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: Corneal Cross-Linking

Provider Name: Center for Sight c/o Mr. Saveoun Pineda

☑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 Letter of explanation attached

☐Advertising (optional)

☑CV for EACH Course Instructor

☑License Verification for Each Course Instructor
Disciplinary History? ☐Yes ☑No

Cashiering and Board Use Only			
Receipt #	Payor ID	Beneficiary ID	Amount
1-2914	2799079	1136755	50

BUSINESS, CONSUMER SERVICES, AND HOUSING AGENCY

GOVERNOR EDMUND G. BROWN JR.

CALIFORNIA STATE BOARD OF OPTOMETRY

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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	**Course Presentation Date**
Corneal Cross-Linking	03/15/2017

Course Provider Contact Information

Provider Name

Keith (First) Liang, MD (Last) (Middle)

Provider Mailing Address

Street 3160 J St. City Sacramento State CA Zip 95816

Provider Email Address spineda@liangvision.com

Will the proposed course be open to all California licensed optometrists?	☒ 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?	☒ 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

Keith (First) Liang (Last) (Middle)

License Number G 69355	**License Type** medical
Phone Number (916) ~~446~~-2020	**Email Address** spineda@liangvision.com

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

Course Title	Date(s) of Course	Instructor(s)/Lecturer(s)	CE Hours Requested	FOR BOARD USE ONLY		
				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:

Keith Liang, M.D.
Center for Sight
SACRAMENTO, CALIFORNIA

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

3160 J Street • Sacramento, CA 95816 • Telephone: 916.446.2020 • Fax: 916.446.3128 • www.liangvision.com

Keith Liang, M.D.
Center for Sight
SACRAMENTO, CALIFORNIA
(916) 446-2020 • Fax: (916) 446-3128
3160 J Street • Sacramento • CA • 95816-4403

COURSE SUBJECT MATTER

Toric IOL's **Instructor:** Keith Liang, MD
Event Date: January 18, 2017
Toric IOL Staar and Alcon have added a new dimension to cataract surgery to correct Astigmatism. It has allowed for greater post operative satisfaction from patients. Review the preoperative criteria required for successful implantation of the lens. The surgical steps required for successful implantation of the lens in the correct axis.

Corneal Cross-Linking **Instructor:** Keith Liang, MD
Event Date: March 15, 2017
Corneal Cross-Linking (CXL) has been used to treat issues like keratoconus and corneal ectasia after LASIK surgery since 1997. *Keratoconus* is a vision disorder that occurs when the normally round cornea (the front part of the eye) becomes thin and irregular (cone) shaped. This abnormal shape prevents the light entering the eye from being focused correctly on the retina and causes distortion of vision. The goal is to educate the physical signs to manage these patients pre-operatively and post operatively.

Review of Eye Drops: Prostaglandins **Instructor:** Keith Liang, MD
Event Date: May 17, 2017
Travatan, Lumigan and Xalatan drops are the family of eye drops that are the primary treatment for glaucoma. The difference will be reviewed and indications for use in the ocular hypertensive and glaucoma patients will be discussed.

Aspheric versus Non-Aspheric: Night-time Vision **Instructor:** Keith Liang, MD
Event Date: July 19, 2017
The wavefront modified IOL that affect spherical aberration will be reviewed. The latest medical discussion on the lenses affect on improved night time vision will be discussed. Wavefront date both pre and post operatively will be reviewed.

ResTor , Symphony & Crystalens **Instructor:** Keith Liang, MD
Event Date: September 13, 2017
Premium IOL is gaining greater aceptance in the cataract population. How does an optometrist council his or her patients on these latest advances in IOL surgery. The ideal candidate for each type of lens will be reviewed. How to manage post operative expectations will be a key factor the success of these lenes.

Wavefront Technology: Topography Guided Laser: **Instructor:** Keith Liang, MD
Event Date: November 15, 2017
Nidek laser from Japan has the obly FDA approved topography guided excimer ablation in the United States. The CATZ sofeware and Final Fit program will be reviewed on problematic patient discussions.

OUTLINE

Corneal Cross-Linking: Keith Liang, MD

1. Corneal Cross-Linking (CXL) has been used to treat issues like keratoconus and corneal ectasia after LASIK surgery since 1997.
    a. Keratoconus is a vision disorder that occurs when the normally round cornea (the front part of the eye) becomes thin and irregular (cone) shaped. This abnormal shape prevents the light entering the eye from being focused correctly on the retina and causes distortion of vision.
    b. Post–LASIK Corneal Ectasia is corneal weakening creating progressive thinning and steepening of the cornea. This also causes loss of best corrected visual acuity (BCVA). Incidence of post-LASIK corneal ectasia is estimated to be 1 in 1000 cases of LASIK surgery
2. Corneal cross-linking is a technique which combines Riboflavin with UV light to strengthen chemical bonds in the cornea. The goal of the treatment is to halt progressive and irregular changes in corneal shape. These changes are typically marked by corneal thinning and an increase in the curvatures of the cornea, and often lead to high levels of myopia and astigmatism. The most common form of ectasia is keratoconus and less often ectasia is seen after laser vision correction such as LASIK.
3. Treatment improves the biochemical properties of the cornea by strengthening the corneal tissue in the anterior stroma. It is the only procedure available that can stop the progression of keratoconus and strengthen the individual collagen fibers in the cornea.

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 13th 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 Neovascularizton 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