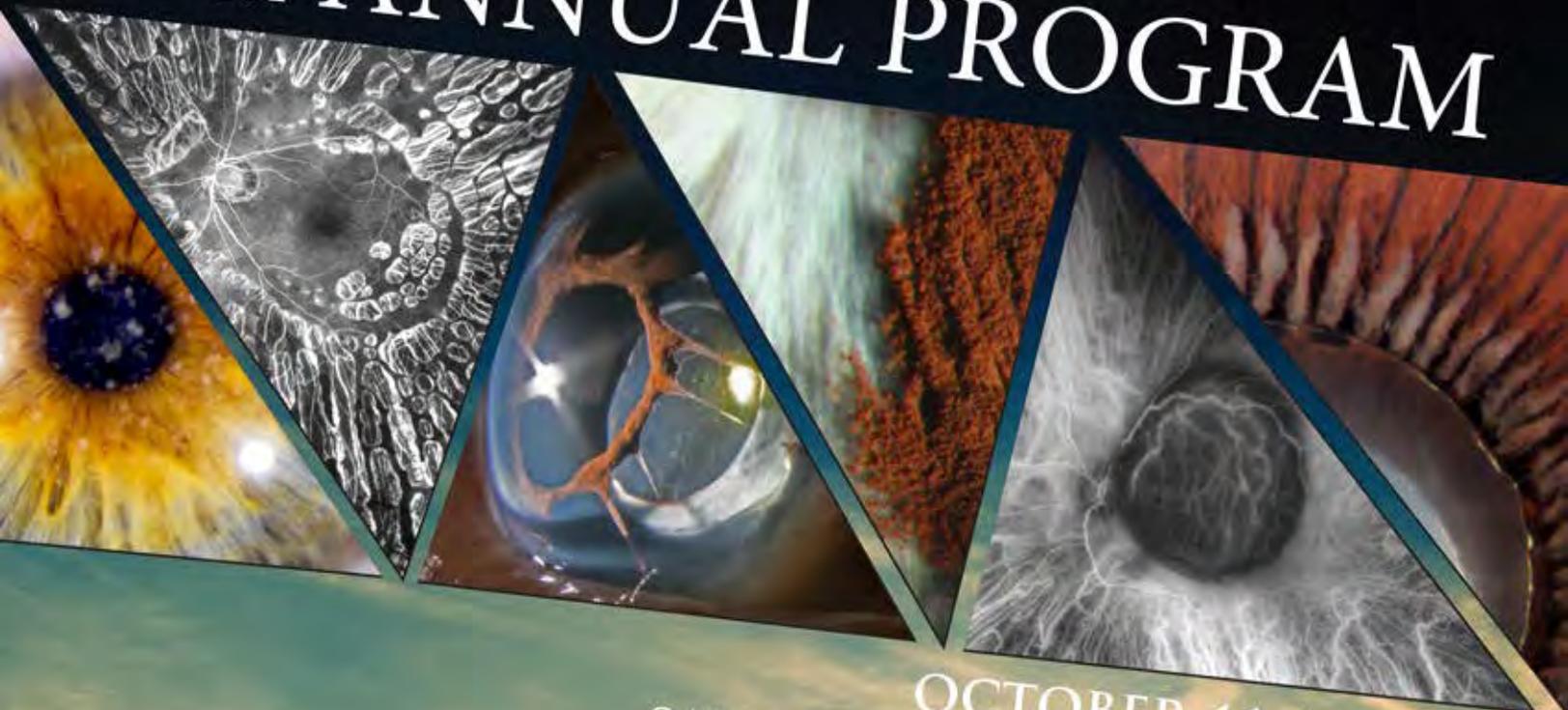


50TH ANNUAL PROGRAM



OCTOBER 11-14, 2019
SAN FRANCISCO, CALIFORNIA



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The Ophthalmic Photographers' Society wants to express gratitude to these companies and their representatives who furnish financial contributions, equipment, supplies and technical support for the Annual Educational Program. Without their support and enthusiasm the workshops and other portions of this program would not be possible.

Online Registration Instructions for the Annual Meeting

The OPS will be granting continuing education credits (CECs) electronically through our website. It is necessary for EVERY program attendee to have a profile established through the OPS website as either a member or a non-member program attendee. This will be the only way to receive the credits for this program. If you are a current member of the OPS, please be sure to sign-in to the website before you complete the program registration. **If you do not know your username, please contact Barbara in the OPS Central Office before registering.**

If you are NOT an OPS member and will ONLY be attending this program to receive the CEC's, you will need to establish a profile on the OPS website before proceeding to the educational program registration. Go to the OPS home page (www.opsweb.org) and click on "Join OPS" in the upper right corner above the gray-shaded box. You will select the member type "Non-OPS Member – Meeting Attendee ONLY" when you register on the site. You will need to remember the username and password you create so you will be able to receive your CECs following the educational program.

If you wish to become an active member of the OPS, then you need to join the Society as an Active member **prior** to completing your program registration. You may join the Society by clicking on "Join OPS" in the upper right corner of the home page.

After reviewing the course material and deciding which courses you wish to attend, go to the website, sign-in and select "50th OPS Annual Program" from the Calendar on the right side of the home page, or click on the registration link provided on the home page.

Please read the Online Registration Instructions before selecting your courses. Pay close attention to the course start and end times so that you do not select two courses that may overlap. **Please select your courses carefully.** Using the "Conference-At-A-Glance" sheet to avoid overlapping courses is helpful.

After selecting the courses you wish to attend, please proceed to the checkout process. Once payment has been made, you will receive a confirmation of the payment with a list of the courses you selected. Be sure to print out your course confirmation as you will need it while you are onsite at the program. The credit card payment will be a real-time payment meaning your card will be charged immediately upon checkout.

If you have any questions about online registration on the OPS website prior to registering for the annual education program, please contact Barbara in the OPS Central Office at 800-403-1677 or 417-725-0181.

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Continuing Education Credit

Approved OPS continuing education credits are listed at the end of each course description. This program has been submitted to JCAHPO for consideration of CE credit. The OPS website will also list the approved credits for each course (www.opsweb.org). Continuing Education Credit will be awarded to all registrants who check in at the beginning of the course, attend the course, and properly complete the online course evaluation surveys at the conclusion of the course. CEC documentation will only be available to each registrant through their OPS website registration or member profile. It will take approximately four to six weeks to verify attendance for the surveys completed.

(This program is not sponsored by JCAHPO; only reviewed for compliance with JCAHPO standards and criteria and awarded continuing education credit accordingly; therefore, JCAHPO cannot predict the effectiveness of the program or assure its quality in substance and presentation. This is proprietary information presented to allow students to master a specific task or process. Alternatives to this technology may exist and a well-informed technician should have knowledge of those alternatives as well.)

October 11-14, 2019

Hotel Nikko

222 Mason St

San Francisco, California 94102

For Hotel Accommodations contact the AAO Housing Office online at www.aao.org

Registration Information

Pre-Registration

To pre-register, **online registration must be completed by September 18th, or the printed registration form must be received by September 18th.** Pre-registration saves you time and money and increases the chance that you will receive all requested classes and workshops. Acceptable forms of payment are checks in U.S. dollars, Visa, Mastercard, Discover, American Express or paypal. **If you pre-register, you must bring your confirmed list of courses and pick up your registration materials in the on-site registration area.**

General Registration Package Options

Attendees selecting the *Unlimited Lecture Package* will be able to attend courses during each timeline of every day of the program. Attendees selecting the *1-Day Lecture Package* will be able to attend courses during each timeline of the single day of their choosing. The *Three Lecture Option* allows for only three lectures during the course of the program. This option excludes the Scientific Session, Keynote Lecture, Reception and any other social events. The *OPS Pass* is for those who only want to attend the Special Events* as noted below. **NO COURSES ARE INCLUDED WITH THE OPS PASS.** Early registration is always recommended as all courses are first come, first serve. Attendees will still select the individual courses they wish to attend to ensure enough seats for everyone. An additional fee will be charged per workshop. Guest tickets for the reception are also available.

Registration Packages* will include attendance for courses as detailed above, and *special events- the Scientific Paper Session, Awards Presentation, Welcome Reception and the 50th Anniversary Commemorative Lecture.

| | OPS Mbrs | | Non-OPS Mbrs | |
|---------------------|----------|--------|--------------|--------|
| | Pre-Reg | Onsite | Pre-Reg | Onsite |
| Unlimited Lectures* | \$450 | \$500 | \$550 | \$600 |
| 1-Day Lectures* | \$225 | \$275 | \$275 | \$325 |
| Three Lectures | \$150 | \$150 | \$150 | \$150 |
| OPS Pass | \$150 | \$150 | \$150 | \$150 |
| Per Workshop (add) | \$ 35 | \$ 35 | \$ 35 | \$ 35 |
| Reception Guest | \$ 25 | \$ 25 | \$ 25 | \$ 25 |

Workshop Lecture “WSL” Course Registration

Many workshops have lecture prerequisites. You must register for both the lecture and workshop components. Lecture material will not be presented during the workshops. **You are required to complete the workshop lecture before the workshop.** Workshop lectures are marked “WSL” in the course descriptions.

Course Handouts

Each speaker has been given the option of providing course handouts that will be made available online. Please go to the OPS website at www.opsweb.org approximately two weeks before the program to find these handouts. For the speakers not participating in the online handout, it is their responsibility to provide paper handouts during the course. Not all speakers provide handouts (either electronic or printed.)

On-Site Registration

The on-site registration area will be located in Mendocino I and will be open Thursday 2:00 pm - 6:00 pm; Friday, Saturday and Sunday 7:30 am - 4:30 pm; and Monday 7:30 am - 3:00 pm. Registration will be extremely busy at the start of the program on Friday and Saturday so please plan to register at least one hour prior to your first course.

Program Changes

The OPS is not responsible for unforeseen changes that may occur after printing of the program.

Refund Policy

Cancellations prior to October 1, 2019 will incur a \$50.00 cancellation fee. Pre-registration and workshop fees will not be refunded after October 1, 2019. Courses may be exchanged if seats are available. Fees will not be refunded nor will changes be made after the event has begun.

2019 Educational Program Team

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Dear Colleagues,

It is my great honor to welcome you to the 50th Annual Educational Program of the Ophthalmic Photographers' Society, being held in the beautiful city by the bay - San Francisco, California. If you've never attended an OPS program or it has been a while since you did, then this is the year to attend! We have several special events planned. Many will be dignified as befitting such a milestone as this, but there will also be some fun and irreverent moments as well.

In 1969, Johnny Justice Jr. and some like-minded colleagues had a dream of starting a professional society for ophthalmic photographers. Since those early days, the Society has grown, prospered, strengthened, and evolved into the vibrant organization that we know today. Since our founding, we have focused on (pun intended) delivering the highest quality learning opportunities and education for our members. This year's Annual Program is no different. Johnny Justice Jr., among other early members of the OPS will be present for special presentations, sharing memorabilia, as well as the 50th Anniversary Commemorative Lecture.

The Board of Education (BOE) is proud to have a faculty of "Eye Imaging Experts" with several returning speakers, photographers, physicians, and industry leaders. They will offer their best cases, images, equipment, and expertise. With 22 new courses, the educational program includes not only traditional ophthalmic photography, but several sub-specialties including ERG techniques, meibography, and an entire timeline of ultrasound imaging. There are also a number of courses dedicated to the aspiring CRA and OCT-C with practical tips on how to prepare your portfolio, and preparation topics geared for those that need a review before taking the written exam. These talks will be noted in the program as "CRA" and "OCT-C prep". There are courses for everyone, like the very popular Ophthalmic Imaging Crash Course for the beginner who is new to the world of ophthalmic imaging, all the way through to the Advanced SD-OCT lecture and workshop for the seasoned expert.

One of the newest and fastest growing technologies in ophthalmic imaging is OCT Angiography. To make sure you are able to learn and get hands-on training, each day has a dedicated course on OCTA, plus two days with workshops and break-out sessions to allow more hands-on practice with devices and interaction with vendors. Add to this more workshops and break-outs for fundus photography, ultrawide imaging, angiography, slit lamp imaging, clinical stereo photography, gonioscopy, and more. You can also get more hands-on time with various imaging devices during the Vendor Forums taking place on both Saturday and Sunday during lunch. Vendor representatives will be present to answer any questions you may have about a wide variety of available imaging systems.

I am so thrilled to be able to participate alongside the mentors, teachers, workshop instructors, and lecturers who make up our amazing volunteer organization and carry on the OPS tradition of imaging excellence. These courses help to increase our knowledge in our highly specialized field and contribute to elevating the esteem of our profession. But more importantly, furthering our education improves the quality of care we give our patients and our profession plays a vital role in improving their lives. It has been my great honor to be your Education Chair for this year's program. Mark your calendars for October 11-14, 2019 and join us in San Francisco for our 50th Year Anniversary Program.

Amy Désirée Goldstein. CRA, OCT-C
Education Chair, OPS 50th Annual Education Program
Ophthalmic Photographer
Byers Eye Institute at Stanford
Palo Alto, CA

SPECIAL EVENTS & ORGANIZATIONAL MEETINGS

OPS Members are welcome and encouraged to attend Board and committee meetings of the Society.

Scientific Exhibit Committee - Will hold a zoom meeting, conducted by Tim Steffens, CRA, OCT-C, FOPS prior to the Annual Program.

Room Monitor Orientation - Will be conducted by Brian Detwiler, CRA by Zoom a few days before the start of the annual program.

Thursday, October 10th

Board of Education - Mendocino II - Pre-program meeting to finalize annual program details.

Friday, October 11th

Professional Development Committee (PDC) - 12:15 pm - 1:00 pm - Mendocino II - The PDC is a great committee to explore if you are interested in getting involved in the OPS. At this meeting, we'll review our accomplishments of the past year, finalize the logistics of our projects during the annual program, and discuss future projects. Please contact Sarah Armstrong at smoyer@gmail.com if you are interested in attending.

“Why Certify?” - 12:15 pm - 1:15 pm - Nikko II - Conducted by the Board of Certification. You may know why, but do you know how? Members of the Board of Certification will be present to answer your questions about the CRA™ and OCT-C programs. You will have the opportunity to learn what makes a portfolio submission acceptable, hear about the examination experience and learn the advantages of becoming certified. This is a come and go as you wish session, so stop by, meet your Board of Certification and get the right answers to your certification questions. Earn your imaging credentials from the *Eye Imaging Experts!* Please join us and learn more!

Scientific Paper Session - 4:30 pm - 6:00 pm - Nikko II - Our highly respected paper session featuring current research and innovations by ophthalmic professionals. The prestigious Don Wong Award will be given to the outstanding paper of the session. It's a wonderful educational opportunity! A published collection of the abstracts will be available at the session. Continuing education credits will be granted to those attending this session. General registration is required to attend this session.

Awards Presentation - 6:00 pm - 6:45 pm - Nikko II - Immediately following the Scientific Paper Session, President Michael Kelly will present the awards for The Chris Barry Award (Best Journal Article of 2018), the Scientific Exhibit's Csaba Martonyi Best of Show and Best of Division and the Johnny Justice Jr. Scholarship will be presented. The newly elected Fellows and new CRAs and OCT-Cs will also be announced. Please join us as we honor our Award winners! (Included as part of the general registration fee.)

50th Anniversary Welcome Reception - 6:45 pm - 9:00 pm - Ballroom Foyer & Nikko I - It's the perfect way to kick off the OPS' 50th Anniversary and all of your important evening social events while in San Francisco - It's the OPS Social Event of the Year! On Friday evening, the 50th Anniversary Welcome Reception will immediately follow the awards presentations. Your registration for the educational program will be your ticket to this special soiree, filled with fun, friends, food, and all good things OPS. You can even bring a friend by purchasing a guest-ticket with your registration. Come partake of good San Francisco fare, bask in the incredible award winning images from our 2019 Scientific Exhibit, and share in congratulating our Award winners. You'll want to check out the auction items

including a handmade commemorative 50th Anniversary guitar and the 50/50 raffle to support the OPS Endowment Fund which funds the Johnny Justice Jr. Scholarship. Please join us for this festive 50th Anniversary celebration to kickoff a great educational program!

Saturday, October 12th

Vendor Forum - 12:30 pm - 1:45 pm - Carmel I, II and Monterey II - Vendors participating in OPS workshops will demonstrate their products and latest technologies answering questions from attendees during the Vendor Forum. Attendees will be able to speak with Vendors, receive further training, getting firsthand practice with multiple imaging devices. This will be a great opportunity to glean many tips, tactics and pearls of wisdom about these devices directly from the source. Be sure to bring your notebook for this hands-on experience.

The OPS 50th Anniversary Commemorative Lecture - "Ophthalmic Photography, Past and Present" – 5:00 - 6:00 pm - Nikko III In 1969 Johnny Justice Jr. and some like-minded colleagues had a dream of starting a professional society for ophthalmic photographers. Since those early days, the Society has evolved into the vibrant organization that we know today. This Commemorative Lecture will cover the events that led to the creating of the OPS, highlight the individuals who contributed to the formation of the society, and document how the OPS has expanded its reach through the years. This year's lecture will be presented by the OPS' founding father **Johnny Justice Jr., CRA, FOPS**.

Johnny Justice Jr., CRA, FOPS, Assistant Professor. Founding Father of the OPS trained in medical photography at Duke University and in Eye Imaging at Duke/VAH Durham, NC. Johnny and Dr. Noble David, brought fluorescein angiography to the Bascom Palmer Eye Institute in 1962 and established angiography at the Wills Eye Hospital in 1966 and at Baylor College of Medicine in 1971. He has authored and co-authored over fifty publications including three books. He was an instructor with Lee Allen, Dr. Donald Gass, Dr. Edward Norton and Dr. A. E. Maumenee in AAO courses in the 1960s. He has been continuously certified as a CRA since 1979. In 1981 he founded Justice Angiographics and the Angiogram Reading Center.

You won't want to miss this important lecture which is included in the general registration fee.

Fellowship Committee - 6:30 pm - 9:00 pm - Location TBD - Annual dinner business meeting conducted by the OPS Fellows. Contact Marcela Hickey, CRA, FOPS regarding agenda items.

Sunday, October 13th

Vendor Forum - 12:30 pm - 1:45 pm - Carmel I, II and Monterey II - Vendors participating in OPS workshops will demonstrate their products and latest technologies answering questions from attendees during the Vendor Forum. Attendees will be able to speak with Vendors, receive further training, getting firsthand practice with multiple imaging devices. This will be a great opportunity to glean many tips, tactics and pearls of wisdom about these devices directly from the source. Be sure to bring your notebook for this hands-on experience.

OPS Membership Meeting - 5:00 pm - 6:30 pm - Nikko III - This is the annual meeting of the OPS membership, where the projects and progress of the Society are reported and discussed. This meeting will not only cover OPS business, but emphasize member participation in the Society. Help decide how the OPS can best serve our profession by supporting the Society with your presence and your participation. Contact President Michael Kelly FOPS, c/o OPS Membership Office, (800) 403-1677, for information about adding items to the meeting agenda.

CRA and OCT-C Written Examination - All CRA and OCT-C written examinations are offered at testing centers. You will need to select a testing center in your geographical area. All requirements must be met prior to scheduling your written examination with the BOC. Dates and times will be determined by the candidate. Please contact Eric Kegley, CRA, COA (cra@opsweb.org) or Gary Miller, CRA, OCT-C (oct.c.chair@gmail.com) for information on how to schedule your written exam.

50th Annual Educational Program

FRIDAY, OCTOBER 11th

8:30 am – 9:00 am

FR-1-A Nikko I Color Consistency in Fundus Photography (NEW)

Christye P. Sisson, MS, CRA

This course will focus on issues of color consistency in fundus photography, of particular concern given the increasing reliance on images for diagnosis and assessment in clinical trials and in tele-ophthalmology. The course will cover principles of photographic color management as applied to fundus photography, including discussion of color fidelity vs. consistency, and how these principles are being applied to bring devices into greater levels of agreement. Students will be able to discuss the basics of photographic color management, what considerations should be made when assessing color fundus images, and what impact color inconsistencies can have in ophthalmic imaging.

CEC OPS .5; JCAHPO-A

FR-1-B Nikko II Gender Neutral Considerations for Professional Development in Ophthalmic Imaging (NEW)

Paula F. Morris, CRA, FOPS

Our noble profession has been around for over a half century and has evolved in many ways including developing technology, changing roles in patient care, and diversifying workforce. While in 1979 men dominated the profession, the number of women in ophthalmic imaging has increased dramatically and reflects the gains in women's employment overall. This course will present an overview of the role of women in our profession, providing a short historical review of women's contributions to our Society, and take a closer look at the current attitudes and actions of both women and men who are making ophthalmic imaging a career and vocation, not just a job. Discussion of successful work, training, and certification strategies will include active audience participation. At the end of this course, attendees will be able to list three strategies for professional development, and discuss skills that are important in successfully performing current modalities of ophthalmic imaging.

CEC OPS .5; JCAHPO-A

FR-1-C Nikko III Top 10 Tips: An Old Dog's Pearls for Glaucoma Centric OCT (NEW)

Denice Barsness, CRA, COMT, CDOS, ROUB, FOPS

Optical coherence tomography (OCT) has become an important tool for diagnosing and managing optic nerve disease. This course will deal specifically with glaucoma centric optic nerve diseases and disorders. The structural details and reproducibility of SD-OCT continues to improve with further advances in technology. However, artifacts and misinterpretation of SD-OCT can lead to

clinical misdiagnosis of diseases if they go unrecognized. This course will utilize case studies to underscore simple tricks and pearls for improvement of SD-OCT imaging. Artifacts of imaging and segmentation specific to Glaucoma will be the focus of this lecture. Dreaded "Red Green Disease" in OCT imaging will be highlighted. Top Ten Tips for imaging, evaluating and reporting of OCT for Glaucoma will be discussed in length. Upon completion of this course the ophthalmic technician or imager should have an increased confidence in their ability to recognize, describe and manage challenging situations presented during OCT imaging for Glaucoma, an increased ability to describe common SD-OCT artifacts and their origins, be able to name two refractive conditions that can present challenges in SD-OCT imaging, and describe segmentation errors and the role the imager plays in correcting them specific to Glaucoma.

CEC OPS .5; JCAHPO-A

8:30 am – 3:45 pm
(12-1:15 will be a lunch break)

FR-1-D Carmel I Ophthalmic Imaging Crash Course

Sarah M. Armstrong, CRA, OCT-C, FOPS and Jaclyn Pisano-Moderators

This intensive six (6) hour course is intended to help individuals who are completely new to ophthalmic imaging understand ophthalmic imaging basics. It will also help technicians taking on a larger imaging role in their offices. After an introduction to anatomy and physiology specific to the ophthalmic imager, attendees will go through a series of lectures and workshops on Optical Coherence Tomography (OCT), fundus photography, and fluorescein angiography. The course will wrap up with a lecture on the many other imaging modalities available in ophthalmology and suggestions on transitioning into the field. At the end of this course, students will have completed three hours of lectures and three hours of workshops. Students will be able to summarize the role of the ophthalmic imager, have a basic understanding of anatomy and physiology as it pertains to imaging the fundus, and they will be able to apply the newly gained knowledge during hands-on sessions where they are able to perform OCT, fundus photography and mock fluorescein angiography. **NOTE: This course is designed for attendees with 0-6 months of imaging experience.**

CEC OPS 6; JCAHPO-A 6

9:15 am – 9:45 am

FR-2-A Nikko I Transitioning to SLO-based Imaging

Michael Bono, COT, CRA, BFA

Making the leap from digital to SLO imaging without losing your balance—The evolution of imaging technology over the past 20 years has been profound and rapid. While instrument makers battle to gain dominance by

promoting their products as the most versatile, networkable and easy to use we, the photographic community, struggle to find our balance as imagers, diagnosticians and image managers. This course seeks to define where we are now as photographers as we bridge the era of the fundus camera with its' flood lighting system to SLO-based imaging of widefield cameras and OCT. What are the advantages and disadvantages of both? Now that SLO instruments dominate the field, how will new instrument designs affect the photographers' skill set and what are the trends in camera design going forward? Upon completion of this course students will better understand the overall history of the emergence of new imaging modalities in ophthalmology and how that has shaped the jobs we do. Students will gain a perspective on the history, technological advances, capabilities and skill set important to fully utilize SLO-based imaging systems and have a better understanding of where the journey we are on is leading us.

CEC OPS .5; JCAHPO-A .5

FR-2-B **Nikko II**
Anterior Segment Fluorescein and ICG Angiography: Technique, Application and Beauty

Ethan Priel, FOPS

This course will present an overview of the angiographic imaging techniques used in order to gain a broader understanding of the human iris in health and disease. These imaging modalities are used to document and quantify changes in the anterior segment, highlighting neo-vascularization, changes in iris perfusion, changes following trauma, and surgery, and additional entities involving the anterior segment. Emphasis will be placed on understanding the differences between fundus and iris angiographies - both technically and medically, as well as the pros and cons of the imaging devices available for such procedures. Upon completion of this course, the attendee should be able to describe the principles of acquiring anterior segment angiographies, compare and evaluate information obtained from the different imaging devices, list common ocular anterior segment structures and pathologic findings demonstrated during the course, and describe the use of the instrumentation to obtain the images discussed in the course.

CEC OPS .5; JCAHPO-A .5

FR-2-C **Nikko III**
Hi-Tech Spanish for Photographers

Marcela Hickey, CRA, FOPS

This course is for the English-speaking ophthalmic photographer who occasionally has non-English speaking patients. Key phrases will be taught in Spanish and discuss hi-tech resources to enable the photographer to manage the patient at the fundus camera or slit lamp and help the patient understand increasing patient cooperation. At the end of this course the student should be able to identify common phrases and hi-tech resources that will help with photographic procedures.

CEC OPS .5; JCAHPO-A .5

FR-3-A **Nikko I**

Introduction to OCT-A (NEW)

Darrin Landry, CRA, OCT-C

One of the exciting advances in OCT imaging is the ability to capture motion and thus create angiographic studies of the human retina. This course will provide an overview of OCT-A principles and how to incorporate OCT angiography in your practice. The advantages and limitations of OCT-A will be discussed and compared with fluorescein angiography. OCT and ICG angiography, and how OCT-A can be an adjunct imaging modality for your practice. At the conclusion of this presentation, the attendee will be able to describe how OCT angiographic images are acquired, understand the role of OCT angiography in diagnostic imaging, and recognize common artifacts on OCT angiography.

CEC OPS 1; JCAHPO-A 1

FR-3-B **Nikko II**
Use of OCT in the Diagnosis and Treatment of Ocular Tumors (NEW)

Prithvy Mruthyunjaya, MD

OCT has now become an invaluable tool in the diagnosis and management of ocular tumors. In the anterior segment, OCT helps to define lesion thickness but also the exact cell layer of involvement in the conjunctiva and iris. In the posterior segment, OCT demonstrates layer of involvement, thickness and the secondary effects on surrounding tissues. The ophthalmic photographer is vital to capture these images—this course will provide the clinical context and tips on how to interpret these images. Upon completion of the course, the participant will be able to distinguish benign and malignant OCT features of anterior segment tumors, understand the role of Enhanced Depth Imaging in choroidal tumor detection, determine high risk clinical features of choroidal nevi based on imaging features, and understand the role of OCT to monitor response to tumor therapy and relapse.

CEC OPS 1; JCAHPO-A

FR-3-C **Nikko III**
Expanding Upon Techniques in Glaucoma Imaging and OCT-A Clinical Observations (NEW)

Cristan M. Arena, MD

Prerequisites: Basic knowledge of ocular anatomy and basic glaucoma imaging techniques.

How far have we come, improved utilization of the tried and true, and exploration of new advances. An exploration in expanding glaucoma tracking, diagnostic differentials, and correcting algorithm failures. Imaging devices have established themselves as integral pieces of the glaucoma puzzle. This course will focus on old and new techniques, diverse imaging devices, generated reports, and practical application in a high volume clinical setting. We will take a look at how far we have come, tips to improve capture to generate more accurate reporting, and new imaging techniques to our arsenal. Upon completing the course, imagers will have practical tips on improved reporting, as well as a broad understanding of how glaucoma doctors

utilize OCT, HRT, Stereo Disc Photography white light vs MultiColor, and Autofluorescence. Also discussed will be an early exploration into OCT-A of the optic nerve.

OPS CEC 1; JCAHPO-A

11:15 am – 12:15 pm

FR-4-A

Nikko I

Smartphone Ocular Imaging for the Macula, Peripheral Retina and Anterior Segment

Joseph T. Nezgoda, MD, MBA

You have the power of multiple imaging modalities in your hands. The great advancement in smartphone technology has seen upgrades in hardware and software that have made high resolution imaging possible in iPhone (iOS), Samsung, Google (Android) and other devices. This option is especially useful in satellite offices or when equipment is otherwise not available. There are many techniques to optimize visualization of the macula and optic nerve under high magnification. This can be useful for macular degeneration, diabetic retinopathy, macular holes and edema among other diseases. Capturing peripheral images in the retina has been difficult until recent advancement in equipment that remains expensive and non-portable. Using a smartphone one can capture even far peripheral images of lesions such as nevi, melanoma, sickle cell and other retinopathies. The anterior segment, slightly more accessible, lends itself nicely to imaging using the slit lamp and a well-placed smartphone. Upon completion of this course, the attendee will be able to describe some useful applications of Smart phone technology, and the various techniques and strategies for optimizing the image for the challenging peripheral retinal images. Attendees will also be able to explain how to use a smart phone for external and slit lamp imaging.

CEC OPS 1; JCAHPO-A 1

FR-4-B

Nikko II

Correlation / Discrepancy Between Fluorescein Angiography and OCT

Ethan Priel, FOPS

Fluorescein angiography (FA) and optical coherence tomography (OCT) display widely divergent findings of the human fundus, while being the two most common diagnostic imaging tests used today. OCT, despite being the 'newcomer', is very often replacing FA in the follow-up of many retinal diseases, and in some cases at the initial stages of evaluation and diagnosis as well. As a result of this process, some key features of pathology might be overlooked, as well as missing out on the added benefit of evaluating the complementary nature of multimodal diagnostic tests. While OCT scans outline both morphology and tissue-structure change over time - it is limited to the macular region. FA is able to document retinal perfusion and peripheral lesions, as well as provide a more comprehensive view of the retina. This course will present a retrospective review of cases imaged both by FA and OCT, simultaneously and separately, which offers a more comprehensive portrayal and understanding of retina diseases. Entities presented will include diabetic

retinopathy, macular degeneration, vascular occlusions, macular holes, optic nerve head pathologies, macular edema, central serous retinopathy and more. At the end of this course the attendee should be able to compare the imaging modalities for their ability to best reveal disease-specific findings, thereby assisting in the understanding of retinal anatomy, pathology and treatment.

(CRA & OCT-C recommended)

CEC OPS 1; JCAHPO-A 1

FR-4-C

Nikko III

Future of Swept Source OCT Imaging in Ophthalmology (NEW)

Kevin Langton; Ryan Nelson, CRA, OCT-C

Two vendors will discuss Swept Source Optical Coherence Tomography. Topics covered will include the science behind Swept Source OCT, benefits of Swept Source OCT and how SS-OCT may impact your practice. Sample cases and images will be included. Upon completion of this course, the participant should have a better understanding of OCT technology, understand and describe the difference between SS-OCT and current market standards, and understand how SS-OCT can impact their practice.

CEC OPS 1; JCAHPO-A

12:15 pm – 1:15 pm

Lunch

Check out the 50th Anniversary Memorabilia in Mendocino II

"Why Certify"

Nikko II

1:15 pm - 1:45 pm

FR-5-A

Nikko I

History of Retinal Photography (NEW)

Timothy Bennett, CRA, OCT-C, FOPS

Photography was born in the Victorian Era, a time of great discovery, invention, and advancement in science and medicine. This historical review will explore landmark moments in the evolution of photography and ophthalmic photography, from the invention of photography in 1839 through the development of fluorescein angiography in 1959. Upon completion of this course the student should be able to describe technical challenges in photographing the retina, list technological breakthroughs in fundus imaging, identify important figures in the history of retinal imaging, and discuss the evolution of retinal imaging and how historical events influence today's imaging techniques.

CEC OPS .5 JCAHPO-A

FR-5-B

Nikko II

A Look Into Ophthalmic Surgery (NEW)

Wilkin Parke III, MD

We will discuss the preoperative evaluation, intraocular techniques and postoperative management of patients that undergo common retinal surgery procedures including: Retinal Detachment Repair (Vitrectomy), Macular Hole Repair, IOL Exchange, and Diabetic Vitrectomy. At the

completion of this course the participants should be able to understand intraoperative findings and techniques in retinal surgery, understand the expected postoperative course following retinal surgery, and understand surgical and postoperative complications in retinal surgery.

CEC OPS .5 JCAHPO-A

FR-5-C

Nikko III

Meibography: New Ways to Image Old Glands (NEW)

Denice Barsness, CRA, COMT, CDOS, ROUB, FOPS

The meibomian glands (MGs) are modified sebaceous glands that are embedded into the tarsal plate of both the superior and inferior eyelid. Growing knowledge of the role of the Meibomian glands in dry eye disease has resulted in a surge of interest in visualizing these glands within the eyelids. This presentation will provide an overview of different imaging methods for Meibomian glands for common variations of MGD. Use of digital imaging and/or videography non-contact methods will be discussed and presented using case studies. Meibography is a tool that can easily provide information on the severity of MGD and, with advancements in imaging technology, the MGs can now be viewed in great detail. In addition, meibography can be performed easily, quickly, and non-invasively, making it a very practical test to perform in a clinical practice setting. Upon completion of this course the student should have an increased understanding of the normal anatomy and physiology of the MG's, be able to name three conditions where meibography is useful for clinical management, and have an increased understanding of the types of meibography systems currently available in the USA.

CEC OPS .5; JCAHPO-A

2:00 pm - 3:00 pm

FR-6-A

Nikko I

Won't Get Fooled Again: Surviving the World of OCT Artifacts (NEW)

Gary Miller, CRA, OCT-C

This course will cover Optical Coherence Tomography techniques with an emphasis on how to achieve consistent high-quality diagnostic scans. Identification of scanning artifacts, analysis artifacts, and common and unusual pathologic features will be presented. Discussion will include tips and techniques to reduce or eliminate OCT artifacts, improve scan signal strength, and maximize diagnostic information. Upon completion of this course the student should be able to identify normal retinal landmarks and common pathologic features, list techniques for improving signal strength, recognize common scanning and analysis artifacts, and describe techniques used to reduce or eliminate OCT artifacts.

CEC OPS 1; JCAHPO-A

FR-6-B

Nikko II

OCT-A Interpretation

David Huang, MD

OCT angiography is a new technology that provides 3-dimensional images of ocular circulation down to the capillary level. Unlike traditional dye-based angiography, OCT angiography uses intrinsic motion contrast and, therefore, does not require intravenous dye injection.

This course will describe how OCT angiography can be used to diagnose, classify, and monitor the leading causes of blindness in the US: age-related macular degeneration, diabetic retinopathy, and glaucoma. After attending this course the student will have an increased understanding of the diagnosis and measurement in choroidal neovascularization using OCT angiography. They will be able to describe documentation of proliferative diabetic retinopathy and retinal capillary drop out using OCT angiography, and will be able to better assist the physician in the diagnosis of glaucoma using structural OCT and OCT angiography parameters.

CEC OPS 1; JCAHPO-A 1

FR-6-C

Nikko III

Vascular Occlusions: Pathophysiology, Pathology, and Current Treatment Paradigm

Laxmi V. Devisetty, MD

This 60 minute lecture will focus on vascular occlusions specifically, artery and vein occlusions. We will discuss the background, etiologies, and risk factors for these particular patients. We will also focus on systemic conditions that may lead to vascular occlusions and testing that may be life-saving. We will present case studies and current treatments for each type of occlusion. After this course, the student will gain a better understanding of vascular occlusion, staging the condition, imaging methods, and be able to also describe the treatment plans.

CEC OPS 1; JCAHPO-A 1

3:15 pm - 4:15 pm

FR-7-A

Nikko I

Basics of Digital Imaging

Christye P. Sisson, MS, CRA

Understanding the basics of photographic image formation in digital imaging provides the ophthalmic imager with troubleshooting skills when image quality is an issue. Knowing what your device is capable of is essential in knowing if a better image can be made. This course will provide the background to digital imaging, including the basics of light and color, digital image formation, and quality metrics of sensors, including resolution and bit depth. Storage and image file types will also be reviewed. At the completion of the course, students will be able to chronicle how a digital image is formed, describe the considerations for image quality in a sensor, and identify pros and cons in image file types.

CEC OPS 1; JCAHPO-A 1

FR-7-B

Nikko II

Optical Coherence Tomography Angiography (OCTA) in Ocular Oncology

Sandor Ferenczy, CRA, OCT-C

The basic principles of OCTA will be covered briefly, however, the majority of the course will deal specifically with the application of OCTA imaging in a full-time ocular

oncology service. There will be updates on the newest research in regards to OCTA in ocular oncology, as well as comparisons between both multiple manufacturers of OCTA systems and multiple OCT imaging implementations being used to create OCT- datasets - namely Spectral Domain OCT (SD-OCT) and Swept Source OCT (SS-OCT). At the end of this lecture the student will be able to define what OCT-A is and how it can be used in the oncology setting. He/she will also be able to discuss considerations pertaining to OCTA in studies and in creating data sets.

CEC OPS 1; JCAHPO-A 1

FR-7-C

Nikko III

OCT: Scanning for Surgical Significance

James Soque, CRA, OCT-C, FOPS

The Vitreoretinal Surgeon must have as many indicators as possible to accurately diagnose pathology before vitreoretinal surgery is performed. The SD-OCT device has become a critical tool in the planning and execution of the strategy of a surgery and for determining its outcome.

This course will outline some of the fundamental techniques necessary for the Ophthalmic Imager to provide successful imaging using the SD-OCT, and will also emphasize the findings on the vitreoretinal interface, and other physiological and cellular landmarks of the peripheral retina. It will teach the attendee how SD-OCT images can play an important role for successful outcomes for many eye surgeries that have become more dependent on the accuracy of these SD-OCT images. These will include scanning for diseases such as Macular Hole, Epi Retinal Membrane, Retinal Detachment and Diabetes.

CEC OPS 1; JCAHPO-A 1

4:30 pm – 6:00 pm

Scientific Paper Session*

Nikko II & III

CEC OPS 1.5; JCAHPO-A 1.5

6:00 pm – 6:45 pm

Awards Presentations*

Nikko II & III

6:45 pm – 9:00 pm

50th Anniversary Welcome Reception*

Ballroom Foyer and Nikko I

*This event is included in the general registration fee; however, you may purchase guest tickets if you wish to bring someone who isn't registered for the program.

SATURDAY, OCTOBER 12th

8:30 am – 9:30 am

SA-1-A

WSL

Nikko I

Ultra Wide Angle Imaging-Seeing Into the Far Periphery

Olivia Rainey, OCT-C, COA

This lecture will introduce instruments that can be used to image the (far) periphery of the eye such as the Heidelberg Spectralis, utilizing the Non-Contact Ultra-Widefield Module and the Optos TX and California Ultrawide Imaging Systems. The technology will be introduced by a photographer who uses the systems in their practice. They will elaborate on principle features of each technology, and identify key applications and controls of the instruments. Angiography with ultra-wide devices will be described. At the conclusion of this lecture, the students will be able to discuss situations in which each of these technologies would be useful, as well as discuss some of the advantages and limitations of each instrument. The student will also be able to list some key considerations for operating the equipment.

This lecture is required if you wish to take the corresponding workshop, SA-2-E-WS.

CEC OPS 1; JCAHPO-A 1

SA-1-B

WSL

Nikko II

OCT-A Practical Techniques

Douglas B. Critser, CRA, OCT-C

This course will demonstrate how OCT angiography can be utilized as a diagnostic tool to classify and monitor retinal vasculature without the use of fluorescein dye. Multiple device types will be covered along with tips and tricks to optimize imaging techniques. After attending this course the student will have an increased understanding of the technical foundations of this emerging technology, be able to recognize retinal anatomy and vasculature, and also recognize basic pathologic findings such as AMD, PDR, and others. **This lecture is required if you wish to take the corresponding workshop, SA-3-D-WS.**

CEC OPS 1; JCAHPO-A 1

SA-1-C

Nikko III

OCT-C Portfolio Preparation

James Soque, COA, CRA, OCT-C, FOPS

The OCT-C Certification is the newest of the certifications offered by the OPS Board of Certification. A properly prepared OCT Portfolio by the candidate is one of its' four requirements for submission of the complete OCT-C application. This course will review the OCT Portfolio Preparation process and guide the attendee through the decision making process for a correct and complete image submission set. This course will give examples of correct **and** incorrect scans, correct masking, and suggest strategies for categorizing OCT scans for submission. The most current edition of the OCT-C Portfolio Preparation Guide, Fall 2016, **Version 2.0b** will be referenced. At the conclusion of this course the student will be able to identify submission guidelines

as well as describe considerations for image selection for the portfolio.

(OCT-C preparation)

CEC OPS 1; JCAHPO-A 0

9:45 am – 10:45 am

SA-2-A WSL

Nikko I

Slit Lamp Photography

James Gilman, CRA, FOPS

The slit lamp is the basic tool used in ophthalmology for the examination of the anterior segment. As ophthalmic imagers, we are called upon to use the slit lamp in conjunction with various photographic recording devices to document anterior segment pathology. This course will cover the basics of imaging using the slit lamp, with an emphasis on learning basic illumination techniques and how they can reveal specific structures of the anterior segment. How to use these illumination techniques to best illustrate the clinically significant aspects of various anterior segment pathology will be emphasized. Upon completion of the course, the student will be able to describe the techniques used in slit lamp photography and identify the illumination techniques used for the examination and documentation of the anterior segment. **This lecture is required if you wish to take the corresponding workshop, SA-3-F-WS.**

CEC OPS 1; JCAHPO-A 1

SA-2-B Nikko II

Nikko II

Why You Need OCT-A in Your Practice (NEW)

Darrin A. Landry, CRA, OCT-C

Optical Coherence Tomographic Angiography is the latest imaging modality that allows us to expand the diagnostic imaging tools in a practice. This lecture will discuss the science of OCT-A, and how it serves as a compliment modality, not a replacement for existing imaging tools. Upon completion of this course the student should be able to describe how OCT-A produces image, understand how OCT and OCT-A differ, and identify how to implement OCT -A into an existing imaging practice.

CEC OPS 1; JCAHPO-A

SA-2-C Nikko III

Nikko III

Echographic Differentiation of Intraocular Opacities and Membranes (NEW)

Maru Bretana, MD, CDOS

This course will teach echographic differentiation of opacities and membranes using B-scan and diagnostic A-scan. This will include vitreous hemorrhage, endophthalmitis, trauma, and the various types of vitreous detachment, retinal detachment, and choroidal detachments. The differentiation between membranes and solid lesions, and vitreous signs suggesting the presence of a foreign body will also be discussed. Upon completion of the course, the participant will be able to recognize the difference between membranes using B-scan and A-scan, identify signs of endophthalmitis, differentiate between membranes and solid lesions, and know when to suspect a foreign body.

CEC OPS 1; JCAHPO-A

SA-2-E-WS

Carmel II

Ultra Wide Field Imaging Workshop

Tamera Schoenholz, CRA, OCT-C - Coordinator

Prerequisites: A basic understanding of fundus photography is required. This workshop is designed as an introduction to the use of Wide Angle Fundus Imaging. It is intended for students with little-to-no experience with wide angle imaging. The Heidelberg Spectralis utilizing a handheld Staurengli lens, the Optos Ultrawide Imaging System, the Optos California and the Phoenix Ikon will be available. Students will rotate to have hands-on experience at each of these instruments. Imaging techniques for wide field imaging will be demonstrated for each device. Upon completion of this course, participants will be able to identify some of the common controls for wide angle imaging and acquire an acceptable wide angle image on each of the different instruments available. *At the time of printing, the following vendors have committed to participate in this workshop: Phoenix Technology Group, Heidelberg Engineering, Optos and Zeiss. The OPS is not responsible for any last minute cancellations.* **To register for this workshop you MUST also register for the Ultra Wide Angle Imaging lecture course, SA-1-A.**

CEC OPS 1; JCAHPO-A 1

\$35.00

11:00 am – 12:30 pm

SA-3-A

Nikko I

Corneal Ectasia: Imaging and Beyond (NEW)

Simon Fung, MD, MA (Oxon), FRCOphth

There have been major breakthroughs in our understanding and management of corneal ectasia in recent years. Meanwhile, techniques and technologies of anterior segment imaging have also seen significant developments, thus becoming an irreplaceable diagnostic tool in the modern day corneal practice. Imaging specialists well versed in anterior segment imaging, therefore, have a key role in the management of patients with corneal ectactic diseases. This course reviews the basic concepts behind the different anterior segment imaging devices. The technique of image interpretation from key devices will also be covered. Finally, the use of imaging techniques in the modern day management of corneal ectasia will be discussed. Upon completion of the course, the participant will be able to understand the common entities of corneal ectasia, understand the basis and the role of different imaging devices in the management of corneal ectasia, and familiarize themselves with the various management options of corneal ectasia.

CEC OPS 1.5; JCAHPO-A

SA-3-B

Nikko II

Systemic Diseases and Retinal Findings

Charles W. Mango, MD

During this course we will look at a variety of ocular photographic images of systemic diseases and their subsequent retinal findings. We will look at both OCT scans and fluorescein angiograms and discuss diseases including: Diabetic Retinopathy, Hypertension,

Macroaneurysm, Tumors, Branch and Central Artery Occlusion, Phakomatosis, Radiation Retinopathy, Sickle-Cell Disease, just to name a few. At the end of the lecture the students will have a better understanding of systemic diseases & retinal findings and their appearance during imaging.

CEC OPS 1.5; JCAHPO-A 1.5

SA-3-C

Nikko III

CRA Portfolio Preparation

Amy Desiree Goldstein, CRA, OCT-C; James Soque, CRA, OCT-C, COA, FOPS

The CRA Certification is the most challenging and esteemed certification offered by the OPS Board of Certification. A properly prepared CRA portfolio by the candidate is one of its' five requirements for submission of the complete CRA application. This course will review the CRA portfolio process and guide the attendee through the decision making process for a correct and complete image submission set. This course will give examples of correct and incorrect images, discussing details of proper camera technique, for stereo imaging, fluorescein angiography, photographing into the periphery, the 7-standard fields, fundus and fluorescein angiography, why these various image types are important diagnostically, and preparation of files for submission. The most current edition of the CRA Program Guide, January 2017, Version 13d will be referenced. Upon completion of this course, the students will be able to outline the requirements of image submission for CRA certification as well as discuss correct image selection and image quality considerations. They will have the understanding of proper fundus camera technique and why the Portfolio requires this high level. Additionally the students will understand why each of these types of fundus photos are important and what they can be used for diagnostically.

(CRA preparation)

CEC OPS 1.5; JCAHPO-A 0

SA-3-D-WS

Carmel I

OCT-A Workshop

Kelly A. Oldstein, CRA, OCT-C - Coordinator

This workshop is designed to introduce the attendee to capturing OCT-A images with the current FDA approved devices on the market today for studying retinal vasculature. Students will be divided into groups giving them equal opportunity to sample each of the devices provided as well as an in-depth look at their preferred device. Entering patient data, capturing techniques, editing segmentation errors, exportation of reports, and scan assessment will be reviewed. Upon completion of this workshop, students will be able to capture an OCT-A scan, be able to generate OCT-A reports, know how to edit segmentation errors, and know the differences and similarities between OCT-A devices. *At the time of printing, the following devices will be provided for this workshop; the Zeiss AngioPlex and the Heidelberg OCT-A. To register for this workshop, you MUST also register for the corresponding lecture SA-1-B.*

CEC OPS 1.5; JCAHPO-A 1.5 \$35.00

SA-3-F-WS

Monterey II

Slit Lamp Photography Workshop

Michael Bono, COT, CRA, BFA - Coordinator

This workshop is designed to help students develop the techniques and lighting skills needed for photographing the anterior segment with the photo slit lamp, using model eyes and other participants as subjects. Students will practice with a variety of slit lamp instruments under the guidance of experienced photo slit lamp photographers. Instructors will concentrate on having an imaging plan, problem solving when issues occur and using the best techniques for lighting the pathology of the anterior segment. Students will have the opportunity to use direct illumination, indirect illumination, proximal illumination, retroillumination and scleral scatter as well as become familiar with the slit lamp controls vital to achieving these lighting schemes. At the end of this course, the student will be able to manipulate the basic controls of the slit lamp cameras. *At the time of printing, the following vendors have committed to participate in this workshop: Haag-Streit and Topcon. The OPS is not responsible for any last minute cancellations. To register for this workshop, you MUST also register for lecture course SA-2-A.*

CEC OPS 1.5; JCAHPO-A 1.5 \$35.00

12:30 pm – 1:45 pm

Lunch

Vendor Forum

Carmel I & II and Monterey II

Vendors participating in OPS workshops will demo their products and answer questions during the Vendor Forum.

Check out the 50th Anniversary Memorabilia in Mendocino II

2:00 pm – 3:00 pm

SA-4-A

WSL

Nikko I

Standard Techniques of Gonioscopy & Goniography

Michael Bono, COT, CRA, BFA

Successfully viewing and documenting the iridocorneal angle is a challenging and rewarding task for the ophthalmic photographer. Viewing the angle structures requires skill. Documenting them requires skillful use of the slit lamp camera to light and properly expose the subject matter all while maintaining patient compliance. This course will be an overview of the history of direct and indirect techniques to view the angle, and the skill set needed to visualize and photograph the angle using a standard 3 mirror gonio lens. In this course lighting techniques, camera positioning, magnification and patient management will be discussed using images provided by our workshop instructors. Students will also see excellent examples of angle pathology using the tremendous video series by Wallace Alward, MD. At the completion of this course, the student will be able to define the concept of total internal reflection, identify the six key landmarks of the angle, and describe the correct positioning of the gonio lens on the eye to reveal the angle structures. **This lecture is required if you wish to take the corresponding workshop, SA-5-F-WS.**

CEC OPS 1; JCAHPO-A 1

SA-4-B **WSL** **Nikko II**

Advanced SD-OCT Techniques

Douglas B. Critser, CRA, OCT-C

Spectral Domain OCT Imaging has become the mainstay of every office examination, and for most reading centers for the retina patient. This course will cover advanced imaging techniques for the macula. The focus of this course will be achieving optimal scans of the layers of the retina to characterize the macula with active disease. A dynamic speakers' bureau will present and discuss examples from various SD-OCT devices, exposing the participant to the technology available today. Techniques essential for optimizing signal strength from the macular scan as well as EDI-enhanced depth imaging OCT will be discussed. Nuances of Cross Sectional, 3-D, EnFace and peripheral OCT will be reviewed. Anatomy of the retina and OCT imaging challenges will be discussed. Examples using capture techniques and preview techniques will be utilized as an instructional tool. Viewer participation is encouraged. At the conclusion of this course, the participants will be able to discuss the relevance of expert scanning when there is pathology relating to planned treatment regimens or surgery. Attendees will also be able to describe how to maximize successful OCT imaging of various pathologies. **This lecture is required if you wish to take the corresponding workshop, SA-5-D-WS.**

CEC OPS 1; JCAHPO-A 1

SA-4-C **Nikko III**

Embryology of the Eye

Kamiar Mireskandari, MD

In this course, the attendees will learn the basic concepts in ocular development. The embryology of the globe will be used to demonstrate why congenital ocular abnormalities develop. Photographs, ultrasound biomicroscopy and optical coherence tomography images representing common ocular malformations will be used to explain the conditions. This will be a case based course and cover abnormalities of all ocular structures. At the end of this course attendees will be able to outline basic stages of ocular development as well as relate them to some of the ocular conditions that imagers see in the clinic setting.

CEC OPS 1; JCAHPO-A 1

SA-4-D-WS **BOS** **Carmel I**

OCT-Angiography [OCT-A] Break-Out Session

Hoang Nguyen, CRA, OCT-C, FOPS - Moderator

OCT-Angiography (OCT-A) is the newest form of Angiography done in Ophthalmology yet several devices already have this capability. This session is meant as an opportunity for photographers and technicians who are implementing this new technology to become better educated about the various instruments available. The course will be held as a workshop style session, which is designed to give the attendees the opportunity to obtain specific information about the various devices as well as

receive hands-on instruction from the vendors for their respective instruments. Attendees should come prepared with questions or examples in hand. At the end of this workshop the attendee will have had an opportunity to discuss specific issues with the experts in OCT-A, vendor representatives and other photographers already using this technology. They will be able to demonstrate an improved ability to problem solve the specific issues, and obtain answers to specific questions they brought to the workshop. This could include topics from networking to viewing to obtaining the images in OCT Angiography. *At the time of this printing we are pleased to confirm that Zeiss Angioplex, Heidelberg Engineering OCT-A and Topcon Triton OCT-A will be providing equipment for this session. The OPS is not responsible for last minute cancellations by our suppliers.*

CEC OPS 1; JCAHPO-A 1 **\$35.00**

3:15 pm – 4:45 pm

SA-5-A **Nikko I**

Ophthalmic Anatomy and Physiology (NEW)

Andrea Shows, RN

In this course students will be presented an overview of the ocular anatomy and physiology as well as incorporating basic medical terminology. The course will contain the following parts: the orbit, external, medial and internal eye tissues, retina, optical tract, and the external parts of the eye. At the end of the session the attendees should be able to correlate the eye structures with their functions within the visual system, eye and adnexa, describe the physiology of the visual system, identify important anatomical landmarks, and appreciate the normal pathological appearance of the ocular anatomy.

(CRA and OCT-C prep)

CEC OPS 1.5; JCAHPO-A

SA-5-B **Nikko II**

Corneal Imaging Double Header

Denice Barsness, CRA, COMT, CDOS, ROUB, FOPS

The presentation will use case studies to show how AS-OCT and Corneal Topography are often used in tandem for a variety of common corneal diseases and disorders. This course will give a brief overview of both modalities and their basic protocols. Case studies of common corneal entities will be used to illuminate the strengths and weaknesses of each imaging technique. Use of corneal imaging techniques in documentation vs diagnosis will be discussed. This course will provide an overview of both Corneal Topography and Anterior Segment OCT imaging techniques. Upon completion of this course the student should have an increased understanding of the use of AS-OCT for corneal morphology, be able to name three common applications of corneal topography and delineate the difference between documentation and diagnosis of two common corneal entities using AS-OCT vs Corneal Topography. This course will be a lecture course using digital images and case studies. There will not be a skills transfer component to this presentation. **(Students should be experienced in ophthalmic anatomy and imaging of**

the anterior segment. A basic understanding of common ophthalmic diseases and disorders of the anterior segment is recommended.)
CEC OPS 1.5; JCAHPO-A 1.5

SA-5-C **Nikko III**

**The Jamie Nicholl Symposium:
Controversies in Ophthalmic Photography**

Paula Morris, CRA, FOPS - Moderator

A panel of experienced ophthalmic photographers and managers will lead discussion through a range of topics currently debated by ophthalmic photographers. Topics such as photographers performing venipuncture, the merits of new technologies, and the changing field of ophthalmic photography are but starting points for a lively discussion. Bring your concerns and be prepared to participate in the debate! This course is named in honor of the late Jamie Nicholl, CRA, FOPS, who taught it for many years. Upon completion of the course, the student will be able to discuss how the field of ophthalmic photography is changing and compare points of view concerning issues that are currently being debated among the ophthalmic community.

CEC OPS 1.5; JCAHPO-A 1.5

SA-5-D-WS **Carmel I**

Advanced SD-OCT Workshop

James B. Soque, COA, CRA, OCT-C, FOPS- Coordinator

Prerequisite: This workshop is NOT for beginners. Students must have a minimum of two (2) years' experience imaging with an SD OCT system.

This workshop is designed as an expansion on the use of Spectral Domain OCT (SD-OCT). All current SD-OCT manufacturers have been asked to participate in this hands-on workshop. Scan modes, their applications and some of the advanced techniques needed to capture images with these instruments will be demonstrated. Upon completion of this course, participants will be able to perform advanced SD-OCT procedures, and identify some of the less commonly-used controls for SD-OCT operation. *At the time of printing, the following vendors have committed to participate in this workshop: Heidelberg Engineering, Nidek, Topcon, Zeiss and Leica MicroSystems. The OPS is not responsible for any last minute cancellations. To register for this workshop, you MUST also register for the corresponding lecture, SA-4-B.*

(OCT-C recommended)

CEC OPS 1.5; JCAHPO-A 1.5 \$35.00

SA-5-F-WS **Monterey II**

Standard Techniques of Goniography Workshop

Michael Bono, COT, CRA, BFA - Coordinator

This workshop will be an opportunity for students, using model eyes, to apply the techniques and lighting skills needed to photograph the iridocorneal angle as part of an anterior segment photo session. Students will practice with a variety of slit lamp instruments using a standard 3 mirror gonio lens. Instructors will provide practical hands-on instruction focused on using the best process, slit lamp

techniques and lighting when documenting the anterior segment and angle. At the end of this course, the student will be able to manipulate the basic controls of the slit lamp camera, and apply the techniques for creating basic slit lamp and gonio images. Students will be able to employ an imaging plan, make adjustments when problems occur and thereby win patient cooperation when documenting angle structures. *At the time of printing, the following vendors have committed to participate in this workshop: Haag-Streit and Topcon. The OPS is not responsible for any last minute cancellations. To register for this workshop, you MUST also register for lecture SA-4-A*
CEC OPS 1.5; JCAHPO-A 1.5 \$35.00

5:00 pm – 6:00 pm

**The OPS 50th Anniversary Commemorative Lecture
SA-6-C** **Nikko III**

Ophthalmic Photography, Past and Present (NEW)

Johnny Justice Jr., CRA, FOPS with James Gilman, CRA, FOPS

A History of the OPS - How like-minded talented individuals created and sustained a society of sharing creative ophthalmic imaging techniques for 50 years. This lecture will cover the events starting in 1969 that led to the creation of the OPS. It will also highlight the individuals who contributed greatly to the formation of the society and provided the structure of the boards of education, certification and directors that we still use today. This presentation will document how OPS has expanded its reach through the creation of the journal, the website and social media. The presentation will include portions of the documentary, 'Discovering Fluorescein Angiography', and show the contributions by Noble David, MD and J. Donald M. Gass, MD. People who attend this lecture will be able to name the founders of the OPS. Attendees will also be able to understand what individuals helped to enhance the Journal, the educational programs and the certifications for the Society.

CEC OPS 1; JCAHPO-A

*This event is included as part of the general registration fee.

SUNDAY, OCTOBER 13th

8:30 am - 9:30 am

SU-1-A **Nikko I**

Testing for Premium IOLs with OCT and Topography

Kenneth L. Cohen, MD; Sarah Armstrong, CRA, OCT-C, FOPS

This course will discuss the way that a surgeon uses the test results to determine which lens to use and the best surgical method based on different types of patients. Tips for acquiring the accurate test results needed to determine the proper premium IOL will be reviewed. Attendees will learn the importance of acquiring accurate test results to ensure best surgical outcomes.

CEC OPS 1; JCAHPO-A 1

SU-1-B Nikko II
Ultrawide Imaging for Oncology (NEW)

Sandor Ferenczy, CRA, OCT-C

A brief overview of the lengthy history of widefield ophthalmic imaging will be given with specific discussion of its applications in ocular oncology. Case series of imaging from multiple cameras will be presented, providing comparisons of current technologies, as well as providing a baseline of what older cameras allowed photographers to capture. Technical differences of current cameras and the ensuing clinical impact will be discussed as well as the overall benefits of widefield retinal imaging for ophthalmology. At the end of the course, participants will be able to recognize images from various cameras based on their appearance. Students will be able to demonstrate knowledge of the differences between widefield instruments and the potential advantages and disadvantages of these differences in clinical use.

CEC OPS 1; JCAHPO-A

SU-1-C Nikko III
Scanning Laser Ophthalmoscopy Imaging

Dirk-Uwe Bartsch, PhD

New imaging devices cover a variety of instruments and applications ranging from glaucoma testing to blood flow measurement to angiography and to optical coherence tomography. This talk will review the science behind the technology and describe new instruments and new imaging modalities and imaging technique, such as wide-field imaging, quantitative autofluorescence, multi-color imaging, and others. Upon completion of this course the student should be able to understand the background of scanning laser imaging, have a basic understanding of the science and inner-workings of SLO instruments, have the ability to differentiate different images taken with the different devices, and understand basic scanning laser terminology: confocal, Doppler, simultaneous imaging, tomography, autofluorescence, multicolor imaging, quantitative autofluorescence.

CEC OPS 1; JCAHPO-A 1

9:45 am - 10:45 am

SU-2-A WSL Nikko I
Advanced Fundus Imaging: Strategies for Clinical and Research Imaging

Pamela Vargo, CRA

This advanced course is a detailed overview of the imaging of the (7M) seven modified stereoscopic fields used in diabetic studies, and a newer imaging procedure of (4W) four wide-angle fields. Emphasis will be focused on fine tuning techniques of field definition; stereoscopic imaging and imaging techniques will be discussed. Insightful and helpful tips will be offered. At the end of the course, the student will be able to identify the (7M) seven modified fields and the (4W) four wide-angle fields and understand the capture orientation to the optic nerve. This course is **NOT** for beginners, but intended for technicians with imaging experience of a minimum of one (1) year imaging

the seven modified fields. **This lecture is MANDATORY if you wish to attend the corresponding workshop, Advanced Stereo Workshop, SU-3-E-WS. CEC OPS 1; JCAHPO-A 1**

SU-2-B WSL Nikko II
Clinical Applications of Anterior Segment OCT

Ryan Imperio, CRA, OCT-C

Optical Coherence Tomography is not only a powerful tool for imaging the retina, but it can also be applied to image the anterior segment. AS-OCT has been commonly used by cornea and glaucoma specialties for over a decade now and many clinical applications have been developed. During this course, we will take a look at these applications along with the structures of the anterior segment. With a special focus on Heidelberg and Visante AS-OCT, we will discuss the technique of imaging these structures as well as data interpretation. At the conclusion of this course, students will be able to identify the best method to imaging the anterior segment with OCT and understand its usefulness in clinic. **This lecture is required if you wish to take the corresponding workshop SU-5-D-WS.**

CEC OPS 1; JCAHPO-A 1

SU-2-C Nikko III
Intro to Fundus Autofluorescence Imaging

Timothy Bennett, CRA, OCT-C, FOPS

Fundus Autofluorescence Imaging (FAF) is a specialized form of fundus photography that documents naturally occurring fluorophores in the human eye. The crystalline lens, optic disc drusen, hamartomas and lipofuscin pigments in the RPE all possess fluorescent properties that can be captured with a fundus camera or scanning laser ophthalmoscope equipped for autofluorescent imaging. This course will present an overview of the uses, equipment and techniques for fundus autofluorescence. Upon completion of this course, the participant should be able to: list fluorescent structures in the eye, describe equipment, wavelengths, and filters used in FAF, recognize common FAF clinical findings, and discuss challenges & solutions encountered in FAF imaging.

CEC OPS 1; JCAHPO-A 1

SU-2-D-WS BOS Carmel I
OCT-A Break-out Session

Hoang Nguyen, CRA, OCT-C, FOPS - Moderator

OCT-Angiography (OCT-A) is the newest form of Angiography done in Ophthalmology yet several devices already have this capability. This session is meant as an opportunity for photographers and technicians who are implementing this new technology to become better educated about the various instruments available. The course will be held as a workshop style session, which is designed to give the attendees the opportunity to obtain specific information about the various devices as well as

receive hands on instruction from the vendors for their respective instruments. Attendees should come prepared with questions or examples in hand. *At the time of this printing we are pleased to confirm that Zeiss Angioplex, Heidelberg Engineering OCT-A and Topcon Triton OCT-A will be providing equipment for this session. The OPS is not responsible for last minute cancellations by our suppliers.* At the end of this workshop the attendee will have had an opportunity to discuss specific issues with the experts in OCT-A, vendor representatives and other photographers already using this technology. They will be able to demonstrate an improved ability to problem solve the specific issues, and obtain answers to specific questions they brought to the workshop. This could include topics from networking to viewing to obtaining the images in OCT Angiography.

CEC OPS 1; JCAHPO-A 1 \$35.00

11:00 am - 12:30 pm

SU-3-A Nikko I
Ask the Reading Center Panel: Imaging Protocols

Moderator; Dennis Orlock, FOPS

Reading Center protocols are developed to standardize clinical trial data across multiple research sites, which include fundus images, OCT scans, angiograms and functional assessments. Please join us as we conduct an in-depth Q and A session with a panel of Reading Center staff to discuss imaging protocols and standards that govern the process of granting certification status to sites and technicians and all study related visits. Upon completion of this course, the student will develop a better understanding of the guidelines and structure of Reading Center imaging protocols and standards of enforcements and compliance. The student will be able to demonstrate their submissions are meeting protocol requirements and Reading Center expectations as well as communicate with the Reading Centers regarding protocol deviations and managing queries.

CEC OPS 1.5; JCAHPO-A 1.5

SU-3-B Nikko II
The Most Interesting Cases of Ultrasound That I Have Seen in the Last 47 Years

Yale Fisher, MD

Pattern recognition in diagnostic B-Scan has been a fascination for 46 years. While movie segment storage is relatively recent, Dr. Fisher has collected a series of cases from simple to complex that makes diagnostic interpretation easier. With a focus on 3-D thinking and real time analysis, the class will approach each one as a clinical entity. Dynamic videos of ultrasound will be presented to the audience. Participation of the audience is highly encouraged in this interactive setting, as several cases will be presented with the audience attempting to

name the correct diagnosis. The goal of this course will be an expanded appreciation of Diagnostic B-Scan in the clinical situation with a method for interpretation in complex cases. This course will enable students to demonstrate improved examination techniques and critical thinking when using ultrasound in the clinical setting.

CEC OPS 1.5; JCAHPO-A 1.5

SU-3-C-WS Nikko III
ERG Methodology: How to Systematically Perform an ERG Hands-On Lecture Workshop

Elizabeth L. Affel, MS, COA, OCT-C, CDOS, ROUB, FOPS—Coordinator

The 30 min lecture portion of this methodology course will discuss the considerations that are at play when performing an electroretinogram. Preparation of the patient, electrode placement, normal waveforms, as well as poor quality waveforms will be presented. Test electrodes will be shown, with discussion of the advantages and disadvantages of each. Test tips for obtaining the most successful waveform will be discussed. At the end of this session, the student will be able to describe the techniques necessary to perform an Electroretinogram; identify the challenges and the patient management techniques. The workshop portion of the ERG methodology will guide the student throughout the entire set-up of an ERG. This will include the proper method of electrode placement, dark adaptation times, and a variety of software instruction. Students will get to have hands-on practice with different ERG devices to practice their new skills. After this course the student will be able to demonstrate the correct order of steps to successfully acquire an ERG.

CEC OPS 1.5; JCAHPO-A 1.5 \$35.00

SU-3-D-WS Carmel I
Introduction to SD OCT - Group Discussion

James Soque, COA, CRA, OCT-C, FOPS

Spectral domain (SD-OCT), also known as Fourier Domain quickly surpassed Time Domain OCT (TD-OCT) to become the current standard in ophthalmic imaging. This introductory course will briefly discuss the differences between these two systems and elaborate on fundamentals in the operation of SD-OCT's during the first 30 minutes of lecture, with the following 60 minutes hands-on practice. Examples of various scan patterns and analysis will be shown. Retinal anatomy as seen with OCT will be reviewed and examples of the normal and abnormal retinal pathologies will be discussed. Upon completion of this course, participants will be able to describe the basic capabilities and limitations of OCT. In addition, students will be able to discuss various aspects of retinal and optic nerve scan analysis as well as factors such as reliability and resolution. *At the time of printing, the following vendors have committed to participate in this workshop: Heidelberg Engineering, Nidek, Topcon, Zeiss and Leica Microsystems. The OPS is not responsible for any last minute cancellations*

(OCT-C recommended)

CEC OPS 1.5; JCAHPO-A 1.5 \$35.00

SU-3-E-WS Carmel II
Advanced Stereo Fundus Photography Workshop

Pamela Vargo, CRA - Coordinator

Prerequisite: This workshop is NOT for beginners. Students must have attended the Advanced Fundus Imaging: Strategies for Clinical and Research Imaging lecture (SU-2-A), and have a minimum of one (1) year experience shooting seven modified fields and stereo.

This **advanced** course will provide hands-on experience of fundus imaging of the seven modified fields or the four wide-angle fields with assistance in troubleshooting, field definition will be addressed. Various fundus cameras will be available for students to have hands-on practice under the supervision of experienced instructors. Participants of this workshop should be prepared to have one eye dilated and must sign a consent form. Students will take turns imaging each other for practice. At the end of the workshop each student will have had the opportunity to practice what they are struggling with the most; field definition, focus, or stereo or all of it! *At the time of printing, the following vendors have committed to participate in this workshop: Canon, CenterVue, Merge, Phoenix Technology Group, Sonomed Escalon, Topcon and Zeiss. The OPS is not responsible for any last minute cancellations. To register for this workshop, you MUST also register for lecture SU-2-A.*

(CRA recommended)

CEC OPS 1.5; JCAHPO-A 1.5 \$35.00

12:30 pm – 1:45 pm

Lunch

Vendor Forum

Carmel I, II and Monterey II

Vendors participating in OPS workshops will demo their products and answer questions to attendees during the Vendor Forum.

Check out the 50th Anniversary Memorabilia in Mendocino II

2:00 pm – 3:00 pm

SU-4-A Nikko I
Ask the Reading Center Panel: Image Quality and Certification

Dennis Orlock, FOPS-Moderator

The role of a clinical trial Reading Center is to convert submitted digital photographic images, OCT scans, and functional assessments into data. Without a comprehensive set of high quality photographic images from clinical site photographers, this process can compromise patient enrollment, study outcomes, and a photographers' certification status with the Reading Center. Please join us as we conduct an in-depth Q and A session with a panel of Reading Center image analysis staff on image quality and how it's graded and evaluated for certification, screening and study visits. Upon completion of this course, the student will better understand image quality using photographic examples from a variety of retinal diseases. The student will be able to ensure their images are meeting clinical trial

expectations required for site and technician certifications and all screening and study visits.

CEC OPS 1; JCAHPO-A 1

SU-4-B WSL Nikko II
Fundamentals in UBM

Maru Bretana, MD, CDOS

UBM (ultrasound biomicroscopy) is an important diagnostic tool. It provides high-resolution imaging of ocular structures anterior to the pars plana region of the eye. It is used in the assessment of the anterior segment pathology. This course will provide knowledge on the technique to obtain and interpret the UBM images. It will include anterior segment anatomy, examination technique, limitations and advantages of the UBM examination, and an overview of the most common pathologies of the anterior segment such as: glaucoma, uveitis, ocular trauma and tumors of the anterior segment.

At the completion of the course, attendees will have basic knowledge of UBM examination techniques and will be able to recognize the most common pathologies that affect the anterior segment. **This lecture is required if you wish to take the corresponding workshop SU-5-B-WS.**

CEC OPS 1; JCAHPO-A 1

SU-4-C WSL Nikko III
Introduction to Fluorescein Angiography

Tamera Schoenholz, CRA, OCT-C

This lecture will provide the basic information needed to participate in the fluorescein angiography workshop. Filters, imaging techniques, and fluorescein angiography sequencing will be discussed. Upon completion of this course, students will be able to outline the sequence of a fluorescein angiogram and proper camera management.

This lecture is required if you wish to take the corresponding workshop, SU-5-E-WS.

(CRA recommended)

CEC OPS 1; JCAHPO-A 1

SU-4-E-WS BOS Carmel II
Fundus Photography Break-out Session

Hoang Nguyen, CRA, OCT-C, FOPS - Moderator

This course is designed for the photographer that wants an opportunity to have more education and hands-on practice with a variety of fundus cameras. It is meant as an opportunity for photographers and technicians to become better educated about the various instruments available. The course will be held as a workshop style session, which is designed to give the attendees the opportunity to obtain specific information about the various devices as well as receive hands-on instruction from the vendors for their respective instruments. Attendees should come prepared with questions or examples in hand. At the end of this workshop the attendees will be able to demonstrate enhanced skills using their instrument of choice. This could include topics from networking to viewing to obtaining the images in fundus photography. They will be able to demonstrate an improved ability to problem solve

specific issues. *At the time of this printing we are pleased to confirm that Canon, CenterVue, Merge, Phoenix Technology Group, Sonomed Escalon, Topcon and Zeiss will be providing equipment for this session. The OPS is not responsible for last minute cancellations by our suppliers.*

CEC OPS 1; JCAHPO-A 1 \$35.00

3:15 pm - 4:45 pm

SU-5-A Nikko I
Mission Impossible: Making Impossible Imaging Possible Discussion Panel

Paula Morris, CRA, FOPS - Moderator; Sandor Ferenczy, CRA, OCT-C; Leslie MacKeen, CRA; Gary Miller, CRA, OCT-C; Timothy Bennett, CRA, OCT-C, FOPS

-Should you choose to accept this mission, know that your mission may be impossible- This discussion panel reviews some the most impossible cases that are known to the ophthalmic photographer in daily clinic. From the perils of imaging through poor media, to maneuvering equipment, to that which can be an impossible as a one-size-fits all, somehow the impossible imaging situation becomes possible. Shared techniques, tricks, tips and patient management will be the learned objectives for those seeking advice to take back to daily clinic from experts that have experienced the same situations that many ophthalmic photographers can relate to. "This message will self-destruct (in five seconds...good luck) after reading...."

CEC OPS 1.5; JCAHPO-A 1.5

SU-5-B-WS Nikko II
UBM Workshop

Elizabeth Affel, OCT-C, ROUB, CDOS, FOPS; Maru Bretana, MD, CDOS Co-Coordinator

This UBM workshop will allow attendees to explore how to assemble the clear scan immersion bag and perform transverse and longitudinal scans. Emphasis will be placed on ensuring perpendicularity to anterior segment structures, how to accurately label the scans in relation to probe orientation and strategies to detect scleral spur for measurement purposes. At the end of this course, attendees will be able to outline the applications of UBM and describe how to perform longitudinal and transverse exams using standardized labelling conventions. *At the time of printing these vendors have committed to providing equipment: Sonomed Escalon, Ellex. The OPS is not responsible for any last minute cancellations* **To register for this workshop, you MUST also register for lecture SU-4-B.**

CEC OPS 1.5; JCAHPO-A 1.5 \$35.00

SU-5-C Nikko III
Image Archive and Data Systems for Ophthalmology

Tim Steffens, CRA, OCT-C, FOPS

This course will discuss how image acquisition systems

(fundus cameras, OCTs, etc.) network with each other and or connect to PACS (Picture Archive and Communications Systems). We will discuss how images can be stored, retrieved and viewed in a variety of formats. Networking terms, what they mean and how important they are, like EMR/HER, SQL, MySQL, HL7, DICOM, ADT, orders and modality worklist will be discussed.

CEC OPS 1.5; JCAHPO-A 1.5

SU-5-D-WS Carmel I
Anterior Segment OCT Workshop

Ryan Imperio, CRA, OCT-C - Coordinator

This workshop is designed as an introduction to the use of Anterior Segment OCT. All current TD and SD-OCT manufacturers have been asked to participate in this hands-on workshop. **Students will rotate through all of the different OCT instruments.** The participants will have the opportunity to familiarize themselves with the various hardware and software of these new imaging systems. Scan modes, their applications and some of the techniques needed to capture images with these instruments will be demonstrated. **THIS WORKSHOP IS INTENDED FOR STUDENTS WITH LITTLE-TO-NO-EXPERIENCE WITH ANTERIOR SEGMENT OCT.** Upon completion of this course, participants will be able to perform basic techniques for Anterior Segment OCT, procedures, and identify some of the common controls from Anterior Segment OCT operation. *At the time of printing, the following vendors have committed to participate in this workshop: Heidelberg Engineering, Zeiss, and Leica MicroSystems. The OPS is not responsible for any last minute cancellations. To register for this workshop, you MUST also register for lecture SU-2-B.*

CEC OPS 1.5; JCAHPO-A 1.5 \$35.00

SU-5-E-WS Carmel II
Introduction to Fluorescein Angiography Workshop

Tamera Schoenholz, CRA, OCT-C - Coordinator

This workshop is designed for the photographer who wants to learn the techniques of fluorescein angiography. Equipment, materials and instructors will be available to help the students perform a "mock" angiogram. A step-by-step sequence of events will be stressed. Registrants in this workshop should be prepared to have one eye dilated and must sign a consent form. At the end of this course, the student will be able to identify the equipment and materials needed for fluorescein angiography and describe the protocol and sequencing. *At the time of printing, the following vendors have committed to participate in this workshop: Merge, Optos, Sonomed Escalon, Topcon and Zeiss. The OPS is not responsible for any last minute cancellations. To register for this workshop you MUST also register for lecture SU-4-C.*

CEC OPS 1.5; JCAHPO-A 1.5 \$35.00

5:00 pm – 6:30 pm
OPS Membership Business Meeting
Open to All OPS Members

Nikko III

MONDAY, OCTOBER 14th

8:30 am – 9:00 am

MO-1-A **Nikko I**
Animal Imaging: They've Saved More Lives Than 911
Tim Steffens, CRA, OCT-C, FOPS
This course will discuss animal ocular anatomy compared to humans, imaging techniques, challenges and technologies for imaging mice, rats, dogs, cats, pigs, monkeys and birds. After this course attendees will have a better understanding of how to image a variety of species with and without biomarkers, the accessories necessary to optimize image quality, and identify artifacts and troubleshoot.
CEC OPS .5; JCAHPO-A .5

MO-1-B **Nikko II**
Optical Coherence Tomography (OCT)
Darrin Landry, CRA, OCT-C
Optical Coherence Tomography is one of the predominant imaging modalities in almost all ophthalmic practices. Understanding how the science of OCT, along with recognizing anatomical structures and artifacts will assist the imager in acquiring the proper scan. Standard scan protocols will also be discussed. Upon completion of this course the student should be able to understand how OCT works, identify anatomical structures to assist in placing scans in proper place, and recognize artifacts and understand how to remedy them.
CEC OPS .5; JCAHPO-A .5

MO-1-C **Nikko III**
Ultrasound Principles (NEW)
Carla Blackburn, BSc, COMT, ROUB, CDOS
This lecture is designed to review B-scan echographic principles and physics, including factors such as changes in density, sound absorption, and gain, and their role in what is visible by the examiner on the screen. Understanding these factors is crucial to interpret the echograms and to understand what can influence what we are able to visualize on the display, and is a pre-requisite to the understanding of proper technique. Upon completion of this lecture, the participant should be able to understand the way sound is emitted from and reflected back into the probe, understand how sound density and sound absorption affect how pathologies are seen on the display screen, and understand how adjusting the gain affects what is visible on the echogram.
CEC OPS .5; JCAHPO-A

9:15 am - 10:15 am

MO-2-A **Nikko I**
Application of Descriptive Interpretation of Fluorescein Angiography
Paula F. Morris, CRA, FOPS
This is a course for **basic to intermediate** imagers that introduces the terminology used to describe circulatory

patterns in the eye as shown by fluorescein angiography. Fluorescein angiography is the cornerstone of ophthalmic photography in that 87% of ophthalmic imagers perform fluorescein angiography routinely. Knowledge of the circulation patterns in retinal and choroidal disease is essential to producing high quality studies, which will assist the physician in selecting treatment. Interpretation of angiographic studies using descriptive terms is a fundamental skill, which increases understanding of normal and abnormal patterns and the circulation dynamics causing them. At the end of this course, students will be able to explain the difference between hypo- and hyper-fluorescence, and identify abnormal patterns of fluorescence.
(CRA recommended)
CEC OPS 1; JCAHPO-A 1

MO-2-B **Nikko II**
OCT-A In The Age of Multi-Modal Imaging-A Welcome Addition
Ethan R. Priel, FOPS
Following an introduction to OCT-A and an appreciation of select images, a comparison with the gold-standards of Fluorescein Angiography (FA) and Indocyanine Green Angiography (ICGA) will highlight the advantages and shortcomings of each of these modalities. Factors such as safety, time-consumption, patient comfort, identification of non-perfusion vs. new vessels, ease of interpretation, and the ideal of cross-platform uniformity of results will be discussed. In this course we will explore findings seen in Fluorescein and ICG Angiographies, OCT scans and color fundus photography and study their correlation to OCT-A images. At the end of this course the students will be able to describe the fundamentals of the OCT-A technology as well as compare and contrast the images produced by OCT-A to more traditional imaging modalities, such as Fluorescein Angiography and ICGA.
CEC OPS 1; JCAHPO-A 1

MO-2-C **WSL** **Nikko III**
Basic Probe Positioning for B-Scan
Carla Blackburn, BSc, COMT, ROUB, CDOS
This is a beginner level b-scan course that will serve as an introduction with hands-on practice while interacting with mock probes before attempting the workshop. Probe positions and a basic screening protocol will be introduced. Students will also be introduced to basic interpretation. Upon completion of this course, the participant should be able to identify the different probe positions; identify basic ocular anatomy on a b-scan; and properly document position of scan, in regards to probe position on the globe.
This lecture is required if you wish to take the corresponding workshop, MO-3-C-WS.
CEC OPS 1; JCAHPO-A 1

10:30 am – 12:00 pm

MO-3-A **Nikko I**
Descriptive Interpretation of Fluorescein Conference
Paula F. Morris, CRA, FOPS; James Zimmerman, MD
This course is a complement/continuation of the "Application of Descriptive Interpretation of Fluorescein"

lecture, taking the knowledge of descriptive terms learned there, and applying them to interpret actual angiographic studies. After a short review of the circulation dynamics of fluorescein angiography, this course will feature a descriptive interpretation session (a photographers' version of fluorescein conference) where audience participation will be encouraged. Students will be mentored through the process of angiographic interpretation with descriptive terms. Coaching on the "How To" of participation in the session will be provided. At the end of this course, students will be able to list the circulation phases of the retina and choroid, define and give examples of hypofluorescence, and hyperfluorescence. In addition they will be able to describe the common variants of transmission and circulation, and interpret an angiographic study with proper descriptive terms.

(CRA recommended)

CEC OPS 1.5; JCAHPO-A 1.5

MO-3-B

Nikko II

Clinical and O.R. Pediatric Ophthalmic Imaging

Marcela Hickey, CRA, FOPS; Leslie D. MacKeen, Bsc, CRA

The methods for imaging pediatric eyes in a clinical and O.R. setting are as varied, complicated, and colorful as the children themselves. Children present with a wide range of ages, abilities, pathologies and dispositions which pose unique challenges for the ophthalmic photographer. Often, there is a short window of opportunity to gain compliance, therefore we all must choose wisely, develop skills, tricks and strategies and make decisions on the most appropriate devices to use to elicit a positive experience for the child and the best imaging results for a given situation. Ophthalmic photographers with expert experience in pediatric imaging will present several cases with various pediatric imaging challenges, as well as discuss their approaches to various imaging scenarios. The audience will be encouraged to participate to further a dynamic and interactive exchange of ideas. At the end of the session, attendees will be able to describe at least three problem-solving scenarios and discuss considerations for choosing wisely during pediatric ophthalmic imaging

CEC OPS 1.5; JCAHPO-A 1.5

MO-3-C-WS

Nikko III

B-Scan Workshop

Elizabeth L. Affel, MS, OCT-C, CDOS, ROUB, FOPS; Maru Bretana, MD, CDOS

Participants in this workshop will practice the standardized B-scan screening exam techniques and probe positions that were discussed and demonstrated in the pre-requisite lecture. Upon completion of this workshop, participants will be able to demonstrate the use of the standardized probe position and screening protocol. Registrants in this workshop should be prepared to have other students practice the standardized B-scan screening techniques on their eyes. *At the time of printing, the following vendors have committed to participate in this workshop: Accutome,*

Ellex, Quantel Medical and Sonomed. The OPS is not responsible for any last minute cancellations. To register for this workshop you MUST also register for lecture MO-2-C.

CEC OPS 1.5; JCAHPO-A 1.5 \$35.00

12:00 pm - 1:00 pm

Lunch

Check out the 50th Anniversary Memorabilia in Mendocino II

1:00 pm - 1:30 pm

MO-4-A

Nikko I

Slit Lamp Photography: The Smart Way

Sergina Flaherty, COMT

This presentation will provide the attendee with an overview of common slit lamp photography illumination techniques including how to use a Smartphone in today's ophthalmic office. This presentation is based on the article of the same name published in the *Journal of Ophthalmic Photography* - Volume 38 - Number One - Spring 2016. The attendee should be able to describe Slit Lamp Photography techniques using a Smartphone, list the various illumination techniques, and list common corneal, pupil, and lens disorders.

CEC OPS .5; JCAHPO-A .5

MO-4-B

Nikko II

Molecular Surgery for Vitreoretinal Disease (NEW)

Vinit Mahajan, MD, PhD

Dr. Mahajan established the Molecular Surgery Program at Stanford's Byers Eye Institute. This course will explain how the collection and molecular analysis of eye fluid from patients can identify the molecules linked to eye disease, make precise diagnoses, help choose the right medicines, and improve surgical outcomes. Upon completion of this course, the participant should be able to define proteomics and understand how clinical imaging can be linked to molecular biomarkers and to the therapeutic response of repositioned drugs.

CEC OPS .5; JCAHPO-A

MO-4-C

Nikko III

Ultrasound Biomicroscopy Overview

Marcela Hickey, CRA, FOPS

This course will cover the use and techniques of Ultrasound Biomicroscopy (UBM). The course will review and identify various pathologies of the anterior chamber to aid physicians in their diagnosis. UBM cases of the common pathologies will be presented. Upon completion of the course, the students will be able to list most common anterior chamber pathologies and describe basic UBM techniques.

CEC OPS .5; JCAHPO-A .5

1:45 pm – 2:15 pm

MO-5-A

Nikko I

External Photography

Tim Steffens, CRA, OCT-C, FOPS

In this course students will learn how to use both a 35mm digital SLR and prosumer cameras to properly record and light external diseases such as Ptosis, Graves Eye Disease, nerve palsies and motility disorders. Students will also learn about subject management, lighting, perspective control, lens selection, imaging formats and white balance. Upon completion of this course students will be able to properly document external eye disorders, choose the proper equipment and use it correctly.

CEC OPS .5; JCAHPO-A .5

MO-5-B

Nikko II

Workup for the Retinal Patient (NEW)

Holly Cheshier, CRA, OCT-C

Screeners have an important story to tell. With a thorough chief complaint, HPI & ROS we can better understand the patient's visual concerns and medical history. We will discuss how history with accurate vision, tonometry, pupil, anterior and slit lamp exam results help drive your physicians' testing and diagnosis for the patient. Case presentations will be discussed. Upon completion of this course the student will understand the systemic relationship to retinal changes and how to document chief complaint, ROS & HPI.

CEC OPS .5; JCAHPO-A

MO-5-C

Nikko III

Multimodal Fundus Photography and Ultrasound Correlations (NEW)

Johnathan Hawkins, CDOS, COT, CRA, OCT-C

With the advancement of technology and the availability of multiple imaging modalities, the Ophthalmic Photographer and Sonographer have had to work as one. In this course we will be discussing the need for multimodal imaging coupled with ultrasonography to better evaluate the location and interpretation of pathology. We will be discussing the following points in depth: 1) multimodal pathology recognition; 2) locating pathology based on fundus photos using landmarks and anatomy; 3) evaluate the interpretation of diagnostic A/B-scans based on multiple imaging modalities. At the conclusion of this course, imagers will be able to recognize the necessity of multimodal imaging with ultrasonographic pathology, identify locations of possible pathology, and interpret pathology based on ultrasonographic and fundus photograph qualities.

CEC OPS .5; JCAHPO-A

2:30 pm – 3:30 pm

MO-6-A

Nikko I

Imaging to Monitor Response to Treatment: Case Studies and Techniques from a Cornea Specialty Practice

Debora S. Jacobs, MD

Slit lamp photography is invaluable for the purpose of

monitoring response to therapy in the management of corneal disease. It is critical to recognize the pathologic features to be captured and to apply standard image acquisition protocols and registration techniques to follow these features over time. Case studies using images to assess treatment of persistent epithelial defect with therapeutic contact lens, treatment of corneal neovascularization with topical VEGF inhibitors, and treatment of microbial ulcers with antibiotics and/or steroid will be reviewed. Clinical pearls related to improving patient capacity for cooperation will be presented as well as tricks to assure standardization over time. Attendees will leave with greater understanding and skills related to the principles and practice of anterior segment imaging for monitoring corneal disease.

CEC OPS 1; JCAHPO-A 1

MO-6-B

Nikko II

Imaging in Age Related Macular Degeneration (NEW)

Emmanouil Mavrikakis, MD, PhD.

This course will provide in-depth instruction of the latest modalities in imaging, applicable to patients with age related macular degeneration, including fundus autofluorescence, fluorescein angiography, indocyanine green angiography and optical coherence tomography. Upon completion of this course, participants will be empowered with the know-how to recognize and interpret the imaging features of different age related macular degeneration pathologies.

CEC OPS 1; JCAHPO-A

MO-6-C

Nikko III

Descriptive B-Scan Interpretation: Common Globe Pathology and Differentiation of Findings

Elizabeth Affel, MS, COA, OCT-C, ROUB, CDOS, FOPS

This lecture is designed to identify various pathologies of the vitreous, retina, choroid, sclera, and optic nerve. In addition to pearls for best imaging techniques, examples of the more common pathologies will be shown. Descriptive terminology for reporting is also covered. Upon completion of the course, the participant should be able to identify and differentiate vitreous pathology and between elevated membranes of the vitreous, retina, and choroid, identify macular disorders and optic nerve disorders and appreciate the difference between uveitis and scleritis based on ultrasound findings.

CEC OPS 1; JCAHPO-A 1

3:45 pm – 4:45 pm

MO-7-A

Nikko I

An Amazing Kaleidoscope of Fascinating Eye Facts

William Ehlers, MD

The course is given in lecture format and will touch on a wide variety of ocular facts. Subjects covered will be: Why vision is so important to the success of a species and enjoyment of life; The differences between vision and seeing; Why optical illusions work and amaze us; The

fantastic abilities of the eye to see light and the brain to process and interpret visual impulses; Why eyes are so often featured in art and pop culture. After the presentation attendees should be able to discuss the development of the eye and its importance to the success of a species, a brief history of ophthalmology, the importance of the work of eye care professionals and the artistic and pop cultural significance of vision.

CEC OPS 1; JCAHPO-A 1

MO-7-B **Nikko II**
Impactful Images: Making the Difference With Your Work (NEW)

Sean Grout, OCT-C; Alice Zhang, MD

Patients and physicians depend on us to provide the best possible information to help make a diagnosis or determine a course of treatment in order to possibly save, preserve, or improve sight. In this course we will cover methods for honing your craft, strategies for delivering the

key information the doctor needs, and giving excellent care to patients. Through imaging case examples, as well as discussion with UNC Retina Specialist, Alice Zhang, MD, attendees will learn practical techniques and tools for improving the quality and heightening the impact of their work from the photographer's perspective, as well as the physicians. Topics will include which modality best reveals the pathology, utilizing communication for better results, the power of curiosity in successful imaging, and 'knowing is half the battle'. Whether beginner or seasoned veteran in ophthalmic imaging, participants will leave having gained a broader understanding of how they can make the most impact in their critical role in patient care.

CEC OPS 1; JCAHPO-A

Cell phones and pagers must be turned off while attending all lecture and workshop sessions. Audio and/or video recording is strictly prohibited.

Board of Certification Disclaimer

The OPS Annual Educational Program, nor any course or workshop offered during this Program, is reviewed, endorsed, or approved by The OPS Board of Certification for its specific content or efficacy in test preparation. These educational offerings are for information purposes and are only suggested as a study tool. Informational summaries, methods or techniques, and practical tips and tricks are only recommendations by the author, and in no way guarantee passing the CRA or OCT-C exams. The author has made reasonable efforts to provide current and accurate information to the students. The author, nor OPS, will be held liable for any unintentional errors or omissions that may be found. These educational materials, even in their entirety, should not be considered a complete and all-encompassing representation of test content for the CRA or OCT-C exam.

Participation by OPS Board of Certification members, in the OPS Annual Educational Program, is for the sole purpose of creating a more robust educational experience. This participation does not make any inference of validation or set any precedent that may be referenced during any Certification activities.

The Certified Retinal Angiographer (CRA) and Optical Coherence Tomographer-Certified (OCT-C) credential programs are administered and maintained by the OPS Board of Certification in accordance with the BOC Standing Rules and in compliance with the Institute for Credentialing Excellence's (ICE) National Commission for Certifying Agencies (NCCA) standards.

Lecture Faculty

Elizabeth Affel, OCT-C, CDOS, FOPS
Phoenix Technology Group
Wyndmoor, PA

Cristan Arena, MD
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West Chester, PA

Sarah Armstrong, CRA, OCT-C, FOPS
University of North Carolina
Chapel Hill, NC

Denice Barsness, CRA, CDOS, ROUB,
FOPS
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LaJolla, CA

Timothy Bennett, CRA, OCT-C, FOPS
Milton S. Hershey Medical Center
Hershey, PA

Carla Blackburn, COMT, ROUB, CDOS
The Ottawa Hospital
Ottawa, ON, Canada

Michael Bono, COT, CRA, BFA
University of Colorado Eye Center
Aurora, CO

Maru Bretana, MD, CDOS
Retinal Consultants of Houston
Houston, TX

Holly N. Cheshier, CRA, OCT-C
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Bloomington, MN

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Chapel Hill, NC

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Iowa City, IA

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Chapel Hill, NC

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Naples, FL

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Casey Eye Institute-OHSU
Portland, OR

Ryan Imperio, CRA, OCT-C
Duke University Eye Center
Durham, NC

Debora S. Jacobs, MD
Massachusetts Eye & Ear
Boston, MA

Johnny Justice, Jr.
The Angiogram Reading Center
Germantown, TN

Darrin Landry, CRA, OCT-C
Bryson Taylor Inc
Saco, ME

Kevin R. Langton
Carl Zeiss Meditec
Dublin, CA

Leslie MacKeen, BSc, CRA
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Stanford University
Palo alto, CA

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Syracuse, NY

Emmanouil Mavrikakis, MD, PhD.
G Gennimatas Athens General Hospital
NHS Trust
Athens, GR

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Topcon
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Mor Medical Center
Bnei-Brak, Israel

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Rochester, NY

James Soque, CRA, OCT-C, COA, FOPS
Island Retina
Shirley, NY

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Univ of Michigan, Kellogg Eye Center
Ann Arbor, MI

Pamela Vargo, CRA
Fundus Photograph Reading Center
Madison, WI

Alice Zhang, MD
University of North Carolina
Chapel Hill, NC

Lieutenant Commander James
Zimmerman, MD
Walter Reed National Military Medical
Center
Bethesda, MD

Workshop Faculty

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Phoenix Technology Group
Wyndmoor, PA

Sarah Armstrong, CRA, OCT-C
University of North Carolina
Chapel Hill, NC

Carla Blackburn, COMT, ROUB, CDOS
The Ottawa Hospital
Ottawa, ON, Canada

Michael Bono, CRA
University of Colorado Eye Center
Aurora, CO

Maru Bretana, MD, CDOS
Retinal Consultants of Houston
Houston, TX

Sandor Ferenczy, CRA, OCT-C
Wills Eye Hospital
Philadelphia, PA

Ryan Imperio, CRA, OCT-C
Duke University Eye Center
Durham, NC

Hoang Nguyen, CRA, OCT-C, FOPS
The University of Colorado Health Eye
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Aurora, CO

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West Chester, PA

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Kailua, HI

Olivia Rainey, OMA, OCT-C
Retina Specialists of Michigan
Grand Rapids, MI

Tamera Schoenholz, CRA, OCT-C
Keck Medical Center of USC
Los Angeles, CA

James Soque, COA, CRA, OCT-C,
FOPS
Island Retina
Shirley, NY

Pamela Vargo, CRA
Fundus Photograph Reading Center
Madison, WI

CONTINUING EDUCATION CREDIT

Approved OPS continuing education credits are listed at the end of each course description. This program has been submitted to JCAHPO for consideration of CE credits. Anticipated JCAHPO credits are listed at the end of the course description. Approved credits will also be listed on the OPS website: www.opsweb.org. Continuing Education Credit will be granted to all registrants who check-in at the beginning of the course, attend the course, and complete the online course evaluation surveys at the conclusion of the program. *CEC credits will also be granted for The Scientific Paper Session.* CEC documentation will be available through the registrants' profile on the OPS website following verification approximately five to six weeks after the Educational Program.

Each attendee must be registered on the OPS website prior to registering for the Annual Program in order to complete the online course evaluation surveys. A handout of the survey questions will be available onsite so attendees can make notes during class which will ease completion of the surveys after the program. Each student must sign the check-in sheets to gain access to the course. The course number and title will be announced at the beginning of each lecture/workshop. Credit will **NOT** be given for less than fifty minutes attendance per hour at either the lectures or workshops. If you arrive more than ten minutes late to a course you will be admitted to the course, but your arrival time will be noted on the check-in sheets. If you leave more than ten minutes before the end of the course, your exit time will be noted on the check-in sheets. If you do not meet the fifty minute per hour requirement, your evaluation will be tallied but you will not receive credit for the course. The Website Administrator will remove CECs for classes where the student did not meet the fifty minute time requirement. Students must complete their own online evaluation surveys when the course has ended. The evaluation surveys may be done via a smart phone or tablet at the conclusion of each course or with other computers at the close of the program. The surveys will be available for approximately four weeks following the close of the program.

If you require a hard-copy for your records, print your list of earned CECs from your profile on the OPS website. Letters will no longer be mailed to program attendees.

- To obtain credit, you must**
1. Register for the course
 2. Meet the course attendance time requirement
 3. Sign the course check-in sheet available at the beginning of each course.
 4. Correctly complete the online course evaluation survey at the close of the program.
 5. Print your list of CECs earned from your profile on the OPS website (Optional)

UPCOMING OPS EVENTS

EDUCATIONAL OPPORTUNITIES

Webinars on Demand available on the OPS website 24/7.

International Conference on Ophthalmic Photography (ICOP)
Rotterdam, Netherlands
April 17-19, 2020

2020 Midyear Educational Program
National Eye Institute
Bethesda, MD
May 15-16, 2020

51st Annual Educational Program
Las Vegas, Nevada
November 13-16, 2020

CERTIFICATION OPPORTUNITIES

The CRA and OCT-C Program Guides are available for download on the OPS web site - www.opsweb.org/page/CRAOCTrequirements

THE DON WONG AWARD

In 1990 the Ophthalmic Photographers' Society established a new award for the best scientific paper presented at each Annual Educational Program. The award is named for Don Wong (1931-1999), a founding member of our Society whose entire career exemplified literary and professional achievement.

Don was the creator and first editor of our Journal of Ophthalmic Photography, one of the earliest proponents of the certification program, and the father of the international meeting series. He worked tirelessly to encourage professionalism in our technical work and high ethical standards in our lives. He was a mentor and friend to many.

The Don Wong Award recognizes outstanding scientific achievement in our profession. Presentations will be judged by a panel of accomplished colleagues on the basis of content, originality, organization, presentation, delivery and importance to the field.

DON WONG AWARD RECIPIENTS

| | | | |
|------|---------------------------------------|------|---|
| 1990 | <i>Randall E. Verdick</i> | 2006 | <i>Ethan Priel, FOPS</i> |
| 1991 | <i>George Weir, CRA</i> | 2007 | <i>Dennis Orlock, CRA, FOPS</i> |
| 1992 | <i>Jeff Jacobs, CRA</i> | 2008 | <i>Robert G. Shutt, CRA, OCT-C</i> |
| 1993 | <i>Jim Gilman, CRA</i> | 2009 | <i>Ditte J. Hess, CRA, FOPS</i> |
| 1994 | <i>Randall E. Verdick</i> | 2010 | <i>Leslie D. MacKeen, CRA</i> |
| 1995 | <i>Lawrence M. Merin, FOPS</i> | 2011 | <i>Alexis Smith, CRA, OCT-C</i> |
| 1996 | <i>Linda M. Kelley, CRA</i> | 2012 | <i>Carl Glittenberg, MD</i> |
| 1997 | <i>Bobbie A. Turner, AA, CRA, COT</i> | 2013 | <i>Michael P. Kelly, FOPS</i> |
| 1998 | <i>Patrick J. Saine, CRA, FOPS</i> | 2014 | <i>Leslie D. MacKeen, CRA</i> |
| 1999 | <i>Csaba L. Martonyi, CRA, FOPS</i> | 2015 | <i>Mark Crosswell, CRA, OCT-C, FOPS</i> |
| 2000 | <i>Ethan Priel</i> | 2016 | <i>Darrin Landry, CRA, OCT-C</i> |
| 2001 | <i>Dennis Orlock, CRA</i> | 2017 | <i>Darrin Landry, CRA, OCT-C</i> |
| 2002 | <i>Kevin Langton, CRA</i> | 2018 | <i>Douglas B. Critser, CRA, OCT-C</i> |
| 2003 | <i>Lawrence Merin, RBP, FOPS</i> | | |
| 2004 | <i>Dennis Orlock, CRA</i> | | |
| 2005 | <i>Timothy J. Bennett, CRA, FOPS</i> | | |

The Chris Barry Award

(Journal of Ophthalmic Photography Article of the Year)

Since 2003, the Ophthalmic Photographers' Society has awarded the "Journal of Ophthalmic Photography Article of the Year Award". This award was inaugurated to highlight the skills and expertise of those OPS members and ophthalmic colleagues who spend their time and energy submitting their work for publication. They present us with new information, share with us interesting cases or the "nuts and bolts" of ophthalmic imaging.

A committee judges the articles for the relevancy of the topic, degree of innovation, style of writing, quality of illustrations and value to an ophthalmic imager. This culminates in our celebration of the Best Journal Article of the Year and comes with a free one year OPS membership.

We encourage all our readership to submit their work and share with us their expertise. Mentors are available to take you through the process, if necessary. Your continued involvement and support makes the Journal contemporary, vibrant and relevant.

This award recognizes the excellence of published work in the Journal of Ophthalmic Photography, the "flagship" of the Ophthalmic Photographers' Society.

Award Recipients

2017 No Award Given

2016 Darrin Landry—Optical Coherence Tomography Angiography

2015 Melanie Fortin - Management of New or Recurrent Choroidal Neovascularisation in Telescope Implanted Eyes

2014 Peter Van Etten, MD - Zero Dilation Ophthalmoscopy

2013 Angela Chappell - Tales of the Unexpected: Incidental Findings in Ophthalmic Imaging

2012 Ditte Hess - ROP—A Visual Experience

2011 Alexis Smith - Correlation of Ocular Ultrasound and EDI of Ocular Lesions

2010 Kirsten Locke - Optical Coherence Tomography in Patients Diagnosed with North Carolina Macular Dystrophy

2009 Sarah Moyer - Anterior Segment OCT: A Comparison of Time Domain and Spectral Domain Technologies

2008 Alexander Walsh, MD - Spectral Domain OCT: An A to Z Guide

2007 Ethan Priel - Fundus Autofluorescence With a Confocal SLO

2006 Patrick Saine - Tutorial; External Eye Photography

2005 Richard Hackel and Patrick Saine - Creating Retinal Fundus Maps

2004 Lawrence Merin - Digital Detection of Diabetic Retinopathy

2003 Gregory Hoffmeyer - Mac Pac: A Systemic Protocol for OCT Scanning for Macular Pathology

2002 James Scott - An Affordable Alternative to the High Cost of Digital Fundus Photography (inaugural award)

THE CSABA L. MARTONYI AWARD

In 2008 the OPS Board of Directors established the Csaba L. Martonyi Award, given annually to the best image from the OPS Scientific Exhibit. Csaba L. Martonyi, CRA, FOPS is Emeritus Associate Professor and Former Director of Ophthalmic Photography at the Kellogg Eye Center, University of Michigan Medical School. A longtime active member of the Ophthalmic Photographers' Society, he has served on the OPS Board of Directors, was first Chair of the OPS Board of Certification, is a Past President, and recently retired from the post of OPS Parliamentarian. Csaba is well known for his teaching and writing, most notably for the classic text *Slit Lamp Examination and Photography*, now in its third edition.

This award celebrates the high standards of excellence in imaging that Csaba has exemplified throughout his career. He has always stressed that it is not sufficient for us as professional imagers to simply take the picture that will "get by", but to put our effort and skill into producing images that both serve a medical purpose and demonstrate technical and artistic perfection. He has demonstrated his ability to accomplish this through the countless awards that his photographs have won, and he encouraged others in his profession to strive for these same goals through his teachings. This goal, which Csaba has championed throughout his career, is the heartbeat of our Scientific Exhibit.

Please join the OPS Board of Directors in congratulating Csaba L. Martonyi, CRA, FOPS on the establishment of this award in his honor and consider entering your best work for consideration in the 2019 Scientific Exhibit competition and the opportunity to be the twelfth recipient of the Csaba L. Martonyi Award.

Award Recipients

| | | | |
|------|-----------------------|------|-------------------------|
| 2008 | Robert Myles, CRA | 2014 | Gary Miller, CRA, OCT-C |
| 2009 | David Miller, CRA | 2015 | Ryan Terribilini, OCT-C |
| 2010 | Ditte Hess, CRA, FOPS | 2016 | John Golding |
| 2011 | Zlatan Sadikovic, CRA | 2017 | Leslie D. MacKeen, CRA |
| 2012 | Allan Connor | 2018 | Kit Morehead, CRA |
| 2013 | Mark Clark, CRA | | |

Johnny Justice Jr. Scholarship

The first Johnny Justice Jr. Scholarship was awarded in 1996 at the 27th Annual Education Program of the Ophthalmic Photographers' Society. Named in honor of Johnny Justice Jr., a principal founding member of the Ophthalmic Photographers' Society, the JJJ Scholarship Award is available to assist in the education of persons actively pursuing careers in ophthalmic photography.

The 2019 JJJ Scholarship Award will provide the chosen applicant with a \$700.00 cash award for any educational courses approved by the OPS. In addition, the scholarship winner will receive *Unlimited Lecture Package* registration and up to three workshops, if the award is used at the OPS Annual Education Program, or the general registration fee for the OPS Midyear Education Program.

The Johnny Justice Jr. Scholarship Award was created by the Board of Directors of the Ophthalmic Photographers' Society to not only honor its founder, but also to assist its members in their efforts to gain knowledge and expertise in the field of ophthalmic photography.

The Johnny Justice Jr. Scholarship Award and other special projects are supported by the OPS Endowment Fund. The fund is supported by contributions and fund raising activities such as the raffle held during the Annual Educational Program.

OUTSTANDING CONTRIBUTIONS TO OPHTHALMIC PHOTOGRAPHY AWARD

The Outstanding Contributions to Ophthalmic Photography Award, the OPS' highest honor, is awarded to select individuals who have promoted or advanced ophthalmic photography and imaging through their craft, writing, or innovations.

Recipients of the Outstanding Contributions to Ophthalmic Photography Award

| | | | |
|------|----------------------|------|--------------------|
| 1974 | David Donaldson, MD* | 2012 | Mark Maio |
| 1976 | Matthew D. Davis, MD | 2013 | Timothy J. Bennett |
| 1978 | John L. Johnson | 2013 | Ditte J. Hess |
| 1979 | Don Wong* | 2014 | Chris Barry |
| 1979 | J. Donald Gass, MD | | |
| 1980 | E. Lee Allen* | | |
| 1980 | Johnny Justice, Jr. | | |
| 1982 | Earl A. Choromokos* | | |
| 1983 | Terrance L. Tomer | | |
| 1984 | Csaba L. Martonyi | | |
| 1988 | Paul R. Montague* | | |
| 1991 | Marlene Fishman | | |
| 1996 | Joseph Warnicki | | |
| 1997 | Paul Rehkopf | | |
| 2003 | Patrick J. Saine | | |
| 2011 | J. Lawton Smith, MD | | |

INTERNATIONAL
CONFERENCE ON
OPHTHALMIC
PHOTOGRAPHY

2020



THE
ROTTERDAM
EYE HOSPITAL

APRIL 17-19 | 2020

LOCATION: S.S. ROTTERDAM
THE NETHERLANDS

