications:**

1. Oyakawa, R.T., Lusby, F.W., Schachat, A.P., Brown, R.H.: An Irrigating Endo-illuminator for Anterior Vitrectomy. Am. Journal of Ophthalmology (submitted)
2. Byer, L.V., Oyakawa, R.T., Lusby, F.W.: Vitrectomy Instrumentation in Failed Trabeculectomy. Am. Journal of Ophthalmology (submitted)
3. McCaffery, J.M., Lusby, F.W.: A Review of 584 3M Style 30 Intraocular Lens Implants. American Journal of Cataract and Refractive Surgery, 12: 278-280, 1986
4. Lusby, F.W., Franke, J.W., McCaffery, J.M.: Clinical Comparison of Manual and Automated Keratometry in a Geriatric Population. Contact Lens Association of Ophthalmology Journal, Vol 15 #2, 119-121, March, 1987
5. Nordan, L.T., Lusby, F.W.: Refractive Aspects of Cataract Surgery. Current Opinion in Ophthalmology Vol. 6 #1, 36-40, February, 1995



**Scientific Presentations:**

1. "A Statistical Review of 584 3M Style 30 Intraocular Lens Implants," McCaffery, J.M., Lusby, F.W.: American Intraocular Implant Society, Los Angeles, CA, April, 1983
2. "Review of 838 Office-Based Posterior Capsulotomies," McCaffery, J.M., Lusby, F.W.: American Intraocular Implant Society, Los Angeles, CA, April, 1983
3. "The Accuracy of the Assumed Anterior Chamber Depth in the Binkhorst Formula," Lusby, F.W., McCaffery, J.M.: American Intraocular Implant Society, Los Angeles, CA, April, 1983
4. "Pre-operative Axial Length vs. Post-operative Axial Length," Lusby, F.W., McCaffery, J.M.: American Intraocular Implant Society, Los Angeles, CA, April, 1983
5. "Comparison of the Enhancement Rates of the Casebeer and the Nordan/Maxwell Refractive Surgery Methods," Lusby, F.W., ASCRS Symposium on Cataract, IOL, and Refractive Surgery, San Diego, CA, April, 1995
6. "Incisional Keratotomy: Current Status," Lusby, F.W., Mericos Eye Institute Visions in Ophthalmology, La Jolla, CA, March, 1996

**Scientific Exhibits:**

"An Irrigating Endo-illuminator for Anterior Vitrectomy." Lusby, F.W., Oyakawa, R.T., Schachat, A.P., Brown, R.H. Contact Lens Association of Ophthalmology and the Combined Meeting of the Anterior Segment Societies, Las Vegas, Nevada, 1982

**Teaching Appointments:**

Faculty: Residents Skills Training Course in Radial Keratotomy, ASCRS Symposium on Cataract, IOL, and Refractive Surgery, San Diego, CA, April, 1995

Mentor: Health Professions Preparation Program, UCSD, 1998-Current

**Academic Appointment:**

Adjunct Clinical Professor



Southern California College of Optometry  
Fullerton, California  
(2006-2012)

Part-time Clinical Professor  
Southern California College of Optometry  
Fullerton, California  
(2012-current)

*Franklin N. Nishiyama*

NVISION

LASER EYE CENTERS | THE EYE DOCTORS' #1 CHOICE



# Dr. George Baerveldt

**NVISION Laser Eye Centers Surgeon**

Dr. Baerveldt's international reputation is based on his glaucoma research and surgical innovations. Dr. Baerveldt developed the Baerveldt™ Glaucoma Implant and presently holds six patents related to this invention. He also invented Trabectome®, a minimally-invasive glaucoma surgical instrument for the treatment of adult and infantile open-angle glaucoma which is performed worldwide. In 2012, the American Glaucoma Society awarded Dr. Baerveldt with the Innovator Award for these surgical contributions.

Born and educated in South Africa, Dr. Baerveldt obtained his medical degree from the University of Pretoria and his residency in ophthalmology at the University of the Witwatersrand. In 1980, Dr. Baerveldt was head of St. John's Eye Hospital in Johannesburg when he was recruited as a fulltime faculty member at the Doheny Eye Institute, University of Southern California. In 1994, he accepted a faculty position as the Director of Glaucoma at the Cleveland Clinic Foundation where he remained until joining University of California at Irvine in 1999 as Director of Glaucoma. He was the Irving H. Leopold Professor and Chair of the Department of Ophthalmology, and Director of the Gavin Herbert Eye Institute from July 2003 - November 2008.

Dr. Baerveldt has participated in 44 clinical trials involving glaucoma drugs and glaucoma surgery, and has published 84 peer-reviewed papers and 11 chapters in books. He was the principal investigator on the RPB Challenge Grant 2004 - 2008. He is a charter member of the American Glaucoma Society, and a founding member of the Glaucoma Society of Southern California and the Glaucoma Society of Orange County.

Dr. Baerveldt received the American Academy of Ophthalmology's Senior Achievement Award in 2002 and was honored in Best Doctors in America (1996 - present). He was also named Top Ophthalmologist by the International Association of Healthcare Professionals, and recognized by the Doheny Professional Association with the Distinguished Alumnus Award in 2000. He lectures internationally on glaucoma surgery and drugs.

Dr. Baerveldt's humanitarian endeavors have been recognized by the National Society to Prevent Blindness. He also received the Teacher of the Year award in 1981 from the University of Southern California, and Staff of the Year award from the Cleveland Clinic Foundation, 1997/1998 and 1998/1999.

Dr. Baerveldt performs surgery at several of NVISION's Southern California locations and looks forward to meeting you and assisting with your glaucoma-related needs. In his spare time, he enjoys spending time with his wife, three children and four grandchildren.



# Biography

## Education

- 1967 Medical degree, University of Pretoria, Pretoria, South Africa
- 1976 South African Medical and Dental Council, Specialist in Ophthalmology

## Professional Training

- 1968 Internship in surgery and medicine, University of Pretoria Hospital, Pretoria, South Africa
- 1976 Resident in ophthalmology, University of the Witwatersrand, Johannesburg, South Africa
- 1981 Internship in ophthalmology, LAC/USC Medical Center, Los Angeles, CA

## Fellowships

- 1975 Clinical Fellow in Anterior Segment Surgery and Neuro-Ophthalmology, State University of New York, Brooklyn, New York

## Board Certification

- 1976 Fellow of the College of Surgeons of South Africa in Ophthalmology

## Professional Affiliations

- American Academy of Ophthalmology
- American Glaucoma Society
- Glaucoma Society of Southern California
- Glaucoma Society of Orange County

## University & Hospital Positions

- Principal Surgeon and Head at St. John's Eye Hospital, Johannesburg, South Africa
- Faculty at Doheny Eye Institute, University of Southern California, Los Angeles, CA
- Director of Glaucoma at the Cleveland Clinic Foundation, Cleveland, OH
- Irving H. Leopold Professor and Chair of the Department of Ophthalmology and Director of Gavin Herbert Eye Institute, University of California, Irvine, CA



**George V. Simon, M.D., J.D.**  
Curriculum Vitae

126 Elliott Court  
Alamo, California 94507  
925 944 1111  
Email: idocmdjd@aol.com

**EDUCATION:**

**Bronx High School of Science**  
*Graduated with Honors*

Bronx, NY  
1963

**City College of New York**  
*Bachelor of Science Degree, Biology/Chemistry*

New York, NY  
1967

**State University of New York  
Downstate Medical Center**  
*Doctor of Medicine Degree*  
Attended on full scholarship

Brooklyn, NY  
1967 - 1971

**John F. Kennedy University, School of Law**  
*Juris Doctor Degree*

Orinda, CA  
1990 - 1993

**John Marshall School of Law**

Chicago, IL  
1992 - 1993

**Illinois Institute of Technology, Chicago-Kent School of Law**

Chicago, IL  
1992-1993

**INTERNSHIP AND RESIDENCY**

**Children's Hospital and Adult Medical Center**  
Rotations with **University of California Medical Center,**  
**University Hospital, San Francisco General Hospital**  
*Internship in Straight Medicine*

San Francisco, CA  
  
1972 - 1973

**State University of New York, Downstate Medical Center**  
**New York City Health and Hospital Corporation Affiliates**  
**Downstate Medical Center**  
Ophthalmology Resident

Brooklyn, NY  
  
1972 – 1975

LICENSURE:

<b>American Board of Ophthalmology</b> Board Certified	1976
Admitted to <b>State Bar of California</b>	1995
Admitted to the <b>Supreme Court of the United States</b>	2003

PROFESSIONAL EXPERIENCE:

<b>Simon 2020 Vision Center</b>  <i>Private practice refractive surgeon</i>	Concord, CA Foster City, CA 2014 to present
<b>Simon Vision Institute</b>  <i>Medical Director and refractive surgeon</i>	Concord, CA Foster City, CA 2010 - 2014
<b>LCA Vision / “LASIKPLUS” Refractive Surgery Centers</b>  <i>Medical Director and refractive surgeon</i>	Concord, CA San Jose, CA Foster City, CA 1989 - 2009
<b>Jones Eye Clinic</b>  <i>Private practice refractive surgeon</i>	Omaha, NE Sioux City, IO Sioux Falls, SD 1994 - 1998
<b>Eye Care Physicians of America</b> <i>Cataract and refractive surgeon</i> High volume cataract and refractive surgery practice	Chicago, IL 1993 - 1994
<b>George V. Simon, M.D., Inc.</b> <i>Private practice</i> Specialized in corneal refractive surgery and Oculoplastic surgery for 11 of the 18 years in this practice.	Concord, CA 1975 - 1993
<b>Mt. Diablo Medical Center</b> <i>Chairman, Division of Ophthalmology</i>	Concord, CA 1983

<b>Professor/Lecturer</b> Conducted refractive surgery classes/seminars nationwide and throughout the world including Russia, Lithuania, Mexico and China	Worldwide 1982 – 1998
<b>AAO National Radial Keratotomy Convention</b> <i>International Congress of Ophthalmology Course Director</i>	San Francisco, CA 1982
<b>University of California, School of Optometry</b> <i>Assistant Clinical Professor, Ophthalmic Pathology</i>	Berkeley, CA 1978 – 1982
<b>State University of New York</b> <b>New York Department of Surgery, Division of Ophthalmology</b> <i>Assistant Clinical Professor, Ophthalmology</i> Assistant to Dr. Richard Troutman, Chairman	Brooklyn, NY 1972 - 1975
<b>Senior Aviation Medical Examiner</b> <i>Federal Aviation Administration</i>	Concord, CA 1972 – 2011

**PROFESSIONAL AFFILIATION:** (current or former)

Diplomate, American Board of Ophthalmology (Board Certified)	1976
Diplomate, National Board of Medical Examiners	1972
Fellow, American Academy of Ophthalmology	
Fellow, Keratorefractive Society	
International Liaison Officer, Keratorefractive Society	
Member, Intraocular Implant Surgeons	
Member, California Medical Association	
Fellow, American College of Legal Medicine	
Member, Alameda – Contra Costa Medical Association	
Member, American Medical Association	
Licensed to practice Medicine and Surgery at present or formally in:	
Arizona, California, Idaho, Illinois, Indiana, Iowa, Nebraska, Nevada, New York, North Carolina, Oregon, South Dakota, Utah, Washington, Wisconsin and Wyoming	
Member, State Bar of California	

**MILITARY:**

U.S. Air Force Reserves, Berry Program in Ophthalmology Honorable Discharge	New York 1972 - 1975
--	-------------------------

**OTHER:**

Eagle Scout	1959
<i>At that time was the youngest nationwide ever to be admitted</i>	
Obtained Private Pilot's License	1969
Obtained Multi-Engine Rated Instrument Pilot License	1985
Worldwide pro bono work in cataract and reconstructive surgery	1979 - 1996
<i>Performed high volume surgeries with Surgical Eye Expeditions Inc. (SEE) in Mexico, Zimbabwe, Lithuania, Mongolia, Chile, Vietnam, China, Paraguay, and Zaire restoring sight and preventing blindness to disadvantaged individuals</i>	

**OF NOTE****Residency 1972 – 1975**

- First group to use operating microscope from day 1 of residency with Dr. Richard Troutman
- Used experimental 11-0 and 13-0 sutures in P/Ks
- Experimented with the use of hydrogen peroxide in disinfecting soft contact lens
- Extensive corneal surgery under Dr. Richard Troutman
- Comprehensive plastic surgery under Dr's. Bryon Smith, Pierre Guibur and Perter Ballen
- Performed over 50 phaco's (taught by Dr. Charles Kelman) with Cavitron machine in 1995

**Ophthalmology Practice 1975 – present**

- First to implant IOL's in Northern California 1975  
*Fyodorov Sputnik, Wurst, Binkhorst, Choyce, Iris clip, etc.*
- One of the first to perform R/K on the West Coast 1980  
*Approximately 15,000 R/K surgeries performed*
- First to advertise and market ophthalmic services in Northern California 1981/1982
- Amongst first in the use of extracap leading to phaco 1985
- Amongst first in the use of no-stitch cataract surgery 1991
- Amongst first in the use of clear lensectomy for high myopia 1985
- Designed refractive surgery program for large ophthalmic practice

in Chicago area

1993

- Initiated and directed high volume refractive surgery program including R/K, AK, ALK, PTK, PRK and LASIK in Omaha and Chicago
- Excimer laser LASIK and PRK - over 80,000 procedures performed to date

**Jeffery Machat, MD, FRCSC, DABO**  
25082 Anvil Circle, Laguna Hills, California 92653  
416-818-1747, jeff.machat@nvisioncenters.com

Dr. Machat is a double board certified ophthalmologist with a 25 year history of laser refractive surgery clinical and business experience. In brief he was the founder and visionary behind TLC Laser Eye centers, which became the largest refractive surgery network in North America with several hundred refractive surgeons, over 14,000 referring optometrists, over 80 clinics and over 300 satellite locations with a peak market cap exceeding \$3 Billion. He was also the Chief Medical Officer for Optical Express in Europe helping grow that company from 11 LASIK clinics to 55 in 18 months, to the #1 provider in Europe increasing revenues by over 350% during his tenure. Currently, he has accepted the position of Chief Medical Officer at NVision Laser Eye Centers, the leading premium provider of Cataract and Laser Refractive surgery in North America utilizing an Optometric Co-Management model.

Dr. Machat has performed over 65,000 laser refractive procedures with 19 different laser systems from 8 different laser manufacturers, written two textbooks, developed over 20 surgical instruments, was an investigator for multiple Health Canada and FDA trials and has lectured in two dozen countries on five continents.

## **Education and Medical Training**

**Board certification by the American Board of Ophthalmology,  
November 24, 1991**

**Board Certification by the Royal College of Physicians & Surgeons of Canada  
November 16, 1990**

<b>Residency</b>	7/1/1987—6/30/1990
<i>University of Toronto</i> , Toronto, On. Canada	
Ophthalmology	

<b>Internship</b>	7/1/1986—6/30/1990
<i>University of Toronto</i> , Toronto, On. Canada	
Comprehensive Medical Internship, Toronto General Hospital	

<b>Doctor of Medicine</b>	7/1/1982— 6/12/1986
<i>University of Toronto</i> , Toronto, On. Canada	

Undergraduate Program, Life Science	9/1/1980-5/15/1982
University of Toronto, Scarborough, Ontario, Canada	

## Professional Work History

### **Chief Medical Officer, NVision Centers in Murrieta, Newport, Concord and Foster City** 01/01/2016

Chief Medical Officer for Company and Refractive surgeon at four Nvision Laser Refractive Centers and two affiliated Canadian centers

- Centers equipped with Schwind Amaris, WaveLight and/or Visx S4 IR excimer laser systems and IntraLase or Ziemer femtosecond laser systems
- OrbScan 3D, Gallelei, Pentacam or Sirius corneal diagnostic systems

### **Founder and Medical Director**

02/1/2009—present

*Crystal Clear Vision, Toronto, On. Canada*

- Crystal Clear Vision is a state of the art facility in downtown, Toronto.
- The clinic has a College approved full ophthalmic surgery operating suite and two laser suites.
- Clinic offers LASIK for the correction of hyperopia, myopia and astigmatism, KAMRA Vision for reading vision correction and premium Laser Cataract Surgery
- The clinic is not only a treatment facility, but a teaching and research facility as well, hosting and training surgeons from across North America.
- Equipped with the most advanced technology including:
  - Schwind AMARIS 750s Excimer Laser system
  - Sirius Corneal and Total Ocular Wavefront Diagnostics system
  - Specular Microscopy, RT VUE OCT system, Epic system, IOL Master
  - AcuFocus AcuTarget HD and Tagaki microscope for KAMRA surgery
  - Ziemer Z4 Femtosecond Laser for Corneal surgery
  - Victus Femtosecond laser for Cataract surgery

### **Co-Founder/North American Medical Director**

08/01/1993—01/01/2002

TLC Canadian National Medical Director

01/01/2002---02/01/2009

*TLC Laser Eye Centers, Toronto, Canada*

- Co-founded and developed the largest laser vision correction company in the world, with 83 fixed site clinic across North America, as well as 300 mobile sites.
- Provided clinical training, education and direction for over a 600 surgeons.
- Provided the clinical and operating guidelines for all surgeons, technicians and clinical staff
- Functioned as Chief surgeon at multiple clinics, performing thousands of vision correction surgeries and complication management and care to TLC and non-TLC patients
- Pioneered many techniques and developed surgical instrumentation for LASIK and PRK
- Functioned as Researcher and Investigator for several excimer laser companies, including Summit, Visx, Technolas, LaserSight and WaveLight
- Primary FDA Investigator for Technolas 217 excimer laser system
- Health Canada Investigator for Summit, Visx, Technolas laser systems
- TLC became a publicly traded company on both the TSX and NASDAQ in 1996.
- After 2002, transitioned position and responsibilities, limiting oversight to 7 Canadian clinics and developing Custom LASIK Centre in 2000, working with Optical Express and helping develop

RheoTherapeutics Macular Degeneration Clinics. During this entire period, continued to operate and function as TLC Medical Director for Canada.

**Medical Director**

*Rheo Therapeutics*, Toronto, Canada

09/01/2007—06/24/2008

- Instrumental in the development of Macular Degeneration Treatment Centers across Canada.
- Performed research and coordinated policies and procedures for the Retinal Surgeons and other physicians involved with the organization.

**Chief Medical Officer/ Strategic Advisor**

*Optical Express*, Glasgow, Scotland

01/01/2005—06/16/2006

- Provided key insights into their clinical and business issues and future development.
- Advised on laser technology, provided surgeon and technician training
- Developed clinical policies and procedures, the consultative approach, diagnostic testing, surgical and post-operative management of patients,
- Developed patient advocacy systems and complication management systems
- Developed training programs and provided a series of educational events for entire employee base of over 1000 employees, optometrists and surgeons.
- Instrumental in growing the company from 11 clinics to 55 clinics over a 2 year period, becoming the largest Laser Vision Correction provider in Europe, with clinics in Scotland, England, Ireland, Holland, Belgium, France and Germany.
- Responsible for the selection and Implementation of Wavefront laser technology.
- Responsible for the development of their International Medical Board.

**Founder/Medical Director**

*Custom LASIK Centre*, Toronto, Canada

03/01/2000—12/31/2004

- A treatment and research facility, pioneering Wavefront Technology in Laser Vision Correction.
- First clinic in Canada to utilize custom technology to improve qualitative visual outcomes, prevent night glare and manage complications for other clinics across North America.
- The clinic was equipped with several different laser technologies and Wavefront platforms, including Hartmann-Shack, Tscherning, and Ray Tracing technology



## **Licensure and Board Certifications**

Board Certified, Royal College of Physicians & Surgeons of Canada, November 16, 1990  
Diplomat of The American Board of Ophthalmology, November 24, 1991

## **Professional Memberships**

*Canadian Society of Cataract and Refractive Surgery*  
*Canadian Ophthalmological Society*  
*International Society of Refractive Surgery*  
*American Society of Cataract and Refractive Surgery*  
*American Academy of Ophthalmology*  
*American-European Congress of Ophthalmic Surgery*  
*Member of AcuFocus International Medical Advisory Board*

## **Publications**

Author of two textbooks:

***“Excimer Laser Refractive Surgery- Practice and Principles”***

***“The Art of LASIK”***

## **Additional Accomplishments**

- Early pioneer and innovator of LASIK, learned technique from Dr. Luis Ruiz in Bogota, Columbia over two decades ago, one of the first handful of surgeons in North America to perform LASIK.
- First surgeon in Canada to utilize Wavefront technology in 2000, third worldwide
- First Surgeon in Canada to perform Custom LASIK in 2000.
- First surgeon in Canada to utilize Femtosecond laser technology in 2003.
- First surgeon to perform Bladeless Custom Lasik with Intralase femtosecond laser.
- First surgeon in Canada to perform KAMRA Vision reading vision correction.
- First surgeon to perform AMARIS Custom LASIK with the Schwind AMARIS 750S Excimer laser system.

- One of the few Chiron ACS and Hansatome microkeratome certified trainers; Lectured and certified hundreds of physicians across North America, South America, Europe, South Africa, Australia, the Middle East and Asia.
- Investigator and instructor for 8 different laser manufacturers, utilizing 20 different Excimer laser platforms and 14 femtosecond laser models from 4 different manufacturers
- Lectured in 24 countries on 5 continents on Excimer laser and Femtosecond laser technology, Wavefront technology and other refractive techniques and innovations.
- Developed instrumentation and software for Photorefractive Keratectomy, Laser in situ Keratomileusis (LASIK), and the KAMRA Corneal Inlay procedure.
- Performed over 67,000 laser vision correction procedures, including more than 57,000 LASIK procedures.
- Treated over 600 Optometrists, Ophthalmologists and physicians.
- Has performed additional reading vision correction procedures including Sunrise Holmium Laser Thermokeratoplasty, Visx Multifocal Ablation and RestorVision Scleral Implants.



# CURRICULUM VITAE

## JOHN DAVIDSON, M.D.

April 20, 2016

### POSITIONS

EMPLOYER	Miramar Eye Specialists Medical Group	1993-now
SPECIALTY	Ophthalmology	1992-now
ACADEMIC	Assistant Clinical Professor of Ophthalmology Stein Eye Institute, UCLA UCLA/Ventura County Medical Center	1992-now
CHIEF SURGEON	NVISION Laser Eye Centers, Camarillo	2007-now

### EDUCATION

FELLOWSHIP	Jules Stein Eye Institute, Los Angeles, CA Pediatric Ophthalmology & Strabismus Arthur L. Rosenbaum, MD, Chairman Sherwin J. Isenberg, MD, Vice-Chairman	1991-92
RESIDENCY	Indiana University, Indianapolis, IN Ophthalmology Robert D. Yee, MD, Chairman Eugene M. Helveston, MD, Chief, Pediatric Section	1988-91
INTERNSHIP	Methodist Hospital, Indianapolis, IN Transitional	1987-88
EXTERNSHIP	St Vincent Hospital, Indianapolis, IN Emergency Department	1986-87
MEDICAL	Indiana University, Indianapolis, IN Doctor of Medicine <i>Highest Distinction</i>	1983-87
UNDERGRADUATE	Indiana University, Bloomington, IN Bachelor of Arts Biology Bachelor of Arts Chemistry <i>Highest Distinction</i>	1979-83

## HONORS

Jules Stein Eye Institute Clinical Fellow Research Award, UCLA	1992
Phi Beta Kappa, Indiana University	1983
Alpha Omega Alpha, Indiana University Medical School (Junior Year)	1986-7
Arthur R. Metz Distinguished Scholarship, Indiana University	1979-83
<i>US News Top Doctors</i>	2013-2016
<i>Southern California Super Doctors®</i>	2013-2016
America's Top Ophthalmologists	2007-2016
Ventura Star newspaper, Reader's Choice, Best LASIK Surgeon	2014

## HOSPITAL AFFILIATIONS

Community Memorial Hospital, Ventura, CA	Active	7/92-now
Lynn Eye Surgery Center	Courtesy	1/04-now
Ojai Valley Hospital	Courtesy	8/03-now
St. John's Regional Medical Center, Oxnard, CA	Courtesy	4/93-2014
Ventura County Medical Center	Active	7/92-now
Westlake Eye Surgery Center	Courtesy	1/95-now

## LICENSURE

California	G71316	5/1/91-1/31/2017
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## BOARD STATUS

National Board of Medical Examiners	Board Certified	3/88-now
American Board of Ophthalmology	Board Certified	4/94-now
American Board of Ophthalmology	Board Recertified	10/04-01/15
American Board of Ophthalmology	Board Recertified	1/1/2015- 12/31/2024

## MEMBERSHIPS

American Society of Cataract and Refractive Surgery	2004-now
American Academy of Ophthalmology	1988-now
California Academy of Eye Physicians & Surgeons	1991-now
Ventura County Ophthalmology Society	1992-now
California Medical Association	1991-now
Ventura County Medical Society	1992-now

## SPEAKERS BUREAUS

Alcon Pharmaceutical  
 Alcon Surgical  
 Allergan  
 Bausch & Lomb

## CONSULTANT

Alcon Surgical

## INTERNET

Web Addresses

[www.JohnDavidsonMD.com](http://www.JohnDavidsonMD.com)

[www.MiramarEye.com](http://www.MiramarEye.com)

Email Address

[DoctorJohn@JohnDavidsonMD.com](mailto:DoctorJohn@JohnDavidsonMD.com) (not to be shared)

## PUBLICATIONS

Strabismus Surgery in Patients With Myasthenia, Journal of Pediatric Ophthalmology & Strabismus, 1993;30:292-5.

The Visual Function of Professional Baseball Players, American Journal of Ophthalmology, 1996;122:476-85.

OSN Article, “Cataract Refractive Surgery: Myth Busters”, August, 2014

OSN Article, “The New Era in Astigmatism Management”, October 10, 2014

OSN Article, “Refractive Cataract Surgery,: Practice Profiles”, December 10, 2014

The LenSx Laser—A Review of Current Literature on its Use in Cataract Surgery,

US Ophthalmic Review, April 2016

## MEETING/COURSE INSTRUCTION

Alcon Booth Talk, ReSTOR +3.0, ASCRS San Diego, 3/28/2011

Alcon Talk, Fresno, 3/1/2014

Navigate, Ft. Lauderdale, 3/29/2014

IOL Calculations, USC and UCLA Residents and Fellows, Los Angeles, 4/2/2014

Sacramento Eye Society, Sacramento, 4/10/2014

Navigate Chicago, 4/12/2014

Alcon Booth Talk, ASCRS Boston, 4/27/2014

Centurion Panel, Ascrs Boston, 4/26/2014

Dallas Academy of Ophthalmology, Dallas, 5/15/2014

Invited Lecturer and Moderator, UT Southwestern Grand Rounds, Dallas, 5/15/2014

LenSx and Verion, Third Street Surgery Center, Los Angeles, 6/9/2014

LenSx and Verion, Seattle, 6/12/2014

LenSx and Verion, Hawaiian Ophthalmolgy Society, Honolulu, 9/6/2014

LenSx and Verion, San Gabriel Surgery Center, Pasadena, 10/1/2014

LenSx and Verion, Vancouver, 10/2/2014

LASIK & Cataract Surgery Comanagement, TriCounties Optometric Society, Pismo Beach, 10/4/2014  
 USC Femto Symposium, Los Angeles, 10/11/2014  
 Verion: The Image Guided Pursuit of Emmetropia, AAO, Chicago, 10/18/2014  
 Femto Skills Transfer Lab Instructor for LenSx, AAO Chicago, 10/19/2014  
 JOULE: Powering Education on LenSx Laser Technology, Chicago, November 8, 2014  
 LenSx and Verion, San Diego, 11/19/2014  
 Alcon Raising the Bar in 2015: Improving Outcomes for Our Cataract Patients, Hawaiian Eye Meeting, Maui, 1/19/2015

## **ADVISORY BOARD MEETINGS**

Centurion, Dallas, 9/28/2013  
 LenSx AAO, Chicago, 10/16/2014  
 Verion AAO, Chicago, 10/17/2014  
 Verion and ORA, Maui, 1/18/2015  
 Alcon Ad Board Cat/IOL, Waikola, 1/16/2016  
 Alcon Ad Board Pharma, Waikola, 1/17/2016

## **MULTI-CENTER COLLABORATIVE STUDIES**

Allergan Phase III, Protocol #193042-022  
 Jan 2005- closed

Allergan Phase III, Protocol #192024-026T  
 Feb 2004-closed

Alcon Phase III, Protocol #C-040-04  
 June 2004-closed

Allergan Phase III, Protocol #190342-021  
 March 2003-closed

Alcon ReSTOR Toric, Protocol #C-09-036 ART  
 September 2011

## **LenSx LASER**

First in Ventura County to perform LenSx surgery, 5/3/2013

## **Verion Image Guided System**

First in California and the Western Region to implement Verion, 4/21/2014

## **WaveTec Vision ORA**

First in Ventura County to use intraoperative wavefront aberrometry, 5/3/2013

## **VOLUNTEER EYE SURGERY MISSIONS**

Albania

Mexico

Venezuela

Vietnam

## **SERVICES**

Refractive Lens Replacement Surgery

LenSx, Advanced Technology IOLs, ORA

Cataract Surgery for Adults, Children and Infants

Complex Cataract and Implant Surgery for Adults and Children

Laser Vision Correction (LASIK, PRK)

Visian ICL

## **ADDRESSES**

Main Office & Billing Office	3085 Loma Vista Road Ventura, CA 93003	Tel: (805) 648-3085 Fax: (805) 648-7027
Satellite Offices	751 E. Daily Drive #110 Camarillo, CA 93010 Tel: (805) 987-8705	2230 Lynn Road, Suite 102 Thousand Oaks CA 91360 (805) 495-0458
	351 Rolling Oaks Dr. #102 Thousand Oaks, CA 91361 Tel: (805) 497-3744	1445 E Los Angeles #104 Simi Valley, CA 93065 Tel: (805) 527-6720
NVISION Laser Eye Center	771 E. Daily Drive, #245 Camarillo CA 93010 Tel: (805) 437-7150	

**INVITED LECTURER (since 2014)**

<b>Strategies for Managing Astigmatism for the Catara</b>	<b>03/01/14</b>	<b>Fresno, CA</b>
<b>A Discussion of Advanced Technology IOLs</b>	<b>04/02/14</b>	<b>Los Angeles, CA</b>
<b>A Discussion of Advanced Technology IOLs</b>	<b>04/02/14</b>	<b>Los Angeles, CA</b>
<b>Introducing the Centurion Vision System</b>	<b>04/10/14</b>	<b>Sacramento, CA</b>
<b>Femtosecond Laser-Assisted Cataract Surgery</b>	<b>04/27/14</b>	<b>Boston, MA</b>
<b>Femtosecond Laser-Assisted Cataract Surgery</b>	<b>04/27/14</b>	<b>Boston, MA</b>
<b>Introducing the Centurion Vision System</b>	<b>05/15/14</b>	<b>Dallas, TX</b>
<b>Femtosecond Laser-Assisted Cataract Surgery</b>	<b>06/09/14</b>	<b>Los Angeles, CA</b>
<b>Femtosecond Laser-Assisted Cataract Surgery</b>	<b>06/09/14</b>	<b>Los Angeles, CA</b>
<b>Femtosecond Laser-Assisted Cataract Surgery</b>	<b>06/12/14</b>	<b>Seattle, WA</b>
<b>Femtosecond Laser-Assisted Cataract Surgery</b>	<b>06/12/14</b>	<b>Seattle, WA</b>
<b>Femtosecond Laser-Assisted Cataract Surgery</b>	<b>09/06/14</b>	<b>Honolulu, HI</b>
<b>Femtosecond Laser-Assisted Cataract Surgery</b>	<b>10/01/14</b>	<b>Pasadena, CA</b>
<b>Femtosecond Laser-Assisted Cataract Surgery</b>	<b>10/11/14</b>	<b>Los Angeles, CA</b>
<b>A Discussion on Advanced Biometry</b>	<b>11/19/14</b>	<b>San Diego, CA</b>
<b>A Discussion on Advanced Biometry</b>	<b>11/19/14</b>	<b>San Diego, CA</b>
<b>Femtosecond Laser-Assisted Cataract Surgery</b>	<b>11/20/14</b>	<b>Portland, OR</b>
<b>LenSx Laser: The Next Evolution in Cataract Surger</b>	<b>03/02/15</b>	<b>Newport Beach, CA</b>
<b>Adopting Image Guided Surgery for Cataract Refract</b>	<b>03/26/15</b>	<b>Houston, TX</b>
<b>A Discussion on Advanced Biometry</b>	<b>04/08/15</b>	<b>Irvine, CA</b>
<b>Innovative Technologies for the Modern Cataract Re</b>	<b>04/09/15</b>	<b>Sacramento, CA</b>
<b>Innovative Technologies for the Modern Cataract Re</b>	<b>04/09/15</b>	<b>Sacramento, CA</b>
<b>2015 Latin America &amp; Canada (LACAN) Advancements in Refractive and Cataract Surgery Symposium</b>	<b>05/29/15</b>	<b>Irvine, CA</b>





# Dr. Jonathan Pirnazar

## Medical Director

For Dr. Pirnazar, complexity is another word for “challenge.” Finding solutions to complex eye issues is his specialty, and he has the experience and education to back it up.

Having performed more than 20,000 refractive and cataract surgeries, Dr. Pirnazar’s specialties include LASIK, premium multifocal and accommodating intraocular lens implants, and implantable contact lens surgeries. He also specializes in treating glaucoma with laser eye surgery. In addition to his clinical experience, he involves himself in pharmaceutical studies and clinical trials in the treatment of ophthalmic diseases.

He received his M.D. with Honors from the University of Illinois, Chicago School of Medicine and completed his residency at the prestigious Washington University in St. Louis, where he also served as chief director of University Eye Service.

He continued his education with fellowship training in corneal and refractive surgery at the University of California, Irvine, where he also served as an assistant professor. He is a board-certified ophthalmologist.

His extensive experience in both surgeries and pharmaceutical trials has made him a sought-after expert among doctors in the ophthalmology field. He has published articles in respected medical journals, including the American Journal of Ophthalmology and Ophthalmology Times.

When he isn’t working on complex eye surgeries or helping other doctors manage complex eye surgeries and ophthalmic emergencies, Dr. Pirnazar enjoys spending time with his wife and two sons, playing tennis and watching Chicago Bears games.

# Biography

## Education

- 1991 B.A. in Psychology, Northwestern University
- 1995 M.D., University of Illinois School of Medicine

## Professional Training

- 1996 Internship, Internal Medicine, University of Chicago
- 1999 Resident in Ophthalmology and Visual Sciences, Barnes-Jewish Hospital / Washington University Medical Center
- 2000 Clinical Instructor / Chief Resident / Director of University Eye Service at Barnes Jewish Eye Clinic

## Fellowships

- 1992 Research Fellow in Laboratory of Central Nervous System Studies, Institute of Neurological Disorders and Stroke, National Institute of Health
- 2001 Fellow in Cornea and External Disease / Refractive Surgery, University of California, Irvine

## Board Certification

- 2000 American Board of Ophthalmology

## Professional Affiliations

- American Academy of Ophthalmology
- Orange County Ophthalmologic Society

## University & Hospital Positions

- Instructor in Ophthalmology, Department of Ophthalmology and Visual Sciences, Washington University Medical School
- Instructor in Ophthalmology, Department of Ophthalmology, University of California, Irvine
- Assistant Clinical Professor, Department of Ophthalmology, University of California, Irvine
- Director, Department of Ophthalmology Continuing Medical Education Program
- Director, Pavilion II Ophthalmology Clinic



# Dr. Mihir Parikh

**NVISION La Jolla**

As the San Diego Charger's Official Team Ophthalmologist and former medical director at Advanced Ophthalmology Institute, Dr. Parikh knows the importance of precision in LASIK procedures. And, having undergone LASIK surgery himself, he understands the process both as a surgeon and as a patient.

Board-certified for more than 10 years, Dr. Parikh has performed more than 12,000 LASIK procedures, including many patients who are San Diego Chargers players. He specializes in LASIK, PRK, LASEK, cataracts and intraocular lenses, custom LASIK and Wavefront technology. He was one of the first west-coast surgeons trained in custom Wavefront treatment technology.

Before dedicating his career to the field of medicine, ophthalmology and refractive eye surgery, Dr. Parikh was involved in laboratory research in molecular biology and biochemistry at the University of California, Irvine, and in clinical research at the University of California, San Diego Burn Center.

An award-winning surgeon, Dr. Parikh has been honored with the Laurence Mehlman Prize and was the recipient of the University of California Regents Scholar Award for four years in a row. His presentation on "the effects of intrastromal corneal lens implantation (Intacs) on nerve fiber layer thickness" was honored best paper at the ASCRS 2000 conference in Boston, Massachusetts.

In his spare time, Dr. Parikh teaches principles of ophthalmology and refractive surgery to fellow doctors and surgeons nationally and internationally and has been published in many notable medical journals.

# Biography

## Education

- 1991 BS in Biological Sciences, cum laude, University of California, Irvine,
- 1995 M.D., University of Michigan Medical School, Ann Arbor, Michigan

## Professional Training

- 1996 Internship in Internal Medicine, New York University Medical Center and Bellevue Hospital, New York
- 1999 Residency training in Ophthalmology, New York Eye and Ear Infirmary, New York

## Fellowships

- 2000 Fellowships in Anterior Segment Surgery and Cornea and Refractive Surgery, Sinskey Eye Institute, Santa Monica, California

## Board Certification

- 1999 American Board of Ophthalmology

## Professional Affiliations

- California Medical Association
- San Diego County Medical Society Board of Trustees
- American Academy of Ophthalmology
- American Society of Cataract and Refractive Surgery

## University & Hospital Positions

- Advanced Ophthalmology Institute, A Medical Corporation  
Medical Director and Surgeon of La Jolla Surgery Center
- Indian Health Council, Chief Ophthalmologist for Native Americans in Rincon - Pauma Valley
- Scripps Memorial La Jolla and Scripps Mercy Hospitals

## **CURRICULUM VITAE**

### **Dr. Patrick J. Lydon, Clinical Research Optometrist – Manager and Director of Clinical Affairs**

#### **Primary Residence:**

77-251 Tribeca St. Indian Wells, CA 92210

Home: 760-360-5245

Email: [pjlwolf@earthlink.net](mailto:pjlwolf@earthlink.net)

Cell: (949)-735-2766

#### **STATEMENT OF PURPOSE**

This resume is a condensed summary of my professional, educational, and personal background. It outlines my qualifications in the areas of patient care, training, business management, and clinical trials for medical devices and procedures. I believe that because of my familiarity with the certification processes, as well as my background in research, I am uniquely positioned for consideration in any role related to those fields.

#### **WORK EXPERIENCE**

##### **Current:**

- 1. January 2016 – Consulting Optometrist – NVISION Center Palm Desert California**  
Responsible for Pre Op and Post Op Comanagement LASIK/Cataract
- 2. March 2015 to present – Consulting Director of Optometric Services – S. Shah,  
MD Family Charitable Foundation for Health – Palm Desert , CA**

Primary Eyecare - directing the clinical program at the Shah Foundation, with special emphasis on Glaucoma Patients, and disadvantaged students of the Coachella Valley, ensuring no student is left behind because of a vision problem.

- 3. Nov. 2014 to present - Consulting Director of Clinical And Medical Affairs, Eye  
Therapies Inc. (Lutronic division) - San Francisco-based ophthalmic laser medical devices**

- Surgical Trainer – AMD 10 Laser
- Staff Trainer
- Site Qualification, Initiation
- Study Protocol Development and Review

- IRB Submission
- Site Contract Review
- Study Documentation Development and Review

**4. Nov. 2014 to present - Consultant to Refocus Group, Dallas TX – Clinical research**

– Medical device company studying the surgical treatment of presbyopia

- Surgical Trainer – VisAbility Implant System (Spain and Ireland)
- Site Staff Training and Managing /Reviewing Subject Enrollment
- Post Marketing Protocol Development and Review

**Previous Work Experience: (full time – non consulting)**

**1. Eye Therapies, San Francisco, CA – Director of Clinical and Medical Affairs –**

Nov. 2014 to March 2015

- Reported directly to the President and CEO
- Credited with designing the clinical program and providing expertise in the Surgical Training for the AMD 10 Ophthalmic Laser
- Co-developed clinical research strategic programs in line with global strategy and supported the local product registration and marketing.
- Acted as a medical resource to the company as a whole and particularly to the clinical research department - protocol and CRF writing, adverse events reporting, discussions with investigators, and internal meetings.
- Worked closely and cooperatively with research centers internationally
- Initiated and Developed clinical trial programs to support product registration and marketing.
- Provided medical and scientific input to global product development teams.
- Provided medical expertise in the review of adverse experiences
- Established ongoing liaison with key opinion leaders, government officials, CRO's and other healthcare organizations to ensure that significant developments in the field are identified and monitored.
- Represented the company at professional worldwide meetings
- Ensured that the interfaces between Medical/Clinical and other departments were managed optimally.

- Formed informal networks with company senior management, updating them on a regular basis on developments within Medical and progress made with the clinical and regulatory program.
- Worked in conjunction Regulatory, Marketing and Financial people through cross-functional teams, to ensure timely entry of new device to the market
- Worked with company management to determine requirements for clinical programs - involved with the identification and selection of suitable candidates for positions.
- Ensured effective team communication throughout the department through the application of suitable reporting systems and structures and the identification and provision of appropriate training.

**2. Refocus Group, Dallas TX – Global Clinical Affairs Manager – April, 2014 to Nov 2014.**

- Primary responsibility for overseeing all clinical activities related to sites in Spain and England/Ireland.
- Managed trial exclusion and inclusion enrollment.
- Surgical Trainer for VisAbility Implant System
- Qualified clinical investigators and clinical sites on the VisAbility Implant System.
- Obtained and reviewed all required essential documents necessary for study initiation.
- Interacted with all levels of medical and scientific professionals.
- Assisted in the preparation and presentation of clinical training materials for investigator site staff.
- Provided scientific support to health care professionals at clinical sites.
- Independently handled various clinical study assignments including: conceptualizing, planning, designing, executing and monitoring
- Managed staff at site for company in regards to trial activities
- Summer 2014 Visiting Scholar at the University of Terraza, School of Optometry (Barcelona) Spain for the VisAbility Implant Trial
- Managed resource planning, project timelines and effective use of budget
- Managed project related professional meetings and presentations
- Established and maintained ties to Surgeons and Staff Globally
- Responsible for providing assistance in direction of overall corporate strategy and evaluating market potential
- Monitored clinical studies, ensuring site compliance with the clinical protocols; assuring subject rights, safety, and welfare are protected; ensured data integrity through completeness, accuracy, and legibility.
- Reviewed and monitored required corrective actions; conduct follow-up activities on required action items directly with investigator sites. .

- Maintained professional, product, and market expertise via independent reading, networking, and training.

**3. AcuFocus Inc., Irvine, CA - CRA / Clinical Research Optometrist / Director of Training / Global Training Manager (Feb 2012-2014 April )**

- Clinical Research Optometrist: In this position I was responsible for monitoring sponsor-initiated clinical research studies for the KAMRA Inlay, 020A and 020B trials – conducted monitoring visits to confirm protocol compliance and to ensure sponsor/investigator obligations were met nationally as well as in Australia , New Zealand, Canada , Peru, and Chile.
- Verified that sites were compliant with applicable local requirements and FDA / ICH guidelines
- Monitored the trials to confirm protocol compliance. Included Surgeon (and staff) Training on femtosecond lasers, AcuFocus Home Office training and assessed qualifications of study personnel to ensure “Good Clinical Practice”.
- Identified site issues and initiated correction plans based on monitoring reports (including study logs and device accountability) and performed necessary follow-up onsite training
- Verified the data in source documents (EDC) were in agreement with source, initiated data query resolutions, and confirmed resolutions in a timely manner
- Ensured subject safety and adverse event reporting to sponsor and IRB/IEC
- Promoted to Director of Training USA /Global Training Manager – Europe, India and Canada. Worked within the team environment to provide commercial training to team members such as project managers.
- Responsible for developing and training interactions for all trained surgeons and staff in use of the KAMRA inlay. Opened the commercial markets for KAMRA in India and Canada. Monitored the training guidelines and introduced surgeons and staff to the device.
- Initiated the Global Data Base Registry for KAMRA patients in Canada / ROW
- Credited with obtaining the highest volume of clinical KAMRA subjects for new sites in Canada
- Developed the Visiometric AcuFocus HD Acutarget project for site use

**4. NeoVista Inc., Fremont, CA – Clinical Affairs Specialist / CRA/ VA Trainer /Director of Clinical Marketing Training. May 2006 – April 2012**



- Began at NeoVista as CAS with Retinal Surgeon Training, Monitoring (US And OUS), Radiation Oncologist Training, Medical Physicist Training , and Optometrist trainer.
- Performed IRB, and Protocol submission in the United States, Europe, and South America for multiple NeoVista clinical trials.
- In charge of VA Certification for worldwide trial CABERNET,
- London based Director of Clinical Marketing Training for the MERLOT Trial -23 NHS sites

#### Specific Job Functions in UK for NeoVista:

- Credited with completing enrollment of subjects on time for the MERLOT trial (373 subjects at 23 sites).
- During the CABERNET And MERLOT clinical studies, initiated frequent interactions with clinical investigators to ensure compliance with protocol and overall clinical project objectives.
- Trained surgeons on use of the VIDEON (radiation device). Trained nursing and radiation staff on use of VIDEON. Represented NeoVista in OR situations worldwide (USA, South America, Europe , Israel and South Africa.
- Responsible for training of medical staff in follow-up to cases performed (AE Reporting)
- Assured studies were conducted in compliance with UK NHS/NICE Good Clinical Practice and appropriate international, federal, state, and local regulations and guidance's.
- Provided assistance in the evaluation and analysis of clinical data.
- Responsible for regular updates to Senior Management on site status.
- Managed the Physics Project NeoVista. Ensuring the on time , replacement and exchange of expiring medical devices in the UK. Credited with "saving" the MERLOT Trial
- Organized and worked closely with an international team (Austria – Germany – UK) to initiate successful clinical trials enrollment strategies
- Audited sites in the United States, Europe, Middle East and South America.
- Maintained accurate and timely sponsor/site correspondence and communication.
- Prepared and presented project progress reports to keep NeoVista management and clinical staff informed
- Presented MERLOT Trial to the Royal College of Surgeons, London UK
- MERLOT Trial Specifics: Responsible for site qualification, initiation, surgeon/ radiation oncology training, data monitoring, adverse event reporting, IRB applications, protocol review, informed consent, and creating SOPs.

- I transferred to AcuFocus (a sister company of NeoVista) in March of 2012. As a Clinical Research Optometrist, I continued in monitoring and training sites worldwide. I worked with refractive surgeons, R & D and Marketing on developing the KAMRA inlay.

**5. Genentech Corporation Visual Acuity Evaluator/Trainer (August 2002 - May 2006) -**

- VA Evaluator/Trainer for the Lucentis Series of Clinical Trials ---Focus, Anchor, Marina, Sailor, and Horizon
  - Trained and worked with site staff on VA requirements for Lucentis development.
  - Trained Protocol and Developed New Training Upgrades for Genentech Clinical Trial Managers
  - Extensive US travel – responsible for > 30 sites
  - Contributed to the success of Lucentis with VA results meeting endpoint
- Transferred to NeoVista to continue work in wAMD

**Field-Related WORK EXPERIENCE:**

- Prior to joining Genentech: Pearle VisionCare HMO of California
- November 1986 – 2002 Starting as a Staff OD in a single office in 1986, my career at Pearle saw my responsibilities expand to include the following positions:

**Medical Director/VP Cole Managed Vision (parent company of Pearle)**

- ⊖ Staff OD, Managing OD
- Regional Optometric Coordinator
- 1996 Externship Binder Gordon Laser Vision Institute
- Quality Assurance Committee Chairman
- Director of Doctor Relations PVC California
- Medical Director PVC
- President Pearle Vision Care of California

During these transitional years, my responsibilities grew to include oversight, administration, and clinical decisions for approximately 50 California corporate locations. I was credited for contributing significantly to a business turnaround that reversed downsizing, leveled a financial slide and turned comp growth. During this period, Pearle's California offices improved efficiency dramatically (i.e., fewer offices saw more patients with higher quality). Creation and oversight of a network of over 100 providers. Monitoring performance of direct-reporting OD's, training, coaching, counseling, conducted performance reviews, and recommended merit increases

where appropriate. During this tenure I also participated in my first clinical trials. We participated in contact lens development and the solutions used to treat them.

## **EDUCATION**

- Doctor of Optometry, University of California, Berkeley, School of Optometry
- BS Optometry, University of California , Berkeley
- Certificate in Clinical Research (CRA)
- Kaiser Hospital Staff, Cataract Lens Clinic
- Letterman Hospital , Presidio San Francisco Cataract Rotation and Internship
- Externship Binder and Gordon Laser Vision Institute
- Bachelor of Science, Combined Sciences, Minors in Biochemistry and History, University of Santa Clara - Captain Crew Team / Academic All American
- London School of Economics and Oxford, University of Freiburg, Germany, University of Santa Clara Studies Abroad Program
- Archbishop Mitty High School, Cupertino, California
  - recipient of Alumni Award for Constant Achievement
  - Spanish Award

## **OUTSIDE INTERESTS**

- Athletics: Golf, tennis, bicycling, scuba diving, volleyball
- Hobbies: amateur musician - Currently member of two musical groups with interests in contemporary, traditional, folk, and Irish/folk music.

## **STATEMENT**

Throughout my career, I've been able to work myself into positions of ever-increasing challenge and responsibility. My background includes clinical care/training and business management at the local, regional, state, national and international levels. I maintain a passion for oversight and training in the research environment, and commercial settings. At my core, I feel a strong dedication to pursuing answers to the question, "What is around the next corner".

It has been a unique journey, from local staff Optometrist, National Medical Director and Vice President at Pearle Vision, to my current positions as a consultant with multiple Global Clinical Research Companies.

## **REFERENCES – upon request**



# Dr. Richard Meister

Medical Director, NVISION Laser Eye Centers

Dr. Richard Meister is the Medical Director at NVISION Sacramento. He is a board-certified ophthalmologist who started specializing in refractive surgery as a sub-specialty in 1981, under the tutelage of Ralph Berkeley, MD.

Dr. Meister has performed over 40,000 refractive corneal and cataract procedures and, with the approval of the excimer laser in the United States, he was the first in Sacramento to perform laser refractive surgery on patients in 1995. Dr. Meister has excellent LASIK surgical outcomes with less than a 0.2% enhancement rate. He has also been performing premium intraocular lens surgery with multi-focal lens implants since 1998.

Born and raised in Oklahoma City, Dr. Meister graduated from the University of Oklahoma. He focused his residency training on refractive corneal and cataract surgery under world-renowned expert, Jack Holiday, MD, at the prestigious Hermann Eye Center at the University of Texas, Houston Medical Eye Center.

Dr. Meister established his practice in 1984 in Sacramento specializing in refractive, corneal and cataract surgery. He was the first to introduce the Russian technique of radial keratotomy to Northern California. He was named the proctor of Sutter Hospital and quickly became the leading expert in the area for other ophthalmologists referring patients for refractive and corneal surgery, including transplants. Dr. Meister trained other ophthalmologists in his area in the use of the operating microscope and extracapsular cataract surgery, and phacoemulsification techniques.

Dr. Meister is frequently invited as a guest lecturer. He received the Visx Star award, after approval of the excimer laser, for being among the top 15 refractive surgeons in the United States. He has served as part of the mentor program for new surgeons as they develop their refractive surgery techniques. Dr. Meister has been the Medical Director of the Eye Surgery Center of Northern California from 2000 until present. He is the owner and was one of the initial planners of the first eye surgery center in the Sacramento area. He has also been an FDA investigator for approval of innovative laser techniques and wavefront technology, and has published several articles.

"It is very gratifying to restore people's vision to achieve their goals for recreational, occupational or functional needs. It is such a compliment to hear from patients on a daily basis how their new vision has improved their quality of life, and how they wish they had done it years before."

# Biography

## Education

- 1971 B.S., University of Oklahoma
- 1978 B.S., Medicine, University of North Dakota
- 1980 M.D., University of California, Davis

## Professional Training

- 1980 Internship, UCLA, Harbor General, Torrance, CA
- 1981 Residency in Ophthalmology, University of Texas, Medical Center Houston, Houston, TX

## Fellowships

- 1984 Mini-fellowship, Refractive surgery, RK, myopic keratomileusis, Ralph Berkeley

## Board Certification

- 1985 American Board of Ophthalmology

## Professional Affiliations

- American Society of Cataract and Refractive Surgery
- International Society of Refractive Surgery
- American Academy of Ophthalmology
- Alta Medical Society

## University & Hospital Positions

- Sutter Hospitals, Roseville and Sacramento, CA
- Mercy San Juan Hospital, Carmichael, CA
- Adjunct Clinical Professor at Southern California College of Optometry, Fullerton, CA
- Visx Star Award, Top 50 Ophthalmologists
- Former Flying Doctor with Liga International

Richard Burns, MD

Dr. Burns has performed more than 20,000 refractive and cataract procedures and takes particular interest in helping patients achieve their best personal vision through advanced refractive cataract and laser vision correction. His practice has been exclusively limited to cataract and refractive surgery for more than 25 years. Other ophthalmologists often refer the most challenging and complicated cases to Dr. Burns.

Prior to joining NVISION, Dr. Burns was the Chairman of the Department of Surgery as well as the Chairman of the Department of Ophthalmology at the largest multi-specialty group in San Diego. He also has a private practice in San Diego as well as serves as the Director of Refractive Surgical Services for California Eye Professionals in Temecula. He has served as the clinical instructor of ophthalmology for the University of California, San Diego, where he previously completed his residency and served as chief resident. He was also the chief of ophthalmology at Sharp Cabrillo Hospital, where he treated patients for more than eight years.

Dr. Burns is renowned for his success working with other ophthalmologists as well as optometrists, always with the goal of helping patients attain their best vision possible through laser procedures. A frequent lecturer on refractive and cataract procedures, Dr. Burns has also appeared on many television and radio programs sharing information about laser vision correction.

In his spare time, Dr. Burns enjoys golfing, hiking, and traveling. He especially enjoys spending time with his family as well as reading, particularly about history. He is involved in various local charitable works and enjoys participating in an annual work mission to Fiji. Dr. Burns chose the field of ophthalmology stating that “vision is awe inspiring to me.”

## Curriculum Vitae

Sheri Rowen, MD

### Office Address:

Mercy Medical Center                      Office - (410) 332-9500  
Eye & Cosmetic Surgery Center      Direct - (410) 332-9733  
301 St. Paul Place, Suite #514      Fax-      (410) 545-5161  
Baltimore, Maryland 21202      E-Mail- Srowen10@gmail.com

### Education:

- University of Maryland, College Park, Maryland  
B.S.,      May 1976
- University of Maryland, School of Medicine, Baltimore, Maryland  
M.D.,      May 28, 1982
- Internship, General Surgery, Johns Hopkins Hospital, Baltimore, Maryland  
July 1, 1982 - June 30, 1983
- General Surgery Fellow, Johns Hopkins, Department of General Surgery, Baltimore,  
Maryland  
July 1, 1983 - June 30, 1985
- Resident, Ophthalmology, University of Maryland Medical System, Baltimore, Maryland  
July 1, 1985 - June 30, 1987
- Chief Resident, Ophthalmology, University of Maryland Medical System, Baltimore,  
Maryland  
July 1, 1987 - June 30, 1988

### Work History:

- Hirsch Eye Group, Fallston, MD 21047  
July 1988 - June 1989
- Katzen Eye Group, Dulaney Valley Rd. . Towson Md. 21204  
June 1989 - December 1996
- Eye & Cosmetic Surgery Ctr. St. Paul Place, Baltimore Md 21202  
Dec 1996 - Present

### Honors:

Phi Kappa Phi  
Phi Beta Kappa  
Eta Beta Rho Honors Society  
Cum Laude Graduate, University of Maryland, College Park  
Dean's List, 1971-1976, University of Maryland, College Park

### Board Certification:

Diplomat & Fellow, American Board of Ophthalmology





**Research Appointment:**

- Research Assistant, National Institute of Health / National Cancer Institute, Bethesda, Maryland  
1976-1978
- Research Assistant, Baltimore Cancer Research Center, Baltimore, Maryland  
1978-1980
- Research Fellow, Johns Hopkins University School of Medicine, Center for Vitreoretinal Research, Baltimore, Maryland  
1983-1985
- Clinical Investigator, for FDA approved study Staar Collamer Lens  
1996
- Clinical Investigator, for FDA approved study Visian ICL  
1997 - 2006

**Academic Appointment:**

- Clinical Instructor, University of Maryland School of Medicine, Baltimore, Maryland  
1989 – 1990
- Assistant Clinical Professor of Ophthalmology, University of Maryland School of Medicine, Baltimore, Maryland  
1990- Present
- Clinical Instructor, Johns Hopkins Hospital, Baltimore, Maryland  
1991- Present
- Director: Mercy Medical Center for: Eye & Cosmetic Surgery  
1996- Present  
1996- Investigator: Staar Surgical, FDA Study (Collamer Lens)  
1997- Investigator: Staar Surgical, FDA Study (Implantable Contact Lens)

**Professional Memberships:**

Member, American Medical Association

Member, Association for Research and Vision in Ophthalmology (1982- 1988)

Member, Maryland Eye Physician and Surgeons

Member, MED CHI of Maryland

Committee Member, Research to Prevent Blindness, Inc.

Member, Universal Scleroderma Foundation

Member, Wilmer Resident's Association

Member, American Society of Cataract & Refractive Surgery

Member, American Diabetes Association

Member, American Society for Laser Medicine and Surgery

Board Member, International Society of Cosmetic Laser Surgeons

Vice President, International Association of Women Eye Surgeons

**Medical Licenses:**

Maryland  
District Of Columbia  
Virginia  
North Carolina  
New York

**Community & Volunteer services:**

- Health Mission, "Project Dawn" Guyana  
March 1988
- Free Screening, Mercy Medical Center, and Department of Aging  
1997, 1998
- Son's Of Italy – Current Techniques in Eye Surgery  
1999
- Baltimore County Department of Aging  
1990- 1996
- Health Mission - Cali, Columbia  
February 2008

**Television:**

The Women's Doctor:

1994- "Topical Anesthesia for Cataract Surgery"  
1995- "Topical Anesthesia & Clear Corneal Incisions & Foldable Lens"  
1996- "First Use Of CO2 laser in Baltimore for Eyelid Surgery & Facial Resurfacing"  
1997- "Implantable Lens Correcting Hyperopia & Myopia"  
1998 " Laser Resurfacing with CO2 & Erbuim Lasers" For Pre Mature Aging  
1999- " Implantable Contact Lens" Lasik Surgery  
2000- " Toric Lens" Correcting Astigmatism

1997- National Television: " Implantable Contact Lens"

1998- Ivanhoe Broadcast: " Implantable Contact Lens"

1998- National Television: " Topical, Clear Corneal Cataract Surgery"

**Publication:**

- Rowen, S.L. & Glaser, B.M. (1985). "Retinal Pigment Epithelial Cells Release a Chemoattractant For Astrocytes, "ARCHIVES OF OPHTHALMOLOGY, 103 (5), 704-707.
- McDonnell, P.J., Rowen, S.R., Glaser, B.M. & Sato, M. (1985). "Posterior Capsule Opacification." ARCHIVES OF OPHTHALMOLOGY, 103 (9), 1378-1381.
- Rowen, S.L. (1994). "Advanced Phacomachine & New Kelman Tip". PHACO AND FOLDABLES, Vol 7 No. 1.

- OCULAR SURGERY NEWS. (1994) "Leaders in Clear Corneal Incisions"
- Rowen, S.L. (1996). "Topical Anesthesia in Cataract Surgery". REVIEW OF OPHTHALMOLOGY, Supplement to VOL. 2, No. 6
- OPHTHALMOLOGY TIMES. (1995). "Miochol-E with Topical Anesthesia"
- EYE TECHNOLOGY (1996). "Current Trends in Cataract Surgery".
- Rowen, S.L. (1996) "Yes, You Can Convert To Clear Corneal Incisions". REVIEW OF OPHTHALMOLOGY, Vol. 3 No. 5, 110-115
- OCULAR SURGERY, News Symposium Supplement, Feb. 1996
- OCULAR SURGERY, News Symposium Supplement, Feb. 1997
- Rowen, S.L. (1997) "Understanding the Benefits of Plate Haptic Lenses" REVIEW OF OPHTHALMOLOGY, Vol. IV., and No.7 4B- 6B
- Rowen. S.L. (1999) " Why & How to Convert to Injectable Lens" REVIEW OF OPHTHALMOLOGY, VOL 8, and page87
- Rowen S.L. 9 (1999) "Pre-Operative & Post- Operative Medications used for Cataract Surgery" CURRENT OPINIONS IN OPHTHALMOLOGY, VOL 10, PAGES 29-35

**American Academy of Ophthalmology - Annual Meeting:**

1994 – 2009: 40 Credits Each Calendar Year

**American Society of Cataracts and Refractive Surgery - Annual Meeting:**

1995 – 1996, 1998 – 2010: 40 Credits Each Calendar Year

**American Meeting International Society of Cosmetic Laser - Surgeons:**

1996 - 24 Credits	1999 –24 Credits
1998 - 29 Credits	2000 – 24 Credits

**International Society of Refractive Surgeons:**

1995, 1998 – 2002, 2004: 16 Credits Each Calendar Year

**Maryland Optometric Association**

1998- 6 Credits

**Baltimore Refractive Surgery Society**

1999- 6 Credits

**Greater Baltimore Medical Center**

1999- 6 Credits

**Visual FreedomCenter**

1998- 12 Credits

**Preceptorships - Ultrapulse CO2 Laser:**

1995 - January - Dr. Robert Adrian, Washington, D.C.  
Facial Resurfacing Technique

1995 - February - Dr. Sterling Baker, Oklahoma City, OK.

**Preceptor: Coherent Medical:**

1996- Present Supervise use of CO2 & Erbium Laser

**Laser Education Foundation - I.S.C.L.S.**

1996- October- Sterling S. Baker MD. , Chicago, IL.  
Pre- AAO Cosmetic Symposium

**Coherent / Ultra FineErbium**

1998- January, Maureen A. Foley, RN, BSN, CNOR  
Mercy Hospital

**The International Society of Cosmetic Laser Symposium**

1998- February – C.William Hanke, MD. , Orlando, FL.

**Eyelid Incision Techniques International Workshop on Anesthetic Surgery:**

1996 April - Dr. Oscar Ramirez, Course Director  
Rejuvenation of the Central Oval of the Face, Perioral Area and Lips

**Techniques and Variations of the I. Howard Fine Clear Corneal Incision Course**

1992 - August - Dr. Charles Williamson , Course Director

**Lamellar Refractive Surgery Course**

1997 – May, Dr.Stephan G. Slade, Baltimore, MD.

**Visual Freedom Center**

1998- February – Dr. Charles Casebeer, Course Director  
Introduction / Visx Certification Course, Transition to Lasik/ Wet Lab

**VISX University**

1998- November – Visx Excimer Laser System  
Hyperopia Training Course

### **Johns Hopkins Hospital, Wilmer Eye**

1998- Preceptorship for PRK, Course Director, Terrance O'Brian MD.

### **Presentations: Cataracts, Glaucoma, Foldable Lens & Topical Anesthesia**

- 1984- ARVO, Wilmer Eye Meeting, Sarasoto, FL.
- 1989- ARVO, Wilmer Eye Meeting, Sarasota, FL.  
"Endothelial Cell Produce a Chemoattractant for Astrocytes"
- 1985- ARVO, Wilmer Eye Meeting, Sarasoto, FL.  
"Retinal Pigment Epithelial Cells Release a Chemoattractant for Astrocytes"
- 1992- Greater Baltimore Medical Center Symposium, Baltimore, MD.  
"The Use of Foldable Lenses in Cataract Surgery"
- 1993- Maryland Eye Physicians and Surgeons  
"No Stitch Incision, Capsulorhexis, and Foldable Lenses" Invited Paper
- 1993- American Academy of Ophthalmology  
IOLAB BOOTH " Perilimbal Incisions and Topical Anesthesia"
- 1994- American Society of Cataract and Refractive Surgeons, Boston, Mass.  
"Perilimbal Incisions Using Topical Anesthesia "
- 1994- American Academy of Ophthalmology , San Francisco, CA  
"Advanced Phacoemulsification and Combined Glaucoma- Phaco Surgery"  
"Topical Anesthesia"  
"Clinical Decisions in Management of Complications"  
"What I'm Doing Differently This Year"  
"Techniques and Variation of the I. Howard Fine Clear Corneal Incision Course"
- 1995- Staar Surgical: Course Director: Baltimore, MD.  
"Techniques and Variation of the I. Howard Fine Clear Corneal Incision Course"
- 1995- American Society of Cataract and Refractive Surgery, San Diego, CA.  
"The use of Miochol- E for Cataract Surgery and Topical Anesthesia"  
"Advances in Topical Anesthesia and Clear Corneal Incisions"  
"Topical Anesthesia and Clear Corneal Incisions" Staar Booth ASCRS.
- 1995 - American Academy of Ophthalmology: Atlanta, GA.  
"Clinical Decision in Management of Complications"  
"What I Am Doing Differently This Year"  
"Advance Phacoemulsification and Combined Glaucoma- Phaco Surgery"  
"Topical Anesthesia"  
"Clear Corneal Incisions" Invited: ASCRS Symposium
- 1996- Techniques and Variations of the I. Howard Fine Clear Corneal Incision Course:  
New Jersey  
"Topical Anesthesia and Clear Corneal Incisions"
- 1996- The New Jersey Academy of Ophthalmology: New Jersey  
"Topical Anesthesia and Clear Corneal Incisions"

- 1996-American Society of Cataract and Refractive surgery: Seattle, Washington  
"Cataract Surgery for the 90's" Staar and Chiron  
"Advanced Phacoemulsification and Combined Glaucoma- Phaco Surgery"
- 1996-Techniques and Variations of the I. Howard Fine Clear Corneal Incision Course; Minneapolis  
"Cataract Surgery for the 90's" Course Director Invited Presentation
- 1996- American Academy of Ophthalmology": Chicago, IL.  
"Clinical Decisions in Management of Complication in Cataract Surgery"  
"Cataract Surgery of the 90's" Staar & Chiron  
"Advanced Phacoemulsification and Combined Glaucoma – Phaco Surgery"
- 1996- Tarrant County Medical Society: Fort Worth, TX.  
" Cataract Surgery for the 90's"
- 1997- Ophthalmology Society: Bethlehem, PA.  
"Cataract Surgery for the 90's"
- 1998- The Virginia Society of Ophthalmology: Williamsburg, VA.  
"Posterior Chamber Phakic IOLS"  
"Clear Cornea Cataract Surgery"  
" Co2 Laser for Blepharoplasty & Resurfacing"
- 1998- American Academy of Ophthalmology: New Orleans, LA.  
"Clinical Decisions in the Management of Complication in Cataract and IOL Surgery"  
Preceptor for ICL – Staar Booth
- 1998-Hawaii Eye Meeting / Slack Incorp: Hawaii  
"Topical Clear Corneal Cataract with Diclofenac Sodium"
- 1998-Women in Ophthalmology: Aspen, CO.  
"Cataract Surgery for the Millenium"
- 1998- Maryland Physicians & Eye Surgeons: Maryland  
" Cataract Surgery for the 90's"  
" ICL Update"  
" Toric IOL'S"
- 1999-American Society of Cataract and Refractive surgery: Seattle, Washington  
"Advanced Techniques for Cataract Surgery using Topical Anesthesia and Clear Corneal Incisions"  
"Pre & Post Op Medications for the ICL"  
Course Instructor – 2 hrs. " Advance Techniques for Cataract Surgery, ICL's & Toric Lenses"
- 1999- Greater Baltimore Medical Center Baltimore, MD.  
"ICL Update"
- 1999-Society of Ophthalmology: Puerto Rico  
"Cataract Surgery for the Millenium"  
"ICL Update" " Toric IOL'S for Cataract Surgery"
- 1999-Los Angeles Society of Ophthalmology: Los Angeles, CA.  
"Cataract Surgery for the Millenium"
- 2000- American Society of Cataract and Refractive Surgery : Boston Mass.

“ International Challenges & Techniques in Advanced Cataract Surgery’

- 2002- American Academy Of Ophthalmology - Florida  
“ Clinical Decision & Management of Complication 2002”  
“ Prevention & Management of Iris Prolapse During Cataract Surgery”

**Presentations: Cosmetic - Techniques using CO2 & Erbium Lasers:**

- 1996- International Society of Cosmetic Laser Surgery: Chicago IL.  
“CO2 Laser in a Traditional Ophthalmology Practice”
- 1996- Coherent / Pre- AAO, Chicago, IL.  
“CO2 Laser in a Traditional Ophthalmology Practice”
- 1996- International Society of Cosmetic Laser Surgery: Washington, DC.  
“CO2 Laser in a Traditional Ophthalmology Practice”
- 1998- The Virginia Society of Ophthalmology, Williamsburg, VA.  
“Skin Resurfacing with the CO2 & Erbium laser”
- 1998- Maryland Optometric Association: Baltimore, MD.  
“Cosmetic Laser Surgery using the CO2 & Erbium Lasers”
- 1998- 7th. International Society of Cosmetic Laser Surgeons: Orlando, FL.  
“Great Marketing – Minimal Expense – Coordinated Skin care”
- 1999-International Society of Cosmetic Laser Surgeons: New Orleans, LA.  
“Erbium Resurfacing for Xanthelasma”  
“ CO2 Laser Blepharoplasty”
- 2002 – International Society of Cosmetic Laser Surgeons : New York  
“Lower Lid Blepharoplasty Multi-Modal approved”  
Presentations: Toric & Implantable Contact Lens:
- 1997- Taustin Eye Center: Louisville, KY.  
“ Implantable contact lenses”  
“ Toric IOL Update”
- 1998- Maryland Society of Eye Physicians & Surgeons: Baltimore, MD.  
“Intraocular Contact Lens”
- 1998- Sixth Annual Ophthalmic Allied Health Symposium: Wilmington, DE.  
“Implantable Contact Lens, My Personal Experience”  
“Update: Phase 1 & 2”
- 1998- Women in Ophthalmology: Colorado  
“Correction of High Myopia & Hyperopia with Intraocular contacts”
- 1998- American Society of Cataract and Refractive Surgery: San Diego, CA.  
Staar Surgical: ICL  
“Implantable Contact Lenses, My Personal Experience”  
“Phase 1 & 2” “ ICL Update”
- 1998- Hoover Naquian Conference: Baltimore, Md.  
“Implantable Contact Lenses for Myopia and Hyperopia”
- 1999- 44th Annual University of Rochester Medical Center: New York  
“Toric Intraocular Lens”



### “Implantable Contact Lens For Myopia & Hyperopia”

- 1999- American Society of Cataract and Refractive Surgery: Seattle Washington  
Round Table Discussion Group: Starr Surgical: ICL  
“Latest Technique and variations of Refractive Surgery and the Benefits of using the Implantable Contact lens”
- 2000- Hawaii Eye Meeting / Slack Incorp. Hawaii  
“Current Trends in Refractive Surgery”  
“The Implantable Contact Lens FDA update, for Personal Experience & Techniques”
- 2002- New England Ophthalmological Society Inc,  
“ Implantable Contact Lens , Personal Experiences”  
“ FDA Update” “ Toric & IOL “

### **International Presentation:**

1994- Starr Surgical: Australia  
Five City Lectures: Sidney, Perth, Melbourne, Adelaide, and Brisbane  
“Clear Corneal Incisions Using Topical Anesthesia”

1995- Live Cataract Surgery: Toulouse, France  
“Topical Anesthesia and Clear Corneal Incisions”

1995- Live Cataract Surgery: Juan De Pain, France  
“Topical Anesthesia and Clear Corneal Incisions”

1997- Live Cataract Surgery: Clinique Sourdille, France  
“From Phaco to CO2”  
“Topical Anesthesia for Cataract Surgery”

1997- Live Cataract Surgery: University of Bologna, Italy  
“Live Cataract Surgery and Discussion”

1998- IV Congresso International DE-Cataract: Rio de Janeiro, Brazil  
“Toric Update & Foldable Lens”  
“Implantable Contact Lens”  
“Advanced Cataract Techniques”

1999- European Society of Ophthalmology  
“ Live Cataract Surgery” International Society of Women Eye Surgeons

# Medical Doctor Curriculum Vitae

As of July 17, 2015

Thomas Tooma, MD

Dr. Tooma has performed more than 100,000 LASIK procedures and believes that laser vision correction at NVISION is as safe as it can be. In fact, he has performed LASIK surgery on hundreds of doctors, including 250 eye doctors. That's why NVISION and Dr. Tooma are The Eye Doctors' #1 Choice for their eyes and their patients' eyes. Dr. Tooma believes that the combination of experience and technology gives NVISIONS's patients the highest possible likelihood of achieving 20/20 or better vision through LASIK procedures.

A pioneer in the world of LASIK surgery, Dr. Tooma has been a principal investigator in the field of laser vision correction since 1993. He helped several excimer laser manufacturers obtain FDA approvals for their lasers in the United States. He holds the record for many firsts: he was the first doctor in California to perform LASIK surgery and was the first to perform custom Wavefront-guided LASIK. He was also the first in the U.S. to use the FemtoSecond Laser (IntraLase FS30 — bladeless all laser LASIK), which is safer and more precise than a traditional blade.

In 2010, Dr. Tooma purchased TLC's interest in the 8 Southern California locations and formed NVISION Laser Eye Centers. At NVISION, Dr. Tooma provides his patients with a lifetime commitment, giving them the assurance that if they need any enhancement surgeries in the future, they can be performed at any NVISION center, for life and at no cost.

Dr. Tooma received his M.D. from Loma Linda University School of Medicine, where he also completed his internship in internal medicine and residency in ophthalmology. He completed his fellowship in Corneal and Refractive Surgery at the Emory University Department of Ophthalmology in Atlanta, Georgia. He has been board certified in ophthalmology for more than 25 years.

For Dr. Tooma, helping patients achieve their vision goals is his passion. "I feel privileged and blessed to participate in what is a life-changing experience for my patients," he said.

In his spare time, Dr. Tooma has served on medical teaching missions to Romania, Bulgaria, China and Fiji, helping teach local ophthalmology doctors new surgical techniques. In 2008, he and his wife, Marta Tooma, D.D.S., founded the Mission at Natuvu Creek in Fiji. The Mission serves the 250,000 people living on the island, with medical, dental and eye care provided by visiting physicians, including the Toomas.



## MEDICAL BOARD OF CALIFORNIA

Executive Office



January 31, 2011

Tom S. Tooma, M.D.  
3501 S. Jamboree Road, Suite 1100  
Newport Beach, CA 92660

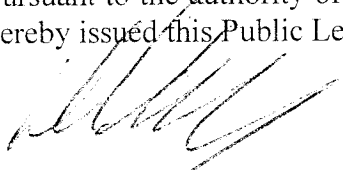
RE: Physician's and Surgeon's Certificate No. G 42262  
Case No. 04-2008-195312

### **Public Letter of Reprimand**

An investigation by the Medical Board of California revealed you failed to document a pre-operative examination and develop a surgical plan before meeting with a patient.

These actions constitute a violation of Business and Professions Code 2266.

Pursuant to the authority of the California Business and Professions Code section 2233, you are hereby issued this Public Letter of Reprimand by the Medical Board of California.



Linda K. Whitney  
Executive Director