

**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 **Explanation letter attached**

☐ 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 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>Optical Coherence Tomography of Macula and Optic Nerve</u>	Course Presentation Date <u>11/12/2017</u>
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### Course Provider Contact Information

Provider Name <u>Keith</u> <u>Liang, MD</u> (First) (Last) (Middle)	
Provider Mailing Address  Street <u>3160 J St.</u> City <u>Sacramento</u> State <u>CA</u> Zip <u>95816</u>	
Provider Email Address <u>spineda@liangvision.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>Keith</u> <u>Liang</u> (First) (Last) (Middle)	
License Number <u>G 69355</u>	License Type <u>medical</u>
Phone Number (916) <u>446-2020</u>	Email Address <u>spineda@liangvision.com</u>

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

1-31-2017

				FOR BOARD USE <u>ONLY</u>		
Course Title	Date(s) of Course	Instructor(s)/Lecturer(s)	CE Hours Requested	Approved	Disapproved	ID #
Toric IOL's	01/18/2017	KEITH LIANG, MD	2			
Corneal Cross-Linking	03/15/2017	KEITH LIANG, MD	2			
Review of Eye Drops: Prostaglandins	05/17/2017	KEITH LIANG, MD	2			
Aspheric vs. Non-Aspheric: Night Time Vision	07/19/2017	KEITH LIANG, MD	2			
Tecnis, Symphony & Crystalens AO	09/13/2017	KEITH LIANG, MD	2			
Wavefront Technology: Topography Guided Laser	11/15/2017	KEITH LIANG, MD	2			
Treatments for Macular Degeneration	05/07/2017	KEITH LIANG, MD	2			
Glaucoma: Decisions & Choices	05/07/2017	KEITH LIANG, MD	2			
Ocular Hypertension	11/12/2017	KEITH LIANG, MD	2			
Optical Coherence Tomography of Macula & Optic	11/12/2017	KEITH LIANG, MD	2			
COMMITTEE COMMENTS:						



February 23, 2017

**State Board of Optometry  
2450 Del Paso Road, Suite 105  
Sacramento, CA 95834**

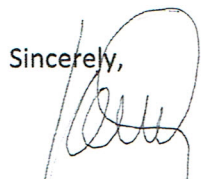
Dear Boards of Optometry,

Thank you for considering my request for CE approval. I was recently informed by Kristina Eklund that I need to provide a letter to explain why I am not able to provide presentation materials for the scheduled events in 2017. I feel that providing current information to our network of optometrist is very important. I gather presentation information from a variety of information sources- mainly current ophthalmic studies (articles) and ophthalmic meetings that I attend periodically through the year. The Power Point presentations are created from information gathered from ASCRS held in May and AAO conferences held in November; this ensures that the information provided is not only current, but the newest technology that we can offer in the United States.

I have prided myself in the ability to deliver quality information to my optometric network and I have been working with the Board of Optometry for many years to provide CE's. I ask that you strongly consider issuing Continuing Education credits for 2017 as I have many Optometrists who depend on what is offered at my office.

Thank you so much for your consideration.

Sincerely,



*Keith Liang, MD*  
Ophthalmologist



(916) 446-2020 • Fax: (916) 446-3128  
3160 J Street • Sacramento • CA • 95816-4403

## **COURSE SUBJECT MATTER**

**Event Date: May 7, 2017**

### **Treatments for Macular Degeneration**

**Instructor:** Keith Liang, MD

Review the clinical indications to treat with IVI Avastin. What are the criteria to treat classic SRNV vs. non-classic SRNV? Data review of clinical outcomes with multiple injections and long term follow will be reviewed. Current treatment modalities of PDT, IVI and Focal Argon or Krypton lasers will be discussed. The goals are to provide the optometrist with the latest evidenced based treatment for Macular Degeneration.

### **Glaucoma : Decisions and Choices**

**Instructor:** Keith Liang, MD

Decision making process of primary drop selection assessment of treatment. What is adequate treatment versus not adequate treatments. What are possible alternative second line drugs or laser treatments.

**Event Date: November 12, 2017**

### **Ocular Hypertension**

**Instructor:** Keith Liang, MD

The OHTN and AGS studies will be reviewed to help clarify when the best time to treat ocular hypertensive patients is. This difficult area of treatment has created numerous medical and ethical discussions. The goal will be to clarify the topic on order for optometrist to gain insight into this area.

### **Optical Coherence Tomography of the macula and optic nerve**

**Instructor:** Keith Liang, MD

This technology aids in the diagnosis and treatment of retinal macular edema. It can assess the progress of treatments such as intravitreal injections and laser therapy. This tool can also assess the progress of the optic nerve and glaucoma. It has changed the practice of retinal and glaucoma management. The principle of how to read a basic scan will be reviewed.

## OUTLINE

### Optical Coherence Tomography of the macula and optic nerve: Keith Liang, MD

1. Optical coherence tomography (OCT) is a non-invasive imaging test that uses light waves to take cross-section pictures of your retina, the light-sensitive tissue lining the back of the eye. With OCT, each of the retina's distinctive layers can be seen, allowing your ophthalmologist to map and measure their thickness
  - a. Optical coherence tomography (OCT) is useful in diagnosing many eye conditions, including:
    - i. Macular hole
    - ii. Macular pucker
    - iii. Macular edema
    - iv. Age-related macular degeneration
    - v. Glaucoma
    - vi. Central serous retinopathy
    - vii. Diabetic retinopathy
    - viii. Preretinal membranes
2. OCT M
  - a. OCT M measurement of the retinal thickness appears to be useful in monitoring changes in macular edema, diabetic cases, or eyes with branch vein occlusion.
3. OCT G
  - a. OCT (G) is often used to evaluate disorders of the optic nerve. The optic nerve is made up of many nerve fibers and sends signals from your retina to your brain, where these signals are interpreted as the images you see. The OCT exam is helpful in determining changes to the fibers of the optic nerve, such as those caused by glaucoma.

**KEITH LIANG M.D.**

**CORNEAL, CATARACT, GLAUCOMA AND REFRACTIVE SURGEON**

*3160 J STREET*

*SACRAMENTO, CA 95816-4403*

*(916) 446-2020*

*kliang@liangvision.com*

**PRIVATE PRACTICE**

**CENTER FOR SIGHT CLINIC AND  
LASER CENTER 1995 – Present**

**SACRAMENTO EYE SURGICENTER**

Medical Director 1999 – Present

3150 J Street

Sacramento, CA 95816

**EDUCATION**

*CHIEF RESIDENCY*

***LSU – Lions Eye Center*** 1993 – 1994  
Cornea and Refractive Surgery  
New Orleans, Louisiana

*RESIDENCY*

***Louisiana State Univ. Medical Center***  
1990 – 1994  
New Orleans, Louisiana

*INTENRSHIP*

***University of Southern California-  
Los Angeles County Medical Center***  
1989 – 1990  
Los Angeles, California

*MEDICAL SCHOOL*

***University of Southern California-  
Keck School of Medicine***  
1985 – 1989  
Los Angeles, California

*UNDERGRADUATE*

***University of California at Los Angeles***  
1982 – 1985  
Los Angeles, California



## **MEMBERSHIPS**

American Academy of Ophthalmology  
American Board of Ophthalmology  
American Society of Cataract and Refractive Surgery  
International Society of Refractive Surgery  
New Orleans Academy of Ophthalmology  
Association for Research in Vision and Ophthalmology

## **PAPERS**

“Introduction to the 13<sup>th</sup> NIDEK International Refractive Symposium: Cyberspace”  
Journal of Refractive Surgery, Volume 25, January (Suppl) 2009

“Vision Quest” – By Reed Parsell/photography by 521Productions.com  
Sacramento Magazine, 174, 176–177, September 2007

“New NSAID Speeds Resolution of Corneal Ulcer”  
Ophthalmology Management 49–50, January 2006

“Acrysof Restor IOL Presbyopic lens removal and exchange”  
Cataract & Refractive Surgery Today Volume 6, No. 4: 66–69, April 2006

“Wavefront–Adjusted Treatments on the Nidek EC–5000”  
Cataract & Refractive Surgery Today 82–84, August 2004

“Cohesive viscoelastic offers predictable protection – Surgeon depends on high-viscosity agent for 95% of cataract cases” – By Lynda Charters, Reviewed by Keith Liang, M.D.  
Ophthalmology Times 34, February 15, 2003

“A Comparison of the Nidek EC-5000, Visx S2 and Summit Apex Lasers”  
Review of Ophthalmology Part 3 of 3: 6–7, July 2001

“Fungal Keratitis from Nylon Lawn Trimmers”  
American Journal of Ophthalmology 114:437–440, October 1992

“Browns Superior Oblique Tendon syndrome After Baerveldt Implant”  
Archives of Ophthalmology 110:1368, 1992

## **CLINICAL TRIALS**

CRS – NIDEK Clinical treatment of Astigmatism IDE 1999 – 2000  
CLARITY Holos-On going study to develop intraoperative aberrometry for Cataract Surgery.



ACOES Cross linking investigation- evaluate efficacy of cornea collagen crosslinking in Keratoconus and Ectasia eyes

CRS/ISRS – LASIK Clinical investigation: Evaluate the efficacy of LASIK and submit data to FDA Device Committee 1996 – 1998

CRS/ISRS – VISX Clinical treatment of Astigmatism and high myopia IDE 1996 – 1997

NIDEK PRK Study Site – worked under supervision of Marguerite McDonald M.D. in New Orleans, LA – 1994

AUTONOMOUS – Preliminary monkey treatments at Tulane vivarium under the direction of Marguerite McDonald M.D. – 1994

## **PRESENTATIONS**

**AAO** Intraoperative Aberrometry –HOLOS for refractive cataract surgery. IOL Predictor 2016

**ASCRS** Intraoperative Aberrometry –HOLOS for refractive cataract surgery 2015

**ASCRS- Topography guided laser-** How to use the CATZ and OATZ software to achieve optimal results- NIDEK 2014

**AAO** – Laser assisted Cataract Surgery- Femto LRI incisions with Lensar laser 2013

**OPTOMETRIC** – Semi-annual half-day lectures to local Optometrists regarding various topics in Ophthalmology – 1995 – 2009 – Sacramento, CA

**OPTOMETRIC** – Bi-monthly dinner lectures to local Optometrists regarding various topics in Ophthalmology – 1995 – 2009 – Sacramento, CA

**CRS** – How to remove a multifocal lens – December, 2007 – Las Vegas, NV

**ASCRS** – Akahoshi technique with the millennium system. Bausch & Lomb – 2005 Washington, D.C.

**ASCRS** – Nidek wavefront adjusted myopic treatments utilizing 6.5/7.5 zones compared to non-wavefront treatments – 2004 San Diego, CA

**ASCRS** – Combination Akahoshi pre-chop and flip technique for cataract surgery – 2001

**ASCRS** – LASIK Video Grand Rounds: Complications and Management-panel member – 1999 – 2001

**AAO** – LASIK Video Grand Rounds: Complications and Management-panel member – 1999 – 2001

**ASCRS** – Comparison of NIDEK, VISX and Summit Lasers for the LASIK treatment of myopic astigmatism – 2000

**ASCRS** – Initial clinical pearls for the insertion of Starr Posterior ICL – a beginning surgeon's experience – 2000

**ASCRS** – Results of Mobile VISX Laser in the LASIK treatment of myopic astigmatism – 1999

**FDA DEVICE PANEL** – Gaithersburg, Maryland - presented LASIK data for FDA approval of LASIK procedure – 1998

**LSU- New Orleans Academy-** Pigmentary Dispersion Glaucoma- Laser Peripheral Iridectomy- clinical trial of P.I. in myopic patients with posterior bowing of iris plane 1992

**ARVO-** Flourescein angiographic Histopathological Correlation of Dihematoporphyrin/Argon Laser Treated Vascualture & Subretina Neovasculariztion 1988

## **CERTIFICATION**

**2016-** ALLEGRETTO WAVE EYE-Q 400HZ

**2015** – HOLOS ABERROMETRY FOR CATARACT SURGERY

**2014-** ZIEMER S FEMTO LDV CRYSTALLINE-BLADE FREE

**2013** – Glaucoma- ISTENT IMPLANT

**2012** – LENSAR FEMTOSECOND LASER

**2008** – Glaucoma – TRABECUTOME SURGERY

**2007** – STAAR INTRAOCULAR CONTACT LENS

**2007** – MULTIFOCAL REZOOM LENS

**2007** – ASTIGMATISM LENS TORIC

**2006** – MULTIFOCAL RESTORE LENS

**2006** – VERISYSE INTRAOCULAR CONTACT LENS

**2005** – Glaucoma – SELECTIVE LASER TRABECULOPLASY

**2004** – ALLEGRETTO EXCIMER LASER SYSTEM

**2004** – CRYSTALENS

**2000** – LADAR VISION EXCIMER LASER SYSTEM  
**1999** – NIDEK EXCIMER LASER SYSTEM  
**1996** – VISX EXCIMER LASER SYSTEM  
**1995** – SUMMIT EXCIMER LASER SYSTEM

## OUTLINE

### Optical Coherence Tomography of the macula and optic nerve: Keith Liang, MD

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