



**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**

For Reporting and Board Use Only			
Receipt #	Payor ID	Beneficiary ID	Amount
1-1101	3340689	802559	50

**\$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.

<b>Course Title</b> 2016 Fall Optometry Symposium Current Research Activites at Loma Linda University	<b>Course Presentation Date</b> 1 1 / 1 3 / 2 0 1 6
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<b>Eye Institute Provider Name</b> LOMA LINDA UNIVERSITY EYE INSTITUTE	<b>Course Provider Contact Information</b>
(First) _____ (Last) _____ (Middle) _____	

**Provider Mailing Address**  
 Street 11370 Anderson St City Loma Linda State CA Zip 92354

**Provider Email Address** jpolanco@llu.edu

<b>Will the proposed course be open to all California licensed optometrists?</b>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>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?</b>	<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.

<b>Instructor Name</b> Michael Rauser		
(First) _____	(Last) _____	(Middle) _____
<b>License Number</b> G85469	<b>License Type</b> MD	
<b>Phone Number</b> (909) 558.2076	<b>Email Address</b> mrauser@llu.edu	

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

10/3/16  
 Date

<b><u>Physician</u></b>	<b><u>Medical License #</u></b>	<b><u>email</u></b>
<b>Affeldt, John C. MD</b>	G38490	<a href="mailto:jaffeldt@llu.edu">jaffeldt@llu.edu</a>
<b>Esmail, Fatema Q. MD</b>	A126363	<a href="mailto:fesmail@llu.edu">fesmail@llu.edu</a>
<b>Guan, Howard D. MD</b>	A119766	<a href="mailto:hguan@llu.edu">hguan@llu.edu</a>
<b>Khazaeni, Leila M. MD</b>	A92331	<a href="mailto:lkhazaeni@llu.edu">lkhazaeni@llu.edu</a>
<b>Luke, Priscilla K. MD</b>	A107548	<a href="mailto:pluke@llu.edu">pluke@llu.edu</a>
<b>Rauser, Michael E. MD</b>	G85469	<a href="mailto:mrauser@llu.edu">mrauser@llu.edu</a>
<b>Sierpina, David I. MD</b>	A126092	<a href="mailto:dsierpina@llu.edu">dsierpina@llu.edu</a>
<b>Cotter, Susan O.D., M.S.</b>	7784TPA	<a href="mailto:cottlee@ohsu.edu">cottlee@ohsu.edu</a>

Dear Optometric CE Board,

Attached is the supplemental materials required for obtaining Optometric CE credit for the Nov 13, 2016 Optometry Symposium sponsored by the Loma Linda University Eye Institute. We followed the usual submission process for obtaining CE credit as in previous years; but became aware of the new additional requirements shortly before the scheduled conference date. In the future we will ensure that a complete application following the new requirements will be received by your office at least 45 days prior to the scheduled date, as now required.

Our annual conference is composed of lecture topics that provide updates in the management of common ocular disorders. This year's symposium can be grouped into 3 main categories :

① Anterior segment/ Ocular surface :  
Phakic Intraocular lenses  
Refractive Cataract Surgery – A Cost Effective Approach  
Update on Dry Eye  
The Mystery of Meibomian Gland Dysfunction  
The Usual (Glaucoma) Suspects

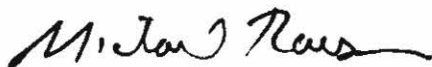
② Pediatric Eye Disorders:  
Challenging Strabismus Cases  
Myopia  
Adult Strabismus  
The Preschool Eye Exam Made Easy  
Management of Refractive Error on Preschool Children

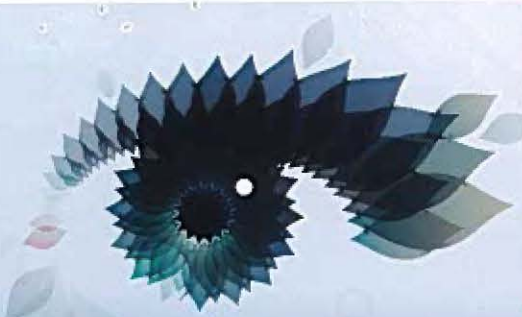
③ **Current Research Studies at the Loma Linda University Eye Institute**

Based on the current application requirements, this symposium would require 3 separate applications to obtain CE approval for the conference. Thanks for your consideration.

Sincerely,

Michael Rauser, MD  
Chairman, LLU Eye Institute  
Associate Professor, LLU SOM Ophthalmology





# Fall 2016

## Optometry Symposium

# SCHEDULE OF EVENTS

### 7:30 a.m. Registration & Breakfast

- 7:55 a.m. Michael Rauser, MD  
*Welcome and Overview*
- 8:00 a.m. Frank Hwang, MD  
*Phakic Intraocular Lenses*
- 8:30 a.m. Timothy Winter, MD  
*Challenging Strabismus Cases*
- 9:00 a.m. Fatema Esmail, MD  
*Myopia*
- 9:30 a.m. Leila Khazaeni, MD  
*Adult Strabismus*
- 10:00 a.m. Break**  
*Visit with Speakers at Designated Tables*
- 10:30 a.m. Sue Cotter, OD  
*The Preschool Eye Exam Made Easy*
- 11:15 a.m. Sue Cotter, OD  
*Management of Refractive Error in Preschool Children*

### 12:00 p.m. Buffet Lunch

- 12:30 p.m. Michael Rauser, MD  
*Department Update*
- 12:45 p.m. Michael Rauser, MD  
*Refractive Cataract Surgery, A Cost Effective Approach*
- 1:15 p.m. John Affeldt, MD  
*Update on Dry Eye*
- 1:45 p.m. Priscilla Luke, MD  
*The Mystery of Meibomian Gland Dysfunction*
- 2:15 p.m. Howard Guan, MD  
*The Usual (Glaucoma) Suspects*
- 2:45 p.m. David Sierpina, MD**  
***Current Research Activities at Loma Linda University Eye Institute***
- 3:15 p.m. Closing Remarks and Adjournment**

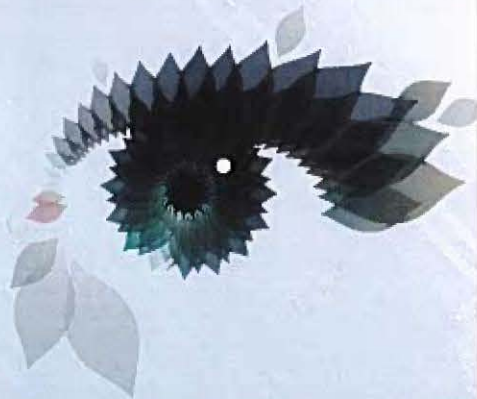


LOMA LINDA  
UNIVERSITY

Eye Institute

Loma Linda University Eye Institute

# Fall 2016 Optometry Symposium



Sunday, November 13, 2016  
7:30 a.m. – 3:30 p.m



LOMA LINDA UNIVERSITY  
Eye Institute

## FALL 2016 Optometry Symposium

### SCHEDULE OF EVENTS

**7:30 A.M. Registration & Breakfast**

7:55 A.M. Michael Rauser, MD  
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Challenging Strabismus Cases

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Myopia

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1:45 P.M. Priscilla Luke, MD  
The Mystery of Meibomian  
Gland Dysfunction

2:15 P.M. Howard Guan, MD  
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Loma Linda University Eye Institute

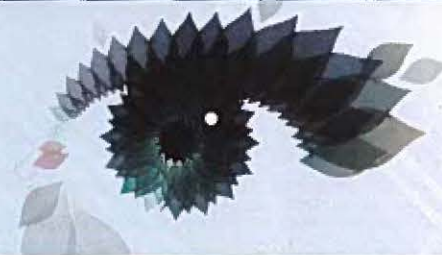
**3:15 P.M. Closing Remarks  
and Adjournment**



LOMA LINDA UNIVERSITY  
Eye Institute

Loma Linda University Eye Institute

# Fall 2016 Optometry Symposium



## Registration Form

Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_ License # \_\_\_\_\_

Email \_\_\_\_\_

(Needed for RSVP Confirmation)

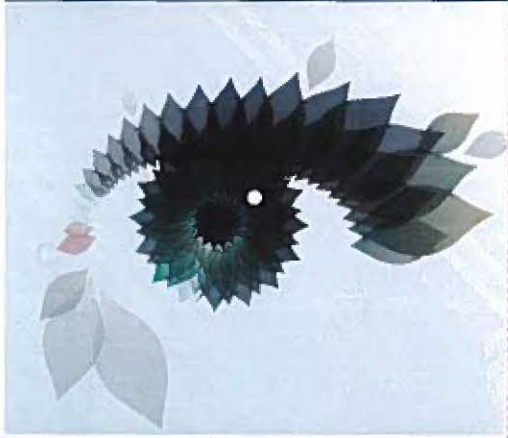
**Please RSVP by mailing registration form  
with payment to: LLU EYE INSTITUTE**  
Attn: Jason Polanco  
11370 Anderson Street, Suite 2025  
Loma Linda, CA 92354  
Fee: \$25.00

**Please make check payable to:**  
LLU Eye Institute

\*No refunds will be given after Monday, October 31, 2016.

Loma Linda University Eye Institute

# Fall 2016 Optometry Symposium



LOMA LINDA UNIVERSITY  
Eye Institute  
11214 Anderson Street  
Loma Linda, CA 92350

Nonprofit  
Organization  
US Postage  
PAID  
San Bernardino, CA  
Permit No. 1772

## STATEMENT OF OBJECTIVES

Upon completion of this course, participants will be able to:

1. Understand how structural abnormalities in the visual pathway correspond to visual field pattern defects
2. Better understand the clinical entity of neurotrophic keratitis
3. Recognize the clinical findings of common yet often overlooked corneal causes for suboptimal vision.
4. Know the role of Afibercept in the treatment of age-related macular degeneration, diabetic macular edema and retinal vein occlusion
5. Understand the potential etiologies of ocular torticollis including cranial nerve palsies, strabismus syndromes, pattern strabismus and nystagmus and how to manage each
6. Know the clinical indications for functional eyelid surgery

## ACCREDITATION

This course is pending approval from the State Board of Optometry for a total of 6.0 CE.

## COURSE DESCRIPTION

Loma Linda University Eye Institute is pleased to invite you to the Fall 2016 Optometry Symposium.

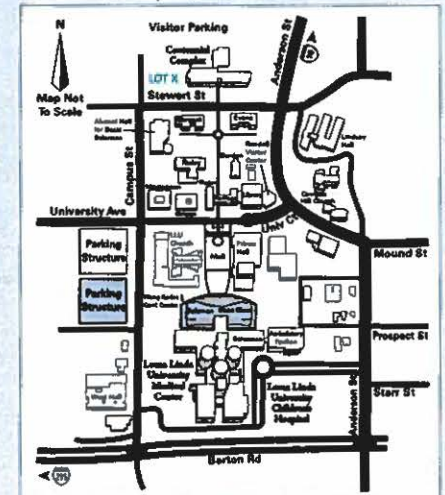
The symposium will emphasize when to appropriately treat or refer patients for specific eye conditions. The use of new pharmacological agents and new technologies in the diagnosis and treatment of ophthalmic disorders will be highlighted. The fee for this meeting is \$25.00 and six hours of CE credits will be provided for attendance. All attendees will receive a gift at the end of the conference.

We sincerely hope you will join us for this meeting. Please RSVP by Monday, October 31, 2016, as seating is limited.

For further information regarding this conference, please contact Jason Polanco at 909-558-2076 or [jpolanco@llu.edu](mailto:jpolanco@llu.edu).

## LOCATION & PARKING

The meeting will be held at the Loma Linda University Medical Center Wong Kerlee International Conference Center located at the Coleman Pavilion. Parking is available in the parking structure on Campus Street and in Lot X – turn west on Stewart Street (behind Centennial Complex).



Wong Kerlee International Conference Center  
Loma Linda University Campus  
11175 Campus Street  
Loma Linda, CA 92354

Save  
the Date

Loma Linda University Eye Institute

# Fall 2016

## Optometry Symposium



**MANY STRENGTHS. ONE MISSION.**  
*A Seventh-day Adventist Organization*



LOMA LINDA  
UNIVERSITY  
Eye Institute



Loma Linda University Eye Institute

# Fall 2016 Optometry Symposium

**Sunday, November 13, 2016**  
**7:30 a.m. – 3:30 p.m.**

**Location**

Loma Linda University Medical Center  
Wong Kerlee International Conference Center  
11175 Campus Street Loma Linda, CA 92350

**RSVP**

To RSVP or to obtain more information,  
please contact Jason Polanco  
909-558-2076 | [jpolanco@llu.edu](mailto:jpolanco@llu.edu)

**Fee**  
**\$25**



**LOMA LINDA UNIVERSITY**  
Eye Institute

Loma Linda University  
Eye Institute  
11234 Anderson Street  
Loma Linda, CA 92350

Nonprofit  
Organization  
US Postage  
**PAID**  
San Bernardino, CA  
Permit No. 1272

09445LUNCHKT03/110-104-150715-000

The Lorna Linda University Eye Institute is the leader in ophthalmic clinical trials in the Inland Empire. Clinical trials are integral in the development and approval of new ophthalmic therapies. Patients recruited into clinical trials not only may benefit from participation, but also potentially benefit future patients with the same eye condition. Studies that are underway at LLUEI include the treatment of age related macular degeneration, diabetic retinopathy, non-arteritic ischemic optic neuropathy, and open angle glaucoma. The purpose, inclusion and exclusion criteria of currently enrolling clinical trials will be reviewed.

**Speaker:** David Sierpina, MD

**Title:** Current Research Activities at Loma Linda University Eye Institute

**Outline:**

- 1.) Non-arteritic ischemic optic neuropathy trial
  - a. Review of pathophysiology and diagnosis of NAION
  - b. Explanation of proposed mechanism of study medication: caspase inhibition
  - c. Inclusion criteria and referral information
  - d. Discussion of data collected to date
- 2.) Hyperbaric oxygen therapy for Central Retinal Arterial Occlusion
  - a. Review of diagnosis of CRAO
  - b. Discussion of prior approaches to treatment
  - c. Explanation of proposed mechanism of hyperbaric oxygen
  - d. Inclusion criteria and referral information
  - e. Discussion of data collected to date
- 3.) Implantable Miniature Telescope
  - a. Discussion of research to date
  - b. Discussion of the implant and study protocol
  - c. Inclusion and exclusion criteria
- 4.) Dry AMD study (if time allows)
  - a. Inclusion and exclusion criteria
  - b. Referral information
- 5.) Ranibizumab versus panretinal photocoagulation for retinopathy of prematurity (RAINBOW) trial (if time allows)
  - a. Review of retinopathy of prematurity
  - b. Discussion of research to date on ROP
  - c. Discussion of RAINBOW trial, inclusion criteria

**Objectives:**

- To review current clinical trials enrolling patients at Loma Linda with emphasis on those that provide unique treatment options for otherwise untreatable conditions and for which community-based recruitment is vital
- To provide a short review of the pathology under study
- To discuss criteria for referring patients for enrollment in these trials
- To answer any questions regarding this process

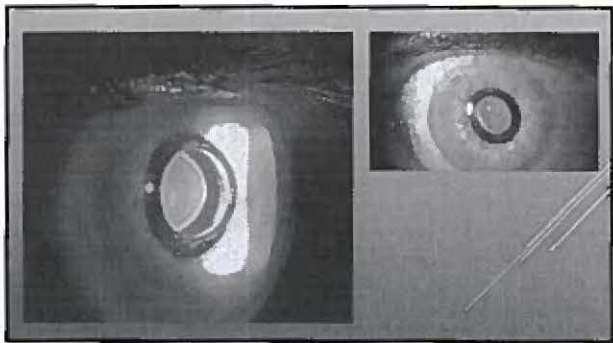
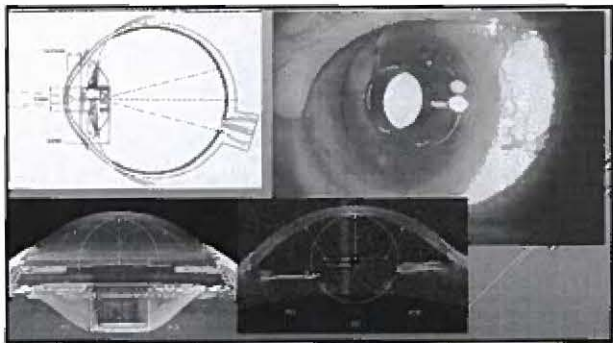
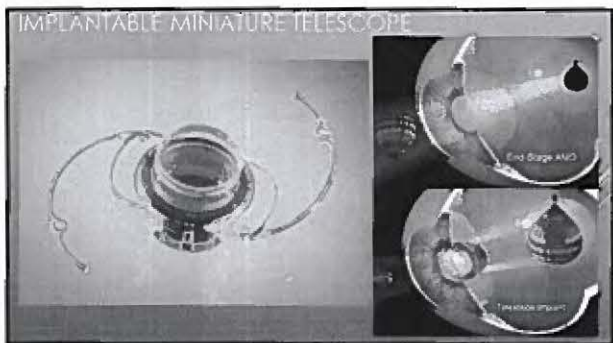
DAVID SIERPINA, MD

# CURRENT RESEARCH ACTIVITIES AT LOMA LINDA EYE INSTITUTE

David Sierpina, MD  
 Medical Director, Comprehensive  
 Ophthalmology

- ## OVERVIEW
- Implantable Miniature Telescope
  - Ocular Nerve Stimulation
  - Experimental Oxygen for the treatment of CRAVE
  - Aberrant CD44 with AMD study
  - KAT5/CRW study for vitreolysis of the macula
  - Cytochrome P450 study

- ## ADVANCED AGE-RELATED MACULAR DEGENERATION
- 1.8 million patients are affected in the US by advanced AMD (geographic atrophy or neovascular AMD)
  - Reported 80% reduction in quality of life for those with advanced AMD
  - Treatment options are very limited in the past decade and have been standard and surgical treatment options



Clinical Ophthalmology Dovepress  
ORIGINAL RESEARCH

### Long-term (60-month) results for the implantable miniature telescope: efficacy and safety outcomes stratified by age in patients with end-stage age-related macular degeneration

**David Boyer\***  
**K. Bailey Freund\***  
**Carl Rapko\***  
**Mark H Levy\***  
**Samuel Chang\***

\*Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA; \*Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA; \*Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA; \*Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA; \*Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA

**Background:** The purpose of this study was to evaluate the long-term results of an implantable miniature telescope (IMT) in patients with bilateral, end-stage, age-related macular degeneration (AMD).

**Methods:** A prospective, open-label, multicenter cohort study with follow-up to 60 months (5 years) was conducted. The study included patients with bilateral, end-stage AMD who were unable to read 20/40 or worse visual acuity with best-corrected glasses. Patients were stratified by age into two groups: age 65 to <75 years (group 1) and age 75 years or older (group 2). The primary endpoint was the proportion of patients who were able to read 20/40 or better visual acuity with the IMT at 60 months.

### BOYER ET AL.

- Group 1: BCVA 6 improvement 2.04 + 2.03 lines
- Group 2: BCVA 6 improvement 2.76 + 2.08 lines
- Quality of life metrics significantly improved for Group 1.

**Table 1 Best-corrected distance visual acuity as reported with the implantable miniature telescope, stratified by age group**

	12 months	24 months	36 months	48 months	60 months
<b>Age 65 to &lt;75 years (group 1)</b>					
n	45	46	22	36	31
Gain ≥ 2 lines	43 (95.6%)	37 (80.4%)	11 (50.0%)	22 (61.1%)	18 (58.1%)
Gain ≥ 3 lines	32 (71.4%)	45 (97.8%)	15 (68.2%)	26 (72.2%)	31 (97.7%)
Mean ± SD line change	1.6 ± 1.1 lines	2.3 ± 2.0 lines	1.4 ± 2.0 lines	2.7 ± 2.6 lines	2.7 ± 2.7 lines
<b>Age ≥ 75 years (group 2)</b>					
n	109	95	42	46	33
Gain ≥ 2 lines	72 (66.1%)	51 (53.7%)	24 (57.1%)	19 (41.3%)	12 (37.9%)
Gain ≥ 3 lines	87 (79.8%)	71 (74.7%)	31 (73.8%)	22 (47.8%)	19 (57.6%)
Mean ± SD line change	2.4 ± 2.2 lines	1.6 ± 2.2 lines	2.0 ± 1.9 lines	2.3 ± 2.6 lines	2.1 ± 2.9 lines

Abbreviation: SD, standard deviation.

**Table 2 Results for quality of life questionnaires**

NEI VFQ-25 subscale*	Age 65 to <75 years (group 1)		Age ≥ 75 years (group 2)	
	Change from preoperative mean score (95% CI)	n=65	Change from preoperative mean score (95% CI)	n=109
General vision	28 (14, 36)		7 (2, 12)	
Near vision	14 (9, 20)		6 (2, 12)	
Distance vision	12 (6, 17)		3 (0, 7)	
Color vision	4 (0, 7)		1 (-1, 4)	
Social functioning	17 (6, 21)		6 (1, 10)	
Physical health	15 (10, 21)		5 (1, 9)	
Rain difficulties	14 (10, 22)		2 (-1, 5)	
Dependancy	13 (8, 19)		7 (2, 12)	
Driver's eyes	2 (-1, 5)		-1 (-4, 2)	
Driving	0 (-1, 2)		-1 (-3, 0)	
Peripheral vision	-8 (-14, 0)		-4 (-10, 2)	
Overall composite	10 (4, 15)		3 (2, 4)	

Notes: \*Not all patients completed the questionnaires. Abbreviations: NEI, National Eye Institute; CI, confidence interval; VFQ-25, Visual Function Questionnaire-25.

- ### KEY INCLUSION CRITERIA
- ≥ 65 years old
  - BCVA 20/40 to 20/80
  - Vision impaired by bilateral advanced AMD associated with end-stage AMD
  - Refused to drop out of questionnaire or drop out of study with minimal intervention
  - Mildly or no cataracts
  - Unable to perform the questionnaire preoperatively or unable to read 20/40 or worse
  - All patients should be able to read 20/40 or better with best-corrected glasses
  - Not a candidate for other vision restoration treatments

- ### KEY EXCLUSION CRITERIA
- Presence of corneal guttae
  - Cognitive impairment and/or unable to give informed consent and participate in visual training
  - Presence of active ocular or systemic disease that may affect the outcome of the study
  - Any ocular or systemic disease that may affect the outcome of the study
  - Presence of any other ocular disease that may affect the outcome of the study
  - Presence of any other systemic disease that may affect the outcome of the study
  - Presence of any other condition that may affect the outcome of the study
  - Presence of any other condition that may affect the outcome of the study

- ### NON-ARTERITIC ISCHEMIC OPTIC NEUROPATHY (NAION)
- Second most common cause of optic neuropathy after glaucoma
  - Usually seen in patients over 55 years of age, usually unilateral
  - Present with RAPD, ipsilateral visual field defect, often with disc hyperemia, elevation and peripapillary flame-shaped hemorrhages
  - Risk factors include an anteriorly located optic disc or disc on edge of underlying papilloretinal atrophy
  - Not a candidate for other vision restoration treatments
  - Not a candidate for other vision restoration treatments

### THE DISC AT RISK FOR NAION

- At the right, the optic disc is normal. The left optic disc is swollen and pale.
- At the right, the optic disc is normal. The left optic disc is swollen and pale.

### Block target gene from making Caspase 2

QPI-1007 is a small interfering ribonucleic acid (siRNA) designed to temporarily block cells from producing Caspase 2, which controls cell apoptosis.

- High levels of caspase 2 are found when cells are damaged due to lack of oxygen.
- Hypothesis: In NAION, retinal ganglion cells are damaged due to a lack of oxygen/blood elevating caspase 2. Local temporary inhibition of caspase 2 could give the cells more time to repair/recover which may prevent further loss of vision and possibly improve vision.

### STUDY DESIGN

- This is a double masked, randomized, sham-controlled efficacy and safety study that will include open-label and subjects with no onset of NAION.
- Six weeks will be randomized into one of 5 groups (a 1:1:1:1:1 ratio) and designed to receive QPI-1007 or one of three descriptions: sham, active, or active control (50% chance of receiving active procedure (injecting treatment)).
- Treatment will be low dose treatment, single high dose treatment, multiple low dose treatment, multiple high dose treatment, and active control (50% chance).
- Data will be analyzed using a 2-sided alpha level of 0.05.

### KEY INCLUSION CRITERIA

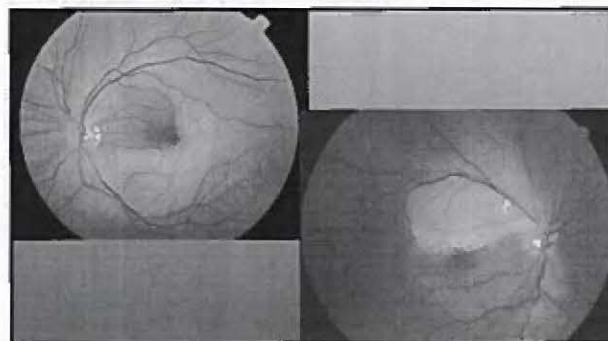
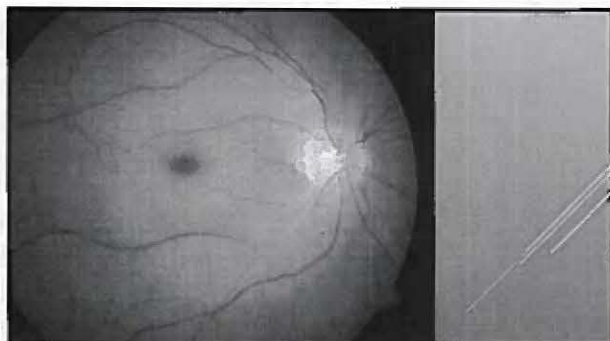
- Age 18 and female 50-60 years old.
- Post-injection of test procedure NAION in the study eye with symptom onset within 14 days prior to planned study drug administration period.
- No other ocular pathology, acute or chronic, more than 10 degrees to the center of the macula, including any use of systemic or topical corticosteroids, immunosuppressants, or anti-VEGF therapy.
- No other ocular pathology, acute or chronic, more than 10 degrees to the center of the macula, including any use of systemic or topical corticosteroids, immunosuppressants, or anti-VEGF therapy.

### KEY EXCLUSION CRITERIA

- Present use or history of any treatment for the current episode of NAION, including systemic steroids, intravitreal or intravitreal chemotherapy, laser photocoagulation, or photodynamic therapy.
- History of NAION in the study eye only.
- History of NAION in the study eye only.
- History of NAION in the study eye only.
- History of NAION in the study eye only.

### HYPERBARIC OXYGEN THERAPY FOR CENTRAL RETINAL ARTERIAL OCCLUSION

- Unilateral, painless, acute vision loss (counting fingers to light perception in 94% of eyes)
- Superficial opacification or whitening of the retina in the posterior pole with a cherry red spot in the macula
- Marked RVD, bowing or segmentation of blood column in arteries
- Unilateral, painless, acute vision loss (counting fingers to light perception in 94% of eyes)



### CONCEPT

- Under physiologic conditions, hemoglobin saturation is near 100% when breathing room air at ambient pressure.
- Breathing 100% oxygen under hyperbaric conditions can increase the plasma concentration of oxygen 76 fold.
- This quantity of oxygen in the plasma alone is able to meet the oxygen requirements of the body's tissues.

### SEVERING ET AL.

#### Early Hyperbaric Oxygen Treatment for Nonarteritic Central Retinal Artery Obstruction

JOHANNES MENZEL-SEYERING, ULRICH SIEBEMANN, ANDREAS WEINBERGER, GERNOT KOESSLER, PETER WALTER, AND BABAC MAZINANI

**\* PURPOSE:** To compare hyperbaric oxygen treatment combined with hemodilution with hemodilution only in central retinal artery obstruction.

**\* DESIGN:** Retrospective, nonrandomized case series.

**\* METHODS:** We reviewed records of all our patients diagnosed with central retinal artery obstruction between 1997 and 2010. In these patients, hyperbaric oxygen and hemodilution therapy had been administered routinely (oxygen group). Where hyperbaric oxygenation could not be performed, patients were under only hemodilution only (control group). Patients with preexisting visual acuity (VA) of up to 20/20 within 12 hours of onset

**T**O FULFILL ITS DISTINCT FUNCTIONS, THE MOST prominent of which are light detection and stimulus processing in the trabecular of the visual system, the central retina shows an extremely high level of oxygen consumption.<sup>1</sup> The central retinal artery is responsible for the blood supply to the inner two thirds of the retina. Being a functional end artery, an occlusion as obstruction of this vessel leads to a sudden, painless visual loss. Commonly, this visual loss is permanent because of irreversible damage to the neural tissue during the ischemic period before revascularization occurs.<sup>2</sup>

### CURRENT STUDY

- Patients presenting to the Loma Linda ED WITHIN 24 hours may be included.
- Immediate treatment with the highest possible oxygen fraction is initiated (non-rebreather, versus mask or high-flow nasal cannula).
- Transfer to hyperbaric oxygen chamber, 100% oxygen at 2 ATM.
- If improvement is noted within 5 minutes, treat 90 minutes plus 10 minutes each of 2 days.
- Visual acuity is rechecked, compared to baseline 2 AM.
- Conduct a follow-up 15 days later (Loma Linda) and 100 days later (Loma Linda).

### CONTACT INFORMATION

- ▶ Immediate triage is **CRUCIAL**
- ▶ Send patient to the Loma Linda Emergency Department immediately (1234 Anderson St, Loma Linda CA)
- ▶ Contact the MOCU attending: Fulmorally Affording or an call ophthalmology resident by calling the page operator at 909-553-1000

### CEDAR WET AMD STUDY CONCEPT

- ▶ Vascular endothelial growth factor (VEGF) is implicated in the pathogenesis of wet AMD
- ▶ Several anti-VEGF pharmacologic agents are FDA approved for treatment of wet AMD (ranibizumab)
- ▶ These medications require frequent (1-4 week) intravitreal injections to be effective
- ▶ Anti-angiogenic therapy (anti-VEGF) is the standard of care for wet AMD
- ▶ The standard of care (SOC) for wet AMD is the intravitreal injection of anti-VEGF agents

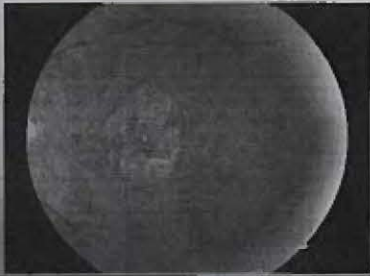
### KEY INCLUSION CRITERIA

- ▶ Treatment-naïve patients (age ≥ 50 years) or those with active wet AMD
- ▶ Visual acuity ≥ 20/40 CD
- ▶ Central macular thickness (CMT) ≥ 250 micrometers

### KEY EXCLUSION CRITERIA

- ▶ Prior treatment for wet AMD
- ▶ History of systemic anti-VEGF treatment within 3 months
- ▶ Use of systemic or extensive topical corticosteroids within 3 days of baseline
- ▶ History of recurrent intraocular inflammation
- ▶ Refractive error of 8 diopters of myopia or more

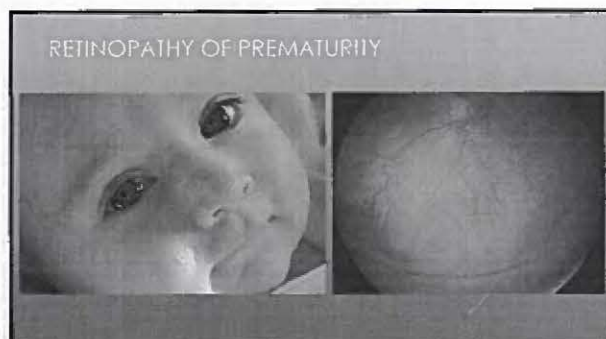
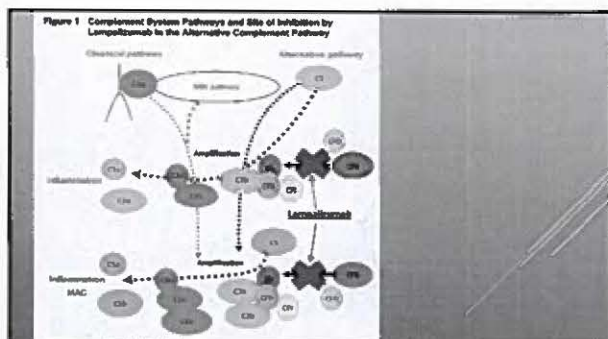
### GENENTECH DRY AMD STUDY



### CONCEPT

- ▶ Prior studies have established that single-nucleotide polymorphisms (SNPs) in one or more genes that make up the alternative complement pathway are associated with risk for rapid progression of geographic atrophy (GA)
- ▶ Patients can be selected for study using the alternative pathway (AP) polymorphisms
- ▶ Single-nucleotide polymorphisms (SNPs) in one or more genes that make up the alternative complement pathway
- ▶ The evidence on how these should be selected and treated in phase 1 and 2 trials
- ▶ The study will evaluate the safety and efficacy of the study drug in patients with GA





**RAINBOW TRIAL CONCEPT**

- Prior studies (CRIC-RDP, LITROP) have established the efficacy and safety of perivascular retinal photocoagulation to improve functional and anatomic outcomes in ROP.
- Even with early treatment, 14% of good eyes will have any and/or severe visual impairment (VA) and/or a clinically significant outcome effect (CRVO).
- Data to the extent of CRIC-RDP showed that the addition of laser to anti-VEGF therapy could decrease the number of eyes requiring laser therapy.
- The current study aims to evaluate the efficacy and safety of anti-VEGF monotherapy and CRIC-RDP monotherapy in ROP.

Clinical Trial Protocol CRF002H2301

**RAINBOW study: a randomized, controlled study evaluating the efficacy and safety of Ranibizumab compared with laser therapy for the treatment of infants born prematurely with retinopathy of prematurity**

**BIBLIOGRAPHY**

1. Murakami CK. Pathology of hypertensive retinoids. *Respi Care*. 2010; 5:100-101.
2. [Faded text]
3. [Faded text]
4. [Faded text]
5. [Faded text]

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## SELECTED EXPERIENCES

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### **December 2014 Lusaka Eye Hospital**

**Lusaka, Zambia**

*Visiting Surgeon & Medical Doctor*

- Performed 20 MSICS as well as various other surgeries during my time here including ruptured globe repairs, an enucleation, a scleral sutured IOL, a BMR and several corneal transplants
- Led morning worship services several times during my stay here

### **10/2007-6/2009 Salud Ofrecida a Latinos**

**North Chicago, IL**

*Member of the Board (6/2008-6/2009), Clinic Organizer*

- Organized and participated in health fairs in Waukegan that provided common screening tests to Spanish-speaking members of the community and was attended by physicians from several disciplines including podiatry, surgery, family medicine and internal medicine.
- Screened participants for hypertension, hypercholesterolemia, diabetes and complications thereof, breast cancer, glaucoma and poor diet.
- Offered participants education on healthy living.
- Provided oral Spanish translation.

### **9/2006-6/2007 Communications Services**

**Rockford, IL**

*Medical Interpreter*

- Worked as a Spanish Medical interpreter at the Swedish American hospital in Rockford.
- Employed as an oral Spanish interpreter in Rockford area hospitals and clinics.
- Provided efficient and accurate translations to facilitate patient-doctor interactions without adjusting register, adding, omitting, editing or polishing any information being communicated.
- Provided a necessary cultural framework to allow for understanding of the message being interpreted.
- Acted as patient advocate in cases where the needs of the patient were not being met due to systemic or cultural barriers.

### **9/2004-6/2007 Prous Science**

**Barcelona, Spain**

*Pharmaceutical Information Specialist*

- Worked under the supervision of a Doctor of Biology and a Doctor of Pharmaceutical Science.
- Efficient operation of several database managing utilities and search engines, including Oracle, Integrity, DailyDrugNews, PubMed and ClinicalTrials.gov.
- Wrote product summaries for pharmaceutical agents in various stages of development for use by clients of Prous Science, primarily organizations involved in the development of pharmaceuticals.
- Edited and maintained disease backgrounders, a section of Prous's proprietary Integrity website that provides information relating to important disorders and illnesses.
- Maintained Access databases used to track press releases and progress reports from universities and pharmaceutical companies from around the world.

### **9/2002-6/2005 Habitat for Humanity**

**Galesburg, IL**

*Active member*

- Collaborated on construction projects to build housing for the underprivileged in Galesburg, IL
- Traveled to Monoa Valley on the island of Oahu, Hawaii to assist in rebuilding efforts following flooding in October 2004 that destroyed over 60 homes

## PUBLICATIONS

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- Sierpina DI; Chaudhary HM; Walner DL; Villines D; Schneider K; Lowenthal M; Aronov Y. Laryngeal Mask Airway vs. Endotracheal Tube in Pediatric Adenotonsillectomy. *Laryngoscope*. 122(2):429-35(2012).
- Sierpina DI; Chaudhary HM; Walner DL; Aljadeff G; Dubrow IW. An Infantile Bronchial Hemangioma Unresponsive to Propranolol Therapy: Case Report and Literature Review. *Archives of Otolaryngology Head and Neck Surgery*. 137(5):517-21(2011).

## PRESENTATIONS

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- Diabetic Retinopathy, an Evidence-Based Approach. Loma Linda University, Loma Linda, California. August 2015.
- Lupus vasculitis, Diabetic Retinopathy, Epiretinal Membrane and Branch Retinal Vein Occlusion. A First year Residents' Primer on Fluorescein Angiography. Loma Linda University, Loma Linda, California. July 2015
- Cataract Surgery in Buphthalmic Eyes. Case Presentation and Literature Review for Pediatric Sub-Specialty Conference at Loma Linda University, Loma Linda, California, April 2015.
- Little Slices of Death: Non-24 Hour Sleep Wake Disturbance and Other Circadian Rhythm Abnormalities. Case Presentation and Literature Review for General Ophthalmology Sub-Specialty Conference at Loma Linda University, Loma Linda, California September 2014.
- A Case of Late-Onset Post-LASIK Stromal Keratopathy. Case Presentation of Viscoelastic-Induced Stromal Keratopathy (VISK) and Literature Review for Refractive Surgery Conference at the San Diego Naval Base. June 2014.
- Posterior Scleral Buckling for Myopic Degeneration, Non-Paraneoplastic Autoimmune Retinopathy and Sclerochoroidal Calcification. Case Presentations for Fluorescein Angiography Conference at Loma Linda University, Loma Linda, California. April 2014.
- Subretinal PFO and the use of TPA for Submacular Hemorrhage. Case Presentations for Fluorescein Angiography Conference at Loma Linda University, Loma Linda, California. January 2014.
- Myelodysplastic Syndrome and Co-Occurrence of Spontaneous Vitreous Hemorrhage: Morbidity and Mortality Case Presentation at Loma Linda Veteran's Affairs Hospital, Loma Linda California. November 2013.
- Retained Lens Fragments: Morbidity and Mortality Case Presentation at Loma Linda University, Loma Linda, California. October 2013.
- Differential Diagnosis of an Infantile Corneal Opacity. A Case Presentation and Review of the Literature for Grand Rounds at Loma Linda University, Loma Linda, California. October 2013.
- Red Flags in the Evaluation of the Pediatric Headache. A Case Presentation and Review of the Literature for Grand Rounds at Loma Linda University, Loma Linda, California. June 2013.
- Evaluation of Pediatric Ptosis. Case Presentation and Literature Review for Grand Rounds at Loma Linda University, Loma Linda, California. May 2013.
- Differential Diagnosis of Exudative Retinal Detachment. Case Presentation for Retina Sub-Specialty Conference at Loma Linda University, Loma Linda, California, December 2012.
- Connecting the White Dots. Sierpina DI. Case Presentation for Uveitis Sub-Specialty Conference at Loma Linda University, Loma Linda, California, October 2012.
- Management of Choroidal Melanoma, Current Practice. Sierpina DI. Case Presentation for Grand Rounds at Loma Linda University, Loma Linda, California, September 2012.
- Diagnosis of a Corneal Epithelial Defect. Sierpina DI. Case Presentation for Grand Rounds at Loma Linda University, Loma Linda, California, August 2012
- Body Packing/Stuffing; a Perilous Practice. Sierpina DI. Case Presentation for Radiology Grand Rounds at Macneal Community Hospital, Berwyn, IL, May 2012
- A Case of Iatrogenic Hyperkalemia. Sierpina DI. Case Presentation for Patient Safety and Quality Conference at MacNeal Community Hospital, Berwyn, IL, November 2011.
- Laryngeal Mask Airway vs. Endotracheal Tube in Pediatric Adenotonsillectomy. Presented as a poster at the American Society of Pediatric Otolaryngology Annual Meeting, Chicago, Illinois, U.S.A., April 28-May 1, 2011; and at the Lutheran General Research Consortium, Park Ridge, Illinois, U.S.A., May 5, 2011.
- An Infantile Bronchial Hemangioma Unresponsive to Propranolol Therapy. Presented as a poster at the Combined Otolaryngology Spring Meeting, Paris/Bally's Las Vegas, Nevada, U.S.A. April 28-April 29.