



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



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CONTINUING EDUCATION COURSE APPROVAL APPLICATION

\$50 Mandatory

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 and topical outline of the subject matter. Applications must be submitted 45 days prior to the course presentation date.

Please type or print clearly.

Course Title STAR WARS: 60 ROGUE Laser Refractive Surgery + Intraocular Lens technology "The Force is Strong"
Course Presentation Date 7:45AM - 11:35AM
12/18/2016

Course Provider Contact Information
Provider Name Coastal Vision Medical Group
Gina (First) Valdemar (Last) F (Middle)

Provider Mailing Address
Street 243 S-Main St. #100 City Orange State CA Zip 92880

Provider Email Address gina.valdemar@coastal-vision.com

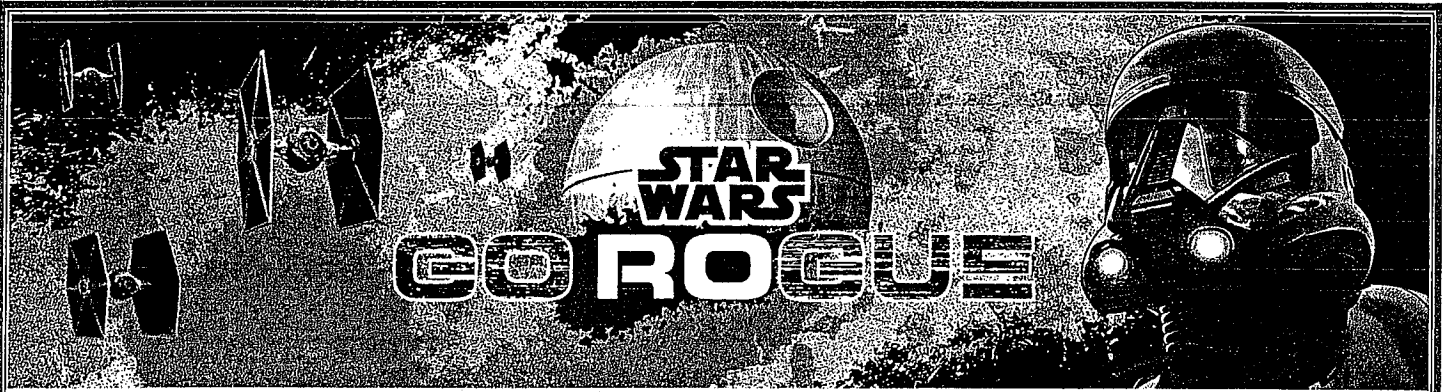
Will the proposed course be open to all California licensed optometrists? [X] YES [] NO
Do you agree to maintain and furnish to the Board and/or attending licensee such records of course content and attendance as the Board requires, for a period of at least three years from the date of course presentation? [X] YES [] 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 Dan (First) Tran (Last) B. (Middle)
License Number 83738 License Type M.D.
Phone Number (714) 746-9679 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 of Course Provider Date 11/1/2016



IN A TIME OF CELEBRATION, A GROUP OF UNLIKELY HEROES BAND TOGETHER ON A MISSION TO LEARN MORE ABOUT OPTOMETRY, THEIR CHOSEN WEAPON.



WHEN:
 Sunday, December 18th
 Registration opens at 6:45am
 7:45am-11:35am (4-hour CE
 followed by the movie)

WHERE:
 AMC Downtown Disney
 Downtown Disney District
 1565 Disneyland Drive
 Anaheim, CA 92802

Hyperdrive of Toys

Bring any new, unwrapped toy, to benefit Toys for Tots, and receive a movie ticket for you and a guest for *Rogue One: A Star Wars Story*. Movie to follow CE. Additional tickets available for purchase.



Downtown Disney Parking: First 2 hours are free; additional 2 hours free with AMC validation (Disneyland parking lots may be available for all day parking prices; parking is responsibility of attendee)

For registration information please visit our Affiliate Portal:
coastalvisionmedical.com/site/ces.htm

AGENDA

6:45 am	Check-in (pastries and coffee provided)	
7:45 am	Welcome - Opening Remarks	
7:50 am	Lisa Garbutt, MD	Symfony and Symfony Toric: The Best of Both Galaxies
8:15 am	Jennifer Wu, MD	Corneal Crosslinking "The Lightsaber for Corneal Ectasia"
8:40 am	Raj Rathod, MD	Retina One: A Story of Systemic Discovery
9:05 am	Dan Tran, MD	Combining Laser Corneal Refractive Surgery and Intraocular Lens Technology - The Force Is Strong
9:30 am	Break	
9:55 am	Vincent Hau, MD	Retina Jeopardy...From a Galaxy, Far, Far Away
10:20 am	Betsy Nguyen, MD	MIGS Episode III: Cypass Micro-Stent, A New Hope
10:45 am	Madhu Agarwal, MD	Eye Rebel: Waging War on Orbital Disease
	Dan Tran, MD	
11:10 am	Lisa Garbutt, MD	Rogue Diagnosis: Case Presentations
	Betsy Nguyen, MD	
	Jennifer Wu, MD	
11:35 am	Conclusion	
11:45 am	Movie: <i>Rogue One: A Star Wars Story</i>	

*CE and movie ticket registration is based on first-come, first-served basis. Seating is limited.



Technique. Technology. Trust.

November 5, 2016

State Board of Optometry
2450 Del Paso Road, Ste. 105
Sacramento, CA 95834

RE: Late submission of CE course approval; Star Wars: Go Rogue Symposium-Symfony and Symfony Toric; The Best of Both Galaxies, Corneal Crosslinking "The Lightsaber for Corneal Ectasia", Retina One: A Story of Systemic Discovery, Combining Laser Refractive Surgery and Intraocular Lens Technology-The force is strong, Retina Jeopardy, MIGS Episode III: Cypass Micro-Stent, A New Hope, Eye Rebel: Waging War on Orbital Disease, Rogue Diagnosis: Case Presentations.

Dear Practice and Education committee,

I am writing this letter in regards to late submission for the multi-course symposium titled "Star Wars; Go Rogue" scheduled for presentation on 12/18/16. We are just shy of the 45 day submission request, and wanted to include a letter for late submission with our CE approval application.

We continue to work diligently to get all required items to the board needed for CE approval in a timely manner. Due to multiple speakers at the upcoming CE, we had difficulty obtaining all the lectures to meet the submission requirement timeline and would appreciate your consideration of our continuing education approval request.

Please feel free to reach out to us with any other questions. We look forward to continued relations with the State Board of Optometry and the practice and education committee.

Sincerely,

A handwritten signature in black ink, appearing to read 'Gina Valdemar', with a long, sweeping underline.

Gina Valdemar
Affiliate Relations and Education Director
Coastal Vision Medical Group
ginavaldemar@coastal-vision.com

Coastal Vision Irvine
15825 Laguna Canyon Rd., Ste. 201, Irvine, CA 92618
Tel: (949) 453-4661 • Fax: (949) 453-4663

Coastal Vision Orange
293 S. Main St., Ste. 100, Orange, CA 92868
Tel: (714) 771-1213 • Fax: (714) 771-7126

Coastal Vision Long Beach
709 E. Anaheim St., Long Beach, CA 90813
Tel: (562) 591-7700 • Fax: (562) 591-1311

Star Wars: Go Rogue 4 hour CE

Course Title: Laser Refractive Surgery and Intraocular Lens Technology: The Force is Strong

Course Presentation date: 12/18/2016
















Speaker: Dan Tran, MD

Target Audience: This lecture is intended for optometrist seeking continuing education

Course Description:

This lecture seeks to provide optometrists with information regarding Refractive laser surgery and IOL technologies available to patients. Discussion includes case presentations and considerations for patients with irregular corneas. Treatment options that range from newly approved topography guided Lasik, ICL, treatment of high order aberrations and astigmatism management. This prepares the Optometrist with ample information to assist with education for their patient's care in regards to previous surgical treatment options, management of expectations for surgical outcomes, and a guide to current available procedures.

CE Credit: .50 CE Units

- 1  **LASER REFRACTIVE SURGERY AND INTRAOCULAR LENS TECHNOLOGY:
THE FORCE IS STRONG**
Dan B. Tran, MD
Medical Director
December 2016
- 2  **Financial Disclosures**
 - Dan B. Tran, MD is consultant, investigator for
 - Alcon
 - RVO
 - Ivantis
 - ReFocus
 - Perfect Lens
- 3 
- 4  **"When all you have is a hammer, everything looks like a nail."**
- 5 
- 6  **CASE 1 –LASIK Consult 22 y/o Female
MANIFEST REFRACTION**
- 7 
- 8 
- 9  **Visian ICL: Implantable Collamer Lens**
 - Placed in the Posterior Chamber between the crystalline lens and the back of the iris
- 10  **Quality of Vision**
 - Simulation of quality of vision having equal treatment with the ICL and LASIK based on higher order aberrometry (-7.0D treatment)
- 11  **Anterior Subcapsular Cataract
(1.3% over 7 years in US FDA Trial)**
- 12  **Latest Patient Data:
Superior Outcomes**
- 13  **Treating Higher Order Aberration**
 - 37 y/o female underwent LASIK for correction of myopia
 - MR -4.00-1.00x5 OD 20/15; -4.25-1.00x180 20/15
 - Pachymetry 585microns
 - Scotopic pupil size 7.5mm
 - IntraLase femtosecond laser flap 110 microns
 - Non-Wavefront Excimer laser treatment with Technolas 217
 - 7.0mm Optical Zone Treatment was selected
- 14  **Flap Decentration: Superior Hinge is in the 7mm Ablation Zone**
- 15  **Refractive Results**
 - UCVA 20/15 OU

- MR Plano OU
- Significant symptoms of night glares in the dominant eye
 - Seeing multiple images (polyopia) at night
 - Unable to drive at night
 - Symptoms not correctable with glasses
- Patient wished to have LASIK Enhancement to fix the visual problem

16  **Hinge Reposition Relocation**17  **Reduction of HOA with Hinge Repositioning**18  **A Journey of Innovation**19  **Brief History of Modern Cataract Surgery**20  **How Accurate is IOL Refractive Outcomes?**

- Axial length of the eye
-
- Average Corneal Power and Astigmatism
 - Corneal Astigmatism (for outcomes)
- Effective IOL position prediction
 -
- For advanced formulas
 - White-to-white
 - Lens thickness
 - Anterior chamber depth

21  **Importance of Preop Biometry and Keratometry**

- 43-67% of large refractive surprise due to inaccurate preoperative measurement (axial length or keratometry)^{1,2}
- 1mm AL error = approx. 3 D error
 - In a normal axial length eye at 23mm
- 1D K error = 1 D IOL error
- Remove hard contact lens > 2 weeks before measuring corneal power
-

22 

What percentage of your refractive outcomes are within $\pm 0.5D$ of intended sphere?

- A. 60%-70%
- B. 71%-80%
- C. 81%-90%
- D. $\geq 91\%$

–

23  **Cataract Surgery Outcomes*****

- Patient expectations are at an all-time high for refractive surgery
- Positive experiences with LASIK have produced high expectations
 - 92.6% of LASIK patients achieve vision of 20/40 or better*
 - 98.4% of patients were satisfied with their outcome after LASIK surgery**

- Cataract surgery outcomes may not be meeting the target of $\pm 0.5D$ that is considered the standard

24 **IOL Choices 2016**

- Monofocal IOL
 - Spherical IOL
 - Aspheric Spherical Aberration Reduction IOL
 - Toric IOL
- Multifocal IOL
 - Alcon ReStor™ Apodized Diffractive Optic
 - AMO Tecnis™ Multifocal Diffractive Optic
 - AMO Symphony Extended Depth of Focus + Toric
- Accomodative IOL
 - Bausch + Lomb Crystalens™ and Trulign™

25 **Toric IOL: AcrySof**

- Single-Piece IOL effectively addresses astigmatism when correctly positioned in the eye
 - superior stability and centration
 - low secondary complication rate
- AcrySof Spherical Power Range - +6 to +30 D

26 **Preoperative Keratometry: Why do Measurements Differ?**

- Manual and autokeratometry
 - 4 points, 3-3.2 mm zone
- IOL Master
 - 6 points, 2.5 mm zone
- Lenstar
 - 32 points, 2 zones (1.65mm/2.3mm)
- Topography
 - >500 points, values averaged over central 3-4mm
- Scheimpflug imaging combined with placido disc topography
 - Pentacam, Galilei

27 **How accurate are we?**






1. FDA Clinical Trial for Alcon AcrySof IQ Toric IOL available at:
<http://www.alconsurgical.com/pdfs/TOR240.pdf>
2. Potvin, et al. J Refract Surg., 2013.
3. Ahmed II, et al. J Cataract and Refract Surg., 2010.
4. Mendicute, et al. J Cataract and Refract Surg., 2008.

•

28 **Astigmatism Management**

Innovative Technologies and Theories for Improving Pre-Operative Planning

29

- 30  **Anterior Corneal Astigmatism
Breaking an Established Myth on SIA...**
Myth: Corneas always flatten in the axis of the surgical incision
- - Corneas are unique living tissue, all respond differently to same incision size & location
 -
 - Astigmatism is a vector of magnitude and direction
 -
 - Because historical SIA theories assumed corneas always flattened in the same axis as the incision, they therefore ignored direction in post-op vector calculations to determine averages
- 31  At what level of pre-operative ATR astigmatism would you consider recommending surgical treatment options (Toric IOLs, corneal incisions, etc)?
- - A. ~0.5D
 - B. >0.75D
 - C. >1.00D
 - D. >1.50D
 - E. >2.0D
- 32  **A New Approach to SIA: Centroid Vector Analysis**
"Because SIA is a vector, it has both magnitude and angular direction, and both vector components must be included when calculating the median or mean SIA in a group of cases."¹
- 33  **Stability and Precision
(1° = 3.3% loss of cylinder power)**
- 34  **What is the ORA SYSTEM® ?**
"Optiwave Refractive Analysis"
- "ORA SYSTEM®" actually refers to two products
1. ORA SYSTEM® with VerifEye® + Technology (the "body" of the ORA SYSTEM®)
 - Real-Time, intraoperative refractometer
 - Utilizes wavefront aberrometry to assess the refractive power of the eye
 -
 2. AnalyzOR™ Technology (the "brain" of ORA SYSTEM®)
 - Dynamic set of algorithms powered by a growing database of ACTUAL completed ORA SYSTEM® cases
 - Outcomes optimization, reporting and analytics system
 >550,000 completed ORA SYSTEM® cases to date

35 

36 

37  **Diffractive Optics Design**

38  **Extended Depth of Focus Curve**


39  **Chromatic Aberration Correction**

40 

COASTALVISION
Medical Group Inc.

**LASER REFRACTIVE SURGERY AND
INTRAOCULAR LENS TECHNOLOGY:
THE FORCE IS STRONG**


Dan B. Tran, MD
Medical Director
December 2016



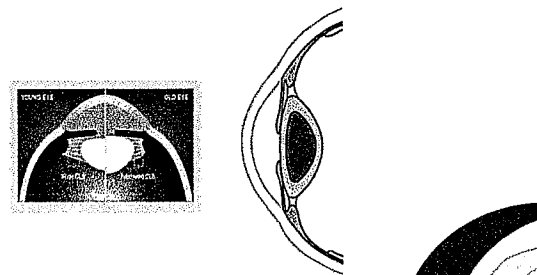
Financial Disclosures

- Dan B. Tran, MD is consultant, investigator for
 - Alcon
 - RVO
 - Ivantis
 - ReFocus
 - Perfect Lens


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Medical Group Inc.




Components of the human optical system



COASTALVISION
Medical Group Inc. *Courtesy of Adrian Glasser, PhD*



“When all you have is a hammer,
everything looks like a nail.”




COASTALVISION
Medical Group Inc.



RESULTS: Topography - Guided LASIK

- 3 months after Topography – Guided LASIK surgery
 - 92.7% of all eyes had UCVA of 20/20 or better
 - 68.8% of all eyes had UCVA of 20/16 or better
 - 31.6% of all eyes had UCVA of 20/12.5 or better
- 3 months after Topography – Guided LASIK surgery
 - 29.6% of eyes gained at least 1 line of BSCVA


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Medical Group Inc.

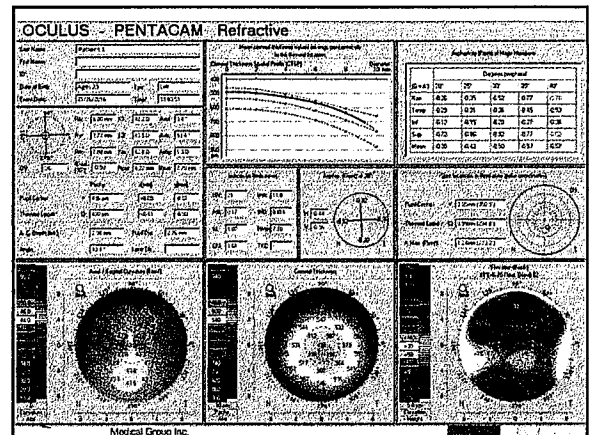
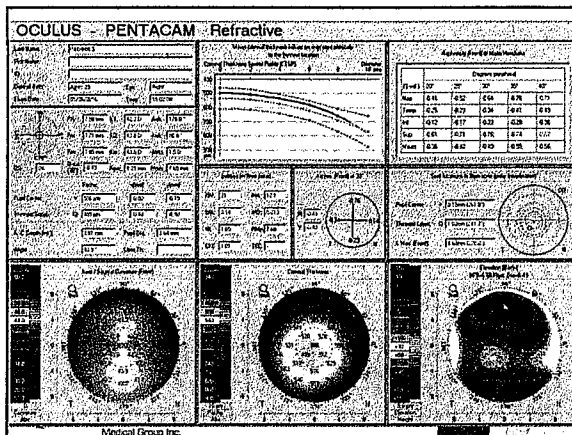


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Medical Group Inc.

**CASE 1 –LASIK Consult 22 y/o Female
MANIFEST REFRACTION**

SPHERE	CYLINDER	AXIS	BCVA
-5.50	-0.75	178	20/20
-5.25	-0.75	013	20/20





Visian ICL: Implantable Collamer Lens

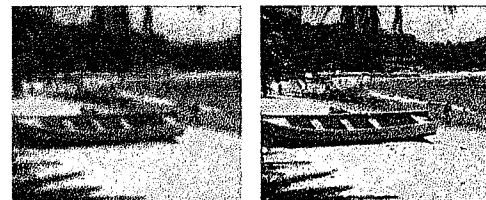
- Placed in the Posterior Chamber between the crystalline lens and the back of the iris



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Quality of Vision

- Simulation of quality of vision having equal treatment with the ICL and LASIK based on higher order aberrometry (-7.0D treatment)

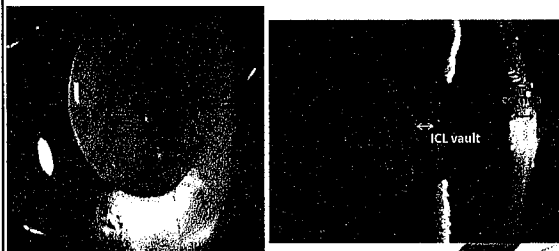


After LASIK or PRK

After ICL

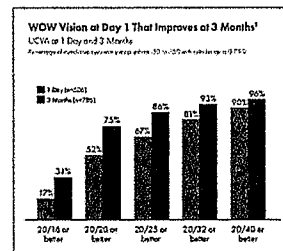
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Anterior Subcapsular Cataract (1.3% over 7 years in US FDA Trial)



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Medical Group Inc.

Latest Patient Data: Superior Outcomes



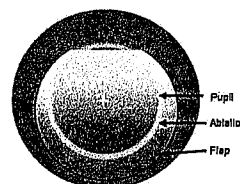
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Treating Higher Order Aberration

- 37 y/o female underwent LASIK for correction of myopia
 - MR -4.00-1.00x5 OD 20/15; -4.25-1.00x180 20/15
 - Pachymetry 585microns
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 - IntraLase femtosecond laser flap 110 microns
 - Non-Wavefront Excimer laser treatment with Technolas 217
 - 7.0mm Optical Zone Treatment was selected



Flap Decentration: Superior Hinge is in the 7mm Ablation Zone

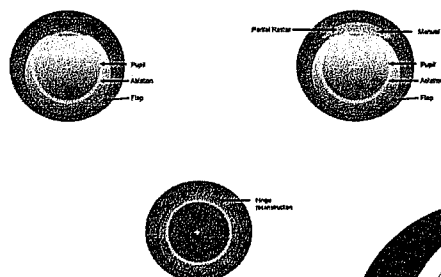


Refractive Results

- UCVA 20/15 OU
 - MR Plano OU
- Significant symptoms of night glares in the dominant eye
 - Seeing multiple images (polyopia) at night
 - Unable to drive at night
 - Symptoms not correctable with glasses
- Patient wished to have LASIK Enhancement to fix the visual problem



Hinge Reposition Relocation



Reduction of HOA with Hinge Repositioning



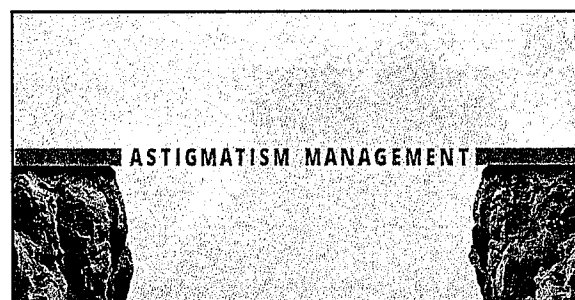
Induced vertical coma in a post-LASIK patient with an inferiorly decentrated superior hinge flap. The hinge was protected during the excimer laser ablation with the Bausch & Lomb Technolas 217A. The flap was original created using the IntraLase femtosecond laser.

Peak to Peak -4.0µRMS to +4.0µRMS



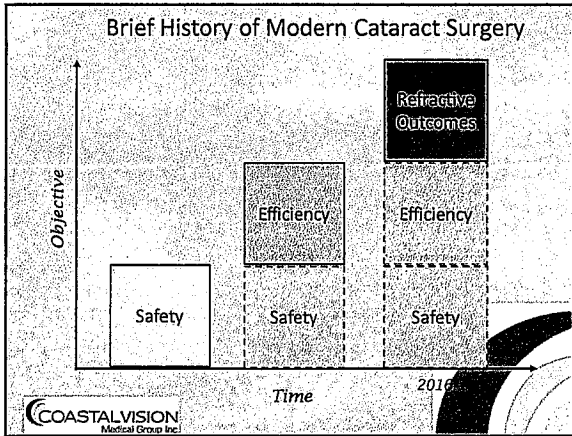
Reduction of induced vertical coma in the same patient after the flap enlargement with the relocation of the superior hinge further superiorly using the IntraLase femtosecond laser. The excimer laser ablation was performed using the LA Technolas 217A CUSTOMCORNEA® wavefront treatment.

Peak to Peak -2.6µRMS to -2.6µRMS



A Journey of Innovation





How Accurate is IOL Refractive Outcomes?

- Axial length of the eye
- Average Corneal Power and Astigmatism
 - Corneal Astigmatism (for outcomes)
- Effective IOL position prediction
- For advanced formulas
 - White-to-white
 - Lens thickness
 - Anterior chamber depth

Intraocular Lens

COASTALVISION Medical Group Inc.

Importance of Preop Biometry and Keratometry

- 43-67% of large refractive surprise due to inaccurate preoperative measurement (axial length or keratometry)^{1,2}
- 1mm AL error = approx. 3 D error
 - In a normal axial length eye at 23mm
- 1D K error = 1 D IOL error
- Remove hard contact lens > 2 weeks before measuring corneal power

1. Holladay et al. A three-part system for refining intraocular lens power calculations. JCRS 14: 17-24

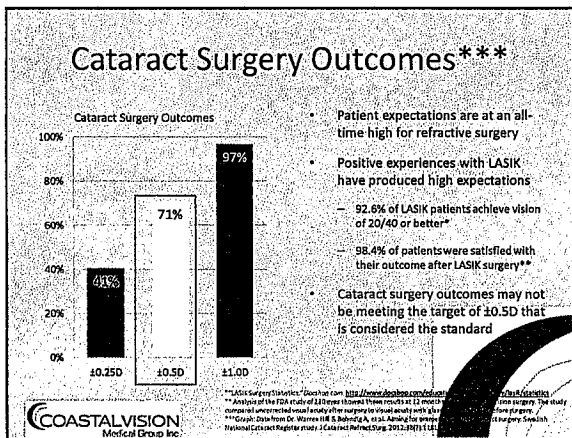
2. Holladay et al. Improving the Predictability of Intraocular Lens Power Calculations. Arch Ophthalmol vol 104: 539-41

COASTALVISION Medical Group Inc.

What percentage of your refractive outcomes are within $\pm 0.5D$ of intended sphere?

- A. 60%-70%
- B. 71%-80%
- C. 81%-90%
- D. $\geq 91\%$

COASTALVISION Medical Group Inc.



IOL Choices 2016

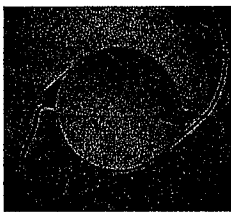
- Monofocal IOL
 - Spherical IOL
 - Aspheric Spherical Aberration Reduction IOL
 - Toric IOL
- Multifocal IOL
 - Alcon ReStor™ Apodized Diffractive Optic
 - AMO Tecnis™ Multifocal Diffractive Optic
 - AMO Symphony Extended Depth of Focus + Toric
- Accomodative IOL
 - Bausch + Lomb Crystalens™ and Trulign™

COASTALVISION Medical Group Inc.


Single-Piece IOL effectively addresses astigmatism when correctly positioned in the eye


- superior stability and centration
- low secondary complication rate

AcrySof Spherical Power Range - +6 to +30 D




Three alignment marks on each side of lens assist with axis orientation






Preoperative Keratometry: Why do Measurements Differ?

- Manual and autokeratometry
 - 4 points, 3-3.2 mm zone
- IOL Master
 - 6 points, 2.5 mm zone
- Lenstar
 - 32 points, 2 zones (1.65mm/2.3mm)
- Topography
 - >500 points, values averaged over central 3-4mm
- Scheimpflug imaging combined with placido disc topography
 - Pentacam, Galilei







How accurate are we?

Study	AcrySof IQ Toric IOL	Manual	Lenstar LS 900	Auto or Manual IOL Master
FDA trial for Alcon AcrySof IQ Toric IOL ¹	63	40		
Potvin, et al ²	75	50		
Ahmed II, et al ³	71	60		
Mendicute, et al ⁴	62	66 (≥20/25)		


- FDA Clinical Trial for Alcon AcrySof IQ Toric IOL available at: <http://www.alconsurgical.com/pdfs/TOR240.pdf>
- Potvin, et al. J Refract Surg., 2013.
- Ahmed II, et al. J Cataract and Refract Surg., 2010.
- Mendicute, et al. J Cataract and Refract Surg., 2008.






Astigmatism Management

Innovative Technologies and Theories for Improving Pre-Operative Planning






Newer Theories in Corneal Astigmatism: Two Sides to Every Story


Anterior Corneal Astigmatism

- Improve SIA accuracy with Centroid Vector Analysis over traditional SIA calculation methods

Posterior Corneal Astigmatism

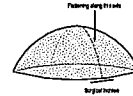
- New calculators and algorithms for improving predictions in case planning






Anterior Corneal Astigmatism


Breaking an Established Myth on SIA...



Myth: Corneas always flatten in the axis of the surgical incision


- Corneas are unique living tissue, all respond differently to same incision size & location
- Astigmatism is a vector of magnitude and direction
- Because historical SIA theories assumed corneas always flattened in the same axis as the incision, they therefore ignored direction in post-op vector calculations to determine averages





At what level of pre-operative ATR astigmatism would you consider recommending surgical treatment options (Toric IOLs, corneal incisions, etc)?

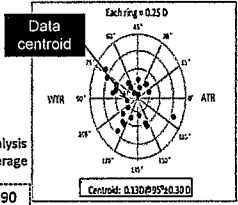
- A. ~0.5D
- B. >0.75D
- C. >1.00D
- D. >1.50D
- E. >2.0D



A New Approach to SIA: Centroid Vector Analysis

"Because SIA is a vector, it has both magnitude and angular direction, and both vector components must be included when calculating the median or mean SIA in a group of cases."¹


Douglas D. Koch, MD
Li Wang, MD, PhD
Houston, Texas



Historical Method for Determining Average SIA
Patient A: 0.5D x 90
Patient B: 0.5D x 180
Average SIA: 0.5D

Centroid Vector Analysis for Determining Average SIA
Patient A: 0.5D x 90
Patient B: 0.5D x 180
Average SIA: 0.0D

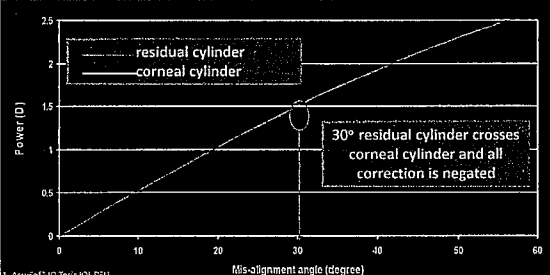
Many thought leaders now recommend using an SIA approximate of 0.1D for standard 2.2-2.4mm incisions



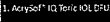
Stability and Precision

(1° = 3.3% loss of cylinder power)

Residual Cylinder as a Function of Mis-Alignment (2.25 D Toric IOL and 1.5 D Corneal Cylinder)¹



30° residual cylinder crosses corneal cylinder and all correction is negated




What is the ORA SYSTEM?

"Optiwave Refractive Analysis"

"ORA SYSTEM" actually refers to **two products**

- ORA SYSTEM[®] with VeriEye[®] Technology (the "body" of the ORA SYSTEM[®])**
 - Real-Time, Intraoperative refractometer
 - Utilizes wavefront aberrometry to assess the refractive power of the eye.
- AnalyzOR[™] Technology (the "brain" of ORA SYSTEM[®])**
 - Dynamic set of algorithms powered by a growing database of ACTUAL completed ORA SYSTEM[®] cases
 - Outcomes optimization, reporting and analytics system

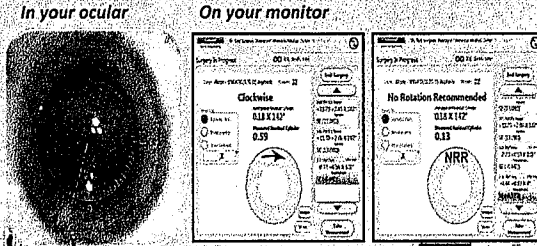

>550,000 completed ORA SYSTEM[®] cases to date



ORA SYSTEM[®] VeriEye[®]+ Technology

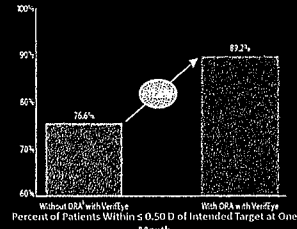
Real-time streaming data to position toric IOLs within 1° for confident delivery of your refractive target

In your ocular **On your monitor**

Cataract Procedures with ORA SYSTEM[®] with VeriEye[®] Technology have shown: Improved Astigmatic Outcomes


12.6% ADDITIONAL patients' outcome achieved intended target.¹



This clinical study demonstrates cataract procedures using the ORA SYSTEM[®] with VeriEye[®] Technology resulted in better astigmatic outcomes.¹

Without ORA with VeriEye: 76.4%
With ORA with VeriEye: 89.2%

Percent of Patients Within ±0.50 D of Intended Target at One Month
n = 111 patients, p = .006



Diffractive Optics Design

■ Diffraction in Ophthalmology

In ophthalmology, diffractive technology is generally associated with multifocal lenses; however, in the optics world, it is widely known that diffractive technology can be employed to achieve a variety of outcomes, including depth of focus extension^{1,2}

Near Focal Point
Distant Focal Point
Intermediate Focal Point

Convex design feature
Concave design feature

COASTALVISION
Medical Group Inc.

Extended Depth of Focus Curve

■ Defocus Curves: Monofocal and Extended Depth of Focus IOLs¹

Monofocal IOL
Extended Depth of Focus IOL

This image depicts a defocus curve for an extended depth of focus IOL. Note how the curve has a plateau rather than a "peak." This demonstrates how high-quality vision is maintained across multiple diopters of defocus without a dip in visual acuity as you would see with a multifocal IOL.

COASTALVISION
Medical Group Inc.

Chromatic Aberration Correction

■ Technologies

The TECNIS Symfony[®] IOL includes achromatic technology.^{1, 2, 3, 4}

- Reduces chromatic aberration for improved image contrast
- When combined with correction of spherical aberration, it increases retinal image quality without negatively affecting depth of focus
- Measured modulation transfer function (MTF) performance, and image contrast of the TECNIS Symfony[®] IOL are improved as a result of achromatic technology

(a)
(b)

Figure 15. (a) Uncorrected chromatic aberration (b) Correction of chromatic aberration with the Achromat Technology.

Did you know?
The MTF is a measure of the amount of contrast transferred by the optics in a visual system. The higher the MTF, the more contrast is transferred from the original object to the image formed on the retina, and consequently the perceived image.²

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THANK YOU FOR YOUR ATTENTION

"Continuous effort – not strength or intelligence – is the key to unlocking our potential." - Winston Churchill

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MEDICAL DIRECTOR. PROVIDE ALL MEDICAL AND SURGICAL SERVICES FOR THE IRVINE LASER VISION INSTITUTE. THE INSTITUTE PROVIDES FULL SPECTRUM REFRACTIVE SURGERY SERVICES. EXPERIENCE IN LASIK, PRK, LASEK, INTACS, PHAKIC IOL, INTRALASE LASIK, CATARACT SURGERY AND LENS IMPLANTS.

Shiley Eye Center

University of California San Diego

La Jolla, CA 92037

7/1997 to 6/1998

8/1998 to Present

CLINICAL INSTRUCTOR.

PRACTICE IN GENERAL OPHTHALMOLOGY, CORNEA AND REFRACTIVE SURGERY. RESPONSIBLE FOR ALL MANAGED CARE PATIENTS AT UCSD. RESPONSIBLE FOR VA HOSPITAL CORNEA CLINIC. TEACH AND ATTEND RESIDENTS SURGICAL CASES AT THE VA HOSPITAL AND UCSD MEDICAL CENTER.

IBM Corp.

South Coast Division, Costa Mesa, CA;

4/1984 to 5/1989

General Product Division, Tucson AZ;

General Product Division, San Jose, CA

ELECTRICAL ENGINEER. RESPONSIBILITIES INCLUDING TECHNICAL SUPPORT FOR IBM MAINFRAME AND PERSONAL COMPUTERS. DESIGN & SIMULATION & SPECIFICATION AND DEVELOPMENT OF THE FOCUS / TRACKING SERVO AND HIGH FREQUENCY SWITCHING POWER SUPPLIES & AMPLIFIERS FOR DISK DRIVES.

H O S P I T A L A F F I L I A T I O N

St. Joseph Hospital

Orange, CA

2005 to Present

STAFF - OPHTHALMOLOGY

St. Mary Medical Center

Long Beach, CA 90813

8/1998 to Present

STAFF - OPHTHALMOLOGY

E D U C A T I O N / T R A I N I N G

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University of California San Diego

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7/1997 to 6/1998

FELLOWSHIP IN CORNEA AND REFRACTIVE SURGERY.

Scheie Eye Institute

University of Pennsylvania

Philadelphia, PA 19104

7/1994 to 6/1997

RESIDENCY IN OPHTHALMOLOGY.

St. Mary Medical Center

UCLA School of Medicine

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7/1993 to 6/1994

INTERNSHIP IN INTERNAL MEDICINE

USC School of Medicine

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8/1989 to 6/1993

DOCTOR OF MEDICINE 6/1993

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University of Arizona
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8/1986 to 12/1987

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GRADUATE STUDIES IN ELECTRICAL &
BIOMEDICAL ENGINEERING

6/1984 to 12/1985

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BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING - *MAGNA CUM LAUDE*

8/1980 to 3/1984

R E S E A R C H / P U B L I C A T I O N S / L E C T U R E S

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- TRAN DB. HOW I MANAGE ASTIGMATISM WITH ORA, FEMTOSECOND LASER, AND TORIC IOL** PRESENTATION AT AMERICAN EUROPEAN COLLEGE OF OPHTHALMIC SURGEONS (AECOS). SUMMER SYMPOSIUM DEER VALLEY, UTAH JULY 2014
- TRAN DB. MICROINVASIVE GLAUCOMA SURGERY (MIGS): ISTENT AND HYDRUS.** PRESENTATION AT AMERICAN EUROPEAN COLLEGE OF OPHTHALMIC SURGEONS (AECOS). SUMMER SYMPOSIUM DEER VALLEY, UTAH JULY 2014
- TRAN DB. INTRAOPERATIVE TORIC IOL ROTATION TO MANAGE CORNEAL ASTIGMATISM USING CONTINUOUS REAL TIME DATA STREAMING INTRAOPERATIVE ABERROMETRY.** FILM FESTIVAL PRESENTATION AT AMERICAN SOCIETY OF CATARACT AND REFRACTIVE SURGERY (ASCRS) CONFERENCE, BOSTON, MA APRIL 2014.
- TRAN DB, ARTURO CHAYET, ENRIQUE BARRAGAN, HAI-YEN TRAN. PSEUDOPHAKIC CORNEAL INLAY TO TREAT PSEUDOPHAKIC PRESBYOPIA.** ELECTRONIC POSTER PRESENTATION AT AMERICAN SOCIETY OF CATARACT AND REFRACTIVE SURGERY (ASCRS) CONFERENCE, BOSTON, MA APRIL 2014.
- TRAN DB. TORIC IOL OUTCOMES WITH AND WITHOUT ADVANCED INTRAOPERATIVE ABERROMETRY** PAPER PRESENTATION AT AMERICAN SOCIETY OF CATARACT AND REFRACTIVE SURGERY (ASCRS) CONFERENCE, BOSTON, MA APRIL 2014.
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- TRAN DB. CORRECTING PRESBYOPIA: THE HOLY GRAIL (INLAYS AND NEW TREATMENTS).** INVITED LECTURE. ACES/SEE CARIBBEAN EYE MEETING, CANCUN, MEXICO FEBRUARY 2014.
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- TRAN DB. STEVE BRINT. MULTICENTER EVALUATION OF REFRACTIVE PREDICTABILITY OF INTRAOPERATIVE ABERROMETRY-ASSISTED IOL POWER SELECTION USING STREAMING REFRACTIVE DATA** PRESENTATION AT EUROPEAN SOCIETY OF CATARACT AND REFRACTIVE SUERGERY (ESCRS) CONFERENCE ON BEHALF OF STEVE BRINT, MD, AMSTERDAM, NETHERLAND OCTOBER 2013.
- TRAN DB. COMPARATIVE IOL REFRACTIVE OUTCOMES WITH FEMTOSECOND LASER ASSISTED REFRACTIVE CATARACT SURGERY GUIDED BY INTRAOPERATIVE ABERROMETRY** PRESENTATION AT EUROPEAN SOCIETY OF CATARACT AND REFRACTIVE SUERGERY (ESCRS) CONFERENCE, AMSTERDAM, NETHERLAND OCTOBER 2013.

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- TRAN DB.** KERATOREFRACTIVE AND PRESBYOPIA. SESSION PANELIST. ASCRS CONFERENCE, SAN FRANCISCO, CA APRIL 2013.
- TRAN DB.** THE LENSX FEMTOSECOND LASER: LEADING THE CONTINUUM OF INNOVATION. INVITED LECTURE SPONSORED BY ALCON. HAWAIIAN EYE MEETING, THE BIG ISLAND, HI JANUARY 2013.
- TRAN DB,** STEPHANIE TV TRAN. INTRAOPERATIVE POWER SELECTION AND AXIS ORIENTATION OF TORIC IOL USING A REAL TIME WAVEFRONT ABERROMETER. PRESENTATION AT EUROPEAN SOCIETY OF CATARACT AND REFRACTIVE SURGERY (ESCRS) CONFERENCE, MILAN, ITALY SEPTEMBER 2012.
- TRAN DB.** COMPARATIVE IOL REFRACTIVE OUTCOMES WITH FEMTOSECOND LASER ASSISTED REFRACTIVE CATARACT SURGERY. PRESENTATION AT EUROPEAN SOCIETY OF CATARACT AND REFRACTIVE SURGERY (ESCRS) CONFERENCE, MILAN, ITALY SEPTEMBER 2012. PRESENTATION AT AMERICAN ACADEMY OF OPHTHALMOLOGY (AAO-ISRS) CONFERENCE, CHICAGO, IL NOVEMBER 2012.
- TRAN DB.** 1) ACRYSOFT PLATFORM – BIOMECHANICS, BIOMATERIALS, BLUE LIGHT FILTRATION; 2) BIOMETRY: NAILING THE REFRACTION: STRATEGIES FOR SUCCESSFUL OUTCOMES; 3: CHALLENGING CASES – BIOMETRY & IOL SELECTION SUCCESS. INVITED LECTURES SPONSORED BY ALCON FOR KAISER OPHTHALMOLOGISTS. ORANGE COUNTY, CA OCTOBER 2012
- TRAN DB.** FEMTOSECOND LASER FOR CATARACT SURGERY. INVITED LECTURE AT SAN DIEGO EYE BANK. SAN DIEGO, CA OCTOBER 2012
- TRAN DB.** COMPARING FEMTOSECOND LASER PLATFORMS AND LENSX CLINICAL RESULTS. INVITED LECTURE SPONSORED BY ALCON. APACRS 25TH ANNUAL MEETING AND 14TH CONGRESS OF CHINESE CATARACT SOCIETY MEETING. SHANGHAI, CHINA JUNE 2012
- TRAN DB.** FEMTOSECOND LASER FOR REFRACTIVE SURGERY INCLUDING CATARACT. INVITED LECTURE AT SCHEIE EYE INSTITUTE 138TH ANNIVERSARY MEETING, 40TH SCHEIE EYE INSTITUTE, UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA, PA MAY 2012
- TRAN DB.** LASER REFRACTIVE CATARACT SURGERY WITH LENSX LASER: EARLY ENHANCEMENTS IN 2012. INVITED LECTURE SPONSORED BY ALCON. FORESIGHT SYMPOSIUM, HONG KONG MARCH 2012
- MG WOODCOCK, **TRAN DB,** KK ASSIL, WF WILEY. HOW TO INCORPORATE INTRAOPERATIVE WAVEFRONT ABERROMETRY INTO THE MANAGEMENT OF REFRACTIVE CATARACT PATIENTS. INSTRUCTOR FOR COURSE OFFERED AT THE AMERICAN ACADEMY OF OPHTHALMOLOGY (AAO) CONFERENCE, ORLANDO, FL OCTOBER 2011.
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- TRAN DB.** DIFFRACTIVE MULTIFOCAL IOL SELECTION IN POST LASIK CATARACT PATIENTS. POSTER PRESENTATION AT THE AMERICAN ACADEMY OF OPHTHALMOLOGY (AAO) CONFERENCE, ORLANDO, FL OCTOBER 2011.
- TRAN DB.** OPTIMIZING REFRACTIVE OUTCOMES WITH INTRAOPERATIVE ABERROMETRY IN POST-LASIK/PRK LENS REPLACEMENT SURGERY. POSTER PRESENTATION AT

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THE AMERICAN ACADEMY OF OPHTHALMOLOGY (AAO) REFRACTIVE SURGERY SUB-SPECIALTY DAY CONFERENCE, ORLANDO, FL OCTOBER 2011

- TRAN DB.** USE OF INTRAOPERATIVE ABERROMETRY TO IMPROVE OUTCOMES IN POST LASIK CATARACT PATIENTS UNDERGOING ACCOMMODATIVE IOL IMPLANTATION. PRESENTATION AT EUROPEAN SOCIETY OF CATARACT AND REFRACTIVE SURGERY (ESCRS) CONFERENCE, VIENNA, AUSTRIA SEPTEMBER 2011.
- TRAN DB.** INTRAOPERATIVE ABERROMETRY FOR IOL POWER SELECTION IN POST PRIMARY HYPEROPIC CATARACT PATIENTS. PRESENTATION AT EUROPEAN SOCIETY OF CATARACT AND REFRACTIVE SURGERY (ESCRS) CONFERENCE, VIENNA, AUSTRIA SEPTEMBER 2011.
- TRAN DB.** USE OF INTRAOPERATIVE WAVEFRONT ABERROMETRY TO IMPROVE CATARACT SURGERY OUTCOMES IN MYOPIC POST-REFRACTIVE SURGERY PATIENTS. PAPER PRESENTATION AT AMERICAN SOCIETY OF CATARACT AND REFRACTIVE SURGERY (ASCRS) CONFERENCE, SAN DIEGO, CA MARCH 2011.
- TRAN DB.** USE OF INTRAOPERATIVE ABERROMETRY FOR ACCOMMODATING IOL POWER SELECTION IN POST-LASIK CATARACT PATIENTS. PAPER PRESENTATION AT AMERICAN SOCIETY OF CATARACT AND REFRACTIVE SURGERY (ASCRS) CONFERENCE, SAN DIEGO, CA MARCH 2011
- TRAN DB.** INTRAOCULAR SURGERY: ACCOMMODATIVE IOL. SESSION PANELIST. ASCRS – SAN DIEGO, CA MARCH 2011.
- TRAN DB.** THE OPTICAL PERFORMANCE CHARACTERISTICS AND REFRACTIVE PREDICTABILITY OF THE CRYSTALENS AO. PRESENTATION AT ESCRS, PARIS, FRANCE SEPTEMBER 2010.
- TRAN DB.** THE USE OF INTRAOPERATIVE WAVEFRONT ABERROMETRY TO ENSURE THE APPROPRIATE IOL POWER IN POST-LASIK CATARACT SURGERY. PRESENTATION AT ESCRS, PARIS, FRANCE SEPTEMBER 2010.
- TRAN DB.** OPTIMIZING REFRACTIVE OUTCOMES IN POST KERATOREFRACTIVE CATARACT CASES GUIDED BY INTRAOPERATIVE ABERROMETRY. FILM FESTIVAL PRESENTATION. ASCRS, BOSTON, MA APRIL 2010.
- TRAN DB,** M PACKER, R WEINSTOCK, L NICHAMIN. HOW TO MANAGE REFRACTIVE ERROR WITH AN INTRAOPERATIVE WAVEFRONT ABERROMETER. LEAD INSTRUCTOR COURSE OFFERED AT ASCRS CONFERENCE, BOSTON, MA APRIL 2010.
- TRAN DB.** THE USE OF INTRAOPERATIVE ABERROMETRY IN POST LASIK EYES. POSTER PRESENTATION AT ASCRS CONFERENCE, BOSTON, MA APRIL 2010.
- TRAN DB.** OPTIMIZING REFRACTIVE OUTCOMES WITH INTRALASE FEMTOSECOND LASER AND WAVEFRONT GUIDED LASIK. LECTURES AT THE APACRS, HANOI, VIETNAM 2007. LECTURES SERIES IN TAIWAN, KOREA OCTOBER 2007. BANGKOK, THAILAND IN JANUARY 2008.
- TRAN DB.** SURGICAL TREATMENT OF CORNEAL ECTASIA USING INTACS AND INTRALASE FEMTOSECOND LASER. LECTURE IN TAIWAN, KOREA OCTOBER 2007 AND BANGKOK, THAILAND JANUARY 2008.
- TRAN DB.** CLINICAL RESULTS OF LASIK RE-TREATMENTS UTILIZING A FEMTOSECOND LASER. PAPER PRESENTATION AT THE AMERICAN ACADEMY OF OPHTHALMOLOGY (AAO) MEETING NOV 2007, NEW ORLEANS, LA.
- TRAN DB.** FLAP TEAR DURING INTRALASE FLAP LIFTING – CLINICAL PEARLS. INVITED PAPER PRESENTATION. SUMMER 2007 ASCRS REFRACTIVE SURGERY MEETING , FOUR SEASON AVIARA, SAN DIEGO, CA.
- TRAN DB.** THE ROLES OF INTRALASE FEMTOSECOND LASER IN LASIK RETREATMENT: A 6 YEAR CLINICAL EXPERIENCE. PAPER PRESENTATION AT THE 2ND INTERNATIONAL

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CONFERENCE ON FEMTOSECOND LASERS IN OPHTHALMOLOGY (ICFLO). JUNE 2007, MONTREAL, CANADA.

- TRAN DB.** DONOR TISSUE PREPARATION FOR DSEK USING FEMTOSECOND AND EXCIMER LASERS. PAPER PRESENTATION AT THE 2ND INTERNATIONAL CONFERENCE ON FEMTOSECOND LASERS IN OPHTHALMOLOGY (ICFLO). JUNE 2007, MONTREAL, CANADA.
- TRAN DB.** CORRELATION OF SUBJECTIVE AND OBJECTIVE NIGHT VISION SYMPTOMS FOLLOWING LASIK. PAPER PRESENTATION ASCRS 2007, SAN DIEGO, CA
- TRAN DB.** WAFRONT GUIDED VS. WAVEFRONT OPTIMIZED LASIK: CONTRALATERAL EYE STUDY. PAPER PRESENTATION AT ISRS/AAO 2006, LAS VEGAS, NV
- TRAN DB.** SURGICAL TECHNIQUES TO ACQUIRE TRACKING WITH INTRALASE AND LADARVISION: INCIDENCE OF TRACKING FAILURES IN DARK IRIDES. PAPER PRESENTATION AT ASCRS 2006, SAN FRANCISCO, CA
- TRAN DB.** HIGHER ORDER ABERRATIONS COMPARISON IN FELLOW EYES FOLLOWING INTRALASE LASIK WITH WAVELIGHT ALLEGRETTO AND CUSTOMCORNEA LADAR 4000 SYSTEMS. PAPER PRESENTATION AT ASCRS 2006, SAN FRANCISCO, CA
- SUJATA S. PUROHIT, MD; RAYMUND T. ANGELES, MD; ALAN R. WESTEREN, MD; JAY McDONALD, MD; **DANIEL B. TRAN, MD**; TOM CLINCH, MD; AND DAVID J. SCHANZLIN, MD. CHAPTER 16: "ANGLE-SUPPORTED PHAKIC INTRAOCULAR LENSES: THE PHAKIC 6H2." PHAKIC INTRAOCULAR LENSES; PRINCIPLES AND PRACTICE. 2004, SLACK, INC. DAVID R. HARDTEN, MD, FACS, RICHARD L. LINSTROM, MD, ELIZABETH A DAVIS, MD.
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- TRAN DB,** SARAYBA MA. HIGHER ORDER ABERRATIONS AFTER PHAKIC 6H2 IN HIGH MYOPIA. PAPER PRESENTED AT ASCRS 2003, SAN FRANCISCO, CA
- TRAN DB,** SARAYBA MA, GARUFIS C, KURTZ RM. WAVEFRONT CHARACTERISTICS FOLLOWING INTRALASIKTM FLAP FORMATION. PAPER PRESENTED AT ASCRS 2003, SAN FRANCISCO, CA
- SARAYBA MA, KURTZ RM, **TRAN DB.** CORNEAL TISSUE PLANE SEPARATION REQUIRED FOR RE-CUTTING FLAPS USING INTRALASETM FEMTOSECOND LASER. PAPER PRESENTED AT ISRS 2002, ORLANDO, FL. BEST PAPER OF SESSION.
- TRAN DB,** SARAYBA MA, KURTZ RM. THE SAFETY AND PRECISION OF LASIK FLAP RE-CUT USING INTRALASETM FEMTOSECOND LASER. PAPER PRESENTED AT ISRS 2002, ORLANDO, FL.
- IBRAHIM A, **TRAN DB,** PARIKH M, SCHANZLIN DJ. THE SAFETY AND EFFICACY OF INTRASTROMAL CORNEAL RING SEGMENTS (INTACSTM) CHANNELING IN LOW MYOPIA USING INTRALASETM FEMTOSECOND LASER. POSTER PRESENTED AT ISRS 2002, ORLANDO, FL.
- TRAN DB,** SARAYBA MA. INTRASTROMAL CORNEAL RING SEGMENTS COMBINED WITH INTRALASIKTM FOR THE TREATMENT OF MODERATE TO HIGH MYOPIC ASTIGMATISM. POSTER PRESENTED AT ISRS 2002, ORLANDO, FL.
- TRAN DB,** KURTZ R. INTRALASETM FEMTOSECOND LASER FOR INTACS IN KERATOCONUS. PAPER PRESENTED AT ASCRS 2002, PHILADELPHIA, PA. **BEST PAPER OF SESSION.**

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- TRAN DB. TRANSEPIHELIAL PRK™ OF BUTTONHOLE LASIK FLAPS. INVITED LECTURE ISRS FALL 2001, NEW ORLEANS.
- TRAN DB, SOLTES CR. INTACS™: REFRACTIVE SURGICAL APPROACH AND COMPLICATIONS. INVITED LECTURE PRESENTATION TO OPTOMETRISTS FOR CE CREDITS AT SOUTHERN CALIFORNIA COLLEGE OF OPTOMETRY, 2000.
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- TRAN, D.B., SCHANZLIN, D.J. POST-OPERATIVE SURGICAL COMPLICATIONS OF RADIAL KERATOTOMY (RK), PHOTOREFRACTIVE KERATECTOMY (PRK), AND LASER-IN-SITU KERATOMILEUSIS (LASIK). CONSULTATION REPORT TO KERAVISION, INC. (1998).
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TRAN, D.B., BRUCKER, A. PRESUMED OCULAR TUBERCULOSIS. FLUORESCEIN CONFERENCE CASE PRESENTATION AT THE AMERICAN ACADEMY OF OPHTHALMOLOGY, ATLANTA, GEORGIA 10/1995:

SILVERMAN SE, TRAN DB, ZIMMERMAN KM, FELDON SE. DISSOCIATION BETWEEN THE DETECTION AND PERCEPTION OF MOTION IN ALZHEIMER'S DISEASE. PAPER PRESENTATION ARVO 5/1993

TRAN DB, SILVERMAN SE, ZIMMERMAN K, FELDON SE. AGE-RELATED DETERIORATION OF MOTION PERCEPTION AND DETECTION. POSTER PRESENTATION ARVO 5/1993.

CLINICAL INVESTIGATOR & CONSULTATION

AUGUST 2015 – PRESENT: PRINCIPAL CLINICAL INVESTIGATOR FOR PHASE III US FDA CLINICAL TRIAL. REFOCUS GROUP, INC, DALLAS, TX. PERFORM SURGICAL IMPLANT OF VISABILITY STUDY AS PART OF THE US FDA CLINICAL TRIAL ON THE PRODUCT.

OCTOBER 2015 – PRESENT: PRINCIPAL CLINICAL INVESTIGATOR FOR US FDA CLINICAL TRIAL. ABBOTT MEDICAL OPTICS, SANTA ANA, CA. PERFORM SURGICAL IMPLANT OF THE AMO TORIC IOL AS PART OF THE DENALI US FDA CLINICAL STUDY ON THE PRODUCT.

JAN 2014 – PRESENT: PRINCIPAL CLINICAL INVESTIGATOR FOR PHASE III US FDA CLINICAL TRIAL AND CONSULTANT. IVANTIS INC., IRVINE, CA. PERFORM SURGICAL IMPLANT OF THE HYDRUS 4 MICRO-STENT AS PART OF THE US FDA CLINICAL TRIAL ON THE PRODUCT. PROVIDING ADVISORY CAPACITY IN PATIENT RECRUITMENT AND INTERNATIONAL STUDY PROTOCOL IMPLEMENTATION.

SEPT 2007 – PRESENT: CONSULTANT & MEDICAL ADVISORY & PRINCIPAL CLINICAL INVESTIGATOR FOR PHASE II & III US FDA CLINICAL TRIAL. REVISION OPTICS, LAKE FORREST, CA. ASSISTING IN THE DEVELOPMENT OF CORNEAL IMPLANT FOR PRESBYOPIC CORRECTION. PERFORM SURGICAL IMPLANT OF THE CORNEAL INLAY AS PART OF THE US FDA CLINICAL TRIAL ON THE PRODUCT. PERFORMING INTERNATIONAL CLINICAL STUDY ON THE RAINDROP™ INLAY.

JULY 2012 – PRESENT: PRINCIPAL CLINICAL INVESTIGATOR FOR PHASE III US FDA CLINICAL TRIAL. TRANSCEND MEDICAL, MENLO PARK, CA. PERFORM SURGICAL IMPLANT OF THE CYPASS MICRO-STENT AS PART OF THE US FDA CLINICAL TRIAL ON THE PRODUCT.

2009 – PRESENT: CONSULTANT & CLINICAL INVESTIGATOR & SPEAKER. ALCON – LENSX, ALISO VIEJO, CA. ASSIST IN THE DEVELOPMENT OF THE LENSX FEMTOSECOND LASER FOR CATARACT SURGERY. PERFORM THE FIRST LENSX FEMTOSECOND CATARACT SURGERY IN CALIFORNIA. PERFORM ADDITIONAL CLINICAL STUDIES FOR POST FDA CLEARANCE OF THE DEVICE INCLUDING NEW AND IMPROVED SOFTWARE AND HARDWARE UPDATES. LECTURE ON NEW SURGICAL TECHNIQUES, SURGICAL OUTCOMES AND DEVICE IMPROVEMENTS AT LOCAL, NATIONAL AND INTERNATIONAL CONFERENCES.

2008 – PRESENT: CONSULTANT & MEDICAL ADVISORY BOARD & SPEAKER. WAVETEC VISION, ALISO VIEJO, CA. ASSIST IN THE DEVELOPMENT AND CLINICAL IMPROVEMENT OF THE ORA™ INTRAOPERATIVE WAVEFRONT SYSTEM. PERFORM THE FIRST INTRAOPERATIVE WAVEFRONT ABERROMETRY CATARACT PROCEDURE IN ORANGE COUNTY, CA. LECTURE ON SURGICAL TECHNIQUES AND REFRACTIVE OUTCOMES AT LOCAL, NATIONAL AND INTERNATIONAL CONFERENCES.

SEPT 2007 – 2010: CONSULTANT AND SPEAKER. INSPIRE PHARMACEUTICALS, INC. ASSIST IN LOCAL AND NATIONAL SPEAKING EVENTS FOR THE COMPANY PRODUCTS.

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NOV 2001 – 2009: CONSULTANT AND SPEAKER. AMO-INTRALASE, INC. ASSIST IN POST APPROVAL STUDIES AND SPEAKING EVENTS AT NATIONAL OPHTHALMOLOGICAL MEETINGS:

2006 – PRESENT: CONSULTANT AND SPEAKER. ALLERGAN, INC. ASSIST IN LOCAL AND NATIONAL SPEAKING EVENTS FOR THE COMPANY PRODUCTS.

NOVEMBER 2003: REFRACTIVE SURGERY SUB-SPECIALTY MEETING, AMERICAN ACADEMY OF OPHTHALMOLOGY, ANAHEIM CA. MODERATOR, KERATOMES AND ALTERNATIVE TECHNOLOGY

APRIL 2003: ASCRS SAN FRANCISCO, CA. WAVEFRONT, SESSION PANELIST

JUN 2002: ASCRS PHILADELPHIA, PA. PUPILS, GLARES SESSION PANELIST.

NOV 2001 – 2003: CONSULTANT. FEMTOSECOND LASER ANTERIOR LAMELLAR KERATOPLASTY. SBIR PHASE I GRANT, NATIONAL EYE INSTITUTE. RONALD M. KURTZ, PRINCIPLE INVESTIGATOR, INTRALASE CORP.

NOV 2002 – 2003: CONSULTANT. FEMTOSECOND LASER ANTERIOR LAMELLAR KERATOPLASTY. SBIR PHASE II GRANT, NATIONAL EYE INSTITUTE. APPLICATION IN PROGRESS WITH PENDING APPROVAL. RONALD M. KURTZ, PRINCIPLE INVESTIGATOR, INTRALASE CORP.

NOV 2002 – 2006: CONSULTANT. PHYSICAL OPTICS CORP., TORRANCE, CA. LIQUID CRYSTAL ADAPTIVE SPECTACLES. SBIR PHASE I GRANT, NATIONAL EYE INSTITUTE. APPLICATION IN PROGRESS WITH PENDING APPROVAL. ALEX NAUMOV, PRINCIPLE INVESTIGATOR, PHYSICAL OPTICS CORP.

FEB 2002 – PRESENT: CONSULTANT. INTRALASE CORP., IRVINE, CA. CLINICAL INVESTIGATION FOR THE APPLICATIONS OF INTRALASE FEMTOSECOND LASER TO THE CREATION OF INTRASTROMAL CORNEAL RINGS CHANNELS, PENETRATING KERATOPLASTY, LASIK FLAPS AND WAVEFRONT STUDY.

FEB 2001 - 2003: CONSULTANT. PHYSICAL OPTICS CORP., TORRANCE, CA. CORNEAL SPECKLE INTERFEROMETER. SBIR PHASE II GRANT, NATIONAL EYE INSTITUTE. MEDICAL CONSULTANT FOR AN ANIMAL STUDY ON AN NEI GRANT ON CORNEAL INTERFEROMETER.

OCTOBER 2001 – 2008: CLINICAL INVESTIGATOR FOR PHAKIC IOL STUDY. A CLINICAL INVESTIGATOR FOR PHAKIC 6 IOL FDA STUDY PHASE II SPONSORED BY OPHTHALMIC INNOVATION INTERNATIONAL, INC.

1999-2000: CLINICAL CO-INVESTIGATOR FOR INTACS™ STUDY. A CO-INVESTIGATOR FOR INTACS™ EXPANDED PHASE IIIB FDA STUDY SPONSORED BY KERAVISION, INC.

H O N O R S & S U R G I C A L A C C O M P L I S H M E N T S

1982: TAU BETA PI NATIONAL ENGINEERING HONORS SOCIETY

1983: PHI KAPPA PHI HONORS SOCIETY

1984: MAGNA CUM LAUDE AT GRADUATION IN ELECTRICAL ENGINEERING

1992: HONORS CLERKSHIPS: MEDICINE, OPHTHALMOLOGY

2001: PERFORM THE FIRST SURGICAL PROCEDURE IN THE U.S. UTILIZING FEMTOSECOND LASER INTRALASE TO CREATE CORNEAL CHANNEL FOR PLACEMENT OF INTACS TO TREAT MYOPIA AND KERATOCONUS NOW IS COMMONLY USED FOR KERATONUS INTACS IMPLANTS

2001: UTILIZING THE FIRST COMMERCIALY AVAILABLE INTRALASE FEMTOSECOND LASER TO PERFORM LASIK IN THE U.S. NOW IS COMMONLY DONE WITH LASIK

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- 2008: FIRST SURGEON IN ORANGE COUNTY PERFORMING INTRAOPERATIVE
ABERROMETRY (ORA™) FOR REFRACTIVE CATARACT SURGERY. NOW IS
COMMONLY USED IN ADVANCE REFRACTIVE CATARACT SURGERY IN THE U.S.
- 2009: AMERICAN ACADEMY OF OPHTHALMOLOGY ACHIEVEMENT AWARD
- 2011: FIRST SURGEON IN CALIFORNIA PERFORMING FEMTOSECOND LASER ASSIST
CATARACT SURGERY. NOW BECOMING MORE COMMONLY USED IN ADVANCE
REFRACTIVE CATARACT SURGERY IN THE WORLD.
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R E F E R E N C E S

--- REFERENCES AVAILABLE UPON REQUEST---

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